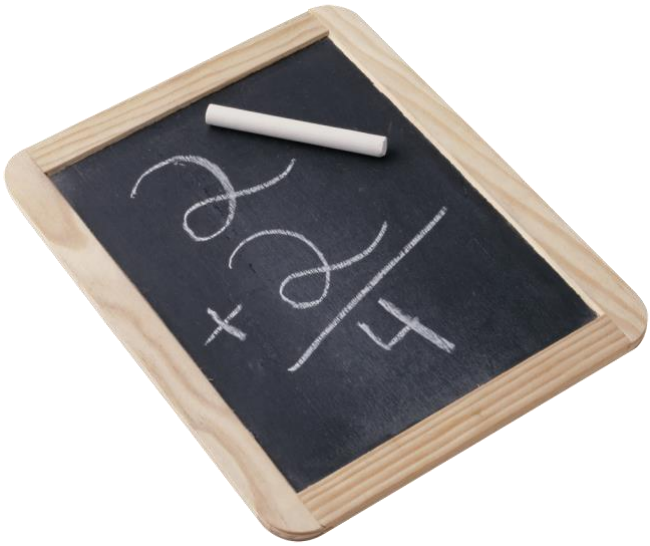
PROGRAM MANUAL
PEDIATRIC EMERGENCY MEDICINE FELLOWSHIP
2017-18



Initial Draft: June, 2016

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OVERVIEW OF THE FELLOWSHIP

The Pediatric Emergency Medicine (PEM) fellowship program at Stanford University will offer fellows from both Pediatrics and Emergency Medicine backgrounds a rigorous and diverse training experience. The primary goal of the fellowship program is to develop physicians who are clinically excellent in the practice of Pediatric Emergency Medicine, especially in the management of the acutely ill and injured child. In addition, fellows are given the opportunity to become accomplished teachers, knowledgeable investigators and skilled administrators. With the unique resources of the Stanford University network, we are able to offer a fellowship of the highest caliber and train outstanding academic leaders in the field Pediatric Emergency Medicine.

Our fellowship in Pediatric Emergency Medicine was established in 2016 and is an ACGME accredited, three-year program focusing on education and experience in patient care, research, teaching, and administrative responsibilities. In addition, there is the option to extend the fellowship by one year to pursue more in-depth research and training in ultrasound, pre-hospital medicine, simulation, wilderness medicine, social emergency medicine and global health.

CLINICAL CURRICULUM

The Pediatric Emergency Service (PEM) is the primary clinical component of the fellowship. During 3-4 months of each year, each fellow delivers emergency care to children and provides supervision for pediatric and emergency medicine residents and third and fourth year medical students. While in the PEM, the fellow is paired with a faculty member. This setting provides ample opportunity for one-to-one teaching and learning with frequent discussions of case management. Other responsibilities include managing patient flow in a busy pediatric emergency department, ensuring follow-up of ill and injured patients, and participating in quality improvement issues.

Clinical rotations in related acute care specialties comprise another major component of the program. These include: Pediatric Critical Care (PICU), Adult Emergency Services (AES), Anesthesiology, Toxicology and Emergency Medical Services. In addition to the trauma seen at Stanford University Hospital, each fellow gains exposure to the management of trauma as a member of the Emergency Medicine Service at Valley Medical Center in Santa Clara, CA.

Elective months are available in all pediatric and surgical subspecialties including: plastic and hand surgery, child protection, orthopedics, ultrasonography and others.

The Department of Emergency Medicine has existing emergency medicine fellowships in Wilderness Medicine, Academic Medicine, Simulation Medicine, EMS and Disaster Medicine, International Medicine, Cardiovascular among others. This allows for the Pediatric Emergency Medicine to be exposed to a variety of academic subspecialties in the broader field of Emergency Medicine.

The remainder of the fellowship program is devoted to research, teaching and administrative responsibilities.

RESEARCH CURRICULUM

Research experience and education occurs throughout the 3 years of training. The research curriculum consists of two components.

The first is the development and completion of an individual scholarly activities project under the supervision of a faculty mentor and oversight by the fellowship director, research director and scholarly activity committee. The schedule includes eleven months of research time with additional time available if needed.

The second component of the research curriculum is participation in a variety of didactic experiences designed to develop skills in research design, biostatistics and critical appraisal of the medical literature. The basic principles of statistics, study design, evidence based medicine and microcomputer applications in clinical research are taught by our faculty.

The Department of Emergency Medicine is currently involved in research in pediatric prehospital care, clinical effectiveness and informatics, trauma, medical education, global health, simulation, and a variety of other projects. The Pediatric Emergency Medicine Fellow has the opportunity to further their fellowship research in an optional fourth year of fellowship where the fellow will function as an attending in the Pediatric Emergency Medicine Department for 16 hours per week. The remainder of the fellows' time will be dedicated to furthering their fellowship research or working more closely with the specialized programs in the Department of Emergency Medicine (Ultrasound, International EM, Simulation, Disaster Medicine, Wilderness and Biosecurity).

TEACHING CURRICULUM

Throughout the year, the fellow is actively involved in the teaching activities of the division of pediatric emergency medicine under the mentorship of the faculty.

As a supervisor in the pediatric emergency service, the fellow has the opportunity to provide bedside teaching to the pediatric and emergency medicine residents and medical students.

During Emergency Medicine morning conferences, the fellow leads small group case-based discussions on a variety of topics and learns to provide consultation to their colleagues. The fellows lead the pediatric residents in noon conference pediatric emergency lecture series. The fellows have the opportunity to provide mock codes in our state of the art simulation center to pediatric and emergency medicine residents.

The fellows contribute to division of Pediatric Emergency Medicine's monthly educational conferences, which include case presentations, lectures, and journal club presentations. In addition, there are also joint Emergency Medicine-Pediatrics journal club evenings as well as dedicated simulation teaching. There are also joint Pediatric Emergency Medicine and PICU conferences. The second-year teaching fellows are responsible for developing the curriculum for the division's conferences.

In addition, the fellows produce a number of written educational materials such as the Pediatric Emergency Medicine Nuggets (Critical Analysis Reviews) and the Stanford Pediatric Emergency Medicine Handbook and simulation cases.

All fellows become providers in Pediatric Advanced Life Support, Advanced Cardiac Life Support, Advanced Trauma Life Support, Advanced Pediatric Life Support (APLS) and instructors in PALS. Faculty in our division are actively involved in the administrative aspects of APLS training through the APLS steering committee at the American Academy of Pediatrics.

ADMINISTRATIVE CURRICULUM

Administrative responsibilities include participation in continuous quality improvement issues, risk management, policymaking, and especially, the day-to-day operations of the PEM. Administrative topics related to the pediatric emergency department are also covered in a seminar series.

PROGRAM STAFF

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Stanford University Medical Center

The Stanford University Medical Center is comprised of the Stanford Hospital and Clinics, the Stanford University School of Medicine and the Lucile Packard Children's Hospital at Stanford. The Emergency Department serves as the joint emergency care facility for both the Stanford Hospital and the Lucile Packard Children's Hospital, and is a Level I Trauma Center for both adults and pediatrics. The Stanford ED currently treats greater than 50,000 patients annually, including 2,400 traumas (many of which are brought by aeromedical transport from around the Bay Area and northern and central California).

The Pediatric Emergency Service (PEM) at Stanford University Medical Center cares for more than 25,000 children and young adults each year and provides 24 hour attending coverage. All ill and injured children and young adults less than 21 years, including those who require acute resuscitation due to dehydration, sepsis, meningitis, trauma, or toxic exposure, are managed in the PEM. As a Level 1 Trauma Center, Stanford receives acutely injured children who require prompt stabilization and management.

Additional rotations at Stanford Medical Center include: emergency medicine, ultrasonography and a variety of elective opportunities. As part of the emergency medicine rotation, the fellow will have opportunity to be involved in trauma care presenting to the adult emergency medicine trauma bay.

OTHER FACILITIES

Lucile Packard Children's Hospital (LPCH)

LPCH has become an internationally-renown children's hospital. US News and World Report consistently honors LPCH as one of the nation's best children's hospitals. LPCH provides highly specialized pediatric care while continuing to serve as a community hospital for the children of Palo Alto, East Palo Alto, Menlo Park, Mountain View, Los Altos, Atherton, and Redwood City. It is a busy children's hospital with 13,800 annual admissions. Its 272 beds, including 87 medical-surgical beds, 24 PICU, 20 CVICU and 40 NICU beds, are grouped into units to serve patients and families' special health care needs. These units include General Pediatrics, Pediatric Subspecialties, Hematology-Oncology, Bone Marrow Transplantation, Pediatric Surgery and Transplantation, Neonatal Intensive Care, Intermediate Intensive Care (for Newborns), Pediatric Intensive Care and Cardiovascular Intensive Care. In 1997, the obstetrical and neonatal services were merged and the Johnson Center was created to provide mothers and babies a comprehensive, family-centered approach to their care. There are over 5,100 infants born at LPCH each year.

LPCH's growth in clinical services has been dramatic in the outpatient clinics. The Ambulatory Care Center has over 134,000 annual clinic visits and provides primary and specialty care in a wide variety of medical, obstetrical and surgical clinics. Additionally, our Short Stay Unit provides an outpatient treatment center for children needing special infusions, transfusions, or other procedures. LPCH has also established six interdisciplinary clinical Centers of Excellence to shape nationally pre-eminent programs in areas essential to children's health. These include the centers for Brain and Behavior, Cancer and Blood Diseases, the Children's Heart Center, Mothers and Babies, Pulmonary Care and Cystic Fibrosis, and the Transplant Program.

Currently, LPCH is tackling a large hospital remodeling project which will increase patient capacity and enhance the overall experience at the hospital. The major Phase 1 projects have recently been completed, including the addition of more labor and delivery suites and the opening of new treatment areas. With the construction of a separate 20-bed cardiovascular intensive care unit (CVICU) to care for pre- and post-operation cardiac patients, the

pediatric intensive care unit was able to expand to 24 beds. The Ford Family Surgery Center, a dedicated pediatric center with seven state-of-the-art operating suites opened in December 2008. Additionally, the Bass Center, a pediatric cancer center, has recently opened which provides a separate day treatment area for oncology patients requiring chemotherapy or transfusions and a dedicated pharmacy for the oncology patients. It is located next to the new 15-bed Hematology-Oncology Unit and 12-bed Stem Cell Transplant Unit.

Santa Clara Valley Medical Center (SCVMC)

SCVMC, founded in 1876, is the oldest and only publicly-operated hospital in Santa Clara County, as well as being the major provider of health care for San Jose. The hospital is located in San Jose, a 30-minute drive south from Stanford. Its affiliation with the Stanford University School of Medicine provides a key and integral part of our pediatrics residency training program. As a large public hospital with many specialized and regional services, SCMVC serves a high proportion of low-income patients from many different cultural backgrounds including patients of Hispanic, Cambodian and Vietnamese backgrounds. The SCVMC outpatient facility, Valley Health Center- Bascom, is located across the street from the hospital and offers more than 60 primary care and specialty clinics.

Kaiser Permanente Medical Center – Santa Clara

Kaiser Permanente Medical Center is located in Santa Clara, approximately a 20-minute drive from Stanford Hospital. It boasts a new state-of-the-art hospital building which opened its doors in 2007. The brand new 46 bed Emergency Department sees approximately 70,000 high acuity patients a year. Pediatrics accounts for more than 15% of the population. The ED consists of a 26 main treatment beds, a 10 bed Minor Injury Area, and a 14 bed Clinical Decision Unit. Kaiser Santa Clara is a busy receiving site for Santa Clara paramedic units and is a designated STEMI receiving center, acute stroke center, and referral center for pediatrics. Of note, Kaiser Santa Clara has garnered national recognition from U.S News and World Report for excellence in acute stroke and STEMI care.

At Kaiser Permanente, unique learning opportunities exist for the EM resident; these include a 1:1 faculty to resident teaching ratio in the Kaiser ED. There is graduated responsibility as R3's are expected to act almost independently as attendings and lead daily 4 PM teaching rounds with the other residents in the department.

The hospital has 327 beds and serves over 250,000 Kaiser Foundation Health Plan (KFHP) members in Santa Clara County and is a major affiliated hospital of the Stanford University School of Medicine. Kaiser Permanente Medical Center has independent residency programs in Internal Medicine, Obstetrics and Gynecology, and Podiatry. These are complemented by residents in other specialties from Stanford University including pediatric and general surgery residents.

Health Management Organizations are an integral part of health care delivery in California. Approximately one out of every three Northern Californians is a member of the Kaiser system; this number continues to grow. Kaiser's integrated delivery system has been a model for national health care reform and quality improvement. Numerous opportunities exist for research and quality improvement projects within the organization.

There are a number of other facilities that provide additional training experiences to the fellows. Fellows complete a one-month rotation in toxicology as an elective in a Poison Control Center. They spend two weeks with the San Mateo County bureau of emergency medical services.

ROTATION	YEAR	LOCATION
Pediatric Emergency Medicine	F1, 2, 3	Stanford University (PEM)
Emergency Medicine	F1, 2, 3	Stanford University (AES)
Emergency Medicine	F 2	Santa Clara Valley Medical Center

Emergency Medicine	F 3	Optional Kaiser rotation
Anesthesiology	F1	Lucile Packard
Pediatric Critical Care Medicine	F1	Lucile Packard
Emergency Medicine Services	F2	San Mateo EMS
Toxicology	F2	Elective Location/San Francisco General Hospital, UCSF

CORE FACULTY

Bernard Dannenberg, MD	Director, Pediatric Emergency Medicine
Jim Quinn, MD	Director of Research, Department of Emergency Medicine
Ewen Wang, MD	Assistant Medical Director, Pediatric Emergency Medicine
Kajal Khanna, MD, JD	Director, Medical Education, Director, Pediatric Emergency Fellowship
Daniel Imler, MD	Assistant Medical Director, Pediatric Emergency Medicine
Moon Lee, MD, MPH	Director of Quality Improvement, Pediatric Emergency Medicine
Jason Lowe, DO	Full-time Pediatric Emergency Medicine Academic Faculty
Andrea Fang, MD	Full-time Pediatric Emergency Medicine Academic Faculty
Angela Lumba-Brown, MD	Full-time Pediatric Emergency Medicine Academic Faculty
Marjan Askar, MD	Part-time Pediatric Emergency Medicine Academic Faculty
Ram Duriseti, MD	Part-time Pediatric Emergency Medicine Faculty
Phil Harter, MD	Director of Continuing Medical Education, Adult Emergency Medicine Faculty
Don Schreiber, MD	Director of Quality, Adult Emergency Medicine Faculty
Sam Shen, MD, MBA	Director of Adult Emergency Medicine
Ian Brown, MD	Assistant Director of Emergency Medicine, Adult Emergency Medicine Faculty (Informatics)
Sarah Williams, MD	Program Director, Adult Emergency Medicine
Viveta Lobo, MD	Ultrasound, Adult Emergency Medicine Faculty

Contact information – all faculty and fellows can be contacted using their Stanford email addresses available on Stanford Who: https://stanfordwho.stanford.edu/S

TRAINING PROGRAM CURRICULUM - OVERVIEW

PEM FELLOWSHIP CURRICULUM MATRIX - OVERVIEW				
	Clinical	Research	Teaching	Administration
Goals and Objectives	Based on the ACGME Competency domains, Competencies, Milestones and Entrustable Professional Activities			
Educational Strategy: Experiential Components	Clinical Rotations	Scholarly Activity Project, Journal Club presentations	Conferences Lectures Simulations APLS Case Conferences	Participation in individual, division and department QI projects
Educational Strategy: Didactic Components	Case Conference Procedure Workshops, Simulation Sessions, Lectures, Board Review	Statistics Course, Research Design Course, Research Reviews, Journal Clubs	Medical Education Noon series, PEM Faculty Development Workshops	Admin Meetings, Admin Lectures Series, Patient Safety in Pediatric Emergency Medicine Curriculum
Educational Strategy: Fellow Work Product(s)	Procedure Log	Scholarly Activity Work Product, Critical Article Reviews	Lectures, Handbook, Simulation Cases	Quality Improvement Project
Assessment (fellow)	Clinical Performance, Simulation Performance Faculty, Rotation, 360 Evaluations	Scholarly Activity Committee, Progress based on Research Time Line	Mentors Evaluation, Lecture Evaluations	Mentor Evaluation, Progress toward completion
Assessment (program)	Program Evals, Inservice & Board Scores	Program Evals, Scholarly Activity Project Presentation, Publication	Program Evals, Resident Evals of fellow teaching	Program Evals, QI activity impact on ED
Evaluation	Promotion,	Promotion,	Promotion,	Promotion,

	Graduation	Graduation	Graduation	Graduation
Feedback	Semi-annual review, Individual learning Plan Progress	Semi-annual review, Individual learning Plan Progress	Semi-annual review, Individual learning Plan Progress	Semi-annual review, Individual learning Plan Progress

FELLOW YEAR ONE

CLINICAL CURRICULUM

The first-year fellow spends approximately four months in the Pediatric Emergency Service; three of these months are dedicated exclusively to the Pediatric Emergency Service. Additional time in the PEM occurs during other rotations. One month each is spent in the Pediatric Critical Care Unit at LPCH, the Department of Anesthesiology at LPCH, the Adult Emergency Service at Stanford University Hospital Center. One month elective time is completed at San Francisco Division of the California Poison Control Service. The first-year fellows participate in a didactic orientation series that is combined with fellows from the Pediatric Critical Care Fellowship at LPCH covering core topics such as rapid sequence induction, procedural sedation and essential procedural skills and are exposed to a variety of clinically oriented conferences throughout the year.

RESEARCH CURRICULUM

The first-year fellow completes four months of dedicated research time. During this time, they are paired with a faculty mentor and scholarly activity committee. It is expected that the trainee will formulate and refine a research question, conduct a literature review, design a data collection instrument and develop a research proposal for submission to the Institutional Review Board. The trainee also participates in the Intensive Course in Clinical Research (offered at the Stanford Center for Clinical and Translational Research) as well as undertakes a locally modified version of the NYU Pediatric Emergency Medicine Statistics and Research Design Courses and a locally modified Making Evidence Based Medicine Simple course. The goal of these courses is to provide education in study design, statistical analysis and critical analysis of the literature. A quarterly fellow research meeting provides feedback and oversight of ongoing research projects. Fellows participate in the Pediatric Emergency Medicine's journal club and biannual joint pediatrics and emergency medicine journal clubs and in the preparation of written summaries (PEM NUGGETs) for electronic distribution.

TEACHING CURRICULUM

The first-year fellow completes training in PALS, APLS, BLS and ATLS. They participate as an instructor in PALS courses. The fellow spends a majority of time in the Pediatric Emergency Service supervising and teaching pediatric and emergency medicine residents and medical students. Throughout the year the fellow conducts Pediatric EM noon conference and PEM Case Conference under the supervision of a Pediatric Emergency Medicine faculty. The fellow teaches in a variety of settings, such as formal lectures, simulation sessions, workshops and courses and produce written and electronic educational materials. The first-year fellow participates in the Clinical Teaching and Seminar Series (CTSS) at Stanford. The Clinical Teaching Seminar Series (CTSS) is a year-long faculty development program in medical education, designed to introduce clinical educators to fundamental concepts in education. The seminars are high-yield, relevant, and interactive, providing practical tips for bedside teaching, curriculum development, and education research. The CTSS also offers an Honors Certificate program. This program is meant to recognize participants with a dedication to medical education, who regularly attend the seminars and complete a scholarly project in medical education. The Honors Program is a multi-disciplinary program open to all medical students, residents, fellows, staff, and faculty with an interest in medical education.

It is expected that the fellow will complete the Honors Certificate Program by the end of their three-year fellowship.

ADMINISTRATIVE CURRICULUM

The first-year fellow performs the administrative responsibilities of a supervisor in the Pediatric Emergency Service. They actively participate in discussion during the administrative portion of the Pediatric Emergency Medicine Conference and are exposed to a seminar series addressing administrative topics. They participate in an individual quality improvement project and the national patient safety in pediatric emergency medicine curriculum.

FELLOW YEAR TWO

CLINICAL CURRICULUM

The second-year fellow spends approximately five months in the Pediatric Emergency Service (PEM). It is expected that the second-year fellow will take on an increased responsibility for leadership in the PEM under the supervision of the faculty. One month is spent in the Emergency Service at Santa Clara Valley Medical Center and one month is spent in Adult Emergency Medicine at Stanford University Hospital Center. Two weeks are spent with the San Mateo Bureau of Emergency Medical Services. One month of elective time is completed. The second-year fellow is involved in a variety of clinically oriented conferences throughout the year.

RESEARCH CURRICULUM

The second-year fellow completes four months of dedicated research time. During this time, they are paired with a faculty mentor and scholarly activity committee. It is expected that the trainee will begin data collection and develop appropriate computer analysis methods. The trainee also participates in the Pediatric Emergency Medicine Statistics and Research Design Course. The goals of the courses are to provide education in study design, statistical analysis and critical analysis of the literature and to assess the progress of ongoing research. A quarterly fellow research meeting provides feedback and oversight of ongoing research projects. Fellows participate in the Pediatric Emergency Medicine's journal club and biannual joint pediatrics and emergency medicine journal clubs and in the preparation of written summaries (PEM NUGGETs) for electronic distribution.

TEACHING CURRICULUM

The fellow spends a majority of time in the Pediatric Emergency Service supervising and teaching pediatric and emergency medicine residents and medical students. The second-year fellows serve as "teaching fellows". They are responsible for curriculum development and implementation of the divisions' educational activities. Throughout the year the fellow conducts Pediatric EM Noon Conference, PEM/EM Case Conference, PEM lectures and journal clubs under the supervision of a Pediatric Emergency Medicine faculty. The fellow also teaches in a variety of settings, such as formal lectures, simulations, and workshops and produce educational materials. The second-year fellows participate in the Medical Education Noon Series.

ADMINISTRATIVE CURRICULUM

The second-year fellow performs the administrative responsibilities of the supervisor in the Pediatric Emergency Service. They actively participate in discussion during the administrative portion of the Pediatric Emergency Medicine Conference and are exposed to a seminar series addressing administrative topics. They participate in an individual quality improvement project and the national pediatric emergency medicine patient safety curriculum.

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FELLOW YEAR THREE

CLINICAL CURRICULUM

The third-year fellow spends approximately five months in the Pediatric Emergency Service (PEM). Two of these months are dedicated exclusively to the Pediatric Emergency Service. Additional time occurs during other rotations. It is expected that the third-year fellow will demonstrate the skills necessary to independently manage the PEM. One month is completed in the Adult Emergency Service either at Stanford University Hospital or at the Kaiser Permanente Medical Center – Santa Clara. One month of elective time is completed. The third-year fellow is involved in a variety of clinically oriented conferences throughout the year.

RESEARCH CURRICULUM

The third-year fellow completes four months of dedicated research time. During this time, they are paired with a faculty mentor. The goal is to complete the mentored research project including analysis and interpretation of data, presentation at a national meeting and manuscript preparation and submission. The trainee also participates in the Pediatric Emergency Medicine Statistics and Research Design courses.

TEACHING CURRICULUM

The fellow spends a majority of time in the Pediatric Emergency Service supervising and teaching pediatric and emergency medicine residents and medical students. Throughout the year the fellow conducts Pediatric EM Noon Conference, PEM/EM Case Conference, PEM lectures and journal clubs under the supervision of a Pediatric Emergency Medicine faculty. The fellow also teaches in a variety of settings, such as formal lectures, simulation sessions, and workshops and produce educational materials.

ADMINISTRATIVE CURRICULUM

The third-year fellow performs the administrative responsibilities of the supervisor in the Pediatric Emergency Service. They actively participate in discussion during the administrative portion of the Pediatric Emergency Medicine Conference and are exposed to a seminar series addressing administrative topics. They play an integral role in the fellowship recruitment process and participate in an individual quality improvement project (if not completed in the prior year). The fellow undertakes the EMS education for the Pediatric Emergency Medicine curriculum and the Disaster Preparedness and Response online courses.

PROGRAM SCHEDULES

ROTATION BREAKDOWN (FOR PEDS Graduates)

A. Block Diagram for Pediatric Trained Graduates

FIRST YEAR BLOCK DIAGRAM

Month	1	2	3	4	5	6	7	8	9	10	11	12
Experience or rotations	PEM 80% C 20% R	Tox 80% C 20% R	Res-V 30% C 70%	PEM 80% C 20%	Anes 80% C 20%	Res-V 30% C 70%	E/Ophthal 80% C 20% R	Res-V 30% C 70%	Adult 100% C	Res 30% C 70%	ICU/PEM-V 100% C Hosp	ICU/PEM-V 100% C Hosp

SECOND YEAR BLOCK DIAGRAM

Month	1	2	3	4	5	6	7	8	9	10	11	12
Experience or rotations	Adult/EMS 80% C 20% R Hosp 1	PEM 80% C 20% R Hosp 1	Res-V 30% C 70% R Hosp 1	Elective Hospital 1	PEM 80% C 20% R Hosp 1	Res-V 30% C 70% R Hosp 1	PEM 80% C 20% R Hosp 1	PEM 80% C 20% R Hosp 1	Adult 100% C Hosp 1	PEM 80% C 20% R Hosp 1	Res-V 30% C 70% R Hosp 1	Res 30% C 70% R Hosp 1

THIRD YEAR BLOCK DIAGRAM

Month	1	2	3	4	5	6	7	8	9	10	11	12
Experience or rotations	PEM 80% C 20	Res 30% C 70%	Cards /Elective 100	PEM-V 80% C 20%	Free E % C/R-	Res 30% C 70%	PEM-V 80% C 20	Adult 100% C	PEM-V 80% C 20	PEM-V 80% C 20%	Res 30% C 70%	Res 30% C 70%

	% R H osp 1	R Hos p 1	% C Hosp 1&2	R Hos p 1	Hos p 1	R Hos p 1	% R Hos p 1	Ho sp1	% R Hos p 1	R Hos p 1	R Hos p 1	R Hos p 1

† Duty hours are calculated only as average number of hours per week working in the ED. They do not include time for conferences, administrative time, or research time as this number is highly variable.

‡ Longest consecutive hours worked includes only shift time or true clinical time. This does not include conference time. Including conference time increases the longest consecutive hours to 14 hours (6 hours of conference followed by an 8- hour shift). This occurs twice per month, spread amongst all the fellows.

B. Block Diagram for Emergency Medicine Trained Graduates

FIRST YEAR BLOCK DIAGRAM

Month	1	2	3	4	5	6	7	8	9	10	11	12
Experience or rotations	PEM 80% C 20% R	PEM-V 80% C 20% R	Anes 80% C 20% R	Pediatric Inpatient Wards 100% C Hosp 2	Pediatric Cardiology 100% C Hosp	PEM-V 80% C 20% R	PEM 80% C 20% R	Neona-tology 100% C Hosp 2	PEM-V 80% C 20% R	Ambulatory Clinics 100% C Hosp 2	ICU 100% C Ho	PEM-V 80% C 20% R

SECOND YEAR BLOCK DIAGRAM

Month	1	2	3	4	5	6	7	8	9	10	11	12
Experience or rotations	PEM 80% C 20% R Hosp 1	PEM-V 80% C 20% R Hosp 1	PEM 80% C 20% R Hosp 1	Elective or Research C/R- Hosp 1	PEM-V 80% C 20% R Hosp 1	PEM 80% C 20% R Hosp 1	Elective or Research C/R- Hosp 1	PEM-V 80% C 20% R Hosp 1	Elective or Research C/R- var Hosp 1	PEM 80% C 20% R Hosp 1	PEM 80% C 20% R Hosp 1	PEM-V 80% C 20% R Hosp 1

Total number of clinical months ____22___

Total number of research months __Up to 3 dedicated months of research; however, there is ample time during PEM months to conduct research, perform administrative tasks, or engage in educational projects.

† Duty hours are calculated only as average number of hours per week working in the ED. They do not include time for conferences, administrative time, or research time as this number is highly variable.

‡ Longest consecutive hours worked includes only shift time or true clinical time. This does not include conference time. Including conference time increases the longest consecutive hours to 14 hours (6 hours of conference followed by an 8- hour shift). This occurs twice per month, spread amongst all the fellows.

Additional LEGEND
Hosp 1= Stanford University Hospital and Clinics
Hosp 2 = Lucile Packard Childrens Hospital
PEM = Pediatric Emergency Medicine Rotation
V = Vacation
TOX= Toxicology Rotation
Adult = Adult Emergency Medicine Rotation
Cards = Cardiology Elective Rotation
Anes = Anesthesia Rotation
Res = Research Rotation (Clinical time during that month is Pediatric Emergency Medicine Shifts)
Ophthal = Ophthalmology Rotation
ICU = Pediatric Intensive Care Rotation
EMS= Emergency Medicine Services Rotation
C= Clinical
R= Research
Free E = Call Free
Elective
E = Elective

.

SAMPLE YEARLY SCHEDULE

	FELLOW - 1	FELLOW - 2	FELLOW - 3
JUL	Toxicology	PEM	Research
AUG	PEM	Research-3 / VAC-1	Research-2 / VAC-2
SEP	VAC-1/ Research-3	PEM	PEM
OCT	PEM	AES (SHC)/EMS	PEM
NOV	Anesthesia	AES (Valley)	Cards/Elective
DEC	VAC-2 / Research-2	PEM	VAC-1 / Research-3
JAN	PICU	PEM	PEM
FEB	PEM	VAC-2 / Research-2	Research-3 / VAC-1
MAR	Sports/eye	Elective-0	Research
APR	VAC-1 / Research-3	Research	AES (SHC)
MAY	Research	VAC-1 / Research-3	PEM
JUN	AES (SHC)	PEM	Elective - 0

Vacations - A total of 3 weeks of vacation are completed per year.

Pediatric Emergency Service - *Each fellow completes a minimum of 2-month long block rotations per year in the Pediatric Emergency Service. Additional time in the PEM occurs during other rotations. A total of 13 months of Pediatric Emergency Medicine is completed.

Emergency Medicine - Each fellow completes one month per year. A total of 3 months of emergency medicine is completed throughout the three years of training

CONFERENCE SCHEDULE

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
Morning Report (Pediatrics)	Morning Report (Pediatrics)	Pediatric Simulation Conference – 1st Wednesday of the Month (4x/yearly) Core Curriculum Conference - every Wednesday am (Emergency Medicine) CTSS seminars – 1st Wednesday of the month	Morning Report (Pediatrics)	Morning Report (Pediatrics)
Noon Conference (Pediatrics)	Noon Conference (Pediatrics)	Noon Conference (Pediatrics) Stanford Medical Education Noon Series	Noon Conference (Pediatrics)	Noon Conference (Pediatrics)
		PEM ACE day (3rd Wednesday of the Month) (8-5:00)		
	Fellows' College session (once per quarter)			

CONFERENCE DESCRIPTIONS - PEDIATRIC EMERGENCY

The Pediatric Emergency Medicine ACE (Academic Core Experience)

The Academic Core Experience will occur every third Wednesday of the month.

Attendance is required for all fellows and is monitored. Attendance may be excused for vacation, clinical responsibilities (PICU, Trauma, EMS) and personal emergencies. A fellow who is unable to attend conference is expected to inform Dr. Khanna. More than 5 un-excused per year absences will be considered grounds for remediation.

The Schedule of PEM ACE is as follows:
8:00-9:00 Pediatric Emergency Medicine Fellow Statistics / Research Design Course
9:00-9:45 am Pediatric Emergency Medicine Research Review
10:00-12:00pm Pediatric Emergency Medicine Grand Rounds
12:15-1:00 pm Division Administrative Meeting
1:00-2:30pm Pediatric Emergency Medicine Division Education
2:30-5:00pm Pediatric Emergency Medicine Fellow Core Didactics Conference

The Pediatric Emergency Medicine ACE (Academic Core Experience) description:

Pediatric Emergency Medicine Fellows Research Review - This conference is required for all fellows. Drs. Khanna and Wang coordinate this conference. This conference is held on the third Wednesday of every month and provides an opportunity for the fellow to discuss the development of ongoing research projects and to ensure adherence to the suggested guidelines for project completion.

Pediatric Emergency Medicine Grand Rounds - This conference is required for all fellows. The content of this conference is two-fold. It consists of a two-hour didactic component, presented by Pediatric Emergency Medicine faculty members and/or a guest lecturer.

Pediatric Emergency Medicine Division Education – This hour will rotate between the following type of conferences:

Pediatric Emergency Medicine Clinical Case Conference: This conference is required for all fellows. Fellows come prepared to present and discuss patient cases. This conference is designed to allow the trainee to develop appropriate presentation skills and an efficient, structured approach to patient care. Trainees are encouraged to develop a symptoms-based approach to differential diagnosis and to develop initial priorities in the use of laboratory and radiologic testing, use of medical and surgical consultation, initial therapeutic intervention and an appropriate disposition. Ethical queries and administrative issues are also addressed. Pediatric Emergency Medicine faculty is required to attend. Each fellow is responsible for preparing and presenting at least two conferences per year.

Pediatric Emergency Medicine Clinical Guidelines: Twice a year, clinical guidelines relevant to the practice of Pediatric Emergency Medicine will be presented and reviewed.

Pediatric Literature Review: Twice a year, journals will be reviewed and high yield articles relevant to practice of emergency medicine will be summarized and presented.

Pediatric Quality Improvement/High Acuity Review: Fellows conduct High Acuity chart review of the patients seen in the Pediatric Emergency Medicine Department (PEM rotation). Each fellow is assigned one month of high acuity charts to review annually. The high acuity charts are defined as all patients who were admitted to any of our three Intensive Care Units (NICU, PICU, CVICU) or were designated as a Level 99 or Level 97 trauma patients and subsequently admitted.

Using an audit tool, each chart is reviewed in detail by the trainee for quality of care, for errors in management, and for documentation deficits. After the review, the findings are discussed at staff meetings with all attending physicians and subspecialty fellows present, thus making it a peer review. The fellow discusses in greater detail specific cases, generally those in which there was an error identified in review, or in which there was significant deficiency in documentation. Discussion of these audits leads to greater awareness by the fellow, but also by all faculty members in the department, of common errors or deficiencies, as well as highlighting the importance of complete and appropriate documentation.

Discussion of these audits and cases is used to improve quality of care, and to foster the sharing of management ideas. These discussions offer the fellow the opportunity to hear how some physicians might approach a child's case differently. For identified errors, a

remediation plan is developed and verified. Quality improvement audits are documented and available for review. Dr. Moon Lee, Director of Quality Improvement, is the faculty staff member in charge of supervising this activity.

Pediatric Nursing Core Council Highlights and Division Administrative Meeting: The first portion of this administrative meeting is a joint meeting with the pediatric nursing core council to discuss those administrative and clinical issues affecting the pediatric emergency nursing staff. The pediatric nursing core council meets monthly on third Wednesday day for 2.5 hours. The joint meeting reviews the key issues involving the faculty and division. The remainder of the administrative conference is dedicated to a discussion of administrative issues regarding management and policy in the Pediatric Emergency Service, quality improvement and patient care.

Pediatric Emergency Medicine Fellows Core Didactics – This conference is required for all fellows. Dr. Khanna and the senior fellows coordinate this conference. This conference is held on the Third Wednesday of every month and provides a review of core content topics not covered elsewhere in the didactic curriculum. This will include: the administrative lecture series, procedural skills workshops, radiology review, board review, evidence-based medicine, legal review.

Pediatric Emergency Medicine Fellow Statistics / Research Design Course - This conference is required for all fellows. This conference is coordinated and taught by Drs. Khanna and faculty. It consists of a series of lectures that encompass biostatistics, epidemiology and clinical research design. Computer workshops involving the development of databases and statistical analysis methods are included.

Pediatric Emergency Simulation Program – The Pediatric Emergency Medicine simulation conference is conducted by the Pediatric Emergency Medicine Faculty and fellows. Six times a year, the pediatric emergency medicine faculty and fellows will conduct simulation for the emergency medicine residents. For the remainder of the year, the pediatric emergency medicine fellow will undergo simulations aimed to provide ongoing experience in pediatric resuscitation and to supplement the knowledge and skills gained during resuscitation course. Both low and high-fidelity simulations are used. This conference is typically conducted on the 1st Wednesday of the month.

Stanford Clinical Teaching Seminar Series - The Clinical Teaching Seminar Series (CTSS) is a year-long faculty development program in medical education, designed to introduce clinical educators to fundamental concepts in education. The seminars are high-yield, relevant, and interactive, providing practical tips for bedside teaching, curriculum development, and education research. The Honors Certificate Program is meant to recognize participants with a dedication to medical education, who regularly attend the seminars and complete a scholarly project in medical education. The Honors Program is a multi-disciplinary program open to all medical students, residents, fellows, staff, and faculty with an interest in medical education.

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Pediatric Emergency Medicine - Pediatric Resident Noon Conference

The fellow conducts pediatric Resident Emergency Medicine Conference under the supervision of a faculty member. There are four formats for this conference (Case discussion - Diagnosis oriented, Case discussion - Therapy oriented, Toxicology and Procedural Skills Workshops/Mock Code Scenarios. Interesting cases are presented by the fellow and a symptoms-based approach to differential diagnosis, approach to initial management and an in-depth review of the disease entity is led by the fellow. This conference is a major opportunity for the fellow to attain formal teaching skills and to develop proficiency in orchestrating small group discussions. The faculty member supervises the fellow by offering guidance on teaching techniques, aid in locating resources to prepare for conference and review of clinical issues including reading of radiographs, laboratory interpretation and current therapeutic recommendations. Additionally, the faculty moderates the discussion and reviews the fellow's performance.

Pediatric Grand Rounds - This weekly conference consists of a formal didactic lecture, often by a visiting professor, on topics relating to the field of Pediatrics. Grand Rounds covers cutting edge pediatric clinical research, basic science research, child advocacy, quality improvement, medical education, and global health topics. The fellow and faculty are encouraged to attend. An attendance sign-in sheet is monitored by the Department of Pediatrics.

Pediatric Resident Noon Conference - Once a month, this daily conference this conference is conducted by the Pediatric Emergency Medicine faculty and fellows. Attendance of an emergency medicine trained fellowship applicant would be mandatory during the time they are rotating on the pediatric wards, NICU, PICU or subspecialty clinic rotation. Attendance is otherwise not expected of the fellow or faculty. The department of pediatrics monitors the attendance sheet for this conference.

Fellows' College Sessions: All Pediatric subspecialty fellows participate in the quarterly fellows' conference, which covers key issues in teaching, quality improvement, business of medicine, ethics, professionalism, career development. These sessions are held once a quarter (12:00-4:00pm), and our fellows are excused from clinical duties to attend.

Pediatric Simulation Program – This conference is conducted by the Pediatric Emergency Medicine Fellows and faculty and is coordinated by Dr. Khanna. The aim is to provide ongoing experience in pediatric resuscitation and to supplement the knowledge and skills gained during resuscitation course. Both low and high-fidelity simulations are used.

Emergency Department Faculty Teaching: Residents rotate through the Emergency Department on 12 hours shifts; working directly with an Emergency Medicine senior resident and attending physician.

Didactic Lectures: Morning didactic lectures are prepared by the Emergency Medicine faculty. Due to the nature of Emergency Medicine and the flow dynamics in the emergency department, it can often be difficult to complete planned formal didactic sessions. However, short case presentations and discussions are the norm throughout the rotation. Pediatric Emergency Medicine Fellows will conduct these Am didactic conferences twice yearly on pediatric focused topics.

Core Curriculum Conferences: Lectures are held every Wednesday morning from 8:00am to 12:00pm that follow a 12-month core curriculum. Residency faculty, visiting faculty, and emergency medicine residents conduct lectures and workshops. Joint lectures with other training programs, such as radiology, pediatrics, surgery, and internal medicine, are also a part of the core curriculum. Grand Rounds are held monthly.

Journal Club: Journal club is held one evening a month in an informal setting: either the home of a faculty member or a local restaurant. Emphasis is placed on learning how to critically read medical literature and foster discussion between residents and faculty, as well as to find current research that may change one's practice. Journal clubs may be theme-based, joint meetings with other programs such as pediatrics, or reviews of a variety of recent articles.

Residents are excused from clinical duties every Wednesday morning to attend 4 1/2 hours of educational programming in Emergency Medicine. Residents also protected from working in the Emergency Department every Tuesday evening, to ensure that they are well-rested for conference. Attendance is expected and is not precluded by clinical responsibilities

Grand Rounds (given by outside invited leaders in EM), EM-ICU case conference, Trauma case conference, and Pediatrics case conference are held monthly.

PROGRAM GOALS

The primary goal of the Pediatric Emergency Medicine Fellowship Training Program at Stanford University is to provide the trainee with a structured experience which will enable them to become proficient in the clinical practice of Pediatric Emergency Medicine and to develop competence in the areas of administration, teaching and research.

The ACGME program requirements form the basis for the structure of the fellowship. These can be accessed at the following link: http://www.acgme.org/portals/0/pfassets/2013-pr-faq-pif/324_emergency_med_peds_07012013.pdf

	CLINICAL GOALS
	To demonstrate an evidence based approach to the care of patients presenting to the emergency department with both common and life-threatening disease processes and chief complaints
	To demonstrate competence in cardiopulmonary resuscitation
	To demonstrate competence in commonly performed emergency procedures
	To demonstrate the skills necessary to prioritize and manage the emergency care of multiple patients
	To educate medical students, residents, nurses and consultants in the clinical environment

	RESEARCH GOALS
	To participate in the completion of an individual scholarly activities project and generate a written work product in accordance with the criteria for scholarly activity of the American Board or Pediatrics
	To acquire the knowledge and skills to become an effective investigator
	To utilize the broad implications of research including the applicability of research to patient care

	TEACHING GOALS
	To participate in varied teaching experiences which will enable the fellow to provide effective education to a variety of groups and settings
	To acquire the knowledge and skills to become an effective educator

	ADMINISTRATIVE GOALS
	To develop familiarity with the administrative issues affecting the practice of Pediatric

	Emergency Medicine

CLINICAL CURRICULUM – OVERVIEW

FIRST YEAR CLINICAL CURRICULUM

The first-year fellow spends approximately four months in the Pediatric Emergency Service; three of these months are dedicated exclusively to the Pediatric Emergency Service. Additional time in the PEM occurs during other rotations. One month each is spent in the Pediatric Critical Care Unit at LPCH, the Department of Anesthesiology at LPCH, the Adult Emergency Service at Stanford University Hospital Center. One month elective time is completed at San Francisco Division of the California Poison Control Service. The first-year fellows participate in a didactic orientation series that is combined with fellows from the Pediatric Critical Care Fellowship at LPCH covering core topics such as rapid sequence induction, procedural sedation and essential procedural skills and are exposed to a variety of clinically oriented conferences throughout the year.

SECOND YEAR CLINICAL CURRICULUM

The second-year fellow spends approximately five months in the Pediatric Emergency Service (PEM). It is expected that the second-year fellow will take on an increased responsibility for leadership in the PEM under the supervision of the faculty. One month each is spent in the Emergency Service at Santa Clara Valley Medical Center. Two weeks are spent with the San Mateo Bureau of Emergency Medical Services. One month of elective time is completed. The second-year fellow is involved in a variety of clinically oriented conferences throughout the year.

THIRD YEAR CLINICAL CURRICULUM

The third-year fellow spends approximately five months in the Pediatric Emergency Service (PEM). It is expected that the third-year fellow will demonstrate the skills necessary to independently manage the PEM. One month is completed in the Adult Emergency Service either at Stanford University Hospital or at the Kaiser Permanente Medical Center – Santa Clara. One month of elective time is completed. The third-year fellow is involved in a variety of clinically oriented conferences throughout the year.

CLINICAL CURRICULUM – FELLOW 1,2,3		COMPETENCY *
Goal	To develop an evidence based approach to the care of patients presenting to the emergency department with both common and life-threatening disease processes and chief complaints	
Objectives	Utilize an understanding of the pathophysiology of disease in clinical decision making	MK1
	Utilize an understanding of the epidemiology of disease in clinical decision making	MK1
	Perform a directed history and examination	PC1
	Select and interpret appropriate laboratory tests	PC4
	Select and interpret appropriate radiologic tests	PC4
	Arrive at a presumptive and alternative diagnoses	PC6
	Describe initial management priorities	PC2
	Describe appropriate use of consultants	ISC3
	Describe appropriate disposition and referral	PC3,8
	Use appropriate monitoring techniques	PC7
	Utilize information resources to evaluate and improve care.	PBLI1
	Conduct oneself in a respectful, professional, ethical manner	PC3
	Demonstrate self-confidence, flexibility and maturity	PROF3,5
	Demonstrates awareness of limits, continuous improvement and ability to deal with uncertainty	PROF1,2
	Participate in the detection and critical evaluation of medical errors	SBP2
	Advocate for patients experiencing difficulties with the health care system	SBP1, PC4
Goal	Develop competency in cardiopulmonary resuscitation	
Objectives	Recognize and manage airway compromise	PC5

	Recognize and manage respiratory distress and failure	PC5
	Recognize and manage shock	PC5
Goal	Develop competence in commonly performed emergency procedures	
Objectives	Describe indications and contraindications	PC9,10
	Describe equipment and monitoring needs	PC9,10
	Describe anatomic approach and technique	PC9,10
	Recognize and manage complications	PC9,10
	Obtain informed consent	PC9,10
Goal	Learn the skills necessary to prioritize and manage the emergency care of multiple patients	
Objectives	Demonstrate the ability to prioritize the simultaneous care of multiple patients	PROF4
	Interact with patients and families in an ethical, professional manner which takes into the accounts the stresses associated with acute illness, injury and death	PROF3,4 ICS1,2
	Communicate and collaborate effectively as part of a health care team	ISC3
	Describe key aspects of the health care system that impact patient care	SBP1
Goal	To facilitate the learning of medical students, residents, nurses and consultants in the clinical environment.	
Objectives	To provide one on one education and consultation in the care of an individual patient	PROF4, ICS3
	Provide feedback to learners	PC11

MK – Medical Knowledge,
PC - Patient Care
P - Professionalism
PBL - Practice Based Learning and Improvement
ISC - Interpersonal Skills and Communication
SBP - Systems Based Practice

An extensive listing of the pediatric emergency medicine core content as well as a percentage breakdown for content areas for the certification examination may be found on the American Board of Pediatrics web site at http://www.abp.org.

(Click on Certification Then Subspecialty Policies then Content Outlines for Subspecialty Certifying Exams.) In addition to the topics outlined in the core contents, the fellow should be able to evaluate an undifferentiated chief complaint.

The development of appropriate procedural skills and the ability to teach these skills are essential components of both the clinical and teaching curriculums. Procedural skills workshops, simulation scenarios, participation in advanced resuscitation courses and a variety of clinical experiences provide the fellow with the opportunity to develop and teach these skills.

PROCEDURE DOCUMENTATION

Documentation of experience with these skills is essential for board eligibility and credentialing in many circumstances. The American Academy of Pediatrics requires registrants to the Pediatric Emergency Medicine Board Exam to complete a procedures performed questionnaire. In addition, many institutions now require documentation of procedural skills in order to apply for faculty positions. Each fellow on entering the program will use the web based New Innovations or smart phone application to assist in documenting these requirements.

The ACGME has specifically requested tracking of resuscitations independent of specific procedures. I have separated these into TRAUMA and MEDICAL resuscitations and have further categorized them by age as: < 2 years, 2-18 years and > 18 years

The ACGME provides the following definition of resuscitation:

1. Cardiac and respiratory arrest
2. Respiratory distress requiring intubation
3. Shock requiring large amounts of intravenous fluids or vasopressors,
4. Status epilepticus requiring airway management,
5. Multi-system trauma requiring a coordinated evaluation, intravenous access and airway control, etc.

MONITORING THE ACQUISITION OF PROCEDURAL SKILLS

Each trainee is observed directly by the Pediatric Emergency Medicine faculty or rotation coordinator during each rotation. Performance of procedures is emphasized as a goal of each rotation. All procedures are recorded in the fellow's procedure log (via MedHub) and are reviewed by the program director semi-annually.

Procedure skill performance is also assessed during teaching of Advanced Pediatric Life Support courses and during division procedure skill workshops. The fellows also participate in outside workshops such the LPCH PICU bootcamp course, advanced airway course and ultrasound course. Procedures performed during skills workshops, simulation scenarios, resuscitations and simulations should be documented as well. This is particularly true for uncommon procedures (see table below). The ultrasound curriculum is discussed separately after the procedures list.

PROCEDURES	
AIRWAY	**NEUROLOGY**
Artificial Ventilation*	Lumbar Puncture*
Cricothyroidotomy/Transtracheal Ventilation	**OBSTETRICS**
Endotracheal Intubation*	Vaginal Delivery
Tracheostomy Tube Replacement	**ORTHOPEDIC**
ANESTHESIOLOGY	Arthrocentesis
Regional Anesthesia*	Closed Reduction – Simple fracture/dislocation*
Procedural Sedation*	Splint Placement*
Rapid Sequence Intubation*	**RESUSCITATION**
CARDIOLOGY	Medical < 2 years*
Cardiac Pacing - External	Medical 2-8 years*
Cardioversion/Defibrillation	Medical > 18 years
Supraventricular Tachycardia Conversion*	Trauma < 2 years*
Pericardiocentesis	Trauma 2-8 years*
ENT	Trauma > 18 years
Foreign Body Removal*	**SURGERY**
INTRAVENOUS ACCESS	Abscess Incision and Drainage*
Arterial Catheterization	Gastrostomy Tube Replacement*
Central Venous Catheterization	Laceration Repair*
Intraosseous Access*	Tube Thoracostomy and Needle Decompression
Umbilical Vessel Catheterization	

Pediatric emergency physicians need to perform procedures necessary for the practice of this subspecialty. PEM physicians must also recognize the need for and consult subspecialty services when patients require procedures that fall outside their scope of practice.

*Indicates procedures commonly performed in the practice of pediatric emergency medicine. This list is not meant to be all-inclusive and given the changing nature of PEM practice this list

should be revised periodically. Point of care ultrasound is an example of a procedure that is established practice in emergency medicine but not yet in PEM.

Other procedures are uncommon in the daily practice of PEM but physicians should have a working knowledge of how to perform them. Simulation training may be the primary method for PEM physicians to learn and practice these procedures.

ULTRASOUND CURRICULUM

Point-of Care Ultrasound has become a standard of care in the emergency department. The availability of ultrasound equipment in the ED and appropriately trained and certified physicians has been shown to: expedite patient care, provide rapid bedside diagnosis, guide to management and aid physicians in performing procedures increasing safety and reducing adverse events. Point of care ultrasound is integral part of emergency medicine residency training and is quickly becoming an essential component of PEM fellowship education.

GOALS
To develop skills in obtaining high quality images while performing point-of-care ultrasound that will serve as a foundation for diagnostic interpretation and therapeutic interventions
OBJECTIVES
To understand the basic principles of emergency ultrasound
To become familiar with ultrasound equipment and technology
To understand the clinical indications for emergency ultrasound
To develop competence in ED ultrasound applications. (see below)
To understand the limitations of emergency ultrasound

DIAGNOSTIC APPLICATIONS
ABDOMINAL
E-Fast – Intra-abdominal hemorrhage in the trauma patient
Renal - Hydronephrosis in renal colic
RUQ – Cholelithiasis, cholecystitis in abdominal pain
Inferior vena cave/Aorta ratio – Volume status, guide fluid resuscitation
RLQ – Appendicitis
General – Intussusception
CHEST
E-Fast – Pneumothorax, hemothorax, hemopericardium
Limited echocardiography – LV function, pericardial effusion
Pulmonary – Pneumonia, bronchiolitis, pleural effusion
MUSCULOSKELETAL/SOFT TISSUE
Long bones - Fractures
Hips - Joint effusion
Cutaneous – Cellulitis, abscess, foreign body identification
OB/GYN
Evaluation of intrauterine pregnancy in first trimester

PROCEDURAL APPLICATIONS
Peripheral and central venous line placement
Bladder ultrasounds prior to catheterization

Identification and removal of soft tissue foreign bodies
Abscess incision and drainage
Pleural effusion drainage

DIDACTIC CURRICULUM

Ultrasound education is provided on a continuous basis via lectures, workshops, hands-on sessions and one-on-one sessions with ultrasound faculty, independent scanning sessions and formal monthly image review.

In the beginning of their 1st year, fellows participate in an intensive US seminar with formal lectures on: the physics of ultrasound, knobology, scanning techniques for all major applications and hands-on session on commonly used applications such as E-FAST, TVUS, PVL/CVL placement, foreign body identification and limited cardiac echo.

PEM fellows are required to do a 2-week ultrasound elective. All fellows are also given the opportunity to get credentialed for all applications listed above based on the published ACEP guidelines. The department of Emergency Medicine has an ultrasound fellowship program and the conferences and teaching experiences are available to our fellows.

TRAINING EXPECTATIONS
1ST YEAR FELLOWS
Extended FAST
Early pregnancy - Transvaginal ultrasound for detection of IUP
Soft tissue US – Identification of abscess, cellulitis
Procedural guidance – PVL, bladder catheterization, abscess incision/drainage
Volume status assessment
2ND YEAR FELLOWS
Musculoskeletal US – Detection of fractures and joint effusion
Procedural guidance – CVL placement, Foreign body identification and removal
Renal US – Hydronephrosis
RUQ US – Cholelithiasis, cholecystitis
3RD YEAR FELLOWS
Limited cardiac echo
Evaluation for intussusception, appendicitis, pyloric stenosis
Lung US

CREDENTIALING

Currently credentialing is based on the ACEP guidelines: 25 high quality studies with all required views for each application, which will be reviewed and credited on a monthly basis by the ultrasound faculty. The emergency medicine applications based on ACEP are: E-FAST, renal, gallbladder, 1st trimester pregnancy, cardiac echo, deep vein thrombosis, and abdominal aortic aneurysm. You are credentialed independently for each application.

RESOURCES

There are a number of web sites that provide excellent instruction
NYU/Bellevue Department EM ALEX Site https://alex.med.nyu.edu/portal/
Ultrasound Guide for Emergency Physicians http://sonoguide.com/introduction.html
Department of EM Vanderbilt University http://learn-us.vanderbiltem.com/

ACEP main ultrasound website http://www.sonoguide.com/introduction.html
ACEP Ultrasound Testing Site http://www.emsono.com/acep/ACEP_EUS_Exam.html

CLINICAL ROTATIONS – PEDIATRIC EMERGENCY MEDICINE

PEDIATRIC EMERGENCY SERVICE – FELLOW 1, 2, 3	
Location	Pediatric Emergency Service (PEM) Stanford University Health Center 300 Pasteur Drive Alway Building, M121 Stanford University Stanford, CA 94305
Fellow	F1, F2, F3
Coordinator	Kajal Khanna MD, JD Director, Fellowship in Pediatric Emergency Medicine
Contact	kajalk@stanford.edu
Curriculum	Approximately four to five months of clinical time in the PEM per year of training. Two months of full time PEM (15 shifts /month) are completed per year. Additional time is completed during the remaining clinical rotations.
Guidelines	While in the Pediatric Emergency Service, the fellow's role is that of a supervisor. They are responsible for the education and supervision of the pediatric and emergency medicine residents and medical students who provide direct patient care. The fellow is paired with a Pediatric Emergency Medicine faculty member. The fellow is encouraged to solicit the advice and expertise of the attending in addressing any clinical or administrative concerns that they may have. As the fellow progresses through the program they are given an increased opportunity to function independently as the primary supervisor in the Pediatric Emergency Service. In this role, it is expected that they will supervise several residents and medical students in the care of multiple patients, guide the nursing staff in triage decisions, interact effectively with a variety of consultants, develop priorities for maximizing patient flow and develop personnel management strategies and leadership skills. Certain shifts during the third year of the fellowship will require the fellow to act as a pre-attending. A pediatric emergency medicine attending is available for administrative and clinical consultation. Case conferences that focus on triage decision-making and prioritization skills in the management of multiple acutely ill patients are conducted as part of the didactic curriculum. Disaster and multiple casualty drills supplement the didactic experience.
Conference	Attendance at the third Wednesday Pediatric Emergency Medicine Conference is Mandatory.

Attendance	

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PEDIATRIC EMERGENCY SERVICE – FELLOW 1		COMPETENCY
Goal	To develop an evidence based approach to the care of pediatric and young adult patients presenting to the ED with both common and life-threatening disease processes chief complaints	
Objectives	Utilize an understanding of the pathophysiology of disease in clinical decision making	MK1
	Utilize an understanding of the epidemiology of disease in clinical decision making	MK1
	Perform a directed history and examination	PC1
	Select and interpret appropriate laboratory tests	PC4
	Select and interpret appropriate radiologic tests	PC4
	Arrive at presumptive and alternative diagnosis	PC6
	Describe initial management priorities	PC2
	Describe appropriate use of consultants	ISC3
	Describe appropriate disposition and referral	PC3,8
	Use appropriate monitoring techniques	PC7
	Utilize information resources to evaluate and improve care.	PBLI11
	Conduct oneself in a respectful, professional, ethical manner	PC3
	Demonstrate self-confidence, flexibility and maturity	PROF3,5
	Demonstrate awareness of limits, continuous improvement and ability to deal with uncertainty	PROF1,2
	Participate in the detection and critical evaluation of medical errors	SBP2
	Advocate for patients experiencing difficulties with the health care system	SBP1, PC4
Goal	Develop competency in pediatric cardiopulmonary resuscitation	
Objectives	Recognize and manage airway compromise	PC5

	Recognize and manage respiratory distress and failure	PC5

	Recognize and manage shock	PC5
	To provide leadership during resuscitations in conjunction with the faculty	PC5, PROF4
Goal	Develop competency in commonly performed emergency procedures	
Objectives	Describe Indications and contraindications	PC9,10
	Describe equipment and monitoring needs	PC9,10
	Describe anatomic approach and technique	PC9,10
	Recognize and manage complications	PC9,10
	Obtain informed consent	PC9,10
Goal	Learn the skills necessary to prioritize and manage the emergency care of multiple patients	
Objectives	Demonstrate the ability to prioritize the simultaneous care of a few patients	PROF4
	Demonstrate the ability to provide leadership in the emergency department with faculty support	PROF4
	Interact with patients and families in an ethical, professional manner which takes into the accounts the stresses associated with acute illness, injury and death	PROF3,4 ICS1,2
	Communicate and collaborate effectively as part of a health care team	ISC3
	Describe key aspects of the health care system that impact patient care	SBP1
	Begin to provide leadership in the administrative issues in the emergency department	PROF4
Goal	To facilitate the learning of medical students, residents, nurses and consultants in the clinical environment	
	To provide one on one education and consultation in the care of an individual patient	PC11, ICS3
	Provide feedback to learners	PC11
MK - Knowledge, PC - Patient Care P – Professionalism		

PBLI - Practice Based Learning and Improvement
ISC - Interpersonal Skills and Communication
SBP - Systems Based Practice

PEDIATRIC EMERGENCY SERVICE – FELLOW 2		COMPETENCY
Goal	To develop an evidence based approach to the care of pediatric and young adult patients presenting to the ED with both common and life-threatening disease processes chief complaints	
Objectives	Utilize an understanding of the pathophysiology of disease in clinical decision making	MK1
	Utilize an understanding of the epidemiology of disease in clinical decision making	MK1
	Perform a directed history and examination	PC1
	Select and interpret appropriate laboratory tests	PC4
	Select and interpret appropriate radiologic tests	PC4
	Arrive at presumptive and alternative diagnosis	PC6
	Describe initial management priorities	PC2
	Describe appropriate use of consultants	ISC3
	Describe appropriate disposition and referral	PC3,8
	Use appropriate monitoring techniques	PC7
	Utilize information resources to evaluate and improve care.	PBLI11
	Conduct oneself in a respectful, professional, ethical manner	PC3
	Demonstrate self-confidence, flexibility and maturity	PROF3,5
	Demonstrate awareness of limits, continuous improvement and ability to deal with uncertainty	PROF1,2
	Participate in the detection and critical evaluation of medical errors	SBP2
	Advocate for patients experiencing difficulties with the health care system	SBP1, PC4
Goal	Develop competency in pediatric cardiopulmonary resuscitation	
Objectives	Recognize and manage airway compromise	PC5
	Recognize and manage respiratory distress and	PC5

	failure	

	Recognize and manage shock	PC5
	To provide leadership during resuscitations in conjunction with the faculty	PC5, PROF4
Goal	Develop competency in commonly performed emergency procedures	
Objectives	Describe Indications and contraindications	PC9,10
	Describe equipment and monitoring needs	PC9,10
	Describe anatomic approach and technique	PC9,10
	Recognize and manage complications	PC9,10
	Obtain informed consent	PC9,10
Goal	Learn the skills necessary to prioritize and manage the emergency care of multiple patients	
Objectives	Demonstrate the ability to prioritize the simultaneous care of a few patients	PROF4
	Demonstrate the ability to provide leadership in the emergency department with faculty support	PROF4
	Interact with patients and families in an ethical, professional manner which takes into the accounts the stresses associated with acute illness, injury and death	PROF3,4 ICS1,2
	Communicate and collaborate effectively as part of a health care team	ISC3
	Describe key aspects of the health care system that impact patient care	SBP1
	Begin to provide leadership in the administrative issues in the emergency department	PROF4
Goal	To facilitate the learning of medical students, residents, nurses and consultants in the clinical environment	
	To provide one on one education and consultation in the care of an individual patient	PC11, ICS3
	Provide feedback to learners	PC11

MK - Knowledge PBLI - Practice Based Learning and Improvement
PC - Patient Care ISC - Interpersonal Skills and Communication
P – Professionalism SBP - Systems Based Practice

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PEDIATRIC EMERGENCY SERVICE – FELLOW 3		COMPETENCY
Goal	To develop an evidence based approach to the care of pediatric and young adult patients presenting to the ED with both common and life-threatening disease processes chief complaints	
Objectives	Utilize an understanding of the pathophysiology of disease in clinical decision making	MK1
	Utilize an understanding of the epidemiology of disease in clinical decision making	MK1
	Perform a directed history and examination	PC1
	Select and interpret appropriate laboratory tests	PC4
	Select and interpret appropriate radiologic tests	PC4
	Arrive at presumptive and alternative diagnosis	PC6
	Describe initial management priorities	PC2
	Describe appropriate use of consultants	ISC3
	Describe appropriate disposition and referral	PC3,8
	Use appropriate monitoring techniques	PC7
	Utilize information resources to evaluate and improve care.	PBLI11
	Conduct oneself in a respectful, professional, ethical manner	PC3
	Demonstrate self confidence, flexibility and maturity	PROF3,5
	Demonstrate awareness of limits, continuous improvement and ability to deal with uncertainty	PROF1,2
	Participate in the detection and critical evaluation of medical errors	SBP2
	Advocate for patients experiencing difficulties with the health care system	SBP1, PC4
Goal	Develop competency in pediatric cardiopulmonary resuscitation	

Objectives	Recognize and manage airway compromise	PC5
	Recognize and manage respiratory distress and failure	PC5
	Recognize and manage shock	PC5
	To provide leadership during resuscitations in conjunction with the faculty	PC5, PROF4
Goal	Develop competency in commonly performed emergency procedures	
Objectives	Describe Indications and contraindications	PC9,10
	Describe equipment and monitoring needs	PC9,10
	Describe anatomic approach and technique	PC9,10
	Recognize and manage complications	PC9,10
	Obtain informed consent	PC9,10
Goal	Learn the skills necessary to prioritize and manage the emergency care of multiple patients	
Objectives	Demonstrate the ability to prioritize the simultaneous care of a few patients	PROF4
	Demonstrate the ability to provide leadership in the emergency department with faculty support	PROF4
	Interact with patients and families in an ethical, professional manner which takes into the accounts the stresses associated with acute illness, injury and death	PROF3,4 ICS1,2
	Communicate and collaborate effectively as part of a health care team	ISC3
	Describe key aspects of the health care system that impact patient care	SBP1
	Begin to provide leadership in the administrative issues in the emergency department	PROF4
Goal	To facilitate the learning of medical students, residents, nurses and consultants in the clinical environment	
	To provide one on one education and consultation in the care of an individual patient	PC11, ICS3
	Provide feedback to learners	PC11
MK - Knowledge, PC - Patient Care		

P – Professionalism
PBLI - Practice Based Learning and Improvement
ISC - Interpersonal Skills and Communication
SBP - Systems Based Practice

GOALS AND OBJECTIVES – ADULT EMERGENCY MEDICINE – F1, F2, F3

CLINICAL CURRICULUM – FELLOW Year 1, 2, 3		COMPETENCY*
Goal	PEM fellows will gain experience in recognizing & managing common adult emergency complaints	MK, PC, SBP
	PEM fellows will demonstrate skill in performance of emergency adult procedures.	MK, PC
	PEM fellows will function on the adult ED team with responsibilities including accurate reporting to supervising faculty, insuring timely patient care, attention to patient safety, error reduction and medical record keeping	PC, P, IC PBLI, SBP
	PEM fellows will learn and participate in the role of the ED provider as a source of medical direction for EMS.	PC, P, IC SBP
	PEM fellows will behave in an ethical manner maintaining communication with patients/families at all times	PC, IC, P
Objectives	Demonstrate knowledge of the emergency medicine approach to the evaluation and management of common acute illnesses and injuries in the adult patient	MK
	Develop skills in the evaluation and management of emergency department adult patients.	MK, PC, SBP, IC
	Develop skill in the performance of common (incision & drainage, joint aspiration, adult airway) and uncommon emergency department procedures, (such as cricothyrotomy and thoracotomy); including indications and complications	PC, MK,
	Develop ability to recognize and begin management in the care of adult patients with chief complaint of chest pain.	PC, MK
	Demonstrate ability to prioritize and manage common adult emergencies of varying acuities.	PC, SBP
	Refine skills in the direction of pre-hospital care personnel	PC, SBP
	Demonstrate proficiency in EM documentation and medical record keeping.	PC, SBP
	Demonstrate awareness of and participate in ED patient safety efforts and identification/reporting of	PC, SBP, PBLI

	system errors.	
	Demonstrate skill in ethical & appropriate communication with adult patients receiving care for simple to complex medical and surgical problems.	PC, P, IC

MK – Medical Knowledge,
PC - Patient Care
P - Professionalism
PBLI - Practice Based Learning and Improvement
IC - Interpersonal Skills and Communication
SBP - Systems Based Practice

GOALS AND OBJECTIVES – TOXICOLOGY

TOXICOLOGY – FELLOW 1		COMPETENCY
Goal	To develop an evidence based approach to the care of patients presenting to the ED with an exposure to a toxin	
Objectives	Describe the pathophysiology of disease including the relevant pharmacokinetic principles	MK1
	Describe the epidemiology of ingestions including the major type of ingestions by age	MK1
	Perform a directed history and examination	PC1
	Recognize the common toxidromes that assist in the identification of class of agent ingested Sympathomimetic, anticholinergic, cholinergic, opiate	MK1
	Recognize which agents cause: 1. Abnormal vital signs - tachy/bradycardia, hyper/hypotension, Tachypnea, bradypnea, hyperpnea 2. Laboratory abnormalities - metabolic acidosis 3. CNS symptoms - Seizures, coma, agitation 4. Cardiac symptoms - Dysthythmias, myocardial dysfunction	MK1
	Select and interpret appropriate laboratory tests	PC4
	Select and interpret appropriate radiologic tests	PC4
	Arrive at a presumptive and alternative diagnosis	PC6
	Describe initial management priorities 1. Know the role of hemodialysis and hemoperfusion 2. Know agents for which specific antidotes are available and the indications for use	PC2,6
	Know the role of gastrointestinal tract decontamination 1. Role of enhanced elimination, including the use of activated charcoal, cathartics 2. Role of elimination through urine alkalinization	MK1
	Appropriate utilize toxicology consultants	ISC3
	Describe appropriate disposition and referral	PC8

	Use appropriate monitoring techniques	PC7
	Utilize information resources to evaluate and improve care.	PBLI1
	Conduct oneself in a respectful, professional, and ethical manner	PC3
	Demonstrate recognition of limits, continuous self assessment and ability to deal with uncertainty	PROF1,2
	Demonstrate flexibility, maturity and self confidence	PROF3,5
	Participate in the detection and critical evaluation of medical errors	SBP2
	Advocate for patients experiencing difficulties with the health care system	SBP1, PC4
Goal	Learn the skills necessary to prioritize and manage the poisoned patient	
Objectives	Demonstrate the ability to prioritize the simultaneous care to multiple patients	PC2, PROF4
	Interact with patients and families in an ethical, professional manner that takes into the accounts the stresses associated with acute illness.	PROF3,4 ICS1,2
	Communicate and collaborate effectively as part of a health care team	ISC3
	Describe key aspects of the health care system that impact patient care	SBP1
K - Knowledge, PC - Patient Care P - Professionalism PBL - Practice Based Learning and Improvement ISC - Interpersonal Skills and Communication SBP - Systems Based Practice		

GOALS AND OBJECTIVES - ANESTHESIOLOGY – F1

ANESTHESIOLOGY – FELLOW 1		COMPETENCY
Goal	To develop an evidence based approach to the care of patients presenting to the emergency department with an airway disease process or chief complaint	
Objectives	Describe the pathophysiology of disease including anatomic and physiologic differences between the pediatric and adult airway	MK1
	Describe the epidemiology of airway disease	MK
	Perform a directed history and examination	PC1
	Recognize the specific disease entities which may compromise airway function (Trauma, infection, congenital)	MK1, PC4
	Recognize respiratory distress, failure, arrest	MK1
	Select and interpret appropriate laboratory tests	PC6
	Select and interpret appropriate radiologic tests	PC6
	Arrive at presumptive and alternative diagnosis	PC6
	Describe initial management priorities 1. Perform airway positioning and suctioning 2. Perform foreign body obstructed airway maneuvers 3. Deliver oxygen 4. Perform bag-valve mask ventilation 5. Utilize nasal and oral airways 6. Perform endotracheal intubation 7. Perform rapid sequence intubation 8. Confirmation of endotracheal intubation	PC2, PC5
	Assess and Manage Pain 1. Pain scales 2. Deliver safe and effective analgesia	PC10
	Perform safe and effective procedural sedation	PC10
	Appropriately utilize anesthesiology and otolaryngology consultants for the difficult airway	ISC3
	Describe appropriate disposition and referral	PC8

	Use appropriate monitoring techniques	PC7

	Utilize information resources to evaluate and improve care.	PBLI1
	Conduct oneself in a respectful, professional, and ethical manner	PC3
	Demonstrate recognition of limits, continuous self assessment and ability to deal with uncertainty	PROF1,2
	Demonstrate self confidence, flexibility and maturity	PROF3,5
	Participate in the detection and critical evaluation of medical errors	SBP2
	Advocate for patients experiencing difficulties with the health care system	SBP1
Goal	Develop competency in airway and ventilation procedures	
Objectives	Describe Indications and contraindications	PC9,10
	Describe equipment and monitoring needs	PC9,10
	Describe anatomic approach and technique	PC9,10
	Recognize and manage complications	PC9,10
	Obtain informed consent	PC9,10
Goal	Learn the skills necessary to prioritize and manage the patient with an airway process or complaint	
Objectives	Demonstrate the ability to prioritize the simultaneous care to multiple patients	PROF4
	Interact with patients and families in an ethical, professional manner that takes into the accounts the stresses associated with acute illness.	PROF3,4
	Communicate and collaborate effectively as part of a health care team	ISC3
	Describe key aspects of the health care system that impact patient care with an airway process	SBP1
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GOALS AND OBJECTIVES - PEDIATRIC CRITICAL CARE

PEDIATRIC CRITICAL CARE – FELLOW 1		COMPETENCY
Goal	To develop an evidence based approach to the care of pediatric and young adult patients presenting to the ED with both common and life-threatening disease processes chief complaints	
Objectives	Utilize an understanding of the pathophysiology of disease in clinical decision making	MK1
	Utilize an understanding of the epidemiology of disease in clinical decision making	MK1
	Perform a directed history and examination	PC1
	Select and interpret appropriate laboratory tests	PC4
	Select and interpret appropriate radiologic tests	PC4
	Arrive at presumptive and alternative diagnosis	PC6
	Describe initial management priorities	PC2
	Describe appropriate use of consultants	ISC3
	Describe appropriate disposition and referral	PC3,8
	Use appropriate monitoring techniques	PC7
	Utilize information resources to evaluate and improve care.	PBLI11
	Conduct oneself in a respectful, professional, ethical manner	PC3
	Demonstrate self confidence, flexibility and maturity	PROF3,5
	Demonstrate awareness of limits, continuous improvement and ability to deal with uncertainty	PROF1,2
	Participate in the detection and critical evaluation of medical errors	SBP2
	Advocate for patients experiencing difficulties with the health care system	SBP1, PC4
Goal	Develop competency in pediatric cardiopulmonary resuscitation	

Objectives	Recognize and manage airway compromise	PC5
	Recognize and manage respiratory distress and failure	PC5
	Recognize and manage shock	PC5
	To provide leadership during resuscitations in conjunction with the faculty	PC5, PROF4
Goal	Develop competency in commonly performed emergency procedures	
Objectives	Describe Indications and contraindications	PC9,10
	Describe equipment and monitoring needs	PC9,10
	Describe anatomic approach and technique	PC9,10
	Recognize and manage complications	PC9,10
	Obtain informed consent	PC9,10
Goal	Learn the skills necessary to prioritize and manage the emergency care of multiple patients	
Objectives	Demonstrate the ability to prioritize the simultaneous care of a few patients	PROF4
	Demonstrate the ability to provide leadership in the emergency department with faculty support	PROF4
	Interact with patients and families in an ethical, professional manner which takes into the accounts the stresses associated with acute illness, injury and death	PROF3,4 ICS1,2
	Communicate and collaborate effectively as part of a health care team	ISC3
	Describe key aspects of the health care system that impact patient care	SBP1
	Begin to provide leadership in the administrative issues in the emergency department	PROF4
Goal	To facilitate the learning of medical students, residents, nurses and consultants in the clinical environment	
Objectives	To provide one on one education and consultation in the care of an individual patient	PC11, ICS3
	Provide feedback to learners	PC11
MK - Knowledge,		

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GOALS AND OBJECTIVES – TRAUMA

TRAUMA SURGERY – FELLOW Year 2		COMPETENCY
Goal	To develop an evidence based approach to the care of pediatric and young adult patients presenting to the ED with both common and life-threatening disease processes chief complaints	
Objectives	Utilize of the pathophysiology and epidemiology of injury in clinical decision making	MK1
	Perform a directed history and examination 1. Complete the primary trauma survey 2. Complete the secondary trauma survey	PC1
	Select and interpret appropriate laboratory tests	PC4
	Select and interpret appropriate radiologic tests	PC4
	Arrive at presumptive and alternative diagnosis	PC6
	Describe initial management priorities	PC2
	Describe appropriate use of surgical consultants	ISC3
	Describe appropriate disposition and referral	PC3,8
	Use appropriate monitoring techniques	PC7
	Utilize information resources to evaluate and improve care	PBLI11
	Conduct oneself in a respectful, professional, ethical manner	PC3
	Demonstrate self confidence, flexibility and maturity	PROF3,5
	Demonstrate awareness of limits, continuous improvement and ability to deal with uncertainty	PROF1,2
	Participate in the detection and critical evaluation of medical errors	SBP2
	Advocate for patients experiencing difficulties with the health care system	SBP1, PC4
Goal	Develop competency in trauma resuscitation	
Objectives	Recognize and manage airway compromise	PC5

	Recognize and manage respiratory distress and failure	PC5
	Recognize and manage shock	PC5
	To provide leadership during resuscitations in conjunction with the faculty	PC5, PROF4
	Recognize the need for operative intervention	PC8
Goal	Develop competency in commonly performed emergency trauma procedures	
Objectives	Describe Indications and contraindications	PC9,10
	Describe equipment and monitoring needs	PC9,10
	Describe anatomic approach and technique	PC9,10
	Recognize and manage complications	PC9,10
	Obtain informed consent	PC9,10
Goal	Learn the skills necessary to prioritize and manage the emergency care of multiple trauma patients	
Objectives	Demonstrate the ability to prioritize the simultaneous care of a few patients	PROF4
	Demonstrate the ability to provide leadership in the emergency department with faculty support	PROF4
	Interact with patients and families in an ethical, professional manner which takes into the accounts the stresses associated with acute illness, injury and death	PROF3,4 ICS1,2
	Communicate and collaborate effectively as part of a health care team	ISC3
	Describe key aspects of the health care system that impact patient care	SBP1
	Begin to provide leadership in the administrative issues in the emergency department	PROF4
Goal	To facilitate the learning of medical students, residents, nurses and consultants in the clinical environment	
Objectives	To provide one on one education and consultation in the care of an individual patient	PC11, ICS3
	Provide feedback to learners	PC11
MK - Knowledge, PC - Patient Care P – Professionalism		

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GOALS AND OBJECTIVES – EMS

EMERGENCY MEDICAL SERVICES – FELLOW Year 3		COMPETENCY
Goal	To understand the organizational structure of emergency medical services	
Objectives	Identify the roles of EMS responders - first responder, EMT, parametric	MK1
	Understand the training requirements, scope of responsibilities of responders	MK1
	Understand the process of protocol development and review	MK1
	To understand the role of specialty care center designations 1. Trauma 2. Cardiac 3. Burn 4. Pediatric Critical Care	MK1
Goal	To facilitate communication with emergency services personnel	
Objectives	Conduct oneself in a respectful, professional, ethical manner with emergency services personnel	PC3
	Demonstrates recognition of limits, continuous self assessment and ability to deal with uncertainty	PROF1,2
	Demonstrate self confidence, flexibility and maturity	PROF3,5
	Participate in the detection and critical evaluation of medical errors through call review	SBP2
	Facilitate the learning of emergency services personnel in an environment that fosters an understanding of the particular concerns of pediatric emergency patients.	PC11
	Provide feedback to learners	PC11
	Interact with emergency services personnel in an ethical, professional manner which takes into the accounts the stresses associated with acute illness, injury and death	PROF3,4 ICS1,2
	Communicate and collaborate effectively as part of a	ISC3

	health care team	
	Describe the role of the physician in online and offline medical control	MK1
Goal	To understand the role of emergency services in disaster preparedness and response to mass casualty events	
Objectives	Describe federal, state and local resources	MK1
	Describe decontamination procedure for patients suspected of involvement in a chemical, nuclear or biological event	MK1, PC2
Goal	To understand the administrative issues involved in the delivery of care by emergency services personnel and systems	
Objectives	Understand federal legislature such as COBRA/EMTALA as it pertains to patient transport	MK1
	Understand the risks and benefits of different modes of transport - ground, helicopter and fixed wing	MK1, PC8
	Understand the process of continuing quality review and continuing medical education of emergency services personnel	MK1, PBLI1
	Understand medico-legal issues 1. Duties to provide care 2. Standards of care 3. Documentation requirements 4. Transportation of minors 5. Mandatory reporting of suspected child abuse	MK1

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GOALS AND OBJECTIVES - CARDIOLOGY

CLINICAL CURRICULUM – FELLOW Year 2 or 3		COMPETENCY*
Goal	Fellows will recognize and manage infants, children and adolescents presenting to the ED with congenital and acquired heart disease, including (a)cyanotic heart conditions, hypoplastic left heart syndrome, heart failure, hypertrophic cardiomyopathy and inflammatory conditions (ex. Kawasaki disease, Myocarditis/Pericarditis).	MK, PC
	Fellows will recognize and manage infants, children and adolescents presenting to the ED presenting with arrhythmias, hyper/hypotensive emergencies, chest pain & syncope.	MK, PC
	Fellows will demonstrate proficiency in cardiovascular exam and evaluation including reading pediatric ECG, understanding indications for and interpretation of diagnostic testing (ex echocardiography), and need for invasive monitoring	PC, MK, PBLI, SBP
	Fellows will learn indications for routine, urgent, and emergent referrals to pediatric cardiologists for patients presenting with common pediatric emergency complaints.	PC, MK, PBLI, SBP
Objectives	Demonstrate skill in pediatric cardiovascular-specific history & cardiovascular e x a m i n a t i o n . ▪ Perform complete cardiovascular physical exam ▪ Recognize important features of exam besides auscultation Pulses, four extremity blood pressures, respiratory effort Auscultate heart murmurs ▪ Be able to distinguish innocent from pathologic murmurs ▪ Be able to hear normal splitting of second heart sound ▪ Be able to recognize diastolic murmurs and distinguish them from systolic murmurs ▪ Be able to recognize continuous murmurs ▪ Gain experience reading 12 lead ECG's of patients being seen in clinic.	MK, PC
	Recognize symptoms that may suggest congenital or acquired heart disease such as poor	MK, PC

	exercise tolerance, abnormal respiratory pattern, poor feeding, and abnormal color (cyanosis).	
	Recognize congestive heart failure in children of different ages. Be able to identify congestive heart failure in an infant.	PC, MK
	Gain experience taking a history, ordering and interpreting tests, and planning management for common outpatient/ED referrals to cardiology clinic: • ***New murmur in previously healthy child*** • ***Chest pain*** • ***Syncope*** • ***Mitral valve prolapse***	PC, MK, P, SBP
	Learn outpatient management of common forms of congenital heart diseases including indications for surgery and pre- and post-operative management. In particular, • ***Left to right shunts:*** • **Septal defects: VSD, ASD** • **Patent ductus arteriosus** • ***Obstruction to outflow:*** • **Right side:** • **Pulmonary stenosis** • **Tetralogy of Fallot** • **Left side:** • **Aortic stenosis** • **Coarctation of the aorta** • ***Others:*** **Transposition of the great arteries**	MK, PC
	Develop basic knowledge of three stages of single ventricle palliative surgery for Hypoplastic Left Heart Syndrome and other forms of single ventricle.	PC, MK
	Learn basic echo views and information that can be obtained by echocardiography.	PC, MK
	Learn diagnosis and management of common pediatric arrhythmias	PC, MK
	Learn diagnostic evaluation and management of children with elevated lipid levels and/or obesity	PC, MK
	Learn the approach and diagnostic evaluation of	PC, MK

	young athletes with chest pain, syncope and or real or suspected arrhythmias, including return to play/restrictions on activity.	
	Gain experience evaluating the impact of cardiovascular disease on other pediatric diseases by seeing patients on the Pediatric Cardiology consult service.	PC, MK
	Learn diagnostic criteria, cardiovascular implications and management of patient with newly diagnosed inflammatory conditions of the heart such as myocarditis/pericarditis, and Kawasaki Disease.	PC, MK
	Demonstrate an awareness of and participate in patient safety efforts and identification/reporting of system errors	SBP, PC, PBLI, P

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GOALS & OBJECTIVES – OPHTHALMOLOGY

CLINICAL CURRICULUM – FELLOW Year 2 or 3		COMPETENCY*
Goal	Demonstrate skill in ophthalmologic assessment of children.	MK, PC
	Broaden core knowledge & management of common pediatric eye complaints.	MK, PC
	Demonstrate understanding of ophthalmology referral indications	PC, IC, P, SBP
Objectives	Demonstrate skill in ophthalmologic assessment of children.	MK, PC
	Broaden core knowledge & management of common pediatric eye complaints.	MK, PC
	Learn the evaluation and management of: • Ocular trauma • Corneal injuries • Foreign body detection & removal • Acute presentations of glaucoma • Orbital/periorbital cellulitis • Ocular manifestations of common systemic diseases • Infectious and inflammatory eye diseases • Ocular presentations of pediatric cancer	PC, MK
	Demonstrate understanding of ophthalmology referral indications	PC, IC, P, SBP
	Demonstrate understanding of acuity level of common pediatric eye complaints (emergent, urgent, routine) and indications for ophthalmologic consultation	MK, PC, SBP
	Demonstrate understanding of follow up indications for common pediatric eye disorders.	PC, MK
MK – Medical Knowledge, PC - Patient Care P - Professionalism PBLI - Practice Based Learning and Improvement IC - Interpersonal Skills and Communication		

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GOALS & OBJECTIVES – NEONATAL INTENSIVE CARE

CLINICAL CURRICULUM – FELLOW Year 1		COMPETENCY*
Goal	Pediatric Emergency Medicine (PEM) Fellows will become familiar with basic principles of neonatal emergencies including evaluation and management of the newly born premature infant	MK, PC
	PEM Fellows will learn how to care for neonates/newborns requiring critical interventions, including indications for and technical skills required for resuscitation, critical procedures (neonatal advanced and vascular access skills) and post resuscitation care.	MK, PC
	PEM Fellows will be familiar with pharmacologic management of neonates	MK, PC
	PEM Fellows will learn to discuss neonatal problems, management and therapies using culturally sensitive and compassion when communicating with families.	PC, MK, IC, P
Objectives	Demonstrate basic knowledge of the natural history of pathophysiology of neonatal disease processes	MK
	Demonstrate the basic skills required for neonatal resuscitation and the management of critically ill neonates.	MK, PC
	Demonstrate the ability to perform the procedures commonly used in the care of critically ill neonates – including venipuncture, arterial puncture, umbilical artery and vein cannulation, endotracheal intubation, orogastric tube placement, lumbar puncture, bladder aspiration, chest transillumination, thoracocentesis, and thoracostomy	PC
	Demonstrate the ability to interpret and utilize blood gas data in the management of sick neonates, including knowledge of normal values and variations that occur with different sampling sites and abnormalities that occur with respiratory and metabolic acidosis and alkalosis.	PC
	Demonstrate basic skills of ventilator management.	MK, PC

	Demonstrate ability to interpret chest, abdominal and skull x-rays, cranial sonograms and GI studies.	PC, MK
	Become familiar with common medications used in the NICU such as surfactant, pressors, antibiotics and diuretics.	MK, PC
	To gain interpersonal/communication skills and a level of professionalism needed to act as an integrated team member with nurses, technicians, clerks, fellow residents, staff, etc.	IC, P
	To gain interpersonal/communication skills needed to effectively interact with patients and families.	IC, P
	Learn to effectively work with multiple consultants in complex medical cases	IC, P
	Demonstrate an awareness of and participate in patient safety efforts and identification/reporting of system errors.	PBLI, P, PC, SBP
	Successfully complete APLS certification	PC, MK
	Successfully complete NRP certification	MK, PC
	Participate in a minimum of 10 neonatal resuscitations.	MK, PC, SBP, P, IC

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GOALS & OBJECTIVES – ORTHOPEDICS AND SPORTS MEDICINE

CLINICAL CURRICULUM – FELLOW Year 2 or 3		COMPETENCY*
Goal	Understand pertinent topics in sports medicine, including medical and musculoskeletal issues affecting pediatric and adolescent athletes and physically active individuals.	MK, PC
	Understand musculoskeletal evaluation and treatment for common injuries affecting children and adolescents	MK, PC
	Teach event coverage and return to play issues for the young athlete, college athlete, professional athlete, and recreational athlete	PC, IC, P, SBP
	Foster an environment of shared learning between orthopaedic and pediatric emergency medicine and EM faculty and residents	PC, MK, IC, P
Objectives	Demonstrate understanding of the anatomy, mechanism of injury, presentations, complications, management and prognoses of common pediatric musculoskeletal injuries	MK, PC
	Develop ability to integrate history and physical examination findings to correctly diagnose and manage common pediatric musculoskeletal disorders including the ordering of appropriate (and cost efficient) diagnostic tests	MK, PC, SBP
	Develop knowledge of and indications for initiation of referrals (immediate and short term) and appropriate after-ED care (including rehabilitation) of common pediatric orthopedic injuries	PC, MK, SBP
	Develop skill in interpretation of pediatric radiography as it pertains to acute injury patterns common to pediatric orthopedic emergencies.	PC, MK, SBP
	Demonstrate knowledge in pre-participation sports physical assessment as well as return-to-play/life activities assessment for pediatric patients by sport/injury.	MK, PC
	Demonstrate skill and performance in the following procedures: application of orthopedic devices (including splints, casts and other	PC, MK

	immobilizers), assessment for crutches/walkers, fracture/dislocation reduction, joint aspiration	
	Learn and or perform procedures including aspiration/injection of joints, fracture reduction, joint reduction compartment testing and nerve blocks.	MK, PC
	Participate in care provided in the clinic setting, sporting event setting or pre-participation assessment events for athletes	MK, PC, SBP
	Demonstrate knowledge in roles and responsibilities of PEM physicians as team physicians and community advocates for safe pediatric sports practices	PC, SBP, PBLI, P
	Become familiar with medicolegal issues (including physician's role) regarding children/adolescents as they participate in organized sports.	PC, SBP, PBLI, P
	Demonstrate an awareness of and participate in patient safety efforts and identification/reporting of system errors.	PBLI, P, PC, SBP

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RESEARCH CURRICULUM – OVERVIEW

The research curriculum consists of two major components

1. Development and completion of an individual scholarly activity project under the supervision of a faculty mentor and oversight by the fellowship director, research director and scholarly activity committee. This includes eleven months of research time. Additional research time is available if needed
2. Participation in a variety of didactic experiences designed to develop skills in research design, statistics and critical appraisal of the medical literature.

FIRST YEAR RESEARCH CURRICULUM

The first-year fellow completes four months of dedicated research time. During this time, they are paired with a faculty mentor and scholarly activity committee. It is expected that the trainee will formulate and refine a research question, conduct a literature review, design a data collection instrument and develop a research proposal for submission to the Institutional Review Board. The trainee also participates in the Intensive Course in Clinical Research (offered at the Stanford Center for Clinical and Translational Research and Education Training). In the first year, the fellow will undertake a locally modified version of the NYU Pediatric Emergency Medicine Statistics and Research Design Courses and a locally modified Making Evidence Based Medicine Simple course. The goal of these courses is to provide education in study design, statistical analysis and critical analysis of the literature. A quarterly fellow research meeting provides feedback and oversight of ongoing research projects. Fellows participate in the Pediatric Emergency Medicine's journal club and biannual joint pediatrics and emergency medicine journal clubs and in the preparation of written summaries (PEM NUGGETs) for electronic distribution.

SECOND YEAR RESEARCH CURRICULUM

The second-year fellow completes four months of dedicated research time. During this time, they are paired with a faculty mentor and scholarly activity committee. It is expected that the trainee will begin data collection and develop appropriate computer analysis methods. The trainee also participates in the Intensive Course in Clinical Research (offered at the Stanford Center for Clinical and Translational Research and Education Training) if not completed in the first year. The trainee also participates in the Pediatric Emergency Medicine Statistics and Research Design Course. The goals of the courses are to provide education in study design, statistical analysis and critical analysis of the literature and to assess the progress of ongoing research. A quarterly fellow research meeting provides feedback and oversight of ongoing research projects. Fellows participate in the Pediatric Emergency Medicine's journal club and biannual joint pediatrics and emergency medicine journal clubs and in the preparation of written summaries (PEM NUGGETs) for electronic distribution.

THIRD YEAR RESEARCH CURRICULUM

The third-year fellow completes four months of dedicated research time. During this time, they are paired with a faculty mentor. The goal is to complete the mentored research project including analysis and interpretation of data, presentation at a national meeting and manuscript preparation and submission. The trainee also participates in the Pediatric Emergency Medicine Statistics and Research Design courses.

RESEARCH CURRICULUM - GOALS AND OBJECTIVES

RESEARCH CURRICULUM		COMPETENCY
Goal	To participate in the completion of an individual scholarly activities project and generate a written work product in accordance with criteria for scholarly activity	
Objectives	1. To formulate a research question (F1)	MK1, SBP1
	2. To conduct a literature review (F1)	MK1, SBP1
	3. To write a research proposal for submission (F1)	MK1, SBP1
	4. To design and implement data collection (F1, F2)	MK1, SBP1
	5. To analyze and interpret data (F2, F3)	MK1, SBP1
	6. To submit completed research for presentation (F3)	MK1, SBP1
	7. To prepare a manuscript for submission (F3)	MK1, SBP1
	8. To conduct research in an ethical manner (F1,2,3)	MK1, SBP1
	9. To participate in the review and critique of ongoing research (F1, F2, F3)	MK1, SBP1
GOAL	To acquire the knowledge and skills to become an effective investigator	
Objectives	1. To participate in course work in research design (F1, F2, F3)	MK1
	2. To participate in course work in statistics (F1,2,3)	MK1
	3. To participate in course work in the ethical conduction of human research (F1)	MK1
GOAL	To understand the broad implications of research including the applicability of research to patient care	
Objectives	1. To participate in course work in critical appraisal of the medical literature (F1)	MK1, SBP1
	2. To participate in the review and critique of the medical literature (F1,2,3)	MK1, SBP1
	3. To attend local and national conferences where research is discussed (F,1,2,3)	MK1, SBP1
MK – Medical Knowledge,	PBL - Practice Based Learning and Improvement ISC - Interpersonal Skills and Communication	

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TYPE OF VARIABLES

Distinguish type of variables (eg, continuous, ordinal, nominal)

Understand how the type of variable (eg, continuous, categorical, nominal) affects the choice of statistical test

DISTRIBUTION OF DATA

Understand how distribution of data affects the choice of statistical test
Differentiate normal from skewed distribution of data
Understand the appropriate use of:
- The mean, median, and mode
- Standard deviation, interquartile range
- Standard error

HYPOTHESIS TESTING

Distinguish the null hypothesis from an alternative hypothesis
Interpret the results of hypothesis testing, alpha error, beta error, power

STATISTICAL TESTS

Understand the appropriate use of:
- The chi-square test versus a t-test
- Analysis of variance (ANOVA)
- Parametric (eg, t-test, ANOVA) versus non-parametric (eg, Mann-Whitney U, Wilcoxon) statistical tests

Interpret the results of:
- Chi-square tests
- T-tests
- A paired and non-paired t-test

Determine the appropriate use of a 1- versus 2-tailed test of significance
Interpret a p-value
Interpret a p-value when multiple comparisons have been made
Interpret a confidence interval
Identify a type I error
Identify a type II error

MEASUREMENT OF ASSOCIATION

Differentiate relative risk reduction from absolute risk reduction
Calculate and interpret a relative risk
Calculate and interpret an odds ratio
Interpret a hazard ratio
Understand the uses and limitations of a correlation coefficient

REGRESSION

Identify when to apply regression analysis (eg, linear, logistic)
Interpret a regression analysis (eg, linear, logistic)
Identify when to apply survival analysis (eg, Kaplan-Meier)
Interpret a survival analysis (eg, Kaplan-Meier)

DIAGNOSTIC TESTS
Recognize the importance of an independent "gold standard"
Calculate and interpret:
  Sensitivity and specificity
  Predictive value of a negative and test and a positive test
Understand how disease prevalence affects the positive and negative predictive value of a test
Calculate and interpret likelihood ratios
Interpret a receiver operator characteristic curve
Interpret and apply a clinical prediction rule

SYSTEMATIC REVIEWS AND META-ANALYSIS
Understand the purpose of a systematic review
Understand the advantages of adding a meta-analysis to a systematic review
Interpret the results of a meta-analysis
Identify the limitations of a systematic review
Identify the limitations of a meta-analysis

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STUDY TYPE

Distinguish between Phase I, II, III, and IV clinical trials

Recognize and understand the strengths and limitations of:

- Retrospective studies
- Case series
- Cross-sectional study
- Case-control study
- Longitudinal study
- Cohort study
- Randomized-controlled study
- A before-after study
- Crossover study
- Open-label study
- Post-hoc analysis

BIAS AND CONFOUNDING

Understand how bias affects the validity of results

Understand how confounding affects the validity of results

Identify common strategies in study design to avoid:

- Reduce bias and confounding

Understand how study results may differ between distinct sub-populations (effect modification)

CAUSATION

Understand the difference between association and causation

Identify factors that strengthen causal inference in observational studies (eg, temporal sequence, dose response, repetition in a different population, consistency with other studies, biologic plausibility)

INCIDENCE AND PREVALENCE

Distinguish disease incidence from disease prevalence

SCREENING

Understand factors that affect the rationale for screening for a condition or disease (eg, prevalence, test accuracy, risk-benefit, disease burden, pre-symptomatic state)

DECISION ANALYSIS

Understand the strengths and limitations of decision analyses

Interpret a decision analysis

COST-BENEFIT, COST-EFFECTIVENESS, AND OUTCOMES

Differentiate cost-benefit from cost-effectiveness analysis

Understand how quality-adjusted life years are used in cost analyses

Understand the multiple perspectives (eg, of an individual, payor, society) that influence interpretation of cost-benefit and cost-effectiveness analyses

SENSITIVITY ANALYSIS

Understand the strengths and interpret the results of sensitivity analysis

MEASUREMENT

Understand the type of validity that relate to measurement (eg, face, construct, criterion, predictive, content)

Distinguish:

- Validity from reliability
- Internal from external validity
- Accuracy from precision

Understand and interpret

- Measurements of inter-observer reliability (eg, kappa)

PRINCIPLES OF RESEARCH WITH HUMAN SUBJECTS

Understand and apply the three main principles of research ethics articulated in the Belmont Report (ie, respect for persons, beneficence, and justice)

Understand the role of analysis of risks and benefits in the ethical conduct of research

Understand the federal regulatory definitions regarding:

- Which activities are considered research?
- When research includes the use of human subjects
- Minimal risk

Understand the functions of an Institutional Review Board

Understand when an exemption from review by the Review Board is permissible

Understand the functions of a Data Safety Monitoring Board

Understand the importance of clinical equipoise in research with human subjects

Understand the impact of "therapeutic fallacy" on research with human subjects

Understand the ethical considerations of study design (eg, placebo, harm of intervention, deception, flawed design)

PRINCIPLES OF CONSENT AND ASSENT

Understand:

- What constitutes informed consent in research
- How undue influence can affect obtaining consent for research
- How coercion can affect obtaining consent for research
- The special ethical considerations related to research utilizing children because of their inability to give informed consent

Distinguish among consent, assent, and permission in research involving children

VULNERABLE POPULATIONS

Recognize that the definition of "children" is related to the underlying clinical intervention in the jurisdiction in which the child is located rather than a fixed notion of age

Recognize the type of protections that might be accorded to vulnerable populations (eg, incarcerated individuals, pregnant women, fetuses, children, mentally disabled individuals, educationally or economically disadvantaged individuals)

Understand the concept of minimal risk as it applies to research involving children

Understand the circumstances under which research that involves children and that entails greater than minimal risk may be permissible

CONFLICTS OF INTEREST AND COMMITMENT

Understand the criteria for authorship of clinical research publications

Evaluate whether an investigator has a conflict of interest during the course of a study

Understand ways to manage a conflict of interest
Understand what constitutes a conflict of commitment

PROFESSIONALISM AND MISCONDUCT IN RESEARCH
Identify forms of research misconduct (eg, plagiarism, fabrication, falsification)
Differentiate honest error and differences of opinion from research misconduct
Recognize the impact of the "hidden curriculum" on learning

All first-year fellows are required to complete the online tutorial biomedical responsible conduct of research and the course on IRB required for Medical Research Investigators and Staff This is required to participate in any study at Stanford. The course can be accessed at: https://www.citiprogram.org/members/index.cfm?pageID=50

ASSESSMENT OF STUDY DESIGN, PERFORMANCE, AND ANALYSIS (INTERNAL VALIDITY)

Recognize when appropriate control groups have been selected for a case-control study

Recognize when appropriate control groups have been selected for a cohort study

Recognize the use and limitations of surrogate endpoints

Understand the use of intent-to-treat analysis

Understand how sample size affects the power of a study

Understand how sample size may limit the ability to detect adverse events

Understand how to calculate an adequate sample size for a controlled trial (ie, clinically meaningful difference, variability in measurement, choice of alpha and beta)

ASSESSMENT OF GENERALIZABILITY (EXTERNAL VALIDITY)

Identify factors that contribute to or jeopardize generalizability

Understand how non-representative samples can bias results

Assess how the data source (eg, diaries, billing data, discharge diagnostic code) may affect study results

APPLICATION OF INFORMATION FOR PATIENT CARE

Estimate the post-test probability of a disease, given the pretest probability of the disease and the likelihood ratio for the test

Calculate absolute risk reduction

Calculate and interpret the number-needed-to treat

Distinguish statistical significance from clinical importance

USING THE MEDICAL LITERATURE

Given the need for specific clinical information, identify a clear, structured, searchable clinical question

Identify the study design most likely to yield valid information about the

- accuracy of a diagnostic test
- benefits and/or harms of an intervention
- prognosis of a condition

RESEARCH CURRICULUM - RESEARCH TIME LINE

Fulfilling the scholarly activity requirements of the fellowship and the American Board of Pediatrics requires a structured approach to completing the specific research related tasks. The time-line below is intended to provide a framework for the approach to these tasks. Completing the initial steps in the first year of training is the best way to assure successful and stress-free completion of your projects. Each step should be completed with the guidance of your research mentor and scholarly activity committee and discussed with the group for feedback at fellow research meetings.

	J	A	S	O	N	D	J	F	M	A	M	J
F1	1. Develop a research question. 2. Literature review 3. Refine the question.				1. Develop a study design (methodology) 2. Write/Submit a research proposal				1. Design a data collection instrument 2. Test your data collection, refine			
F2	1. Collect data 2. Develop a database 3. Enter data				1. Collect data 2. Enter data				1. Collect data 2. Enter data 3. Plan the analysis			
F3	1. Complete data collection and entry 2. Analyze data 3. Submit abstract				1. Complete analysis 2. Present data (Abstract/poster)				1. Write the paper 2. Submit for publication			

RECOMMENDED READING

Norman and Streiner
Biostatistics: The Bare Essentials - 3rd Edition
BC Decker Ontario 2008

Guyatt and Drummond
Users Guides to the Medical Literature: A Manual for Evidence based clinical practice 2nd Edition
American Medical Association Press Chicago 2008

Hulley et al
Designing Clinical Research - 3rd Edition
Lippincott, Williams and Wilkins Philadelphia 2006

Browner
Publishing and Presenting Clinical Research – 2nd Edition
Lippincott, Williams and Wilkins Philadelphia 2006

Pediatric Emergency Medicine Statistics and Research Design Course.

Timing - Third Wednesday of every month, September - May, 8:00-9:00

Curriculum - The research director and fellowship director conduct this course on a monthly basis throughout the three years of the program. The goals of the course are to provide education in study design, statistical analysis and critical appraisal of the literature. The use of computer applications is emphasized. (A sample three-year curriculum is attached). In addition to this course, each fellow will undertake the Intensive Course in Clinical Research (ICCR) course. The ICCR is a week-long intensive course geared to pediatric subspecialty fellows. It is proximately 60 hours of total instruction and research design exercises held over five consecutive days at an off-campus site.

The course is designed to expose residents and faculty to the fundamental principles, terminology, and breadth of study design, biostatistics, informatics, regulatory issues, and bioethics, in a highly intensive immersion setting. During the course participants will select a relevant research question and draft a protocol to answer it.

Pediatric Emergency Medicine Research Review Conference

Timing – Quarterly, Third Wednesday of the month. 9:00-10:00am.

Curriculum - This meeting allows the fellow and faculty to present the status of ongoing research to discuss progress and provide for input.

Pediatric Emergency Medicine Conference - Journal Club

Timing – 4 times a year, Third Wednesday of each Month and twice yearly as combined Pediatric and Emergency Medicine Journal Club conference

Curriculum - The fellows are paired with a faculty mentor expected to aid in preparation and presentation of the selected article. The focus of journal club is to develop a structured approach to critically appraising the medical literature in order to aid clinical decision-making. Fellows prepare a written summary of each article review (PEM NUGGETs) for electronic distribution.

Pediatric Emergency Medicine Fellow – Making Evidence Based Medicine Simple Course

Timing – Spring annually (first year fellows)

Curriculum - This is a two-day intensive review of the basic principles of evidence based medicine with emphasis on developing teaching skills with the materials.

National Pediatric Emergency Medicine Fellow Conference

Timing - Annual course, Held in spring in conjunction with national EMSC conference. Fellow should attend at least twice during training (first and third years preferred)

Curriculum - This course is held in conjunction with the annual Emergency Services for Children Congress and provides the trainee with the opportunity to review ongoing research and review essential research topics with distinguished pediatric emergency medicine faculty.

National Academic Society Research Meetings

Timing - See below

Curriculum - The national academic society meetings provide a forum for the presentation of new research as well as an opportunity for the pediatric emergency medicine community to review controversial and contemporary topics. The section on PEM has a 2-3-day program in association with the pediatric meetings (AAP, AAP). The spring meetings (PAS and SAEM) tend to be more

research oriented. Each fellow should attend at least one of the pediatric or emergency medicine meetings annually

ACEP - American College of Emergency Physicians - http://www.acep.org- October
AAP - American Academy of Pediatrics - http://www.aap.org- October
PAS - Pediatric Academic Societies - http://www.pas-meeting.org- May
SAEM - Society of Academic Emergency Medicine - http://www.saem.org- May

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STATISTICS AND RESEARCH DESIGN COURSES

	RESEARCH DESIGN	BIOSTATISTICS I*	BIOSTATISTICS II*
	Introduction to Research*	Introduction to Research	Introduction to Research
	Asking Answerable Questions*	Descriptive Statistics	Nonparametric Statistics
	Searching the Medical Literature	SPSS & Descriptive Statistics	SPSS & Nonparametric tests
	Observational Study Design*	Distributions & Probability	Correlation
	Interventional Study Design*	SPSS & Probability	SPSS & Correlation
	Diagnostic Study Design	Inferential Statistics	Simple Linear Regression
	Choosing Subjects / Variables*	SPSS & Inferential Statistics	SPSS & SLR
	Hypothesis Testing/Sample Size*	Student T test	Multiple Linear Regression I
	Grant Writing / Funding	SPSS & T testing	Multiple Linear Regression II
0	Research Proposal – The IRB*	Analysis of Variance	SPSS and Multiple Regression
1	Collecting Data - Forms	SPSS & ANOVA	Logistic Regression
2	Collecting Data - Databases	Chi Squared / OR, RR	SPSS & MLR / Logistic
3	Presenting Research	Chi Squared Variants	Planning an Analysis
4	Research Ethics	SPSS And Chi Squared	SPSS & Planning an Analysis
5	Course Review	Course Review	Course Review
6	Examination	Examination	Examination

* Each biostatistics course is preceded by a mini research design course.

Resources
Norman, G, Streiner D
Biostatistics: The Bare Essentials - 3rd Edition
Peoples personal publishing house – 2008

Hulley S et al
Designing Clinical Research – 3rd Edition

SCHOLARLY ACTIVITIES

Each program is expected to engage fellows in specific areas of scholarly activity to:

1. Allow acquisition of skills in the critical analysis of the work of others
2. Assimilate new knowledge, concepts, and techniques related to the field of one's practice
3. Formulate clear and testable questions from a body of information/data so as to be prepared to become effective subspecialists and to advance research in pediatrics
4. Translate ideas into written and oral forms as teachers
5. Serve as consultants for colleagues in other medical or scientific specialties
6. Develop as leaders in their fields.

All fellows will be expected to engage in projects in which they develop hypotheses or in projects of substantive scholarly exploration and analysis that require critical thinking. Areas in which scholarly activity may be pursued include, but are not limited to: basic, clinical, or translational biomedicine; health services; quality improvement; bioethics; education; and public policy. Fellows must gather and analyze data, derive and defend conclusions, place conclusions in the context of what is known or not known about a specific area of inquiry, and present their work in oral and written form to their Scholarship Oversight Committee.

The Scholarship Oversight Committee in conjunction with the trainee, the mentor, and the program director will determine whether a specific activity is appropriate to meet the ABP guidelines for scholarly activities. In addition to biomedical research, examples of acceptable activities might include a critical meta-analysis of the literature, a systematic review of clinical practice with the scope and rigor of a Cochrane review, a critical analysis of public policy relevant to the subspecialty, or a curriculum development project with an assessment component. These activities require active participation by the fellow and must be mentored. The mentor(s) will be responsible for providing the ongoing feedback essential to the trainee's development.

Work Product of Scholarly Activity

1. A peer-reviewed publication in which a fellow played a substantial role
2. An in-depth manuscript describing a completed project
3. A thesis or dissertation written in connection with the pursuit of an advanced degree
4. An extramural grant application that has either been accepted or favorably reviewed
5. A progress report for projects of exceptional complexity, such as a multi-year clinical trial

SCHOLARSHIP OVERSIGHT COMMITTEE – MENTOR GUIDELINES

The Scholarship Oversight Committee should consist of three or more individuals, at least one of who is based outside the subspecialty discipline; the fellowship program director may serve as the trainee's mentor and participate in the activities of the oversight committee, but should not be a standing member. This committee will:

1. Determine whether a specific activity is appropriate to meet the ABP guidelines
2. Determine a course of preparation beyond the core fellowship curriculum to ensure successful completion of the project
3. Evaluate the fellow's progress as related to scholarly activity
4. Meet with the fellow early in the training period and regularly thereafter
5. Require the fellow to present/defend the project related to his/her scholarly activity
6. Advise the program director on the fellow's progress and assess whether the fellow has satisfactorily met the guidelines associated with the requirement for active participation in scholarly activities

REQUIREMENT FOR APPLICATION FOR THE CERTIFYING EXAMINATION

1. Verification of Competency Form – Verification by the training program director that the scholarly skills requirements have been met
2. Work Product - Submission by the fellow to the ABP of the actual work product of the scholarly activity. Should include rationale, hypothesis, methods, results and conclusions/implications
3. Fellow's Personal Statement – Several pages in length
    1. Describe the fellow's intended career path on entering fellowship and reasons for choosing a specific scholarly activity
    2. Describe the scholarly activity and the fellow's role in each aspect of the activity.
    3. Describe how the scholarly activity furthers the fellow's career development plans and reflect upon the educational value of the project.

Signatures - The fellow, program director, and members of the Scholarship Oversight Committee must sign the submitted documents described above

TEACHING CURRICULUM - OVERVIEW

FIRST YEAR TEACHING CURRICULUM

The first-year fellow completes training in PALS, APLS, BLS and ATLS. They participate as an instructor in PALS courses. The fellow spends a majority of time in the Pediatric Emergency Service supervising and teaching pediatric and emergency medicine residents and medical students. Throughout the year the fellow conducts Pediatric EM noon conference and PEM Case Conference under the supervision of a Pediatric Emergency Medicine faculty. The fellow teaches in a variety of settings, such as formal lectures, simulation sessions, workshops and courses and produce written and electronic educational materials. The first-year fellow participates in the Clinical Teaching and Seminar Series (CTSS) at Stanford. The Clinical Teaching Seminar Series (CTSS) is a year-long faculty development program in medical education, designed to introduce clinical educators to fundamental concepts in education. The seminars are high-yield, relevant, and interactive, providing practical tips for bedside teaching, curriculum development, and education research. The CTSS also offers an Honors Certificate program This program is meant to recognize participants with a dedication to medical education, who regularly attend the seminars and complete a scholarly project in medical education. The Honors Program is a multi-disciplinary program open to all medical students, residents, fellows, staff, and faculty with an interest in medical education.

It is expected that the fellow will complete the Honors Certificate Program by the end of their three-year fellowship.

SECOND YEAR TEACHING CURRICULUM

The fellow spends a majority of time in the Pediatric Emergency Service supervising and teaching pediatric and emergency medicine residents and medical students. The second-year fellows serve as “teaching fellows”. They are responsible for curriculum development and implementation of the divisions’ educational activities. Throughout the year the fellow conducts Pediatric EM Noon Conference, PEM/EM Case Conference, PEM lectures and journal clubs under the supervision of a Pediatric Emergency Medicine faculty. The fellow also teaches in a variety of settings, such as formal lectures, simulations, and workshops and produce educational materials.

THIRD YEAR TEACHING CURRICULUM

The fellow spends a majority of time in the Pediatric Emergency Service supervising and teaching pediatric and emergency medicine residents and medical students. Throughout the year the fellow conducts Pediatric EM Noon Conference, PEM/EM Case Conference, PEM lectures and journal clubs under the supervision of a Pediatric Emergency Medicine faculty. The fellow also teaches in a variety of settings, such as formal lectures, simulation sessions, and workshops and produce educational materials. Back to TOC

TEACHING CURRICULUM - GOALS AND OBJECTIVES

TEACHING CURRICULUM – FELLOW 1,2,3		COMPETENCY
Goal	To participate in a variety of teaching experiences which will enable the fellow to provide effective education to a variety of groups and in a variety of settings	
Objectives	1. To teach pediatric resuscitation skills	PC11, PROF4
	2. To teach one on one in a clinical environment	PC11, PROF4
	3. To teach in a problem based learning format to small groups	PC11, PROF4
	4. To teach large groups in a lecture format	PC11, PROF4
	5. To teach procedural skills	PC11, PROF4
	6. To teach resuscitation, procedural skills and communications skills in a simulation environment	PC11, PROF4
	7. To develop learner appropriate educational materials that are concise and applicable to the learning objectives of the teaching encounter	PC11, PROF4
	8. To provide feedback to learners	PC11, PROF4
GOAL	To acquire the knowledge and skills to become an effective educator	
Objectives	1. To participate in course work in teaching and presentation skills including: a. Adult learning principles b. Curriculum development and assessment c. Clinical Precepting d. Problem based learning to small groups e. Delivering effective lecture f. Providing feedback to learners g. Principles of lifelong learning	PC11, PROF4
MK – Medical Knowledge, PC - Patient Care PROF - Professionalism PBLI - Practice Based Learning and Improvement ISC - Interpersonal Skills and Communication SBP - Systems Based Practice		

CASE CONFERENCES – FELLOW 1, 2, 3 **Pediatric Resident Noon Case Conference (Wednesday)** **Pediatric Emergency Medicine Case Conference (Wednesday)**		**COMPETENCY**
Goal	To develop leadership skills in facilitating small group problem-based learning.	
Objectives	To lead discussions on diagnostic cases – F1,2,3	PC11, PROF4
	To lead discussions on management cases – F1,2,3	PC11, PROF4
	To lead discussions on toxicology cases – F1,2,3	PC11, PROF4
	To lead procedural skills workshops – F 1,2,3	PC11, PROF4
	To develop and utilize teaching materials – F1,2,3	PC11, PROF4
MK – Medical Knowledge PBLI -Practice Based Learning and Improvement PC - Patient Care ISC - Interpersonal Skills and Communication P – Professionalism SBP - Systems Based Practice		

LECTURE PRESENTATIONS – FELLOW 1, 2, 3 **Pediatric Resident Noon Conference (Wednesday)**		**COMPETENCY**
Goal	To develop leadership skills in facilitating large group discussions in a lecture format	
Objectives	To utilize information technology to produce effective presentations	PC11, PROF4
	To utilize information technology to determine the best evidence resources for the presentation	PC11, PROF4
	To develop presentations effective at conveying information at a fellow or attending level	PC11, PROF4
	To develop presentations effective at conveying information at a medical student or resident level	PC11, PROF4
MK – Medical Knowledge PBLI -Practice Based Learning and Improvement PC - Patient Care ISC - Interpersonal Skills and Communication PROF – Professionalism SBP - Systems Based Practice		

RESUSCITATION/PROCEDURE EDUCATION – FELLOW 1,2,3 **Advanced Pediatric Life Support** **Pediatric Emergency Medicine Simulation Program** **Pediatric Residents Procedure Skills Workshops**		**COMPETENCY**
Goal	To develop skills in facilitating small group learning of resuscitation and procedural skills	
Objectives	To participate as an educator in pediatric advanced life support courses – F1, 2, 3	PC11, PROF4
	To become a certified pediatric advanced life support instructor – F3	PC11, PROF4
	To provide procedural skills workshops to junior fellows – F2, 3	PC11, PROF4
	To provide procedural skills workshops to pediatric and emergency medicine residents – F1, 2, 3	PC11, PROF4
	To utilize high fidelity simulation to facilitate learning of resuscitation skills – F1, 2, 3	PC11, PROF4
MK – Medical Knowledge PBLI -Practice Based Learning and Improvement PC - Patient Care ISC - Interpersonal Skills and Communication PROF – Professionalism SBP – Systems Based Practice		

PEM JOURNAL CLUB – FELLOW 1,2,3		**COMPETENCY**
Goal	To critically review a journal article	
Objectives	To use information technology to identify an article from the recent pediatric emergency medicine literature – F1, 2, 3	PBLI1
	To evaluate the validity, results and applicability of a variety of article type – F1, 2, 3	MK1
	To develop a clinical bottom line summarizing the articles impact on patient care – F1, 2, 3	SBP1
	To present verbally the results of a critical appraisal – F1, 2, 3	ICS1
	To facilitate a group discussion of an article. F1,2,3	PROF4
	To develop a written summary of an article for distribution to faculty, fellows and residents. F1,2,3	PBLI1, SBP1
MK– Medical Knowledge PBL -Practice Based Learning and Improvement PC - Patient Care ISC - Interpersonal Skills and Communication PROF – Professionalism SBP - Systems Based Practice		

PEM NUGGETs GUIDELINES

At the completion of each journal club the fellow is responsible for the completion of a PEM NUGGETs (Pediatric Emergency Medicine Critical Article Review). These are distributed electronically to the residents and faculty of the departments of pediatrics and emergency medicine on our PEM Guide Website.

1. Headings
    1. Question – PICO question from the article
    2. Type – Therapy, Diagnosis, Harm, Prognosis, etc.
    3. Topic – Key words to identify the topic areas
    4. Reviewers – Fellow / Faculty mentor
    5. Citation
2. Complete the users guide review form for the article type that you presented.
3. Complete a clinical bottom line.
    1. Background - briefly review the clinical question in the context of what is known about this area and what the authors attempt to add to the literature.
    2. Study Question – PICO format
    3. Identify any validity concerns
    4. Review the primary results
    5. Discuss applicability issues
    5. Discuss the potential impact of this article on current practice
4. The completed PEM NUGGET is due at the end of the month that you completed journal club presentation. Your faculty mentor should review the completed PEM NUGGET prior to being sent to Dr. Khanna for distribution.

CORE CONTENTS – TEACHING

EDUCATIONAL THEORY

Understand the basic principles of adult learning theory (eg, adult learners are self-directed, goal-oriented, practical; need to feel respected, build on life experiences; learn best when learning is based on an existing framework)

Understand the attributes of an effective learning environment

Understand the importance of "reflective practice" in teaching and learning

Identify strategies that motivate learners

FEEDBACK AND EVALUATION

Identify components of effective feedback

Distinguish between formative and summative feedback

Distinguish between assessment, evaluation and feedback

Understand the ACGME assessment paradigm – domains of competency, competencies, and entrustable professional activities

Understand the strengths and weaknesses of various methods to evaluate learners

TEACHING METHODS

Understand the strengths and weaknesses of various teaching methods (eg, lecture, small group discussion, bedside teaching, simulation)

Understand that individuals may learn more effectively with certain teaching methods (eg, reading, hearing, doing) than with others

EDUCATIONAL PLANNING

Understand the steps in the development of an educational curriculum

Understand the role of needs assessment in educational planning

Distinguish between goals and learning objectives

Identify components of well-formulated learning objectives

Recognize the effectiveness of various instructional design strategies

Recognize the strengths and weaknesses of various educational outcome measures (eg, participant satisfaction, acquisition of knowledge and skills, behavioral change, patient outcomes)

TEACHING CURRICULUM – EXPERIENCES

	TEACHING EXPERIENCES
	Clinical supervision of residents, medical students, midlevel provider students (NP) – PEM
	Pediatric Resident Emergency Medicine Noon Conference Fellows supervise pediatric resident and medical students in a case based format focusing on diagnosis, treatment, or workshops/mock codes. This may also take on a lecture format to discuss a variety of core pediatric emergency topics.
	Emergency Medicine Resident Morning Case Conference Fellows provide pediatric emergency medicine consultation to 4th year EM resident presentations of pediatric cases
	Pediatric Emergency Medicine Simulation Fellows conduct sessions with the pediatric residents
	Pediatric Emergency Medicine Conference
	Curriculum – Second year teaching fellows develop and implement the curriculum

	under the supervision of the program director
	Didactics - Fellows develop and present evidence based reviews of clinical topics (lectures)
	Journal Club - Fellows present articles from the recent medical literature. A written summary (PEM NUGGET) is produced & distributed.
	Fellow Orientation Workshops - Second/third year fellows provide workshops on splinting/ casting and suturing to incoming fellows
	Advanced Pediatric Life Support

	TEACHING WORKSHOPS
1	Stanford School of Medicine, Clinical Teaching Seminar Series, F1-3

	TEACHING WORK PRODUCTS
1	Pediatric Emergency Medicine NUGGETs (Critical Analysis Review)
2	Stanford Pediatric Emergency Medicine Guide
3	Simulation Cases
4	Lectures

TEACHING FELLOW RESPONSIBILITIES

Second year fellows are responsible for organizing, coordinating and implementing the fellow teaching activities. They are also instrumental in creating the yearly topic curriculum for the fellow lecture series. They will also provide help to the program director in organizing of the weekly didactic PEM conference.

FELLOW LECTURE SERIES
The teaching fellows with the supervision of the program directors will be instrumental in creating the curriculum of topics to be covered during the Fellow Lectures each year
They will also organize series of procedure workshops intended to improve the procedural skills of the fellows – four times yearly
They will solicit lecturers who will prepare and present the lectures / workshops from our group or outside the division
New fellow orientation workshops – responsible for organizing and conducting of a suture and splinting workshop in conjunction with the 3rd year fellows

MONTHLY DIDACTIC PEM CONFERENCE
The teaching fellows will help the program director identify topics and speakers of the PEM lectures each year.

FELLOW TEACHING ACTIVITIES
Pediatric residents mock codes – monthly (in-situ)
Pediatric residents PEM lecture – 1-2 yearly (Variable Wednesdays 12:15-1:15)
EM residents AM pediatric emergency talk – Friday AM; 1-2 yearly
Conferences run by EM4 resident. PEM Fellow/faculty are consultants

PEDIATRIC AND EMERGENCY MEDICINE RESIDENTS

Pediatric Emergency Medicine fellows are responsible for the supervision and education of the pediatric and emergency medicine residents as they provide patient care in the Pediatric Emergency Department. The fellow is expected to educate the pediatric and emergency medicine resident to recognize acute illness in a child, to generate a differential diagnosis, to approach the evaluation and management of the sick or injured child and to develop skills in the physical examination of the child, as well as in performing procedures. The fellow is responsible for training the pediatric and emergency medicine resident to be a child advocate in the Emergency Department. The fellow is responsible for educating the pediatric and emergency medicine resident one-on-one in the Pediatric Emergency Service, as well as in a variety of case conference and lecture forums. The fellows conduct the Pediatric Resident Emergency Medicine Noon Case Conference, the Emergency Medicine Resident Morning Conference, and the Pediatric Advanced Life Support course for the pediatric and emergency medicine residents. They also provide a series of pediatric simulation cases and teach Pediatric Advanced Life Support and Pediatric Transport courses directed toward developing pediatric resuscitation skills.

MEDICAL STUDENTS

Pediatric Emergency Medicine residents are responsible for the supervision and education of medical students during rotations in the Pediatric Emergency Service focusing on the approach to the recognition and management of the sick or injured Child. The philosophy of child advocacy is emphasized. The fellows conduct several educational conferences in which the medical students participate, including Pediatric Resident and Emergency Medicine Resident Morning Case Conference.

ADMINISTRATIVE CURRICULUM – OVERVIEW

FIRST YEAR ADMINISTRATIVE CURRICULUM

The first year fellow performs the administrative responsibilities of a supervisor in the Pediatric Emergency Service. They actively participate in discussion during the administrative portion of the Pediatric Emergency Medicine Conference and are exposed to a seminar series (in conjunction with the Department of Emergency Medicine Administrative fellow) addressing administrative topics. They participate in an individual quality improvement project and the national patient safety in pediatric emergency medicine curriculum. Fellows will also attend the Department of Pediatrics Fellows' College that will cover a variety of administrative topics quarterly.

SECOND YEAR ADMINISTRATIVE CURRICULUM

The second year fellow performs the administrative responsibilities of the supervisor in the Pediatric Emergency Service. They actively participate in discussion during the administrative portion of the Pediatric Emergency Medicine Conference and are exposed to a seminar series addressing administrative topics. They participate in an individual quality improvement project and the national pediatric emergency medicine patient safety curriculum.

THIRD YEAR ADMINISTRATIVE CURRICULUM

The third year fellow performs the administrative responsibilities of the supervisor in the Pediatric Emergency Service. They actively participate in discussion during the administrative portion of the Pediatric Emergency Medicine Conference and are exposed to a seminar series addressing administrative topics. They play an integral role in the fellowship recruitment process and participate in an individual quality improvement project (if not completed in the prior year). The fellow undertakes the EMS education for the Pediatric Emergency Medicine curriculum and the Disaster Preparedness and Response online courses.

ADMINISTRATIVE CURRICULUM – FELLOW 1,2,3		COMPETENCY
Goal	To develop familiarity with the administrative issues affecting the practice of Pediatric Emergency Medicine	
Objectives	1. To participate in quality improvement activities to improve patient care and safety	SBP2
	3. To participate in education of medico-legal concerns including finance and marketing, hospital organizational structure, personnel management, community outreach and legislative issues regarding child advocacy.	SBP2
MK – Medical Knowledge, PC - Patient Care PROF - Professionalism PBL - Practice Based Learning and Improvement ISC - Interpersonal Skills and Communication SBP - Systems Based Practice		

Stanford School of Medicine has developed a number of online learning modules to assist the fellow in learning administrative issues. These can be accessed through the HealthStream website. These include:

Team Cards & C-I-Care
GME Disaster Response Protocol
SHC - Prevention of Hospital Acquired Infections – Clinical
SHC – Quality Improvement & Patient Safety
Stanford Medical – Protecting Patient Privacy, one patient at a time
Stanford Medical – Code of Conduct
Stanford Medical - Safety Training (Clinical)
Stanford Medical – Controlled Substance
Stanford Medical – Cultural Diversity

Systems Based Practice at Stanford

Personal

1. Career Advancement
   a. Continuing Medical Education
   b. Physician Wellness
   c. Research / Teaching / Administrative interests
   d. Contracts
   e. Academic advancement - Tenure
   f. Professional associations - AMA, AAP, ACEP
   g. Relationship to allied health professionals - EMT, paramedic, RN,
   h. Mentor/ Mentee relationships
   i. Leadership opportunities

Administration

1. Hospital organizational structure
2. Hospital management structure
3. Hospital relationships
   a. Community liaison *I* outreach
   b. Regional health care networks *I* affiliations
      1. EMS, specialty centers (trauma, PICU, Poison centers, Burns)
   c. Regulatory Agencies - Board of health, JCAHO regulations
4. Faculty *I* Staff Development - Mentoring
5. Personnel management - Staffing, Conflict resolution
6. Use of technology in the emergency department

Finance

1. Billing systems
   a. Fee for service
   b. Prepaid health plans - PPO's

c. CPT codes (current procedural terminology)
d. ICD Codes (currently ICD-9-CM), International classification of disease
e. E codes - classification of external causes of injury and poisoning

2. Insurance payers - Medicaid, Medicare, capitation
3. Graduate Medical Education (GME) Funding
4. Health Care Finance Administration

Legal

1. Liability
   a. Malpractice - breach of duty, the plaintiff, proximate cause
   b. Assault & Battery
   c. Abandonment
   d. Breach of confidentiality
   d. Breach of duty to report - abuse, crime victims, STD's, deaths
   e. Good Samaritan laws
   f. EMS legal considerations - Online medical control

2. Risk management
    a. Record keeping - HIPA
    b. Discharge instructions and follow up
    c. Telephone Advice
        d. Incident reporting
    e. Triage *I* transfer of patients
        1. EMTALA - Emergency Medical Treatment and Active Labor Act
            a. Medical Screening Examination (MSE)
        2. COBRA - Consolidated Omnibus Reconciliation Act
    f. Informed consent
        1. Competence
            a. Psychiatric commitment of minors
        2. Minors
        3. Emancipated minors
        4. Limitations of the rights of parents
        5. Refusal of consent
        6. Leave against medical advice
    g. Advanced directives
        1 DNR
        2. Living Wills
        3. Power of attorney
    h. Death in the Emergency Department
        1. Informing survivors of sudden death
        2. Organ donation
        3. Forensic pathology *I* Medical examiner
    i. Quality improvement initiatives
        1. Medical error reduction
        2. Physician and patient safety

Government Agencies

1. Federal
    a. Child advocacy *I* legislative efforts
    b. Funding sources - NIH, Maternal Child Health
    c. Regulatory bodies
2. State - licensing
3. International - WHO, relief organizations
4. Medical subspecialty organizations - ABP, ABEM Nonprofit - AHA

Pediatric Emergency Service Administration - Participation in the administrative portion of the PEM Conference

a. Discussion of Quality Improvement issues
b. Design, improvement and implementation of policies regarding operations in the Pediatric Emergency Service
    1. Resident roles and performance
    2. Nursing roles and performance
    3. Pharmacologic usage and administration
    4. Coordination with consulting medical, surgical and administrative services.

Fellowship Recruitment - Each fellow is expected to participate in the fellowship recruitment process. Junior fellows meet with each applicant over lunch and provide information and insight into the program. Senior fellows participate directly in the interview process.

Pediatric Emergency Service Teaching Fellow - The second-year fellows are responsible for designing, implementing and overseeing the scheduling of the divisions educational activities under the guidance of Dr. Khanna.

Pediatric Emergency Service Fellow Schedule – The second and third-year fellows are responsible for developing the fellow PEM Schedule.

PEM CONFERENCE - CURRICULUM GUIDELINES

Attendance is mandatory and is monitored

Exceptions
1. Vacation
2. Away rotations – Trauma at Valley
3. Urgent clinical responsibilities - Trauma, PICU
4. Pre-arranged or emergency personal leave

PEM fellows

2 lectures per year - May include evidence-based lectures, procedural workshops, case based CPC's or M&M's. An attending mentor should review each session prior to presentation

1 journal clubs per year supervised by an attending - Using an evidence-based approach, completion of PEM Nuggets

In addition to above 2nd and 3rd year fellows are responsible for providing the incoming fellows with procedural orientation workshops including a wound repair and splinting.

PEM Attendings - 20 sessions per year (2 sessions per attending)

1 journal club per year (supervising fellows), 2 lectures per year

5 of the attending lectures should cover the administrative topics listed below. The goals is to cover all the topics listed in a three year rotation so that every fellow encounters each lecture during the course of their training

Guest lectures - 14 sessions per year

Consultants – surgical, pediatric subspecialists, toxicology, EM, etc.

Full time fellow - Approximately 15 shifts per month including 1 double weekend
Zero hours fellows - Trauma, Toxicology - no PEM shifts that month
Two-week time block fellows – Those fellows on PICU or Anesthesia will not have any shifts scheduled during the portion of the month they are assigned to the PICU or Anesthesia.
All other fellows - Complete PEM shifts not completed by full time fellow

DAY SHIFTS

The Full time PEM fellow should fill 13-15 day shifts with the exception of Wednesdays.
The non-PEM fellows should fill the remaining day shifts as outlined below

1. The EM and EMS fellows should fill the day shifts first.
2. The Research fellows should then fill any open day shifts.
3. Fellows on Elective, Anesthesia should fill day shifts last.
4. The EMS fellow has a specific two week time block during which they are 0 hours. They should complete PEM shifts (days and weekends) during the two weeks they are not scheduled for EMS.

WEEKEND SHIFTS

1. The full time fellow will complete 1 double weekend (2 shifts) per month.
2. The fellows should as much as possible complete double weekend shifts though some single weekend shifts will be necessary.
3. Each third year fellow will complete 1 Friday overnight per month
4. Each 2nd year fellow will complete 1 Saturday overnight per month with a PEM attending (12-8a)

PEM Division Administrative Monthly Meeting

Pediatric emergency medicine fellows attend and participate in the monthly administrative meetings of the division of pediatric emergency. The division meetings include a review of cases presenting to the pediatric emergency department as a well as patient safety issues.

LPCH Fellows' College

Pediatric emergency medicine fellows participate in a seminar/workshop series for all fellows in the department of pediatrics. One of the sessions is a workshop focused on an introduction to patient safety concepts such as rapid improvement events, lean management and root cause analysis.

PEM Fellow Evidence Based Clinical Practice Curriculum

The fellows participate an evidence based clinical practice curriculum. First year fellows receive training in teaching these skills in a locally modified NYU Making Evidence Based Medicine simple course. Fellows present a review of relevant journal articles on a monthly basis. Each fellow is mentored by a faculty member and leads the discussion of the article utilizing structured tools. Emphasis is placed on the critical review of the literature and the incorporation of evidence into clinical patient care decisions. Each fellow produces written summaries of each article reviewed that are distributed electronically to the faculty and residents in the departments of pediatrics and emergency medicine. A database of these reviews (PEM NUGGETs) are maintained in the divisions online syllabus and is available for review at points of care.

PEM Fellow Simulation Curriculum

The fellows participated in simulation workshops aimed at developing skills in the rapid assessment and management of the critically ill patient.

Division Quality Improvement and Research Projects

The fellows can be directly involved in a variety of patient safety projects as directed by the Fellowship Director for the Administrative Fellowship in the Department of Emergency Medicine, Dr. Sam Shen. In addition, patient safety projects may be undertaken with the Medical Directors of the Pediatric Emergency Medicine Department or with other pediatric emergency medicine faculty involved in quality improvement projects.

The Department of Emergency Medicine Professional Practice Evaluation Meeting

The Department of Emergency Medicine Professional Practice meeting meets monthly to assess the competence of its credentialed providers, conduct professional practice evaluation and use the results of such assessments and evaluations to improve professional competency, practice and the system of care. Fellows are expected to attend 1-2 sessions per year of training.

The National Pediatric Emergency Medicine Patient Safety Curriculum

A patient safety curriculum has been developed by some of the leaders in the field.

The curriculum is located at http://www.moodle.pemfellows.com Fellows will need to create an account via the "Create Account" link. To enroll in the patient safety curriculum use the course key - PNSafety

MODULE 1. An Introduction to Patient Safety in PEM. Charles Macias, MD, MPH

MODULE 2. Improving Patient Safety in the ED. Kathy Shaw, MD, MSCE

MODULE 3. Improving Patient Safety During Resuscitation. Mary Patterson, MD, MEd
MODULE 4. Measuring Patient Safety in the ED, James Chamberlain, MD
MODULE 5. Using Simulation to Improve Patient Safety, Gary Geiss, MD
MODULE 6. Investigating a Safety Event, Prashant Mahajan, MD, MPH, MBA

For the first module, fellows will:
1. Complete a baseline assessment
2. Watch the introduction lecture
3. Complete the small group discussion exercises
4. Bring the completed worksheet to conference

Modules 2-6 have the same instructions as Module 1 PLUS the following additional items:
1. A pre-test before the video based lecture
2. A post-test following the video based lecture
3. No baseline assessment

A certificate of completion will be sent to programs when fellows have successfully completed the curriculum.

Fellow Expectations
1. Completion of a quality improvement project required for program completion
   a. Progress assessed at semiannual review
2. Participation in hospital committees and root cause analyses
3. Maintain quality portfolio

Stanford Resident Safety Council

The **Stanford Resident Safety Council** (**RSC**) is an institution-wide, interdepartmental council of resident physicians engaged in high-impact quality improvement (QI) projects throughout Stanford Health Care and Stanford Medicine.

The Resident Safety Council was established with the goal of bringing resident physicians of all disciplines together to collaborate and **develop solutions to important system challenges** within a variety of different healthcare practice settings. The Resident Safety Council has received recognition at the institutional level, and has empowered residents to participate in the development of innovative solutions to the challenges of a large, complex, and well-resourced hospital system. Through the Resident Safety Council, residents are given the opportunity to work directly with hospital administration and patient-safety leadership to strive to improve health care quality for all stakeholders.

The mission of the Resident Safety Council is to **enhance patient safety through collaboration, innovation, and leadership** at the resident level. Leadership within the Resident Safety Council has placed many residents on important **hospital-level committees**, so that the voice of the residents may be heard institution-wide. This serves the dual purpose of providing administrators with insight from the resident physicians who provide much of the patient care and exposing residents to the administrative aspects of healthcare delivery. This has already resulted in improved recognition of resident challenges at the institution level, and will only continue to grow.

We are very proud of the Stanford Resident Safety Council and are actively seeking out motivated, inspired individuals to help enhance of patient safety through quality improvement in a very meaningful way.

Please do not hesitate to contact the leadership of the Resident Safety Council at any time if you have any questions, or if you have projects or committees that seek resident involvement.

QUALITY IMPROVEMENT PROJECT – GOALS, OBJECTIVES

QUALITY IMPROVEMENT PROJECT– FELLOW 1,2,3		COMPETENCY
Goal	To develop familiarity with and skills necessary to improve quality and performance in clinical, administrative, research and teaching areas.	
Objectives	Participate in didactic education on the quality improvement process – F1,2,3	SBP
	Identify a critical issue requiring improvement – F1	SBP, PBLI
	Analyze the root causes of the critical issue – F1	SBP, PBLI
	Develop and plan to correct the critical issue in conjunction with all parties involved – F2	SBP, PBLI, P
	Implement the plan – F2	SBP, PBLI
	Analyze the impact of the plan – F3	SBP, PBLI
	Modify the plan to correct ongoing issues – F3	SBP. PBLI

MK – Medical Knowledge
PC - Patient Care
PROF - Professionalism
PBL - Practice Based Learning and Improvement
ISC - Interpersonal Skills and Communication
SBP - Systems Based Practice

Development of quality and performance improvement skills is an important aspect of fellows' education. Each fellow is expected to complete a Quality Improvement Project. QI projects may target any area of the clinical and administrative functioning of the PEM, research-related activities, as well as education of fellows, residents and medical students.

The steps to completion of a successful QI project involve the following **PDSA** cycle: (PLAN, DO, STUDY, ACT). There are many techniques to improve patient care and safety and many are adopted from business models. In addition to PDSA you will here the terms 6 sigma, root cause analysis and rapid improvement events used at Stanford.

PLAN

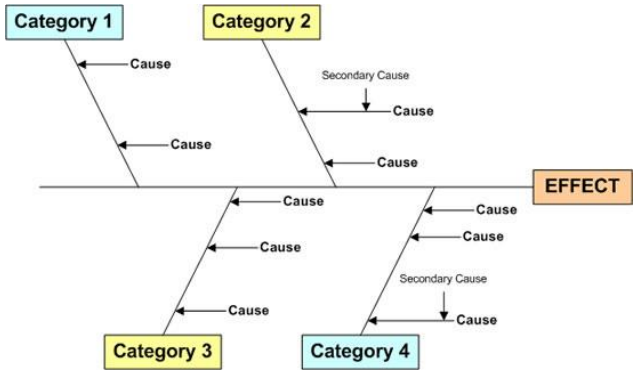
Identification of an area of deficiency or suboptimal level of functioning or opportunities for change. This step aims at identifying a problem that would benefit the most from improvement (i.e. would offer most return for the input effort). When looking for an area needing intervention and improvement, it is useful to consider the following principles:

Pareto principle – most quality problems result from small number of causes.
80/20 rule – 80% of the problem is caused by 20% of the causes.

Pareto diagram puts data into a hierarchical order, which allows the most significant causes to be corrected first. To create a Pareto diagram, the operator collects data, groups the categories in order of frequency, and creates a bar graph based on results.

Analysis of the current state or functioning
Study and define the problem
Brainstorm for causes and corrective action
Determine best approach and possible corrective action

Cause and effect diagram – describes the cause and effect relationship between variables. At the beginning of the project, it can be used for brainstorming among the group members to identify the specific roots of the problem (Limitation - it doesn't take into account the interaction between the variables).



Develop an implementation plan for a change or reorganization leading to improvement. A priori determined measures to monitor the level of improvement should be established.

DO

Carry out of the plan intended for improvement.

Implement corrective actions
Document procedures and observations
Use **data collection** tools

STUDY

Check the results - was there an improvement, and if not, why, what went wrong? This is a critical step in the QI project. After implementation of the plan for a short time (pilot), it should be determined if the plan is meeting the intended goals and how well it is working.

Analyze data. **Monitor** trends using the predetermined measures for improvement – run charts. Run charts are a method to display serial data points over period of time. Visual display will help to see measurements and demonstrate trends of the entire process.

Compare obtained data against the expected results

ACT

During this stage, it should be determined if the results of intended change are positive, negative or suboptimal

Adopt the change if positive results, abandon if negative, or run through the cycle again after appropriate adjustment of the plan. **Cause and effect diagram** are useful again at the end of the project as a reporting tool.

If the results are suboptimal but encouraging, then the plan should be adjusted and retested and the next PDCA cycle should be initiated.

If the project is consuming too much time, too much effort, it is difficult to adhere to or led to no improvement, then it may be reasonable to abort the project.

If the project leads to desired improvement or outcome, consideration should be made into implementing the change permanently, or expanding to other areas, or slightly increasing the complexity of the project. This should lead to the next PDSA cycle and can be the beginning of the ramp of improvement.

Suggested resources:
The institute for Healthcare Improvement – Online modules
http://www.ihi.org/education/webtraining/Pages/default.aspx

Dartmouth - Simple document on the basics of performance improvement
http://www.dartmouth.edu/~ogehome/CQI/PDCA.html

Vanderbilt University - online QI course with excellent reference
http://www.mc.vanderbilt.edu/root/vumc.php?site=qicourse&doc=11540

POLICIES

Advancement (Fellowship)
Case Log and Procedures (Fellowship)
Concerns and Complaints (GME and Fellowship)
Corrective Action – Disciplinary Action (GME)
Disaster (GME)
Duty Hours (Fellowship)
Fatigue Mitigation (GME and Fellowship)
Impairment (GME)
Moonlighting (Fellowship)
On Call (Fellowship)
Out Elective (GME)
Professionalism (GME)
Recruitment and Selection (Fellowship)
Supervision, Scope of Practice, Escalation (Fellowship)
Term and Conditions of Employment (GME)
Time Off and Leave of Absence Policy (Fellowship)
Transitions of Care (GME and Fellowship)
Book and Conference Fund (GME)
Patient Safety, Quality Improvement Experience and Curriculum (Fellowship)
Education and Scholarly Activities– Fellows (Fellowship)
Education and Scholarly Activities – Faculty (Fellowship)

ADVANCEMENT POLICY

Fellows are promoted after each academic year of training based on an assessment and evaluation of progress in completing the goals and objectives of each aspect of the program curriculum and meeting level of training appropriate milestones. The fellowship director will evaluate each fellow for clinical and professional competence in accordance with the standards set forth by the American Board of Pediatrics (ABP). The components of clinical and professional competence defined by the ABP include clinical judgment, clinical skills, humanistic qualities, professional attitudes and conduct, and moral and ethical behavior.

DEMONSTRATED COMPETENCE IN CLINICAL ACTIVITIES

1. Rotation coordinator evaluations of clinical rotation performance
2. Pediatric emergency medicine faculty evaluation of PEM/PECC performance
3. Performance on in-service examinations
4. Demonstration of procedural competency
5. Participation at academic conferences
6. Attendance at mandatory conferences

DEMONSTRATED COMPETENCE IN TEACHING ACTIVITIES

1. One on one clinical teaching in PEM/PECC
2. Small group instruction - Peds and EM conferences, PALS, Simulation cases
3. Lectures - PEM conference, Pediatric and EM lectures
4. Curriculum development for PEM conferences (Fellow 2)
5. Development and distribution of educational materials (Stanford Pediatric Emergency Medicine Handbook, lectures)
6. Participation in the LPCH Academic Fellows Lecture Series
7. Participation in the Making Evidence Based Simple Course
8. Participation in the Stanford School of Medicine Medical Education Noon Series

DEMONSTRATED COMPETENCE IN RESEARCH ACTIVITIES

1. Progress toward completion of a scholarly activity project that fulfills the criteria for scholarly activity.
2. Participation in fellows research design, biostatistics and critical appraisal of the literature course
3. Participation in fellow research meetings
4. Participation in journal clubs that demonstrate facility with an evidence based approach to appraisal of the literature
5. Development and distribution of article reviews (PEM NUGGETs)

DEMONSTRATED COMPETENCE IN ADMINISTRATIVE ROLES

1. Ability to manage the administrative responsibilities as the supervisor of the Pediatric Emergency Service
2. Participation in administrative discussions and design and implementation of administrative policies.
3. Completion of a quality improvement project

ADHERENCE TO THE STANDARDS AND PRINCIPLES OF PROFESSIONAL AND ETHICAL BEHAVIOR

COMPLIANCE WITH RULES, REGULATIONS AND POLICIES OF STANFORD HEALTHCARE and STANFORD SCHOOL OF MEDICINE

CASE LOG POLICY & PROCEDURE

See Clinical Curriculum – Procedural Skills for a description of the required procedures, the process for logging procedures in new innovations and the bedside ultrasound curriculum.

Resident Reporting & Responsibilities

Resident Reporting Procedures

The faculty of the Stanford University School of Medicine is responsible for the specific content and conduct of the house staff education and training program. You will report through your Chief Resident to the Director of the Residency Training Program for your program in all matters involving education, training, professional care and patient management.

The faculty is responsible for resident supervision. Medical staff concerns over resident competency in performing procedures or writing orders should be addressed with the attending faculty member of the service involved.

Stanford Health Care, through the Chief Medical Officer and its Department of Graduate Medical Education, is responsible for the administrative aspects of the educational programs. These include: pay, personnel benefits, legal matters, privileges, procedures concerned with admission and discharge of patients, medical records, consents for treatment, use of pharmacy, laboratories, x-ray and similar matters.

The house staff training programs are accredited by the Accreditation Council for Graduate Medical Education (ACGME).

Resident Responsibilities

The Hospital supports the delineation of resident responsibilities as outlined in the Essentials of Accredited Residencies in Graduate Medical Education, which appear below:

Residents are expected to:

Develop a personal program of self-study and professional growth with guidance from the faculty.

1. Participate in safe, effective and compassionate patient care under supervision, commensurate with their level of advancement and responsibility.

2. Participate fully in the educational and scholarly activities of their program and assume responsibility for teaching and supervising other residents and students.

3. Participate in institutional programs and activities involving the medical staff and adhere to established practices, procedures, and policies of the institutions.

4. Participate in institutional committees and councils, especially those that relate to patient care activities.

5. Develop an understanding of ethical, socioeconomic, and medical/legal issues that affect graduate medical education and of how to apply cost containment measures in the provision of patient care.

7. Cooperate with any reporting requirements in connection with the national practitioner data bank and applicable state and federal requests for information pertaining to Stanford Health Care and its affiliates.
8. Comply with the ethical standards of the American Medical Association.

9. Participate in risk management, compliance and quality assurance/improvement activities.

10. Participate in evaluation of the quality of education provided by the program.

Residents should be aware that federal and state agencies, either directly or through affiliates of STANFORD HEALTH CARE, may require information concerning residents (such as social security numbers, dates of hire, training participation dates, and other such data) be provided to the requesting agency or other government unit. STANFORD HEALTH CARE will comply with such requests and may also provide this information to an affiliate who requires such information. Residents are expected to comply with such reporting requests if they are directed to the resident.

There may be additional responsibilities and expectations of resident physicians specific to the service to which they are assigned. Job descriptions may be found on the Medical Staff Office (MSO) database.

Compliance Integrity Program

As an organization, we are committed to honest and ethical behavior, and to conducting our business with integrity. The practice of behaving honestly, ethically and with integrity is an individual responsibility. We make decisions about how to conduct ourselves every day as we go about our work. Each of us is accountable for the actions that we decide to take.

The Stanford Children's Health and Stanford Health Care *Code of Conduct* is the keystone of its corporate integrity philosophy and communicates its ethical business standards. The *Code of Conduct* serves as a cultural compass for staff, management, vendors, volunteers and others who interact with the hospitals. It is an essential element of our Compliance Integrity Program. The Compliance Department was created to oversee our Compliance Integrity Program and to demonstrate our commitment to conducting our business with integrity. The Compliance Integrity Program is a partnership among all of us to make the right business choices. At Stanford Children's Health and Stanford Health Care, we are each guardians of our reputation for ethical business practices and our standing as a leader in the academic medical center community. We are committed to delivering the highest quality patient care in compliance with our *Code of Conduct.*

The standards set forth in our *Code of Conduct* apply to Stanford Children's Health and Stanford Health Care staff, faculty, health care professionals with hospital privileges, trainees, agents, officers, directors, volunteers, representatives, contractors, vendors and any other person or organization engaged to provide products or services. The *Code of Conduct* standards require us to follow all applicable laws, rules, regulations and hospital policies as related to the scope of our duties and responsibilities for Stanford Children's Health and Stanford Health Care, and to maintain an educational, health care and business environment that is committed to integrity and ethical conduct.

Our *Code of Conduct* standards are mandatory and must be followed. Anyone who violates laws, policies or our *Code of Conduct* may be disciplined, up to and including termination. Our *Code of Conduct* is an evolving document that will be updated periodically to respond to changing conditions and to reflect changes in law.

Our *Code of Conduct* is not intended to cover every situation that may be encountered. We must comply with all applicable laws, regulations and our policies whether or not specifically addressed in our *Code of Conduct.* In some cases, a subject discussed in our *Code of Conduct* involves such complexity that additional guidance may be needed. In these cases, you should consult with your manager or the Compliance Department for additional guidance.

Duty to Report and Cooperate with Investigations

Our *Code of Conduct* is to be used as a guide if you are confronted with a situation that raises questions about ethical business conduct. If you think a law, policy or our *Code of Conduct* is not being followed, you must report it to our Compliance Department. You should also report it to your supervisor and the Office of Graduate Medical Education. If you feel uneasy talking to your supervisor, voice your concern to the next supervisory level, up to and including the highest level of management. Stanford Children's Health and Stanford Health Care encourage open and honest discussion of issues with management. We are committed to providing an environment that allows reporting in good faith without fear of retaliation.

It is very important, as well as required, that you immediately report perceived violations of compliance law, policy or our *Code of Conduct* to the Compliance Department. Failure to report to the Compliance Department may result in disciplinary action, up to and including termination. Our Compliance Department will evaluate all reports promptly, completely and fairly. You can report compliance concerns to the Compliance Department in one of the following ways:

- Contact the Compliance Department directly by calling: (650) 724-2572;
- Email your concern to ComplianceOfficer@stanfordhealthcare.org, or PrivacyOfficer@stanfordhealthcare.org,
- Fax your concern to: (650) 723-3628; or
- Call the Compliance and Privacy 24 hour Hotline at 800-216-1784, including making anonymous reports.

If you report a compliance concern, be sure to include information that our Compliance Department will need to follow up, such as the location where your concern occurred or is occurring (for example, the hospital name and department), the date or dates of any incident, the names and job roles of individuals involved in the concern, a description of your concern and your name if you are comfortable letting us know. If you are not comfortable leaving your name, you may make an anonymous report by calling the Hotline number above.

Anyone making such a report is assured that it will be treated as confidential and will be shared with others only on a need-to-know basis. The findings of a compliance investigation are confidential to protect all involved in the investigation process. As a result, details and specific findings of a compliance investigation will be shared only on a need-to-know basis. The Chief Compliance Officer ensures that all reports will be thoroughly and fairly investigated and that appropriate action will be taken.

No adverse actions will be taken against someone for making a report in good faith or for cooperating with a compliance investigation in good faith. Stanford Children's Health and Stanford Health Care have a policy that protects against retaliation or retribution for reporting a compliance concern in good faith or cooperating with a compliance investigation with good intentions. The non-retaliation policy ensures that no one is penalized for reporting what is honestly believed to be a compliance problem or for honestly participating in a compliance investigation. However, if someone purposely falsifies or misrepresents a report or makes false statements during an investigation, that person will not be protected under the non-retaliation policy. False accusations or statements made in a report or during an investigation, including those made with the intent of harming or retaliating against another person, may result in disciplinary action, up to and including termination. Although we have a policy that does not permit retaliation for reporting or cooperating in good faith, it is important to understand that no policy can protect you from applicable consequences if you have broken the law or violated our policies. Breaking the law or violating

our policies may result in disciplinary action, up to and including termination, as well as possible state and federal actions and penalties.

STANFORD CHILDREN'S HEALTH and STANFORD HEALTH CARE are committed to correcting wrongdoing, whether intentional or inadvertent, wherever it may occur in the organization, and to cooperating fully with government investigations. State and federal patient privacy laws include serious consequences for failing to protect patient privacy, including potential fines for STANFORD CHILDREN'S HEALTH/STANFORD HEALTH CARE and for you as an individual, imprisonment, and loss of your professional license. Patients have the right to assert legal claims against both STANFORD CHILDREN'S HEALTH/STANFORD HEALTH CARE and you personally. The State of California and federal authorities aggressively investigate and enforce privacy and security laws against healthcare institutions and individuals when a compromise to patient information occurs, whether due to intentional wrongdoing or simply a mistake. Additionally, violating STANFORD CHILDREN'S HEALTH/STANFORD HEALTH CARE privacy policies can lead to disciplinary actions, up to and including termination.

Information that is protected under the law is often referred to as Protected Health Information (PHI) and applies to both living and deceased patients. PHI is defined as individually identifiable health information that relates to a patient's past, present or future physical or mental health or condition, the provision of health care to a patient, or the past, present, or future payment for health care provided to a patient. You should assume that all information that you access, use or disclose – in any form, verbal, electronic or physical – about patients or their relatives is subject to the law and must be safeguarded. At a minimum, the following information about a patient or a patient's relatives, employers or household members is considered PHI and must be protected:

• Names;
• Social Security Numbers;
• Telephone numbers;
• Addresses, including ZIP Codes, and all geographic subdivisions smaller than a State;
• All elements of dates (except year), including birth date, admission date, discharge date, date of death; and all ages over 89;
• Fax numbers;
• Electronic mail (e-mail) addresses;
• Medical record numbers;
• Health plan beneficiary numbers;
• Account numbers;
• Certificate/license numbers;
• Vehicle identifiers and serial numbers, including license plate numbers;
• Device identifiers and serial numbers;
• Web Universal Resource Locators (URLs);
• Internet Protocol (IP) addresses;
• Biometric Identifiers, including finger and voice prints;
• Full face photographic images and any comparable images; and
• *Any other unique identifying number, characteristic or col*

All house staff are expected to strictly comply with all policies of STANFORD CHILDREN'S HEALTH and STANFORD HEALTH CARE, including privacy and compliance policies and procedures. House staff must be especially careful to adhere to the following patient privacy practices.

Patient Privacy Practices You are Required to Follow Include:

DO NOT save patient information to non-hospital approved locations or devices. For example, do not store or transport patient data on unencrypted laptops, flash drives, smartphones, or other mobile media. No saves to the desktop or c: drive.

DO NOT use personal cloud storage accounts on any external vendor site, including Box, Dropbox, iCloud, Google Docs/Drive, Egnyte, Gmail, Amazon Web Service or Microsoft SkyDrive or other consumer Internet document, mail and storage solutions for transferring and storing patient information. Only use Stanford approved and provided cloud vendors.

DO NOT take photographs for upload to Epic unless performed within the Epic mobile applications (Haiku or Canto) using an encrypted device.

DO NOT use your personal email account, e.g., Gmail, Hotmail, Yahoo for sending or receiving patient information; do not forward your work email to your personal email account.

DO NOT share or disclose your user ID or password.

DO NOT leave patient information or devices containing patient information in a car, a car trunk, an unlocked room, or any other area unattended (not even for a few minutes).

DO NOT access patient medical records if you do not have a legitimate job related need to access the information.

DO use only hospital networks, shared drives, team sites and hospital approved devices and encrypted solutions for saving patient information.

DO use your "stanford.edu" email account for sending or receiving patient information. You must place "Secure:" in the subject line before sending emails with patient information, and the email must only be sent for legitimate business purposes. Do not put patient information in the subject line of the email.

DO log off your computer workstations when you step away.

DO use strong passwords i.e., eight (8) digits minimum, a combination of letters, numbers, and symbols.

DO abide by the minimum necessary standard e.g., de-identify information whenever possible. De-identifying information means removing all the patient identifiers in the list above.

DO report loss or suspected theft of a mobile device (laptop, tablet, smartphone), desktop, or media (CD, thumb drive, etc.) immediately.

There are a number of information sources to assist house staff in identifying and protecting PHI. One is the online Compliance Manual which is accessible from the STANFORD CHILDREN'S HEALTH/STANFORD HEALTH CARE intranet where you can access STANFORD CHILDREN'S HEALTH and STANFORD HEALTH CARE policies and procedures:

(http://portal.stanfordmed.org/depts/ComplianceDepartment/pages/compliancePolicyManual.aspx). In addition, house staff are required to complete Health Insurance Portability and Accountability Act (HIPAA) training, which is available on-line through the internet at:

http://healthstream.com/hlc/stanford.

Other STANFORD HEALTH CARE/STANFORD CHILDREN'S HEALTH Resources

• Chief Compliance Officer: Diane Meyer (STANFORD CHILDREN'S HEALTH/STANFORD HEALTH CARE) (650) 724-2572 or dmeyer@stanfordhealthcare.org

• IT Security Officer: Michael Mucha (STANFORD HEALTH CARE) (650) 796-7462 or mmucha@stanfordhealthcare.org

• IT Security Officer: Auston Davis (STANFORD CHILDREN'S HEALTH) (650) 736-4616 or Audavis@stanfordchildrens.org

• Compliance and Privacy 24 hour Hotline: (800) 216-1784

• Email inquiries: PrivacyOfficer@stanfordmed.org

Performance Evaluation

These policies are generally applicable to all house staff training programs. However, since house staff training programs vary from one department or division to another, some programs may wish to add additional policies of their own.

Recommendation of Residency Review Committee:

1. Recommendation of Residency Review Committee:

As part of the educational mission of Stanford Health Care residency training programs, each resident's professional qualifications must be periodically evaluated by his or her department. Residents should be made aware of the results of these evaluations. The following policies are intended to assist the resident and the department or division in the evaluation process.

2. Evaluation Procedures:

Each department shall adopt procedures which provide for regular and timely evaluation and regular verbal and written notification of the evaluation to each resident regarding performance. During the residency, evaluation results should be personally presented to the residents no less than every six (6) months. A resident whose performance is less than satisfactory should be notified of the conclusion promptly after such determination is made.

An evaluation file should be maintained for each resident. Information in this file shall be accessible to the resident. Supervisory faculty should use MedHub to electronically submit evaluations of each resident after each rotation, but not less frequently than quarterly during the Post Graduate Year (PGY) I year or semiannually above the PGY I level. The program director should review each resident's file on a routine basis. If a resident disagrees with statements in an evaluation in the file, the resident has a right to submit a written response which shall become a part of the file. Residents will participate in evaluation of the faculty and the training program.

3. Consequences of Satisfactory or Unsatisfactory Evaluation:

Upon receipt of satisfactory evaluations and compliance with all other terms of the house staff Policies and Procedures, each resident should expect to continue to the level of training agreed upon when the resident was recruited, unless given four (4) month notice (if possible) from the department that advancement to the next level of training is not to take place at the anticipated time. Reasons for lack of advancement must be given to the resident both verbally and by written notification. While advance written notice is preferable, an unsatisfactory evaluation may result in a decision adversely affecting the resident at any time and without advance notice, such as probation, non-advancement, non-renewal or immediate termination. In such instance, the resident shall be informed of the reasons for that decision both verbally and by written notification by the program director. The program director of any service to which the house staff officer will rotate may be notified of the existence of any current probation or other performance-related issue of which the resident has been apprised.

Unless circumstances warrant immediate termination, residents will typically have an opportunity to remediate unsatisfactory performance. Corrective actions can include: (1) repeating one or more rotations; (2) participation in a special remedial program; (3) academic probation; (4) termination. With

respect to academic probation, the program will determine the length of the probationary period, and what the resident must accomplish to be removed from the probation. In general, the probationary period will not extend past the end of the current agreement year, unless the agreement ends within three (3) months, in which case the program has the option of extending the probationary period into the next agreement year, but the extension shall not exceed three (3) months. Any house staff officer agreement that has been issued by a program for a subsequent training year will be considered invalid and withdrawn until the resident has fulfilled the probationary requirements imposed in the current training year and successfully been removed for probation. At the time the house staff officer completes a period of probation, the program has the following options: (1) allow the resident to complete the remainder of the training year, (2) reappoint the house staff officer for the next year, where applicable, (3) not reappoint for the next year, (4) immediately terminate the resident's contract for the current training year.

If a resident disagrees with an evaluation or an adverse decision based on the evaluation, the resident shall have a right to meet with the cognizant program director or committee making the decision, to hear the reasons for the decision, and to respond to them verbally or in writing. If after such meeting the resident wishes to appeal the adverse decision, the resident may do so through the mechanism for resolution of disputes outlined below. Residents may not appeal a negative performance evaluation, beyond discussions with the cognizant program director or committee, unless the negative evaluation **also** results in some adverse action such as academic probation or the imposition of a remediation program which may be appealed to Level 2 only.

Except in cases involving termination, the resident may at the discretion of the program director in consultation with the Chief Medical Officer be permitted to continue in the residency program pending such appeal. If the resident is permitted to continue in the program, the resident may be assigned to a non-patient care rotation, unpaid leave or observation status.

Resolution of Disputes

The procedures set forth below are designed to provide both house staff officers and Stanford Hospital

& Clinics with an orderly means of resolving differences which may arise between them. It is the desire of Stanford Health Care that all disputes or other matters of concern to the house staff be fully considered by medical professionals charged with the responsibility for achieving inter-professional resolution of disputes wherever possible.

I. **Informal Discussions**

The interests of Stanford Medicine and members of its house staff are best served when problems are resolved as part of regular communications between the house staff officer and the appropriate Department Chair or Division Chief. House staff officers are also encouraged to utilize other resources available to aid them in addressing difficulties. The Department of Graduate Medical Education and the Office of the Ombudsperson, Stanford University School of Medicine, may provide useful guidance.

If informal discussion is not successful in resolving disputes the following procedures may be followed to appeal adverse decisions other than negative evaluations. The procedures described are available to all house staff officers.

II. **House Staff Dispute Resolution Procedures**

A. Applicability

A house staff officer may use these procedures when it is believed an unfair or improper adverse action has occurred, provided that the action complained of involves a claim of a violation of a Hospital or Department policy which has had a direct and adverse effect upon the house staff officer.

The procedures are not applicable to claims that Stanford Health Care or School of Medicine department policy is inadvisable or unfair generally. House staff suggestions for change of such general rules or policies may be submitted to the Department of Graduate Medical Education.

B. Dispute Resolution Levels

Level 1 – Discussion with Department Head or Division Chief

House staff officers who feel that they have been improperly subjected to an adverse action and who have been unable to resolve the problem through informal discussion shall submit the matter in writing to the appropriate Department Head or Division Chief for consideration within fifteen (15) days2 of the occurrence of the action identifying the matter as a formal dispute. The Department Head or Division Chief consulted will respond in writing to the claim by the house staff officer within fifteen (15) days.

Level 2 – Review by Chief Medical Officer

If the dispute is not resolved by these discussions, a house staff officer who wishes to continue the matter shall file a written statement of dispute with the Chief Medical Officer.

The statement must describe the matter in dispute, previous attempts at resolution, and the action that the house staff officer requests be taken. The statement must specify a particular adverse action or inaction taken by the Hospital or School of Medicine and how that adverse action or inaction directly and adversely affects the individual house staff officer. ***TO BE COGNIZABLE UNDER THESE PROCEDURES THE STATEMENT MUST BE PRESENTED TO THE CHIEF MEDICAL OFFICER WITHIN TEN (10) WORKING DAYS AFTER THE DATE OF LEVEL 1 RESPONSE FROM CHAIR OR CHIEF.***

The Chief Medical Officer or designee shall discuss the dispute with the house staff officer and the appropriate individual or individuals in the department of division in an effort to resolve the matter. If the matter is not resolved within fifteen (15) days and involves a decision to terminate or, not to advance the house staff officer, the Chief Medical Officer will notify the house staff officer in writing that the matter has not been resolved

2 As used in this section, "days" are Monday through Friday only and exclusive of weekend days.

Level 2 – Review by Chief Medical Officer (cont'd)

and inform the house staff officer of his or her right to request review pursuant to Level 3 below. If the Chief Medical Officer or designee determines that time beyond fifteen days may be required, the house staff officer shall be notified accordingly. In no event will there be an extension of time beyond 30 additional days after receipt of the written statement of dispute from the house staff officer.

In all other disputes that remain unresolved after fifteen (15) days, including decisions to place a house staff officer on probation, the Chief Medical Officer or designee will issue a written determination regarding whether the adverse action by the Program was consistent with Policies and Procedures applicable to the house staff officer. The determination of the Chief Medical Officer or designee will be final in all such **Level 2** disputes, except those involving termination or non-advancement which are subject to review and arbitration at Level 3 and Level 4 as described below.

Level 3 – Review by House Staff Review Committee

If the dispute involves termination or non-advancement, the house staff officer may request review

by a House Staff Review Committee (HRC). The request from the house staff officer for a HRC review must be made in writing to the Chief Medical Officer within fifteen (15) days after issuance of the Level 2 notice from the Chief Medical Officer that no ***resolution*** has been reached. In the alternative, by mutual agreement, the house staff officer and Chief Medical Officer can agree to skip Level 3 and proceed to Level 4 of this procedure.

In each instance the HRC will be appointed by the Chief Medical Officer and will consist of one member of the full–time faculty, one senior resident and one member of the Graduate Medical Education Committee who shall chair the committee. No member of the committee will have been involved in any earlier review of the dispute.

A review meeting will be set by the Chair of the HRC within forty-five (45) days of the receipt of the house staff officer's request for review by HRC. At least fifteen (15) days prior to the meeting the house staff officer and HRC will be provided with a **written explanation** supporting the department or division's decision to terminate or not advance the house staff officer. The house staff office may submit a response to the written explanation to the HRC and program no later than five (5) days before the review meeting. The house staff officer will have an opportunity at the review meeting to examine the evidence against him or her and to present evidence. A stenographic record of the review meeting will be made.

The affected department or division will appoint a representative from the medical staff to present its **information** in support of its decision and to present evidence. The house staff officer may be represented at the review by a physician or surgeon licensed to practice medicine in the State of California, who preferably is a member in good standing of the medical staff at Stanford Medicine. Attorneys may not participate in the review meeting (even if the attorney is also a licensed physician or surgeon). At the discretion of the HRC chair, the meeting may be opened or closed to witnesses, and may run over the course of more than one (1) session or day.

Level 3 – Review by House Staff Review Committee

At the review meeting it will be incumbent on the department or division to initially come forward with evidence to support its decision concerning the house staff officer. Thereafter the burden will shift to the house staff officer to come forward with evidence to establish the decision was improper. The HRC will evaluate the evidence presented. The decision of the department or division will be upheld unless the HRC finds by preponderance of evidence that the action of the department or division was arbitrary or capricious.

The HRC shall reach a decision based upon the record produced at the review meeting within thirty (30) days of the final committee session. The written decision will be forwarded to the Chief Medical Officer, the affected house staff officer, and the appropriate Department Head or Division Chief. Such decision will be final unless timely appealed to arbitration at Level 4 as described below.

Level 4 – Final Binding Arbitration

Either the house staff officer or the department or division may appeal the HRC's decision to final and binding arbitration as described in the Arbitration Provision attached hereto as Appendix B. The request for arbitration must be submitted in writing to the Chief Medical Officer, within seven (7) days of issuance of the HRC decision. The decision of the arbitrator will be final.

If, because of a disaster, an adequate educational experience cannot be provided for each resident/fellow the sponsoring institution will attempt to:

1. Arrange temporary transfers to other programs/institutions until such time as the residency/fellowship program can provide an adequate educational experience for each of its residents/fellows.

2. Cooperate in and facilitate permanent transfers to other programs/institutions.
Programs/institutions will make the keep/transfer decision expeditiously so as to maximize the likelihood that each resident will complete the resident year timely.

3. Inform each transferred resident of the minimum duration of his/her temporary transfer, and continue to keep each resident informed of the minimum duration. If and when a program decides that a temporary transfer will continue to and/or through the end of a residency year, it must so inform each such transferred resident.

The Designated Institutional Official (DIO) will call or email the ACGME Institutional Review Committee Executive Director with information and/or requests for information. Similarly the program directors will contact the appropriate Review Committee Executive Director with information and/or requests for information.

Residents should call or email the appropriate Review Committee Executive Director with information and/or requests for information. Within ten (10) days after the declaration of a disaster, the DIO will contact ACGME to discuss due dates that ACGME will establish for the programs for the following:

1. To submit program reconfigurations to ACGME and
2. To inform each program's residents of resident transfer decisions.
The due dates for submission shall be no later than 30 days after the disaster unless other due dates are approved by ACGME.

I. PURPOSE:

To optimize the training environment for patient care, resident learning, and resident well-being. To accomplish this, the program director must ensure that stress and fatigue among residents are minimized and that continuity of and quality/safety of patient care and resident education are optimized. Compliance with resident duty hour requirements is an essential part of meeting these goals but is not the complete answer. The program director and supervising staff must ensure that resident education and patient and resident safety are assured at all times above and beyond focusing on the number of hours worked.

II. DUTY HOURS POLICY:

A. Definitions:

Duty hours are defined as all clinical and academic activities related to the residency program. This includes inpatient and outpatient clinical care, in-house call, short call, night float and day float, transfer of patient care, and administrative activities related to patient care such as completing medical records, ordering and reviewing lab tests, and signing verbal orders. For call from home, only the hours spent in the hospital after being called in to provide care count toward the 80-hour weekly limit.

Hours spent on activities that are required by the accreditation standards, such as membership on a hospital committee, or that are accepted practice in residency programs, such as residents' participation in interviewing residency candidates, must be included in the count of duty hours. It is not acceptable to expect residents to participate in these activities on their own hours; nor should residents be prohibited from taking part in them.

Duty hours do not include reading, studying, and academic preparation time, such as time spent away from the patient care unit preparing for presentations or journal club.

B. General Requirements:

The Pediatric Emergency Medicine Fellowship Program strictly adheres to all Stanford Hospital & Clinics House Staff Policies and Procedures, ACGME common program requirements, and RRC requirements concerning duty hours.

Institutional policies and procedures are provided to House Staff with their contract and are available on the GME website:

http://med.stanford.edu/gme/policy/

The ACGME common program requirements can be found on the following website: https://www.acgme.org/acgmeweb/Portals/0/PDFs/dh-faqs2011.pdf

The RRC requirements can be found on the following website: http://www.acgme.org/acgmeweb/portals/0/pdfs/dh_definitions.pdf

C. Specific Duty Hour Limitations:

1. Duty hours must be limited to 80 hours per week, averaged over a four-week period, inclusive of all in-house call activities and all moonlighting (internal and external).

2. Year 1 Fellows are not permitted to moonlight.

3. Residents must be scheduled for a minimum of one day free of duty every week (when averaged over four weeks). At-home call cannot be assigned on these free days.

4. Residents who have completed a 24-hour duty period may spend up to an additional four hours to ensure an appropriate, effective, and safe transition of care.
   a. Residents must not be permitted to participate in the care of new patients in any patient care setting during this four-hour period.
   b. Residents must not be assigned to outpatient clinics, including continuity clinics, during this four-hour period.
   c. Residents must not be assigned to participate in a new procedure, such as an elective scheduled surgery, during this four-hour period.
   d. Residents who have satisfactorily completed the transition of care may, at their discretion, attend an educational conference that occurs during the four hours.

5. Intermediate-level residents [YEAR 2, YEAR 3 fellows] should have 10 hours free of duty, and must have eight hours between scheduled duty periods. They must have at least 14 hours free of duty after 24 hours of in-house duty.

6. While it is desirable that residents in their final years of education [YEAR 3 Fellows] have eight hours free of duty between scheduled duty periods, there may be circumstances when these residents must stay on duty to care for their patients or return to the hospital with fewer than eight hours free of duty. Circumstances of return-to-hospital activities with fewer than eight

   hours away from the hospital by residents in their final years of education must be monitored by the program director.

7. Residents must not be scheduled for more than six consecutive nights of night float.

8. At-home call must not be so frequent or taxing as to preclude rest or reasonable personal time for each resident.

9. Residents are permitted to return to the hospital while on at-home call to care for new or established patients. Each episode of this type of care, while it must be included in the 80-hour weekly maximum, will not initiate a new "off-duty period".

D. Protocol for Remaining Beyond Scheduled Duty Period:

It is recognized that in unusual circumstances, residents may on their own initiative, choose to remain beyond schedule duty periods to provide care to a single patient. These should only occur if:

1. continuity of care is required for a severely ill or unstable patient
2. there is extreme academic importance to continuing involvement or
3. humanistic attention to the needs of a patient or family can only be achieved through continuing on duty

If a resident remains beyond scheduled duty periods to provide care, it must only be for "a single patient". The resident must appropriately hand over the care of all other patients to the team responsible for their continuing care.

The resident must document the reasons for remaining to care for the patient in question and submit that documentation through MedHub in EVERY circumstance using the "drop down" menu under "detailed description" which allows you to select the pertinent reason:

- Emergency Patient Care
- Patient/Family Needs
- Continuity of an Unstable Patient
- Clinical Educational Value (of remaining to participate)
- Academic Importance of the Event

Residents must use the text box to provide details and identify the patient.

The Program Director and the DIO will review each event of "additional service" to monitor individual resident, program wide, and institution wide episodes of additional duty as part of ongoing adherence to ACGME requirements.

E. Ensuring Compliance with Duty Hours Policy:

1. Resident Reporting: Residents are required to report their duty hours at least weekly in MedHub, and they are highly encouraged to do so more frequently (daily, if possible). If residents become concerned that they are approaching the limits of the duty hour policy and are at risk for a violation, they are required to report this information immediately to their supervising faculty members and the residency program chain of command (chief residents, associate program directors, and/or program director). The same reporting expectations apply to residents who are experiencing fatigue to a degree that may compromise patient care.

2. Monitoring: The program director, associate program director(s), or designated faculty will print a monthly composite review of duty hour reports. The composite summary report will be reviewed by the program director for violations. Any violations will be investigated and addressed individually by the program director. The GMEC will also monitor programs by asking residents to report any problems to the DIO, the Associate Dean for GME, or the Ombudsmen.

3. Program Reporting: The program director will report all information related to duty hour violations and concerns during: (1) annual program review meetings; (2) internal reviews of the program by the institution; and (3) as required by the GMEC, ACGME, and RRC.

4. Faculty Education: The faculty will be educated on the content of the "Pediatric Emergency Medicine Duty Hours Policy" annually. A copy of the policy will be provided to all faculty members annually, either in written or electronic form.

DUTY HOUR POLICY

The Pediatric Emergency Medicine Fellowship Training Program provides through its rotation schedules an appropriate balance between patient care and teaching/training programs in an environment conducive to both fellow education, wellness and patient care. This environment ensures whenever possible that undue stress and fatigue among fellows is avoided.

Duty hours are defined as all clinical and academic activities related to the program; i.e., patient care (both inpatient and outpatient), administrative duties relative to patient care, the provision for transfer of patient care, time spent in-house during call activities, and scheduled activities, such as conferences. Duty hours do not include reading and preparation time spent away from the duty site.

Residents can report non-compliance with residency work hours to the Department of Graduate Medical Education, Medical Director, of Education or ACGME. Contact Ann Dohn, Department of Graduate Medical Education at: (650) 723-5948, if you have any questions about work hours or outside commitments. (gme.stanford.edu/anon_report.html)

All residents must accurately report their work hours on a weekly basis using the MedHub system. Failure to do so may result in disciplinary action including suspension and/or termination from the residency program.

For additional information, please see the **Stanford University Medical Center, Pediatric Emergency Medicine Fellowship Program Duty Hours Policy**.

DUTY HOURS

1. Duty hours must be limited to 80 hours per week, averaged over a four-week period, inclusive of all in-house call activities.
2. Residents must be provided with one day in seven free from all educational and clinical responsibilities, averaged over a four-week period, inclusive of call.
3. Adequate time for rest and personal activities must be provided. This should consist of a 10-hour time period provided between all daily duty periods and after in-house call.

ON-CALL ACTIVITIES

1. In-house call must occur no more frequently than every third night, averaged over a four-week period.
2. Continuous on-site duty, including in-house call, must not exceed 24 consecutive hours. Residents may remain on duty for up to six additional hours to participate in didactic activities, transfer care of patients, conduct outpatient clinics, and maintain continuity of medical and surgical care.
3. No new patients may be accepted after 24 hours of continuous duty.

AT-HOME CALL (OR PAGER CALL)

1. The frequency of at-home call is not subject to the every-third-night, or 24+6 limitation. However at-home call must not be so frequent as to preclude rest and reasonable personal time for each resident.
2. Residents taking at-home call must be provided with one day in seven completely free from all educational and clinical responsibilities, averaged over a four-week period.

3. When residents are called into the hospital from home, the hours residents spend in-house are counted toward the 80- hour limit.

MOONLIGHTING (see also moonlighting policy)

1. Moonlighting must not interfere with the ability of the resident to achieve the goals and objectives of the educational program.
2. Moonlighting must be considered part of the 80-hour weekly limit on duty hours.

Monitoring of compliance with duty hour limitations will be conducted by the program director. Work schedules including moonlighting hours will be compiled on a monthly basis in Shiftgen.

Fellows exceeding duty hours should contact the program director immediately. Fellows exceeding duty hours, experiencing fatigue or illness will be relived of clinical responsibilities. The program director will arrange for alternative coverage.

DUTY HOURS - ROTATION GUIDELINES

PEM - The Pediatric Emergency Medicine fellows participate with the faculty in covering the Pediatric Emergency Service schedule for twenty-four hours a day, seven days a week. The number of hours the fellow is required to work in the Pediatric Emergency Service varies with the rotation that the fellow is performing. During the 3-5 months per year, dedicated solely to the Pediatric Emergency Service the fellow completes approximately forty hours per week. The trainee performs a variety of day, evening and overnight shifts, with a maximum of four weekend shifts per month. This allows for on average minimum of four weekend days without any responsibility to the program, a minimum of one day in seven away from program duties and less than 80 hours per week.

PICU - While participating in PICU rotations, the fellow takes call with the respective service on an average of every fourth night. The PICU rotation is divided into two-week blocks and during the other two weeks of that month, the fellow will do shifts in the PEM.

Other rotations - During all other rotations the trainee does not have specific call responsibility. They perform a maximum of twenty hours per week in the Pediatric Emergency Service; not to exceed five weekend shifts per month.

FATIGUE AND SLEEP DEPRIVATION

Faculty and fellows must be educated to recognize the signs of fatigue and sleep deprivation and must adopt and apply policies to prevent and counteract its potential negative effects on patient care and learning. If a fellow feels that they cannot safely conduct their duties due to fatigue or any other reason they should notify the fellowship director immediately to arrange for appropriate coverage of their clinical responsibilities.

A learning module is available the Stanford GME develop to aid in achieving the goal of recognizing signs of fatigue and sleep deprivation. The learning module is part of the Learning to Address Impairment and Fatigue to Enhance Patient Safety (LIFE) Curriculum is a collaborative effort of Duke University Hospital, the UNC Hospitals, the NC AHEC, and the NC Physician's Health Program to assist graduate medical education programs, their residents, and faculty to prevent, identify, and manage resident fatigue and impairment. The project is funded in part by a grant from the Josiah Macy, Jr. Foundation.

There are eight modules in the LIFE curriculum, Each of the LIFE modules is designed to support a video segment that illustrates an important impairment (fatigue, stress and depression etc). In the initial dramatization, the faculty or fellow resident displays a less-than-ideal response. One or more experts addresses the specific issues that should be considered in such situations. A second dramatization demonstrates how one might approach the illustrated problem in a more constructive manner. The solutions subsequently presented—and the resources identified—while certainly not all-inclusive, are meant to enhance your ability to manage problems effectively. Representative policies and procedures are also offered for you to adapt for your own.

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It is imperative that house staff in a position of responsibility, whether this is for patient care or other areas, should not have their performance impaired by drugs, alcohol or other circumstances. For those who recognize that they have such a problem or feel they may be developing a problem or need advice concerning substance abuse, there is a Physician Support Panel which functions on a confidential basis. Members are knowledgeable about the subject and act as physician advocates, offering advice on sources of treatment and other aspects. The 2016-2017 Chairman is Dr. William Berquist. Stanford Health Care views this issue with the utmost seriousness, and it is the policy of the institution to ensure that a chemically impaired physician be enrolled in an effective program of therapy. Every reasonable encouragement and support is given for this purpose. **Residents are prohibited from being impaired or under the influence of illegal drugs or alcohol while on duty.**

Access to Treatment

For access to treatment house staff have the following options:

• Dr. Berquist, Chairman of the Physicians Support Panel at Stanford Medicine: (650) 498-5603

• The House Staff Well Being Committee: Dr. Janet Spraggins, (650) 346-3241

• Optum (866) 374-6060, PRESS 8, if clinical emergency; Does not include Kaiser HMO Plan participants

• Ann Dohn, Director, Department of Graduate Medical Education: (650) 723-5948

• Health Connect: Mickey Trockel, M.D., (650) 724-1395

• The Stanford University Help Center: (650) 723-4577. In addition to the Faculty Staff Help Center, you may also use the ValueOptions EAP - which has the same benefit of ten (10) free and confidential sessions. They can be reached at: (855) 281-1601.

MOONLIGHTING POLICY

Fellowship training is a full-time responsibility. It encompasses the formal curriculum, individual learning opportunity through independent study, and clinical exposure including the service component of patient care. It is Stanford GME institutional policy that the program director must be informed and approve of activities outside the educational program. Written permission for moonlighting must be obtained by the fellow from his/her program director with official notification of the GME office of the moonlighting activity. Outside activities must not interfere with the resident's performance in the educational process defined in the agreement between the institution and the resident.

Residents are not required to engage in "moonlighting." All residents engaged in external moonlighting must be licensed for unsupervised medical practice in California or the state in which the moonlighting occurs. Stanford's malpractice insurance will not cover residents for moonlighting activities. Residents must obtain written acknowledgement that the program director is aware and approves of any moonlighting activities before any moonlighting activity is undertaken. A copy of the written acknowledgement will be kept in the resident's file. The program director has the discretion to decline to approve moonlighting activities if he/she believes that such activities will interfere with the resident's training progress or for other legitimate reasons. All external moonlighting must be logged into MedHub as duty hours.

Internal moonlighting (within SHC/LPCH) by an ACGME trainee is not allowed per institutional policy (http://med.stanford.edu/gme/policy/).

GUIDELINES FOR EXTERNAL MOONLIGHTING

External moonlighting (outside of SHC/LPCH) by an ACGME trainee is permitted with the following restrictions and requirements:

1. All moonlighting activities must obtain written approval by the program director prior to initiation.
2. Fellows are required to submit proposed moonlighting hours on a monthly basis.
3. Moonlighting should not interfere with the fellow's ability to complete essential tasks including: participating in clinical responsibilities (required clinical rotations and electives), attendance at recommended and mandatory conferences and completion of teaching, research and administrative tasks. Fellows' performance will be monitored for the effect on these activities and adverse effects may lead to withdrawal of permission to moonlight.
4. Moonlighting may ***not*** takeplace:
    i. From Monday to Friday from 8:00am - 5pm
    ii. On any overnight shift from Sunday to Thursday
5. Moonlighting activities must adhere to the ACGME regulations for resident physician workhour.

The maximum number of clinical hours per week is 80. This number includes moonlighting as

well conference time.

a. Clinical shifts may not exceed 12 consecutive hours in the emergency department
b. There must be a minimum of 10 hours between clinical shifts
c. There must be at least one full 24hr day off per week.
d. A moonlighting schedule must be submitted to the fellowship directors monthly.
e. Moonlighting cannot result in greater than >30hour continuous clinical work.

6. Please refer to these guidelines when scheduling moonlighting activities. Noncompliance will result in suspension of moonlighting privileges.
7. In the event that moonlighting is determined to be compromising patient care or interfering with the goals of the training program, this fact is immediately brought to the attention of the involved trainee and remedied.
8. The trainee should be aware that any moonlighting activity is beyond the scope of the Fellowship Program. The trainee is, therefore, not covered by the institution's medical malpractice insurance for such activities.

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b. Clinical shifts may not exceed 12 consecutive hours in the emergency department
c. There must be a minimum of 10 hours between clinical shifts
d. There must be at least one full 24hr day off per week.
e. A moonlighting schedule must be submitted to the fellowship directors monthly.
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Fellowship training is a full-time responsibility. It encompasses the formal curriculum, individual learning opportunity through independent study, and clinical exposure including the service component of patient care. It is STANFORD institutional policy that the program director must be informed and approve of activities outside the educational program. Written permission for moonlighting must be obtained by the fellow from his/her program director with official notification of the GME office of the moonlighting activity. Outside activities must not interfere with the resident's performance in the educational process defined in the agreement between the institution and the resident.

ON-CALL POLICY

Fellows are on call only during one rotation.

During the month of trauma, the fellow schedule is a every fourth night call system.*

If a fellow feels that they cannot safely conduct their duties due to fatigue or any other reason they should notify the fellowship director or associate director immediately to arrange for appropriate coverage of their clinical responsibilities.

The Accreditation Council for Graduate Medical Education ("ACGME") requires that Out- Electives a) be based on a clear educational rationale; b) have clearly stated learning objectives and activities; and c) provide resources not otherwise available within the Fellow's training program. In addition, Out-Electives must be of sufficient length to ensure a quality educational experience and should provide sufficient opportunity for continuity of care. Exceptions to those requirements must be justified an approved by GME office.

Out-Electives must be selected with the advice and approval of the Fellow's Stanford Director of Fellowship Training ("Director"), who will base his/her recommendation on the Fellow's academic standing and factors which include whether or not the Out- Elective:

- Is available within the Stanford Health Care System
  - Enriches, but not replaces, the Resident/Fellow's core experiences;
  - Enhances the residency experience; and
  - Provides sufficient and appropriate supervision to the Resident/Fellow.

When the Fellow's education occurs outside Stanford University, Stanford University continues to have responsibility for the quality of that educational experience and must retain authority over the Fellow's activities.

Procedure

A. **Initial Considerations -** While it is within the Director's discretion to grant initial approval for Out-Elective study to a Resident/Fellow in his/her program, under normal circumstances acceptable justification should include affirmation that the proposed training experience is *not available within Stanford University*.

B. **Additional Acceptable Justification -** The Director may, however, consider requests that:

- Provide defined educational opportunities specific to the House Staff Officer's career goals;
- Are deemed valuable to Stanford University or
- Are humanitarian in nature.

C. **Requirements.**

1. **Good Academic Standing -** A Fellow must be in good academic standing, as evidenced by his/her performance evaluations.
2. **PGY Year. -** A Fellow must be a PGY-2 or higher to be eligible for an Out- Elective.

D. **Compensation and Malpractice Insurance Coverage -** Arrangements for the Fellow's compensation and malpractice insurance coverage during the Out-Elective must be in place.

E. **Program-Specific Guidelines -** The Director will establish general Out-Elective guidelines for his/her program consistent with this *Out-Elective Policy and Procedure*.

F. **Selection of Out-Elective -** A Fellow nterested in pursuing an Out-Elective must select an area of interest and a location for such training. The Fellow then must contact the supervising attending physician at the prospective Host Institution and obtain an informal promise of commitment from him/her.

G. **Completion of the Out Elective Request Form.**

1. **Fellow's Responsibility.** The Fellow must initiate the application process at Stanford University by completing an Out-Elective Request Form, available online at the GME Website under Policies and Procedures. The appropriate form for away rotations is available in each program office or on our website (www.med.stanford.edu/gme/). *You must attach competency based goals and objectives for the away rotation as well as a completed and signed Program Letter of Agreement with the elective site.* The *Request* form must be signed and approved by the Host Institution Supervisor. The Fellow must submit the completed form to his/her Director for approval and signature.

2. **Director's Responsibility.** The Director must approve or deny the Fellow's *Request* in writing:

a. **Denial.** If the Director denies the Fellow's *Request*, the Director will return the form to the Fellow so indicating. A copy of the denied *Request* will be maintained in the Fellow's department file. The decision of the Director is final and not subject to appeal.

b. **Approval.** In cases where the Director approves the *Request*, he/she will complete the appropriate area of the form, initiate an *Out-Elective Program Letter of Agreement* (*"Agreement")*, and submit a summary statement summarizing the elective and addressing the following criteria:

- The educational value of the experience
- Unique value the experience provides

c. **Submission**. Submit all documents to the Office of GME (three months prior to the scheduled out-elective).

H. **Notification -** Once the *Request* and *Agreement* are fully executed, the Stanford Health Care GME will notify the Director and the Resident/Fellow of the final approval in writing. **All elective rotations** outside of STANFORD HEALTH CARE, STANFORD CHILDREN'S HEALTH, the Palo Alto VA Healthcare System, Kaiser Permanente, Santa Clara (KPSC), and Santa Clara Valley Medical Center (SCVMC) **must be approved by the GME Director of Stanford Health Care at least sixty (60) days prior to the start of the away rotation.** If you **fail** to obtain approval you will not be paid for any time worked on such elective rotation. Residents wishing to rotate outside of the state must obtain malpractice coverage from the institution sponsoring the elective.

I. **Recordkeeping -** Copies of the approved *Request* and *Agreement* will be sent to the House Staff Officer and maintained in the files of the GME Office of Stanford Health Care. The

original *Request* and *Agreement* will be maintained in the Resident/Fellow's department file.

J. **Evaluation -** The Director must ensure that an evaluation of the Fellow's performance is obtained from the Supervisor or his/her designee at the end of the Out- Elective. The Director or his/her designee also should meet with the Resident/Fellow at the conclusion of the Out-Elective to discuss the experience and the evaluation with him/her.

K. **Continuity Experience -** For those programs that have continuity requirements, continuity experience must receive priority over other responsibilities and may be interrupted only for vacations and outside rotations located at too great a distance to allow Resident/Fellows to return. Periods of interruption may not exceed the limits set by the Position Control Board.

PROFESSIONALISM POLICY

The fellow should develop a compassionate understanding for the stress related to the acute illness, injury or death of a child and appropriately respond to the emotional needs of the patients, their families and the staff of the emergency department.

Fellows must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.

Fellows are expected to demonstrate:

- Compassion, integrity, and respect for others;
- Responsiveness to patient needs that supersedes self- interest;
- Respect for patient privacy and autonomy;
- Accountability to patients, society and the profession;
- Sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation.

The Stanford Health Care Code of Conduct can be downloaded at the following link:

https://stanfordhealthcare.org/content/dam/SHC/about-us/code-of-conduct/docs/som-code-of-conduct-7-26-11.pdf

As an organization, Stanford Health Care is committed to honest and ethical behavior, and to conducting our business with integrity. The practice of behaving honestly, ethically and with integrity is an individual responsibility. We make decisions about how to conduct ourselves every day as we go about our work. Each of us is accountable for the actions that we decide to take.

Stanford Health Care's Code of Conduct is the keystone of its corporate integrity philosophy and communicates its ethical business standards. The Code of Conduct serves as a cultural compass for staff, management, vendors, volunteers and others who interact with the hospitals. It is an essential element of our Compliance Integrity Program. The Compliance Department was created to oversee our Compliance Integrity Program and to demonstrate our commitment to conducting our business with integrity. The Compliance Integrity Program is a partnership among all of us to make the right business choices.

The Code of Conduct is a vital part of how we achieve our mission and vision. It provides guidance to ensure that our work is accomplished in an ethical and legal manner. It emphasizes our common culture of integrity and our responsibility to operate with the highest principles and ethical business standards as we strive to care for our patients and each other with respect, honesty, compassion, teamwork and excellence.

At Stanford Health Care, we are each guardians of our reputation for ethical business practices and our standing as a leader in the academic medical center community. We are committed to delivering the highest quality patient care in compliance with our Code of Conduct.

RECRUITMENT AND SELECTION

Fellows are selected to the program on the basis of past academic performance and potential for success in the field of pediatric emergency medicine. Prior clinical, teaching, research and administrative interests and experiences are reviewed in conjunction with letters of recommendation by their residency director and faculty mentors. An interview with the division director, program director and senior fellows is arranged for qualified applicants.

This provides the applicant with an opportunity to view our clinical facilities, ask questions with regard to our educational opportunities and philosophies and express their goals and objectives for the training period and their careers.

The program adheres to the equal opportunity / affirmative action policy of the Stanford Health Care. Application to the program is through the Electronic Residency Application Service (ERAS). Applicants are accepted through the national residency-matching program and must apply directly to the NRMP to participate (www.nrmp.org).

Accepted applicants must adhere to the policies and procedures of the match and are notified directly by the NRMP and the program director. All fellows must successfully complete a residency in an ACGME accredited pediatric residency program and must be eligible to obtain an unrestricted California medical license prior to the start of their training period.

Information may be obtained from the individual School of Medicine departments to which the application is made. Completed applications should be sent directly to the residency program being considered.

Note: A reference to "Stanford" or "Stanford Medicine" usually means all three entities and their programs that make up the Stanford Medicine – the *Stanford University School of Medicine, Stanford Health Care (STANFORD HEALTH CARE),* and *Stanford Children's Health (STANFORD CHILDREN'S HEALTH).* The Stanford residency programs are formally a part of Stanford Health Care, with their substantive content and conduct provided through the clinical departments of the School of Medicine, whether in STANFORD HEALTH CARE or STANFORD CHILDREN'S HEALTH.

The term house staff refers to all Stanford residents and fellows; and may be used interchangeably with the terms resident, fellow, provider, workforce, trainee or house staff officer. All policies and procedures remain applicable to Stanford residents and fellows regardless of the term used.

RESIDENT ELIGIBILITY – RECRUITMENT

Employment by Stanford is based on merit, qualifications and competence. Employees and applicants will not be discriminated against on the basis of race, religion, color, national origin, ancestry, physical or mental disability, veteran status, medical condition, marital status, age, sex, sexual orientation, or gender identity.

Applicants with one of the following qualifications are eligible for consideration for appointment to accredited residency programs:

A. Graduates of medical schools in the United States and Canada accredited by the Liaison Committee on Medical Education (LCME).

B. Graduates of colleges of Osteopathic Medicine in the United States accredited by the American Osteopathic Association (AOA).

C. Graduates of medical schools outside the United States and Canada who meet one of the following qualifications.

(1) Have received a current valid certificate from the Educational Commission for Foreign Medical Graduates and an applicant status letter (PTAL) from the Medical Board of California confirming completion of pre-residency requirements.

(2) Have a full and unrestricted license to practice medicine in a U.S. licensing jurisdiction.

D. Graduates of medical schools outside the United States who have completed a Fifth Pathway program1 provided by an LCME-accredited medical school.

Visa Policy for Graduates of International Medical Schools

An International Medical School Graduate (IMG) is defined as a graduate of a medical school located outside of the United States. STANFORD HEALTH CARE/STANFORD CHILDREN'S HEALTH supports the use of the clinical (ECGMG sponsored) J-1 Visa for all clinical trainees. Exceptions for individuals with pending green cards or individuals unable to obtain the ECFMG J-1 Visa may be granted by a majority vote by the Graduate Medical Education Committee (GMEC).

1 A Fifth Pathway program is an academic year of supervised clinical education provided by an LCME accredited medical school to students who meet the following conditions: (1) have completed in an accredited college or university in the United States, undergraduate premedical education of the quality acceptable for matriculation in an accredited United Stated medical school, (2) have studied at a medical school outside the United States and Canada but listed in the World Health Organization Directory of Medical Schools; (3) have completed all of the formal requirements of the foreign medical school except internship and/or social service; (4) attained a score satisfactory to the sponsoring medical school on a screening examination; and (5) Steps 1 and 2 of the United States Medial Licensing Examination (USMLE). 3

Visa Policy for Graduates of International Medical Schools (cont'd)

Stanford uses J-1 visas sponsored by the Educational Commission for Foreign Medical Graduates. Please see www.ecfmg.org for more information. Please allow 120 days for the processing of a J-1 visa. Stanford does not sponsor graduates of international medical schools on H-1B visas.

National Resident Matching Program

Stanford Medicine participates in the National Resident Matching Program (NRMP) for all PGY I & II positions. The purpose of the NRMP is to match all medical students and other applicants with hospitals to obtain internships and residencies. Applicants submit a confidential list to the NRMP ranking their desired place of residency. Participating hospitals also enter a confidential list of most desired applicants. On a uniform date (mid-March) all of the applicants and hospitals are informed of the result of the match.

The NRMP sends rank order list information to the individual programs starting in July of each year. Rank order lists are entered by individual programs into the NRMP system.

Lists are subject to the approval of the Director of the Department of Graduate Medical Education.

The results of the match are delivered to program directors on the date specified by the NRMP via email. Programs are not allowed contact with successful applicants until the national announcement of the match has taken place. Programs are expected to submit a recommendation of appointment form via the Stanford web-based program for all matched PGY I applicants to the Department of Graduate Medical Education within forty-eight (48) hours of the match. The Department of Graduate Medical Education will send employment contracts to all matched House Staff within fifteen (15) working days of receiving the recommendation of appointment.

Graduates of medical school programs accredited by the LCME may participate in the match. Foreign medical school graduates who have a valid ECFMG certificate and a California applicant status letter (PTAL) may enroll as independent applicants.

Rank order lists are to remain confidential. Any agreement or contact offered by an enrolled hospital or program prior to the Match Date will be superseded by the results of the NRMP match.

Recommendation of Appointment

Recommendations of appointment for continuing residents are due in the Department of Graduate Medical Education no later than December 18th this year for the following July 1st. It is strongly suggested that departments verify home addresses with their house staff prior to completion of the forms via MedHub, our online web-based Resident Management program. All recommendations of appointments are subject to review and final approval by the Director of the Department of Graduate Medical Education.

House staff contracts are issued with a copy of House Staff Policies and Procedures attached. House Staff Policies and Procedures are part of the resident contract. All house staff are required to read the Policies and Procedures and then return the contract to the Department of Graduate Medical Education electronically. **Contracts are issued for each academic year and are limited to one (1) year duration at a time**. All residents must complete all required online training modules and provide proof of completion of training annually.

Interview Selection

While the typical successful applicant to our program has demonstrated excellence in undergraduate training and medical school, there are no hard criteria or cut-offs used in the resident selection process. The program values cultural diversity and has accepted candidates

from all parts of the United States and abroad. The program values the broad range of experiences that our residents bring to the program.

Interview Process

The applicant typically meets with the Chairman, the Residency Program Director and several members of the faculty comprising the Appointment Committee In addition applicants also meet with other residents and faculty members involved in departmental educational programs. Candidates are also taken on a tour of the facilities. Each interviewer evaluates the candidate using the following criteria:

- Grades & Honors
- USMLE scores
- Dean's letter
- Letters of reference
- Personality aspects
- Communication skills
- The interview

After all interviews are complete, the Appointment Committee meets and each application is reviewed and ranked. The Program Director then draws up the 'rank list' based on this review.

The program selects trainees among eligible applicants on the basis of training program-related criteria such as their preparedness, ability, aptitude, academic credentials, communication skills, and personal qualities such as motivation and integrity, as well as professionalism. The programs do not discriminate with regard to sex, race, age, religion, color, national origin, disability, or any other applicable legally protected status.

Before accepting a resident/fellow who has completed residency and/or fellowship training at Stanford or an outside training program, or who is transferring from another program, the program will obtain verification of previous educational experiences and a summative competency-based performance evaluation of the transferring resident.

Duration of Appointment

All residency/fellowship appointments should be for a period not to exceed one year.

Conditions for Reappointment

Resident and fellow appointments are renewable annually on the recommendation of the Program Director. A decision to reappoint will be based on the resident/fellow's performance, evaluations and his/her ability to work and learn effectively within the residency/fellowship program, as per the program's curriculum.

Non-renewal of appointment or Non-Promotion

In instances where a resident/fellow's agreement will not be renewed, or when a resident will not be promoted to the next level of training, programs must provide the resident/fellow with a written notice of intent no later than four months prior (if possible) to the end of the resident/fellow's current agreement.

Residents may appeal this determination as outlined in the House Staff Policies and Procedures (see *Resolution of Disputes*): http://med.stanford.edu/gme/policy/

LEVELS OF SUPERVISION

The ACGME common program requirements require that the program must ensure that qualified faculty provide appropriate supervision of fellows in patient care activities

Direct Supervision – the supervising physician is physically present with the fellow and patient.

Indirect Supervision with direct supervision immediately available – the supervising physician is physically within the hospital or other site of patient care, and is immediately available to provide Direct Supervision.

Indirect Supervision with direct supervision available – the supervising physician is not physically present within the hospital or other site of patient care, but is immediately available by means of telephonic and/or electronic modalities, and is available to provide Direct Supervision.

Oversight – the supervising physician is available to provide review procedures and encounters with feedback provided after care is delivered.

In addition to the Supervision Policy laid out in the Stanford GME housestaff manual (copied at the end of this document), the following are the rotation specific levels of supervision for the Stanford Pediatric Emergency Medicine Fellowship.

ROTATION SPECIFIC LEVELS OF SUPERVISION

Direct supervision occurs during the following clinical rotations: Pediatric Emergency Medicine (Fellow 3 see exception below), General Emergency Medicine, Toxicology, Anesthesiology, and Pediatric Critical Care

Direct supervision and indirect supervision with direct supervision immediate available occur during the following clinical rotation: Pediatric Emergency Medicine (Fellow 3 on Friday overnights only)

Indirect supervision with direct supervision available occurs during the EMS rotation. (Online medical control during ambulance runs)

Clinical electives include a combination of direct supervision and indirect supervision with direct supervision immediate available

PEM/EM – In the emergency department, the fellow is directly supervised by the pediatric emergency medicine and emergency medicine faculty. All clinical and administrative issues related to patient care should be discussed with the supervising attending. The supervising attending should facilitate for the fellow issues regarding triage, patient flow, disaster management and issues regarding the education of medical student and residents in the Pediatric Emergency Service. (Direct Supervision)

PEM (Fellow3): When the third fellow is the principle supervisor in the pediatric emergency service on a Friday overnight the faculty of the adjacent adult emergency service (AES Side 1 Attending) provides both Direct supervision and Indirect supervision with direct supervision immediately available.

PROCEDURES REQUIRING DIRECT SUPERVISION	
Bag-valve-mask Ventilation	Pericardiocentesis
Cricothyroidotomy	Umbilical Vessel Catheterization
Endotracheal Intubation	Arterial Catheterization
Tracheostomy Tube Replacement	Central Venous Catheterization
Rapid Sequence Intubation	Intraosseous Access
Chest Tube Placement	Vaginal Delivery
Cardiac Pacing	Arthrocentesis
Cardioversion/Defibrillation	Procedural Sedation
Supraventricular Tachycardia Conversion	Medical and Trauma Resuscitation

A pediatric emergency medicine attending is designated as backup for all Friday overnights completed by the fellows. The purpose of the backup is to have a PEM attending available to troubleshoot and provide advice and guidance, as well as administrative support during your independent shifts in case clinical or admin issues cannot be solved after consultation with the AES attending.

SUPERVISION: ESCALATION POLICY

The fellow should rapidly involve the supervising faculty in the care of patients with the following conditions.

1. A patient with an altered mental status
2. A patient requiring a definitive airway and/or positive pressure ventilation
3. A patient in shock with or without hypotension
4. Multiple patients at the same time exceeding available resources
5. Administrative issues requiring attending input such as a sentinel event

This list is provided as a guide only. Other conditions may benefit from direct faculty involvement. The fellow may seek the input of the supervising faculty for any patient related question at any time.

Anyone involved in patient care can request attending backup. This applies to our consultants as well.

TERMS AND CONDITIONS OF EMPLOYMENT

As an institution, Stanford Hospital is dedicated to the training of this nation's future leaders in the scholarly practice of clinical medicine and biomedical research.

The educational objectives of its residencies are:

1 To provide excellent clinical education

2 To provide opportunities to explore research and teaching
3 To teach the necessary skills to sustain a lifetime of learning
4 To encourage lifelong ethical and moral behavior in the practice of medicine and in the conduct of research

To assure development of effective skills in communicating with patients, colleagues, and the public, and to ensure the humane and caring practice of medicine

Please refer to the following website for the House Staff Policies and Procedures which will apply to the Pediatric Emergency Medicine Fellow: http://med.stanford.edu/gme/policy/

The family leave policy of the pediatric emergency medicine fellowship adheres to the premises of the Federal Family and Medical Leave Act of 1993 (see below). The criteria set forth by the American Board of Pediatrics (ABP) for certification must also be fulfilled. Fellows who anticipate the need for a leave of absence should contact the program director so that appropriate arrangements may be made in a timely fashion.

> " Three years of broad-based fellowship training in pediatric emergency medicine is required for fellows entering training on or after January 1, 1995. The period of training must be at least 33 months. Extended absences, whether for vacation, maternity leave, illness, etc, must be made up. If the program director believes that an extended absence of more than 3 months is justified, a letter of explanation should be sent by the director for review by the Credentials Committee." ABP

Fellows requesting more than 3 months leave may need to extend the duration of training. The Stanford Health Care GME office policy on leave of absence should be reviewed.

Family and Medical Leave Act

Family and Medical Leave is leave authorized by the federal Family and Medical Leave Act (FMLA) and the California Family Rights Act (CFRA). In most cases, FMLA and CFRA run concurrently with each other and with periods of Short-Term Disability, including leave due to work-related illness or injury. Eligible house staff are entitled to up to 12 weeks of unpaid leave for a qualifying reason during a 12-month period. The criteria for eligibility are one year of service, **and** 1250 hours during the 12 months preceding the leave and that the leave entitlement has not been used within the last year. (As discussed below, CFRA does not run concurrently with periods of Pregnancy Disability Leave.)

FMLA will not be provided beyond the end date of a fixed term appointment.

See appendix D for a more detailed description of FMLA and CFRA leave.

Reasons for Taking Leave

Unpaid FMLA/CFRA leave will be granted for any of the following reasons:

- The birth of your child, or placement for a child with you through adoption or foster care;
- To care for your spouse, domestic partner, child or parent who has a serious health condition;
- For a serious health condition that makes you unable to perform you job; or
- Leave is for a qualifying exigent circumstance relating to the active duty or deployment of a qualifying service member; or

• Leave is to provide for the care of a family member who is an ill or injured military service member

Certain kinds of paid disability benefits may be used to provide salary replacement during unpaid leave.

Advance Notice and Medical Certification

You are required to provide advance notice of leave and medical certification. Taking of leave may be denied until requirements are met.

• Ordinarily you must provide 30 days advance notice when the leave is "foreseeable".

• If the reason for the leave is not foreseeable, then you are required to provide as much advance notice as possible.

• STANFORD HEALTH CARE requires medical certification to support a request for leave because of a serious health condition, and may require second opinions (at STANFORD HEALTH CARE's expense) regarding the need for leave and/or a fitness-for-duty report prior to your return to work.

California State Disability Claims may be filed online or you may pick up a claim form at the GME Office. If you file a claim online, you need to print and submit a copy to the GME Office to ensure your leave dates are recorded correctly with the payroll department and in MedHub.

SDI dates not communicated correctly to the GME Office may result in over or under payments from SDI

which the resident will be responsible for repaying.*

• For CA State Disability Forms: http://www.edd.ca.gov/disability

Note: *Stanford will not reimburse for any under or overpayments as a result of inaccurate information provided by the resident.

Job Benefits and Protection

• For the duration of authorized FMLA/CFRA/PDL leave, STANFORD HEALTH CARE will maintain your health coverage under its group health plan for a period not to exceed six (6) months, provided you continue to pay any premiums you were paying prior to the leave.

• Upon return from authorized leave, consistent with applicable law, you will be restored to your original or equivalent positions with equivalent pay, benefits, and other employment terms.

• The use of leave will not result in the loss of any employment benefit that accrued prior to the start of your leave.

In cases where a leave of absence has been approved by the Department Chair and the Chief Medical Officer, residents will be paid in full during the additional weeks of residency required to be board eligible if the GME Office is notified. If the GME Office is NOT notified of the leave, continuation of pay during any required make-up time is at the discretion and cost of the residency program.

Pregnancy Leave

In accordance with California law, a female resident must be granted an unpaid Pregnancy Disability Leave of up to four (4) months if the employee is incapable of performing her job duties because of medical disability resulting from pregnancy, delivery, or post-childbirth recovery, as verified by a physician. In addition, under the California Family Rights Act (CFRA), eligible employees have a right to unpaid family care/baby bonding leave of up to 12 weeks in the 12 month period following the birth, adoption or foster care placement of a child. With the consent of the resident, GME will offset unpaid time and/or applicable state disability benefits with any unused personal time off (up to 3 weeks) and/or any unused sick days (up to 20 days).

Failure to file for SDI benefits or ineligibility for California SDI benefits will not result in STANFORD HEALTH CARE paying the equivalent of the disability benefit available from the State of California.

The GME Office will verify the amount of personal time off remaining. The resident's failure to properly designate personal time off in MedHub will not result in additional personal time off.

California Pregnancy Disability Leave and any applicable periods of CFRA or FMLA leave run concurrently with the paid periods noted above. See Appendix D for a more detail description of these and other FMLA and CFRA entitlements. Any other arrangement should be negotiated with your department/division and cleared with the Department of Graduate Medical Education. Any pregnant house staff officer should notify her program director as soon as possible after discovery of pregnancy so that scheduling changes can be made to accommodate any leave. The sick leave policy will apply

during the extended period of disability.

The Graduate Medical Education Office must be notified at least 30 days prior to a leave or as soon as resident is aware of the need for a leave. See "Advanced Notice and Medical Certification" above.

Paternity Leave

STANFORD HEALTH CARE offers one week with pay; (5 days). Additional unpaid time off will be provided in accordance with FMLA & CFRA

Bereavement Leave

Residents are eligible for up to five (5) work days of pay in the event of a death of the employee's immediate family, including parents, legal guardian, spouse, children, stepchildren, grandparents, grandchildren, siblings, step-siblings, step-parents, mother-in-law, father-in-law and eligible domestic partners as defined in the Employer's Health Benefits Summary Plan Descriptions.

Bereavement will be granted immediately following the death unless arrangements require other dates approved by the Program Director and the Director of Graduate Medical Education.

Holidays

Holidays for residents will be consistent with the schedule at the institution to which the resident is assigned and with the policies of the program and/or department.

Educational Meetings and Activities

Request to attend educational, scholarly and professional activities/seminars should be submitted to the program director for approval. Duty hours must be entered for the dates and times you are in attendance in compliance with ACGME regulations.

Personal Time Off

House staff do not accrue vacation. House staff are permitted to take up to three (3) weeks of personal time off with pay during each one-year period. Personal time off must be scheduled in advance with the approval of the Director of the Residency Training Program in each department or division. Stanford Medicine believes that personal time away from the residency program is important to the welfare of house staff, so unused personal time off does not accumulate from year to year and there is no provision to pay in lieu of time off.

A leave of absence for professional reasons will be considered on a case by case basis. Written consent must be obtained from the program director and the Director of Graduate Medical Education. Continuation of salary is at the discretion of the Chief Medical Officer. Benefits, however, will not continue for more than six (6) months.

Jury Duty

If you are called to jury duty on a day in which you are scheduled to work, you will be given leave with pay for the actual time spent on jury service (time required to spend sitting on a jury or physically waiting at the courthouse in anticipation of being called to sit on a jury) and in related travel. The program director and/or department must be notified as soon as a jury summons is received.

**Only the court, as outlined in the Jury Summons Notice can grant deferment or excused absence from jury service.*

Sick Leave

House staff will be granted up to 20 days of sick leave (four (4) weeks) per year, if needed. House Staff do not accumulate sick leave credit, and no additional compensation will be paid for unused sick leave. Salary will continue, offset by state disability or worker's compensation benefits, until the 20 days of sick leave are exhausted.

Transfer of Care Policy

To establish protocol and standards within Stanford Health Care to ensure the quality and safety of patient care when transfer of responsibility occurs during duty hour shift changes and other scheduled or unexpected circumstances

II. POLICY

This policy is intended to guide transfer of care activities to ensure the quality and safety of patient care when transfer of responsibility occurs during duty hour shift changes and other scheduled or unexpected circumstances. All Stanford Hospital and Clinic Training Programs, including affiliate training sites, will adhere to current accreditation requirements as set forth by the Accreditation Council for Graduate Medical Education (ACGME) for all matters pertaining to the house officer training programs, including the transfer of care activities requirement.

III. PROCEDURES

Each training program director shall develop explicit, written descriptions of transfer of care responsibility for the care of patients. Such guidelines must be communicated to all residents and all members of the programs' teaching staff. Residents must be provided with prompt reliable systems for communication and interaction with attending physicians. Individual programs must design schedules and clinical assignments to maximize the learning experience for residents as well as ensure quality care and patient safety, and adhere to general institutional policies concerning transitions of patient care. Transitions of care are necessary in the hospital setting for various reasons. The transition/hand-off process is an interactive communication process of passing specific, essential patient

information from one caregiver to another. Transition of care occurs regularly under the following conditions:

- Change in level of patient care, including inpatient admission from an outpatient procedure or diagnostic area or ER and transfer to or from a critical care unit.
- Temporary transfer of care to other healthcare professionals within procedure or diagnostic areas
- Discharge, including discharge to home or another facility such as skilled nursing care
- Change in provider or service change, including change of shift for nurses, resident sign-out, and rotation changes for residents.

The transition/hand-off process must involve face-to-face interaction with both verbal and written communication. The transition process should include, at a minimum, the following information in a standardized format that is universal across all services:

- Identification of patient, including name, medical record number, and date of birth
- Identification of admitting/primary physician
- Diagnosis and current status/condition of patient

Appendix F (cont'd)

• Recent events, including changes in condition or treatment, current medication status, recent lab tests, allergies, anticipated procedures and actions to be taken.

• Changes in patient condition that may occur requiring interventions or contingency plans

Each program director must develop components ancillary to the institutional transition of care policy and that integrate specifics from their specialty field. Programs are required to develop scheduling and transition/hand-off procedures to ensure that:

• Residents do not exceed the 80-hour per week duty limit averaged over 4 weeks.

• Faculty are scheduled and available for appropriate supervision levels according to the requirements for the scheduled residents.

DOCUMENT INFORMATION

This policy is reviewed by the Graduate Medical Education Committee every five years

Education and Other Business Related Expense Reimbursements

Full-time, active residents will receive an educational benefit of $2,000 on a October 2017 paycheck, IF ALL HEALTHSTREAM MODULES WERE COMPLETED BY JUNE 30, 2017. Receipts are no longer required. Funds should be used for educational materials at the discretion of each resident.

Note: The educational benefit funds of $2,000 will be subject to all appropriate taxes.

Housing Allowance

Each resident commencing training in a Stanford house staff program for the first time will be eligible for up to $3,000 in housing allowance. Individuals transferring from the University to Stanford Health Care while remaining within residency/fellowship programs are not eligible for the reimbursement. Individuals failing to complete at least six (6) months of residency are expected to re- pay the $3,000 in full. The housing allowance will be added to a paycheck in August. You do not need to apply or save receipts for this benefit.

Note: The $3,000 will be subject to all appropriate taxes. All reimbursements appear on your paycheck.

REPORTING

1. **Sentinel Events** are defined by the Joint Commission (TJC) as unexpected occurrences involving death or serious physical or mental injury.
2. **Adverse events** are untoward incidents, therapeutic misadventures, iatrogenic injuries or other undesirable occurrences directly associated with care or services. Can be acts of commission or omission.
3. **Close Calls** are events that could have resulted in harm, but did not, either by chance or through timely intervention. Close Calls provide opportunities for learning and developing preventive strategies without harming patients and so they receive the same level of scrutiny as adverse events that result in actual injury.

Provide as much **factual** information as possible. Though an event may be stressful or emotional for you, please provide factual data when reporting events so that the specific concern can be appropriately addressed.

Tip Sheet: Physician Reporting for SAFE System

To Report a Patient Safety or General Safety Event, or submit a Suggestion, Observation or Solution :

Step 1
Go to the SHC Connect intranet home page and click on:
SAFE Stanford Alerts for Events System

Step 2
Click on: For Physicians Only

Step 3
Complete the form:

- Describe the Event of Observation, adding incident date and patient name when applicable
- Enter a Suggestion or Solution, if desired
- Enter your name to assist with follow-up
- Enter your phone, pager or email address if you would like feedback

Step 4 Click Send

REPORTING AT STANFORD HEALTH CARE

- A web based application takes 3-5 minutes to report an event, from any Stanford Health Care computer
- Anyone can enter an adverse event anonymously (MD, RN, clerk, etc.)

To Report a Patient Safety or General Safety Event, or submit a Suggestion, Observation or Solution :

Step 1: Go to the SHC Connect intranet home page and click on:

SAFE Stanford Alerts for Events System

Step 2: Click on: **For Physicians Only (For MD reporting)**

Step 3: Complete the form:

- Describe the Event of Observation, adding incident date and patient name when applicable
- Enter a Suggestion or Solution, if desired
- Enter your name to assist with follow-up
- Enter your phone, pager or email address if you would like feedback

Step 4: Click **Send**.

In addition to direct access to SAFE on the SHC intranet, physicians may relay concerns or questions securely to safe@stanfordmed.org or to voicemail at (650) 497-8788. Only four individuals within the Quality/Patient Safety Department have access to the email site and voicemail.

EDUCATION AND SCHOLARLY ACTIVITIES - FELLOWS

Education of the fellows occurs in a number of venues. A list and description of education in clinical skills, research, teaching and administration is found in the respective sections of the manual.

A description of fellow scholarly activities can be found in the research curriculum section of the manual. These include the:

Overview of the research curriculum
Research goals and objectives
Research core content
Research conferences and course
Scholarly activity criteria – American Board of Pediatrics

EDUCATION AND SCHOLARLY ACTIVITIES - FACULTY

Faculty participates in the divisions Tuesday morning conferences as well as conferences in the department of emergency medicine and pediatrics. Faculty also participate in faculty development sessions to improve their teaching and clinical skills.

Faculty scholarly activity is monitored and reported annually to the ACGME. Categories of scholarly activity include:

- Research publications
- Research and other conference presentations
- Publication of educational work products such as textbook chapter
- Grant leadership
- Leadership role
- Involvement in the peer review process
- Teaching Courses

Evaluation (Fellowship)
Clinical Competence Committee (Fellowship)
Program Evaluation Committee (Fellowship)
Evaluation of the Fellow by the Faculty (Fellowship)
Evaluation of the Faculty by the Fellow (Fellowship)
Multiple Evaluations – Nurses, Patients (Fellowship)
Semiannual Evaluation (Fellowship)
Summative Evaluation (Fellowship)
Evaluation of the Program by the Faculty (Fellowship)
Evaluation of the Program by the Fellow (Fellowship)
Examination, Licensure and Certification (Fellowship)

There has been a paradigm shift in the approach to graduate medical education. In the past, the focus has been on the structure or process of education. (How well is the fellowship designed to teach?). The new focus is on educational outcomes (How well do the fellows learn?). The approach depends on the development of specific program goals and objectives, methods to implement learning directly related to these goals and objective and valid measures that the fellows have developed competence in fulfilling the goals and objectives.

	DOMAINS OF COMPETENCY
1	Medical Knowledge
2	Patient Care and Procedural Skills
3	Practice Based Learning and Improvement
4	Interpersonal and Communication Skills
5	Professionalism and Personal and Professional Development
6	Systems Based Practice

These 6 domains of competency are further broken down into a variable number of competencies.

The milestones further divide the competencies into levels of progress. These include: novice, beginner, competent, proficient and expert. All fellows must achieve level 4 milestones on each of the competencies in order to successfully complete the training program.

There are a number of actions that pediatric emergency physicians must perform. These actions are called entrustable professional activities (EPA). The EPA are matched to the individual competencies. For example, completing a patient handoff would include competencies within the domains of medical knowledge, patient care, interpersonal skills and communications and systems based practice

COMPETENCIES – PEDIATRIC EMERGENCY MEDICINE

DOMAIN: PATIENT CARE (PC)	
PC1	Gather essential and accurate information about the patient. Performance of focused history and physical exam: Abstracts current findings in a patient with multiple chronic medical problems and, when appropriate, compares with a prior medical record and identifies significant differences between the current presentation and past presentations
PC2	Organize and prioritize responsibilities to provide patient care that is safe, effective, and efficient
PC3	Provide transfer of care that ensures seamless transitions
PC4	Make informed diagnostic and therapeutic decisions that result in optimal clinical judgment
PC5	Prioritizes critical initial stabilization action and mobilizes hospital support services in the resuscitation of a critically ill or injured patient and reassesses after stabilizing intervention.
PC6	Diagnostic studies: Applies the results of diagnostic testing based on the probability of disease and the likelihood of test results altering management
PC7	Observation and reassessment: Re-evaluates patients undergoing ED observation (and monitoring) and using appropriate data and resources, determines the differential diagnosis and, treatment plan, and disposition
PC8	Disposition: Establishes and implements a comprehensive disposition plan that uses appropriate consultation resources; patient education regarding diagnosis; treatment plan; medications; and time and location specific disposition instructions.
PC9	General approach to procedures: Performs the indicated procedure on all appropriate patients (including those who are uncooperative, hemodynamically unstable and those who have multiple co-morbidities, poorly defined anatomy, high risk for pain or procedural complications, sedation requirement), take steps to avoid potential complications, and recognizes the outcome and/or complications resulting from the procedure
PC10	Anesthesia and acute pain management: Provides safe acute pain management, and procedural sedation to pediatric patients regardless of the clinical situation
PC 11	Provide appropriate supervision - milestones for the supervisor

DOMAIN: MEDICAL KNOWLEDGE (MK)	
MK 1	Demonstrate sufficient knowledge of the basic clinically supportive sciences appropriate to pediatric emergency medicine

DOMAIN: PRACTICE-BASED LEARNING AND IMPROVEMENT (PBLI)	
PBLI1	Use information technology to optimize learning and care delivery

DOMAIN: INTERPERSONAL AND COMMUNICATION SKILLS (ICS)	
ICS1	Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds
ICS2	Demonstrate the insight and understanding into emotion and human responses to emotion that allow one to appropriately develop and manage human interactions
ICS3	Act in a consultative role to other physicians and health professionals
ICS4	Team management: Leads patient-centered care teams, ensuring effective communication and mutual respect among members of the team
ICS5	Communicate effectively with physicians, other health professionals, and health-related agencies

DOMAIN: PROFESSIONALISM (PROF)	
PROF1	Self-awareness of one's own knowledge, skill, and emotional limitations that leads to appropriate help-seeking behaviors
PROF2	The capacity to accept that ambiguity is part of clinical medicine and to recognize the need for and to utilize appropriate resources in dealing with uncertainty
PROF3	Practice flexibility and maturity in adjusting to change with the capacity to alter behavior
PROF4	Provide leadership skills to enhance team functioning, the learning environment, and/or the health care delivery system/environment with the ultimate intent of improving care of patients
PROF5	Demonstrate self-confidence that puts patients, families, and members of the health care team at ease
PROF6	Humanism, compassion, integrity, and respect for others; based on the characteristics of an empathetic practitioner
PROF7	Demonstrate trustworthiness that makes colleagues feel secure when one is responsible for the care of patients

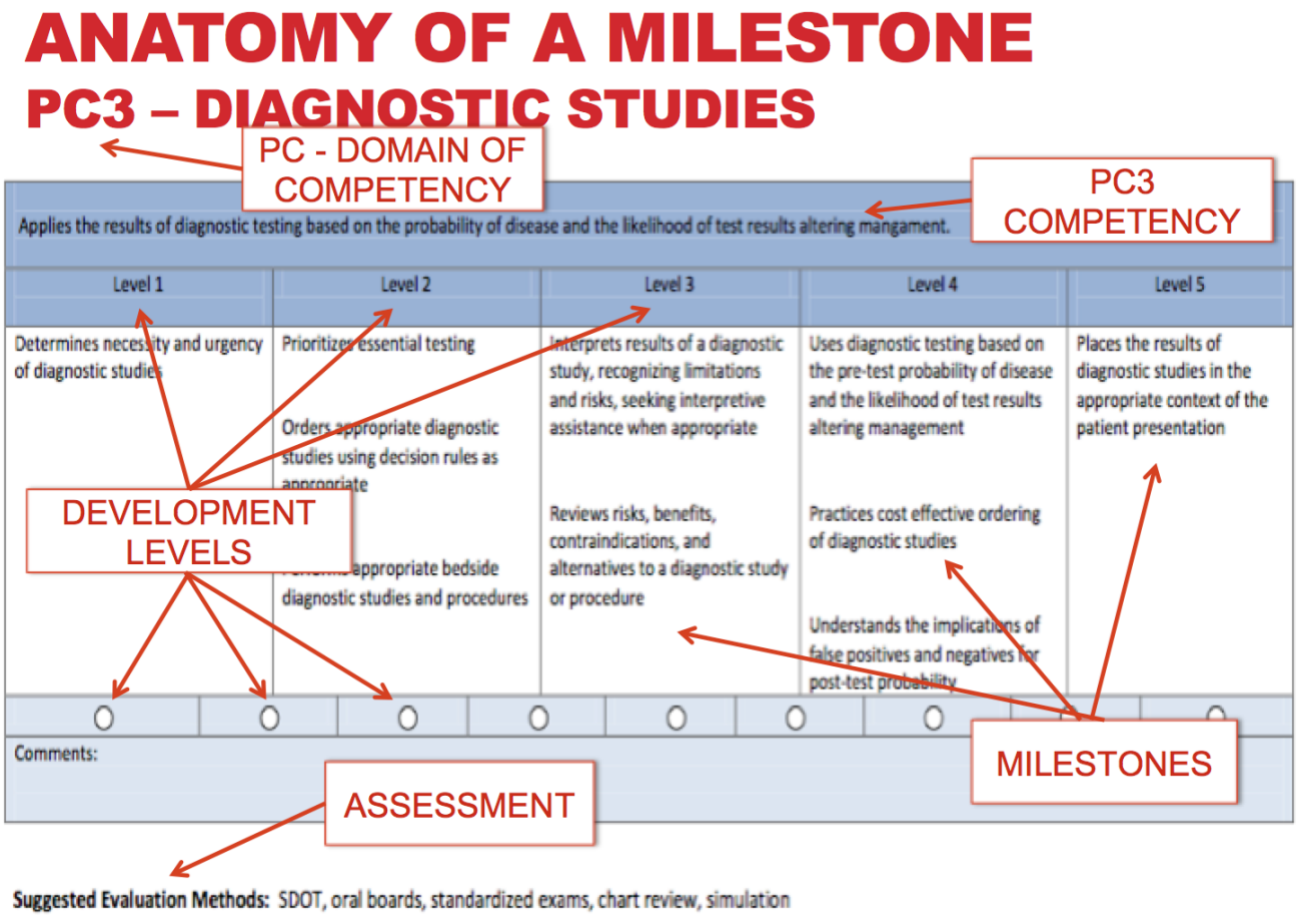
DOMAIN: SYSTEMS-BASED PRACTICE (SBP)	
SBP1	Advocate for quality patient care and optimal patient care systems
SBP2	Participate in identifying system errors and implementing potential systems solutions
SBP3	Work effectively in various health care delivery settings and systems relevant to their clinical specialty

SBP 4	Coordinate patient care within the health system relevant to their clinical specialty
SBP 5	Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population-based care as appropriate
SBP 6	Work in inter-professional teams to enhance patient safety and improve patient care quality

MILESTONES

The milestones are subcategories of the competencies. They describe behaviors along a continuum of performance. These include: novice, beginner, competent, proficient and expert. It is expected that fellows reach a level of proficiency (level 4 milestones) on each of the competencies in order to successfully complete the training program.

Below is an example of a professionalism milestone with level anchors. Every six months the fellow will be evaluated for level of progress each of the milestones. The milestones with anchor levels can be found at http://www.acgme.org



ENTRUSTABLE PROFESSIONAL ACTIVITIES

There are a number of actions that pediatric emergency physicians must perform. These actions are called entrustable professional activities (EPA). The EPAs are matched to the individual competencies. For example, completing a patient handoff would include competencies within the domains of medical knowledge, patient care, interpersonal skills and communications and systems based practice.

Each fellow will be assessed for each of the EPA upon graduation

1. Recognize and provide care for acutely ill and/or injured pediatric patients presenting to the Emergency Department (ED)

2. Recognize and provide care for medically and technologically complex pediatric patients in the ED

3. Demonstrate competence in performing common procedures associated with the practice of pediatric emergency medicine

4. Provide patient triage, resuscitation, and stabilization; align care provided with severity of illness.

5. Emergency Department Management: Manage the emergency department to optimize patient care

6. Provide supervision for emergency personnel to enhance patient care quality and assure patient safety.

PEM EPAS MAPPED TO COMPETENCIES						
	PC	MK	PBLI	ICS	PROF	SBP
1. Rx Ill in ED	1,3,4,6,7, 8	1		2		
2. Rx complex in ED	1		1	1,3,5	2,6	5
3. Procedures	7,9,10			1	1,5,7	
4. Triage, Resus.	2,4,5,7,8	1		4		
5. Manage ED	2		1	4	3,4	3,6
6. Supervise	11			5	4	1,2,4,6

PROGRESSIVE RESPONSIBILITIES

Each year of training provides the Pediatric Emergency Medicine resident with increased independence regarding clinical, teaching, research care and administrative roles and responsibilities in the Pediatric Emergency Service while under the supervision of the program faculty. The Pediatric Emergency Medicine fellow is provided an opportunity to supervise several pediatric and emergency medicine residents and medical students in the care of multiple patients

Administrative responsibilities are emphasized with each training year. These include guiding the nursing staff in triage decisions, interacting effectively with a variety of consultants, developing priorities for maximizing patient flow, managing mass casualty incidents and developing personnel management strategies and leadership skills.

Administratively, the second year fellows are assigned the task of teaching fellow. They develop and implement the divisions' educational activities. The senior fellow plays an integral role in the fellowship recruitment process and fellow scheduling.

FELLOW YEAR 1
In the pediatric emergency service the primary role of the fellow is as a supervising Junior faculty member.
The faculty works closely with first year fellows to transition from resident to fellow and from caregiver to supervisor.
They are expected to begin to understand patient flow, staff management, crisis intervention and other administrative issues

FELLOW YEAR 2
In the pediatric emergency service the primary role of the fellow is as a supervising junior faculty member.
Second year fellows are expected to take on a large number of cases supervising medical students and residents.
They handle some administrative and leadership issues unassisted with support by the mentoring faculty
Second year fellows are given more opportunities to develop leadership skills and independence in running medical and trauma resuscitations
Second year fellows complete approximately 20 overnight shifts in the Pediatric Emergency Service where they are the sole supervisor in the immediate area. They are supervised by the emergency medicine attending in the adjacent ED

FELLOW YEAR 3
In the pediatric emergency service the primary role of the fellow is as a supervising junior faculty member.
Third year fellows are expected to take on a caseload equivalent to an attending number supervising medical students and residents.
They should some handle most administrative and leadership issues unassisted with support by the mentoring faculty available
Third year fellows lead most medical and trauma resuscitation.
Third year fellows complete approximately 20 overnight shifts in the Pediatric Emergency Service where they are the sole supervisor in the immediate area. They are supervised by the emergency medicine attending in the adjacent ED

RESPONSIBILITIES

- Composed of 3 faculty members (minimum).
- May include faculty from other programs and non-physician members of the health care team
- Appointed by program director
- For each fellow, semi-annually review all evaluations – rotation evaluations, end of year evaluations by faculty
- Prepare milestone reports for ACGME submission
- Make recommendations to program director regarding progress, promotion, remediation, dismissal

Records of evaluations and supporting documents are maintained in a confidential manner by the Program Director. They are then compiled and discussed with the trainees by Dr. Khanna. During the first year, trainees meet with Dr. Khanna in an orientation and planning session at the beginning of the academic year. The fellows subsequently meet with Dr. Khanna at 6 months to review their evaluations and evaluate their progress in obtaining their stated goals for the year. During the next two years of training, trainees meet with Dr. Khanna at 6-month intervals. The first meeting of the year is a review of the prior six months and an opportunity to set goals for the coming year. The midyear meeting reviews the prior six-month performance and progress toward meeting the stated goals. In addition, each senior fellow meets with Dr. Khanna at the end of his training to review performance.

PROGRAM EVALUATION COMMITTEE

The program evaluation committee is appointed by the program director. It is composed of at least two program faculty members and should include at least one fellow.

Their task is to review the program annually using evaluations of faculty, fellows, and the program and complete an annual evaluation of the program.

DESCRIPTION OF RESPONSIBILITIES

- Plan, develop, implement and evaluate educational activities of the program
- Review and make recommendations for revision of competency based curriculum goals and objectives
- Track and monitor the following
    - Residence performance
    - Faculty development
    - Graduate performance including performance of the certification exam
    - Progress on the previous years action plan
- Address areas of non-compliance with ACGME standards
- Document formal, systematic evaluation of the curriculum at least annually and complete the Annual Program Evaluation (APE)
- Prepare a written action plan to document initiatives to improve performance and delineate how they will be measured and monitored. The action plan should be reviewed and approved by the teaching faculty and documented in the meeting minutes
- Participate in the annual fellow retreat May.
- Pediatric Emergency Medicine Goals and Objectives

Program Goal

The goals and objectives for the training program in Pediatric Emergency Medicine at Stanford University are to produce an individual who is clinically proficient in all aspects of Pediatric Emergency Medicine with special emphasis on the management of the critically ill and injured child. A graduate of the program should possess a sound fund of knowledge in all aspects of Pediatric Emergency Medicine, be able to effectively transmit this knowledge as a teacher, and serve as a resource person for the community. Competence in research design and analysis should be demonstrated through active involvement in projects and critical appraisal of the literature using the principles of evidence based medicine. The physician should also be familiar with the relevant issues regarding the administrative, legal and ethical aspects of Pediatric Emergency Medicine.

Pediatric Emergency Medicine General Objectives

By the end of the three year Pediatric Emergency Medicine fellowship program, all residents are expected to expand and cultivate skills and knowledge learned during previous training and to achieve the following objectives based on the six general competencies. The resident should exhibit an increasing level of responsibility and independency as he or she progresses throughout the year.

Key of Methods

Teaching Methods	Evaluation Methods	Frequency of Evaluations
CT=Clinical Teaching	DO=Direct observation	MON=monthly
JC=Journal Club	SA=Self Assessment	QA=quarterly
PEM ACE = Monthly Conference (Didactic & Administrative)	PL=Procedure Log RL=Resuscitation Log	2A=semiannually A=annually
SRD = Statistics and Research Design Course ICCR= Intensive Course in Clinical Research ATLS=ATLS Course	PS=Documentation of Procedural Sedation	D=daily
PEM= Study Course with book chapter*	GL=Rotation Evaluation Form	
BPQ=Board preparation questions	PRES=Conference Presentation	
CITI=CITI course	INEX=In training Examination	
EC= Ethics Curriculum	QI=Quality Improvement Project	
ACLS=ACLS Course		
	360=360 degree evaluation	

*Text Book: Fleisher GR, Ludwig S. Textbook of Pediatric Emergency Medicine. Lippincott, Williams, & Wilkins, Philadelphia, 2010.

Competency	Required Skill(s)	Teaching Method(s)	Formative Evaluation Method(s)	Frequency of Evaluation
Patient Care	**GENERAL OBJECTIVES**			
	Provide patient care that is compassionate, appropriate, and	CT,	GL	MON
	effective for the treatment of health problems and the	ATLS, PEM	DO	MON

	promotion of health.	ACE	PL RL	2A 2A

			PRES	MON/A
	Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families.	CT, ATLS	GL DO PL RL PRES	MON MON 2A 2A MON/A
	Gather essential and accurate information about their patients.	CT, ATLS	GL DO PL RL PRES	MON MON 2A 2A MON/A
	Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgments.	CT, ATLS	GL DO PL RL PRES	MON MON 2A 2A MON/A
	Develop and carry out patient management plans.	CT, ATLS	GL DO PL RL PRES	MON MON 2A 2A MON/A
	Counsel and educate patients and their families.	CT, ATLS	GL DO PL RL PRES	MON MON 2A 2A MON/A
	Use information technology to support patient care decisions and patient education.	CT, ATLS	GL DO PL RL PRES	MON MON 2A 2A MON/A
	Perform competently all medical and invasive procedures considered essential for the area of practice.	CT, ATLS	GL DO PL RL PRES	MON MON 2A 2A MON/A
	Provide health care services aimed at preventing health problems or maintaining health.	CT, ATLS	GL DO	MON MON

			PL RL	2A 2A

			PRES	MON/A
	Work with health care professionals, including those from other disciplines, to provide patient-focused care.	CT, ATLS	G L DO PL RL PRES	M ON MON 2A 2A MON/A
Medical Knowledge	**GENERAL OBJECTIVES**			
	Demonstrate knowledge about established and evolving biomedical, clinical, and cognitive sciences and the application of this knowledge to patient care.	CT, JC, PEM ACE, PEM, BPQ	GL DO PRES INEX	MON MON MON/A A
	Demonstrate an investigatory and analytic thinking approach to clinical situations.	CT, JC, PEM ACE,	GL DO PRES INEX	MON MON MON/A A
	Know and apply the basic and clinically supportive sciences which are appropriate to their discipline.	CT, JC, PEM ACE	GL DO PRES INEX	MON MON MON/A A
Practice Based Learning and Improvement	**GENERAL OBJECTIVES**			
	Investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices.	PEM ACE, CT, JC	DO 360 Degree GL PL RL QI	MON 2A MON 2A 2A A
	Analyze practice experience and perform practice-based improvement activities using a systematic methodology.	PEM ACE, JC, CT,	DO 360 Degree GL PL	MON 2A MON 2A

			RL QI	2A A
	Locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems.	PEM ACE, JC, CT,	DO 360 Degree GL PL RL QI	MON 2A MON 2A 2A A
	Obtain and use information about their own population of patients and the larger population of patients from which their patients are drawn.	PEM ACE, JC, CT,	DO 360 Degree GL PL RL QI	MON 2A MON 2A 2A A
	Apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness.	PEM ACE, JC, CT,	DO 360 Degree GL PL RL QI	MON 2A MON 2A 2A A
	Use information technology to manage information, access on-line medical information; and support their own education.	PEM ACE, JC, CT,	DO 360 Degree GL PL RL QI	MON 2A MON 2A 2A A
	Facilitate the learning of students and other health care professionals.	PEM ACE, JC, CT,	DO 360 Degree GL PL RL QI	MON 2A MON 2A 2A A
	Evaluate patient care practices, discuss how they meet standards, and develop ways to improve these practices.	PEM ACE, JC, CT,	DO 360 Degree GL PL RL QI	MON 2A MON 2A 2A A

	Compare clinical practice, patient safety, and quality of care	PEM ACE, JC,	DO	MON

	with evidence based medicine.	CT	360 Degree GL PL RL QI	2A MON 2A 2A A
	Participate in all mandated conferences (attend 80% of PEM ACE conference days).	PEM ACE, JC, CT,	DO 360 Degree GL PL RL QI	MON 2A MON 2A 2A A
	Complete a QA/QI project under faculty direction.	PEM ACE, JC, CT,	DO 360 Degree GL PL RL QI	MON 2A MON 2A 2A A
	Demonstrate improvement in clinical management and diagnostic assessment.	PEM ACE, JC, CT,	DO 360 Degree GL PL RL QI	MON 2A MON 2A 2A A
	Implement new scientific advances and clinical approaches from a variety of sources into current patient care practices.	PEM ACE, JC, CT,	DO 360 Degree GL PL RL QI	MON 2A MON 2A 2A A
	Analyze and evaluate medical literature and examine alternate sources for information that pertains to their patient's health problems.	PEM ACE, JC, CT,	DO 360 Degree GL PL RL QI	MON 2A MON 2A 2A A
	Take responsibility for lifelong learning.	PEM ACE, JC, CT,	DO 360 Degree GL PL	MON 2A MON 2A

			RL	2A

			QI	A
	Use information technology such as Up-To-Date, PubMed or Ovid to enhance patient care.	PEM ACE, JC, CT	DO 360 Degree GL PL RL QI	MON 2A MON 2A 2A A
	Teach fellow residents, medical students, and interns.	PEM ACE, JC, CT	DO 360 Degree GL PL RL QI	MON 2A MON 2A 2A A
	Maintain appropriate records documenting practice activities (such as patient logs).	PL, RL	DO 360 Degree GL PL RL QI	MON 2A MON 2A 2A A
Interpersonal and Communication Skills	**GENERAL OBJECTIVES**			
	Demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their patients' families, and professional associates.	CT	DO 360 GL	MO N 2A MON
	Create and sustain a therapeutic and ethically sound relationship with patients.	CT, EC	DO 360 GL	MO N 2A MON
	Use effective listening skills and elicit and provide information using effective nonverbal, explanatory, questioning, and writing skills.	CT,	DO 360 GL	MO N 2A MON
	Work effectively with others as a member or leader of a health care team or other professional group.	CT,	DO 360 GL	MO N 2A MON
	SPECIALTY SPECIFIC OBJECTIVES			
	Carefully listen to patients to assess the patient's health problems including their verbal and non-verbal communications.	CT,	DO 360 GL	MO N 2A MON

	Demonstrating respectful and considerate attitudes, effectively communicate with patients, families, and other health care personnel, when addressing management plans,	CT,	DO 360 GL	MO N 2A MON

	patient issues, and especially end-of-life decisions.			
	Accurately present (verbally and written) a case to attending physicians, fellow residents, and other health care professionals.	CT,	DO 360 GL	MON 2A MON
	Provide timely, legible, and thorough medical record documentation - histories and physical examinations, admission notes, progress notes, procedure notes and discharge summaries.	CT,	DO 360 GL	MO N 2A MON
	Provide education and counseling to patients, and families using non-technical and clear language. (Use non-verbal and verbal communication skills)	CT,	DO 360 GL	MO N 2A MON
	Demonstrate skill in handling all difficult patient care situations.	CT,	DO 360 GL	MO N 2A MON
	Spend adequate time with patients addressing their questions and concerns.	CT,	DO 360 GL	MO N 2A MON
	Work well within team consisting of students, residents, attending physicians, nurses, and patients.	CT,	DO 360 GL	MON 2A MON
	Function effectively as a consultant for specialty and subspecialty care.	CT,	DO 360 GL	MON 2A MON
Professionalism	**GENERAL OBJECTIVES**			
	Demonstrate a commitment to carrying our professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.	CT, PEM ACE	D O 360 GL	MO N 2A MON
	Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients, and society that supercedes self-interest; accountability to patients, society, and the profession; and a commitment to excellence and on-going professional development.	CT, PEM ACE	D O 360 GL	MO N 2A MON
	Demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care confidentiality of patient information, informed consent, and business practices.	CT, PEM ACE	D O 360 GL	MO N 2A MON

	Demonstrate a sensitivity and responsiveness to patients' culture, age, gender, and disabilities.	CT, PEM ACE	D O 360 GL	MO N 2A MON
	SPECIALTY SPECIFIC OBJECTIVES			

	Demonstrate respect, compassion, integrity, punctuality, reliability, and honesty with regards to patients and colleagues.	CT, PEM ACE	D O 360 GL	MON 2A MON
	Show regard for the opinions of others.	CT, PEM ACE	D O 360 GL	MO N 2A MON
	Display initiative and leadership.	CT, PEM ACE	D O 360 GL	MON 2A MON
	Acknowledge errors, alert patients and appropriate health care providers about the errors, and create a plan of action to minimize them.	CT, PEM ACE	D O 360 GL	MON 2A MON
	Demonstrate concern for the educational development of students and residents.	CT, PEM ACE	D O 360 GL	MO N 2A MON
	Volunteer for activities for the good of the institution and community.	CT, PEM ACE	D O 360 GL	MON 2A MON
	Ask for help when needed and accept constructive feedback.	CT, PEM ACE	D O 360 GL	MO N 2A MON
	Demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.	CT, PEM ACE	D O 360 GL	MO N 2A MON
	Maintain patient confidentiality.	CT, PEM ACE	D O 360 GL	MON 2A MON
	Compassionately respond to issues of culture, age, gender, ethnicity, and disability in patient care.	CT, PEM ACE	D O 360 GL	MO N 2A MON
Systems-Based	**GENERAL OBJECTIVES**			

Practice	Demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value.	CT, PEM ACE, EC	360 D O GL	MO N 2A MON
	Understand how their patient care and other professional practices affect other health care professionals, the health care organization, and the larger society and how these elements of the system affect their own practice.	CT, PEM ACE, EC	360 D O GL	MO N 2A MON
	Know how types of medical practice and delivery systems	CT, PEM ACE,	360	MON

	differ from one another, including methods of controlling health care costs and allocating resources.	EC	DO GL	2A MON
	Practice cost-effective health care and resource allocation that does not compromise quality of care.	CT, PEM ACE, EC	360 D O GL	MON 2A MON
	Advocate for quality patient care and assist patients in dealing with system complexities.	CT, PEM ACE, EC	360 D O GL	MO N 2A MON
	Know how to partner with health care managers and health care providers to assess, coordinate, and improve health care and know how these activities can affect system performance.	CT, PEM ACE, EC	360 D O GL	MO N 2A MON
	SPECIALTY SPECIFIC OBJECTIVES			
	Demonstrate ability to deliver high-quality medical care in a private, government, and inner city hospital settings.	CT, PEM ACE, EC	360 D O GL	MO N 2A MON
	Demonstrate the knowledge of different types of medical practice and health care delivery systems and understand how this affects patient care.	CT, PEM ACE, EC	360 D O GL	MON 2A MON
	Demonstrate knowledge of business aspects of medical practice including coding, billing, and insurance.	CT, PEM ACE, EC	360 D O GL	MO N 2A MON
	Work with ancillary team members (discharge planners, case managers, and social workers) to provide high quality cost-effective care.	CT, MMC, LEC, EC	360 D O GL	MO N 2A MON
	Use systematic approaches to reduce errors.	CT, MMC, LEC, EC	360 D O GL	MO N 2A MON
	Practice effective allocation of health care resources to avoid compromising quality of care.	CT, MMC, LEC, EC	360 D O GL	MO N 2A MON

	Interact with patients, attending physicians and allied health care personnel as part of a health care team.	CT, MMC, LEC, EC	360 D O GL	MO N 2A MON
	Serve as a patient advocate in the outpatient and inpatient setting.	CT, MMC, LEC, EC	360 D O GL	MO N 2A MON
	Direct care in inpatient and outpatient settings as a member of a multidisciplinary team.	CT, MMC, LEC, EC	360 DO	MON 2A

			GL	MON
	Demonstrate knowledge of how the health care system including other physicians, nurses, and health care professionals affect their patient care practices.	CT, MMC, LEC, EC	360 D O GL	MON 2A MON

FIRST YEAR FELLOW PEDIATRIC EMERGENCY DEPARTMENT ROTATIONS GOALS AND OBJECTIVES

By the end of all of the Pediatric Emergency Medicine rotations in the first year of fellowship, the **first year** fellow is expected to expand and cultivate skills and knowledge learned during previous training and to achieve the following objectives based on the six general competencies. The resident should exhibit an increasing level of responsibility and independence as he or she progresses throughout the year.

Competency	Required Skill(s)	Teaching Method(s)	Formative Evaluation Method(s)	Frequency of Evaluation
Patient Care	**SPECIALTY SPECIFIC OBJECTIVES**			
	Under direct supervision, work up patients including: medical history, physical exam, diagnostic procedures	CT, ATLS	GL DO PL RL PRES	MON MON 2A 2A MON/A
	Manage medical and trauma resuscitations	CT, ATLS	GL DO PL RL PRES	MON MON 2A 2A MON/A
	Gradually precept presentations from pediatric and emergency medicine residents	CT, ATLS	GL DO PL RL PRES	MON MON 2A 2A MON/A
	Under direct supervision provide resuscitation for patients 14 years and younger who have suffered blunt and penetrating trauma	CT, ATLS	GL DO PL RL PRES	MON MON 2A 2A MON/A
	Evaluate patients with an undifferentiated chief complaint and diagnose whether it falls in the areas of surgical,	CT, ATLS	G L DO	MO N MON

	medical, or subspecialty		PL RL PRES	2A 2A MON/A
	Perform diagnostic evaluations rapidly, with simultaneous stabilization of any life threatening process and to proceed with appropriate life-saving interventions before arriving at a definitive diagnosis	CT, ATLS	GL DO PL RL PRES	MON MON 2A 2A MON/A
	Perform under direct supervision, the following emergency procedures, including but not limited to: • Chest tube insertion • Insertion of large bore intravenous catheters for fluid resuscitation • Wound suturing	CT, ATLS	GL DO PL RL PRES	MON MON 2A 2A MON/A
	Under the supervision of ED attending, manage patients with cardiopulmonary arrest	CT, ATLS	GL DO PL RL PRES	MON MON 2A 2A MON/A
	Evaluate, diagnose and manage patients with injuries from near drowning, smoke inhalation, carbon monoxide poisoning, heat illnesses, hypothermia, radiation accidents, and electrical injuries	CT, ATLS	GL DO PL RL PRES	MON MON 2A 2A MON/A
	Monitor and interpret appropriate parameters the following devices to provide critical assessment of patient progress including but not limited to: • Pulse oximeter • Non-invasive blood pressure monitors • Cardiac and respiratory monitors	CT, ATLS	GL DO PL RL PRES	MON MON 2A 2A MON/A
	Utilize invasive monitoring and machines such as arterial lines, central venous pressure monitors, cardiac pacing devices, end tidal CO_2 monitors, and both volume and pressure ventilators	CT, ATLS	GL DO PL RL PRES	MON MON 2A 2A MON/A
	Evaluate, diagnose, and manage patients with the	CT, ATLS	GL	MON

	following allergic and immunologic emergencies including but not limited to: • Asthma		DO PL RL	MON 2A 2A

	• Allergic reactions • Allergic rhinitis • Serum sickness • Eczema • Immune disorders • HIV		PRES	MON/A
	Evaluate, diagnose, and manage patients with the following cardiovascular emergencies including but not limited to: • Congestive heart failure • Cardiac arrhythmias • Pericardial disease • Infectious endocarditis • Blunt and penetrating cardiac and great vessel trauma • Cardiac tamponade • Congenital heart defects	CT, ATLS	G L DO PL RL PRES	M ON MON 2A 2A MON/A
	Assess patients suffering from a variety of congenital malformations and defects with special medical needs including but not limited to the following: • Congenital heart defects • Down's Syndrome • Other chromosomal disorders • Cystic fibrosis • Sickle cell disease • Hemophilia • Other genetic syndromes	CT, ATLS	G L DO PL RL PRES	M ON MON 2A 2A MON/A

	Assess and treat patients with the following dermatologic emergencies including but not limited to: • Dermatitis (atopic, seborrheic, allergic contact, diaper) • Drug reactions • Impetigo • Urticaria • Superficial fungal infections • bites and infestations • Warts and molluscum • Pityriasis rosea • Variety of viral exanthems • Rashes associated with systemic disease (Rocky Mounted Spotted Fever, Lyme Disease,	CT, ATLS	G L DO PL RL PRES	M ON MON 2A 2A MON/A

	Meningococcemia)			
	Assess patients with dental emergencies including but not limited to the following: • Trauma • Abscess • Soft tissue contusions and lacerations in the oral cavity • Mandible fractures	CT, ATLS	GL DO PL RL PRES	MON MON 2A 2A MON/A
	Evaluate patients with the following endocrine and metabolic disorders including but not limited to: • Diabetic ketoacidosis • Hypoglycemia • SIADH • Diabetes insipidus • Adrenal disorders • Thyroid dysfunction • Parathyroid disorders • Rickets • Pituitary dysfunction • Inborn errors of metabolism	CT, ATLS	GL DO PL RL PRES	MON MON 2A 2A MON/A
	Assess patients with gastrointestinal emergencies including but not limited to the following: • Acute and chronic vomiting and diarrhea • Viral hepatitis • Acute biliary tract disease • Pancreatitis • Abdominal pain (appendicitis, peritonitis, intestinal obstruction, peptic ulcer disease, hernias) • GI bleeding (anorectal fissures, hemorrhoids, colitis, polyps, hemolytic uremic syndrome, Henoch-Schonlein purpura)	CT, ATLS	GL DO PL RL PRES	MON MON 2A 2A MON/A
	Assess patients with the following hematologic and oncologic emergencies including but not limited to: • Anemia • Sickle Cell disease • Thalassemias • Methhemogobinemia • Idiopathic thrombocytopenic purpura • Platelet function abnormalities	CT, ATLS	GL DO PL RL PRES	MON MON 2A 2A MON/A

	• Hemophilia and Von Willebrand's disease • Disseminated intravascular coagulation • Hypercoagulable conditions • Neutropenia • Transfusion reactions • Leukemias • Solid tumors			
	Evaluate patients with the following infectious emergencies including but not limited to: • Sepsis • Bacteremia • Meningitis • Encephalitis • Upper and lower respiratory tract infections • viral and bacterial gastroenteritis • Cellulitis • Lymphadenitis • Impetigo • Osteomyelitis • Septic arthritis • Urinary tract infections • Sexually transmitted diseases • Viral syndromes • Rocky Mountain spotted fever • Lyme disease	CT, ATLS	GL DO PL RL PRES	MON MON 2A 2A MON/A
	Assess patients with the following neurologic emergencies including but not limited to: • Seizures • Headaches • Encephalopathy • Disorders of motor function • Cranial nerve dysfunction • Movement disorders • Disorders of balance • Developmental delay • Head trauma • Skull fractures	CT, ATLS	GL DO PL RL PRES	MON MON 2A 2A MON/A

	• Loss of consciousness due to trauma • Shaking/Impact head injuries • Spinal cord injuries • Peripheral nerve injuries			
	Evaluate patients with the following ophthalmologic emergencies including but not limited to: • Periorbital and orbital cellulitis • Conjunctivitis from viral, chemical, bacterial and traumatic causes • Styes • Orbital trauma • Hyphema • Ruptured globe • Blowout fractures • Eyelid lacerations • Retinal hemorrhages • Corneal injuries • Vision loss	CT, ATLS	G L DO PL RL PRES	M ON MON 2A 2A MON/A
	Obtain visual acuities by examining eyes with a slit lamp	CT, ATLS	G L DO PL RL PRES	M ON MON 2A 2A MON/A
	Assess patients with the following psychosocial disorders: • Depression • Suicide attempts • Psychoses • Conduct disorders • Attention deficit hyperactivity disorder • Behavioral problems • Eating disorders • Substance Abuse • Rape • Physical Abuse • Pregnancy	CT, ATLS	G L DO PL RL PRES	M ON MON 2A 2A MON/A

	Assess patients with the following pulmonary emergencies including but not limited to: • Acute respiratory failure	CT, ATLS	G L DO PL	MO N MON 2A

	• Pneumonia • Stridor • Croup • Asthma • Bronchiolitis • Bronchitis • Pulmonary edema • Pulmonary embolism • Pleuritis • Sleep apnea • Cystic fibrosis • Pneumothorax • Hemothorax • Flail Chest • Pulmonary contusion • Traumatic asphyxia • Tracheal and bronchial injuries		RL PRES	2A MON/A
	Gain exposure to patients with the following renal and genitourinary emergencies including but not limited to: • Dehydration • Electrolyte disorders • Hypertension • Nephrotic syndrome • Acute renal failure • Hemolytic-uremic syndrome • Henoch-Schonlein purpura • Renal tubular acidosis • Chronic renal failure • Dialysis • Testicular and penile problems • Urinary tract infections • Urinary retention • Renal calcinosis	CT, ATLS	GL DO PL RL PRES	MON MON 2A 2A MON/A
Medical Knowledge	**SPECIALTY SPECIFIC OBJECTIVES**			
	Demonstrate application of the knowledge about the disease entities outlined above to patient care	CT, JC, PEM ACE, PEM	GL DO PRES INEX	MON MON MON/A A

	Demonstrate intellectual curiosity in their approach to clinical situations	CT	G L DO	M ON MON

	Correlate clinical signs and symptoms of the above mentioned diseases with a pathophysiologic approach to their management	CT, JC, PEM ACE	G L DO PRES INEX	MO N MON MON/A A
	Become familiar with patient "flow" in the ED and processes to evaluate patients efficiently	CT, PEM ACE	G L DO	M ON MON
Practice Based Learning and Improvement	**SPECIALTY SPECIFIC OBJECTIVES**			
	See General Pediatric Emergency Medicine Objectives for a comprehensive list.			
Interpersonal and Communication Skills	**SPECIALTY SPECIFIC OBJECTIVES**			
	See General Pediatric Emergency Medicine Objectives for a comprehensive list.			
Professionalism	**SPECIALTY SPECIFIC OBJECTIVES**			
	See General Pediatric Emergency Medicine Objectives for a comprehensive list.			
Systems-Based Practice	**SPECIALTY SPECIFIC OBJECTIVES**			
	See General Pediatric Emergency Medicine Objectives for a comprehensive list.			

SECOND YEAR PEDIATRIC EMERGENCY MEDICINE FELLOW

By the end of the Pediatric Emergency Medicine rotations in their second year of fellowship, the **second year** fellows are expected to expand and cultivate skills and knowledge learned during previous training and to achieve the following objectives based on the six general competencies. The resident should exhibit an increasing level of responsibility and independency as he or she progresses throughout the year.

Competency	Required Skill(s)	Teaching Method(s)	Formative Evaluation Method(s)	Frequency of Evaluation
Patient Care	**SPECIALTY SPECIFIC OBJECTIVES**			
	Initiate basic workup of patients and present a management plan to the precepting faculty	C T, ATLS	G L DO PL RL PRES	M ON MON 2A 2A MON/A
	With minimal faculty supervision, manage medical resuscitations with emphasis on stabilization with special attention to the airway, breathing, circulatory and neurologic status	C T, ATLS	G L DO PL RL PRES	M ON MON 2A 2A MON/A
	With minimal faculty supervision, participate in resuscitation of patients 14 years and younger who have suffered blunt or penetrating trauma using principles	CT, ATLS	G L DO PL	MO N MON 2A

	outlined in the Advanced Trauma Life Support (ATLS) certification course		RL PRES	2A MON/A
	Graduated responsibility at the discretion of the Program director and section	CT, ATLS	G L DO	M ON MON
	Assumption of more of a supervisory role with residents and medical students	CT, ATLS	G L DO	M ON MON
	Demonstrate more visibility in management of flow in the department	CT, ATLS	G L DO	M ON MON
	Receive incoming calls from referring institutions and physicians and consult with attending when appropriate	CT	G L DO	M ON MON
	Take more of a responsibility for fielding EMS calls and the communication phone	CT	G L DO	M ON MON
	Attend all critical cases in the department	CT	G L DO	M ON MON
Medical Knowledge	**SPECIALTY SPECIFIC OBJECTIVES**			
	Demonstrate application of the knowledge about the disease entities outlined above to patient care.	CT, JC, PEM ACE, PEM	G L DO PRES INEX	MO N MON MON/A A
	Demonstrate intellectual curiosity in their approach to clinical situations.	CT	G L DO	M ON MON
	Correlate clinical signs and symptoms of the above mentioned diseases with a pathophysiologic approach to their management.	CT, JC, PEM ACE	G L DO PRES INEX	MO N MON MON/A A
Practice Based Learning and Improvement	**SPECIALTY SPECIFIC OBJECTIVES**			
	See General Pediatric Emergency Medicine Objectives for a comprehensive list.			
Interpersonal and Communication Skills	**SPECIALTY SPECIFIC OBJECTIVES**			
	See General Pediatric Emergency Medicine Objectives for			

	a comprehensive list.			
Professionalism	**SPECIALTY SPECIFIC OBJECTIVES**			
	See General Pediatric Emergency Medicine Objectives for			

	a comprehensive list.			
Systems-Based Practice	**SPECIALTY SPECIFIC OBJECTIVES**			
	See General Pediatric Emergency Medicine Objectives for a comprehensive list.			

THIRD YEAR PEDIATRIC EMERGENCY MEDICINE FELLOW

By the end of the Pediatric Emergency Medicine rotations in their third year of fellowship, the **third year** fellow is expected to expand and cultivate skills and knowledge learned during previous training and to achieve the following objectives based on the six general competencies. The resident should exhibit an increasing level of responsibility and independency as he or she progresses throughout the year.

Competency	Required Skill(s)	Teaching Method(s)	Formative Evaluation Method(s)	Frequency of Evaluation
Patient Care	**SPECIALTY SPECIFIC OBJECTIVES**			
	Demonstrate independence in completing patient workup and formulate a plan for disposition prior to being precepted by PEM faculty	CT, ATLS	GL DO PL RL PRES	MON MON 2A 2A MON/A
	Independently manage medical resuscitations	CT, ATLS	GL DO PL RL PRES	MON MON 2A 2A MON/A
	Demonstrate ability to independently manage resuscitation and stabilization of patients 14 years and younger who have suffered blunt or penetrating traumas	CT, ATLS	GL DO PL RL PRES	MON MON 2A 2A MON/A
	Same as outlined for the second year resident but become a supervisory adjunct (“pre” attending) in the ED			
	Manage all trauma & medical codes or resuscitations			
Medical Knowledge	**SPECIALTY SPECIFIC OBJECTIVES**			
	Demonstrate application of the knowledge about the disease entities outlined above to patient care.	CT, JC, PEM ACE, PEM	GL DO	MON MON
	Demonstrate intellectual curiosity in their approach to clinical situations.	CT	G L DO	M ON MON
	Correlate clinical signs and symptoms of the above mentioned diseases with a pathophysiologic approach to their management.	CT, JC, PEM ACE	G L DO PRES	MO N MON MON/A

Practice Based Learning and Improvement	**SPECIALTY SPECIFIC OBJECTIVES**			
	See General Pediatric Emergency Medicine Objectives for a comprehensive list.			
Interpersonal and Communication Skills	**SPECIALTY SPECIFIC OBJECTIVES**			
	See General Pediatric Emergency Medicine Objectives for a comprehensive list.			
Professionalism	**SPECIALTY SPECIFIC OBJECTIVES**			
	See General Pediatric Emergency Medicine Objectives for a comprehensive list.			
Systems-Based Practice	**SPECIALTY SPECIFIC OBJECTIVES**			
	See General Pediatric Emergency Medicine Objectives for a comprehensive list.			

Research Curriculum Goals and Objectives

The research curriculum consists of two major components

1. Development and completion of an individual scholarly activity project under the supervision of a faculty mentor and oversight by the fellowship director, research director and scholarly activity committee. This includes eleven months of research time. Additional research time is available if needed
2. Participation in a variety of didactic experiences designed to develop skills in research design, statistics and critical appraisal of the medical literature.

GOAL: To participate in the completion of an individual scholarly activities project and generate a written work product in accordance with criteria for scholarly activity				
Competency	Required Skill(s)	Teaching Method(s)	Formative Evaluation Method(s)	Frequency of Evaluation
Medical Knowledge, Systems-Based Practice	**YEAR ONE**			
	To formulate a research question	ICCR, SRD, PEM ACE, Mentorship	Research Meeting (PEM ACE)	Quarterly
	To conduct a literature review	ICCR, SRD, PEM ACE	Research Meeting (PEM ACE)	Quarterly
	To write a research proposal for submission	ICCR, SRD, PEM ACE	Research Meeting (PEM ACE)	Quarterly
	To design and implement data collection	ICCR, SRD, PEM ACE	Research Meeting (PEM ACE)	Quarterly

	To conduct research in an ethical manner	ICCR, SRD, PEM ACE	Research Meeting (PEM ACE)	Quarterly
	To participate in the review and critique of ongoing research	ICCR, SRD, PEM ACE	Research Meeting (PEM ACE)	Quarterly
	YEAR TWO			
	To design and implement data collection	ICCR, SRD, PEM ACE	Research Meeting (PEM ACE)	Quarterly
	To analyze and interpret data	ICCR, SRD, PEM ACE	Research Meeting (PEM ACE)	Quarterly
	To conduct research in an ethical manner	ICCR, SRD, PEM ACE	Research Meeting (PEM ACE)	Quarterly
	To participate in the review and critique of ongoing research	ICCR, SRD, PEM ACE	Research Meeting (PEM ACE)	Quarterly
	YEAR THREE			
	To analyze and interpret data	ICCR, SRD, PEM ACE	Research Meeting (PEM ACE)	Quarterly
	To submit completed research for presentation	ICCR, SRD, PEM ACE	Research Meeting (PEM ACE)	Quarterly
	To prepare a manuscript for submission	ICCR, SRD, PEM ACE	Research Meeting (PEM ACE)	Quarterly
GOAL: To acquire the knowledge and skills to become effective investigator				
Competency	Required Skill(s)	Teaching Method(s)	Formative Evaluation Method(s)	Frequency of Evaluation
Medical	**YEAR ONE**			

Knowledge	To participate in course work in research design	ICCR, SRD, PEM ACE	Research Meeting (PEM ACE)	Quarterly

	To participate in course work in statistics	ICCR, SRD, PEM ACE	Research Meeting (PEM ACE)	Quarterly
	To participate in course work in the ethical conduction of human research	ICCR, SRD, PEM ACE, CITI	Course Post-Test, Research Meeting (PEM ACE)	Quarterly
	YEAR TWO			
	To participate in course work in research design	ICCR, SRD, PEM ACE	Research Meeting (PEM ACE)	Quarterly
	To participate in course work in statistics	ICCR, SRD, PEM ACE	Research Meeting (PEM ACE)	Quarterly
	YEAR THREE			
	To participate in course work in research design	ICCR, SRD, PEM ACE	Research Meeting (PEM ACE)	Quarterly
	To participate in course work in statistics	ICCR, SRD, PEM ACE	Research Meeting (PEM ACE)	Quarterly

GOAL: To acquire the knowledge and skills to become To understand the broad implications of research including the applicability of research to patient care				
Competency	Required Skill(s)	Teaching Method(s)	Formative Evaluation Method(s)	Frequency of Evaluation
Medical Knowledge, Systems Based Practice	**YEAR ONE**			
	To participate in course work in critical appraisal of the medical literature	ICCR, Making Evidence Based Medicine Simple Course	Course Modules	ICCR (Once/year), Monthly

	To participate in the review and critique of the medical literature	ICCR, PEM ACE	Course Modules, PEM ACE	Monthly
	To attend local and national conferences where research is discussed	American Academy of Pediatrics National Conference, PAS National Meeting, AAEM National Meeting	Self-Evaluation	Yearly
	YEAR TWO			
	To participate in the review and critique of the medical literature	ICCR, PEM ACE	Course Modules, PEM ACE	Quarterly
	To attend local and national conferences where research is discussed	National Pediatric Emergency Medicine Fellow Conference, American Academy of Pediatrics National Conference, PAS National Meeting, AAEM National Meeting	Research Presentation and Critique at National Pediatric Emergency Medicine Fellow Conference	Yearly
	YEAR THREE			
	To participate in the review and critique of the medical literature	ICCR, PEM ACE	Course Modules, PEM ACE	Monthly
	To attend local and national conferences where research is discussed	National Pediatric Emergency Medicine Fellow Conference, American Academy of Pediatrics National Conference, PAS National Meeting, AAEM National Meeting	Research Presentation and Critique at National Pediatric Emergency Medicine Fellow Conference	Yearly

TEACHING CURRICULUM - GOALS AND OBJECTIVES

TEACHING CURRICULUM – FELLOW 1,2,3		COMPETENCY
Goal	To participate in a variety of teaching experiences which will enable the fellow to provide effective education to a variety of groups and in a variety of settings	
Objectives	1. To teach pediatric resuscitation skills	PC11, PROF4
	2. To teach one on one in a clinical environment	PC11, PROF4
	3. To teach in a problem based learning format to small groups	PC11, PROF4
	4. To teach large groups in a lecture format	PC11, PROF4
	5. To teach procedural skills	PC11, PROF4
	6. To teach resuscitation, procedural skills and communications skills in a simulation environment	PC11, PROF4
	7. To develop learner appropriate educational materials that are concise and applicable to the learning objectives of the teaching encounter	PC11, PROF4
	8. To provide feedback to learners	PC11, PROF4
GOAL	To acquire the knowledge and skills to become an effective educator	
Objectives	1. To participate in course work in teaching and presentation skills including: a. Adult learning principles b. Curriculum development and assessment c. Clinical Precepting d. Problem based learning to small groups e. Delivering effective lecture f. Providing feedback to learners g. Principles of lifelong learning	PC11, PROF4

MK – Medical Knowledge, PC - Patient Care
PROF - Professionalism
PBLI - Practice Based Learning and Improvement ISC - Interpersonal Skills and Communication SBP - Systems Based Practice

TEACHING ACTIVITIES - GOALS AND OBJECTIVES

CASE CONFERENCES – FELLOW 1, 2, 3 **Pediatric Resident Noon Case Conference (Wednesday)** **Pediatric Emergency Medicine Case Conference (Wednesday)**		**COMPETENCY**
Goal	To develop leadership skills in facilitating small group problem- based learning.	
Objectives	To lead discussions on diagnostic cases – F1,2,3	PC11, PROF4
	To lead discussions on management cases – F1,2,3	PC11, PROF4
	To lead discussions on toxicology cases – F1,2,3	PC11, PROF4
	To lead procedural skills workshops – F 1,2,3	PC11, PROF4
	To develop and utilize teaching materials – F1,2,3	PC11, PROF4
MK – Medical Knowledge PBLI -Practice Based Learning and Improvement PC - Patient Care ISC - Interpersonal Skills and Communication P – Professionalism SBP - Systems Based Practice		

Lecture Presentations – FELLOW 1, 2, 3 **Pediatric Resident Noon Conference (Wednesday)**		**COMPETENCY**
Goal	To develop leadership skills in facilitating large group discussions in a lecture format	
Objectives	To utilize information technology to produce effective presentations	PC11, PROF4
	To utilize information technology to determine the best evidence resources for the presentation	PC11, PROF4
	To develop presentations effective at conveying information at a fellow or attending level	PC11, PROF4
	To develop presentations effective at conveying information at a medical student or resident level	PC11, PROF4
MK – Medical Knowledge PBLI -Practice Based Learning and Improvement PC - Patient Care ISC - Interpersonal Skills and Communication PROF – Professionalism SBP - Systems Based Practice		

RESUSCITATION/PROCEDURE EDUCATION – FELLOW 1,2,3 **Advanced Pediatric Life Support** **Pediatric Emergency Medicine Simulation Program Pediatric Residents Procedure Skills Workshops**		**COMPETENCY**
Goal	To develop skills in facilitating small group learning of resuscitation and procedural skills	
Objectives	To participate as an educator in pediatric advanced life support courses – F1, 2, 3	PC11, PROF4
	To become a certified pediatric advanced life support instructor – F3	PC11, PROF4
	To provide procedural skills workshops to junior fellows – F2, 3	PC11, PROF4
	To provide procedural skills workshops to pediatric and emergency medicine residents – F1, 2, 3	PC11, PROF4
	To utilize high fidelity simulation to facilitate learning of resuscitation skills – F1, 2, 3	PC11, PROF4
MK – Medical Knowledge PBLI -Practice Based Learning and Improvement PC - Patient Care ISC - Interpersonal Skills and Communication PROF – Professionalism SBP – Systems Based Practice		

PEM JOURNAL CLUB – FELLOW 1,2,3		**COMPETENCY**
Goal	To critically review a journal article	
Objectives	To use information technology to identify an article from the recent pediatric emergency medicine literature – F1, 2, 3	PBLI1
	To evaluate the validity, results and applicability of a variety of article types – F1, 2, 3	MK1
	To develop a clinical bottom line summarizing the articles impact on patient care – F1, 2, 3	SBP1
	To present verbally the results of a critical appraisal – F1, 2, 3	ICS1
	To facilitate a group discussion of an article. F1,2,3	PROF4
	To develop a written summary of an article for distribution to faculty, fellows and residents. F1,2,3	PBLI1, SBP1
MK– Medical Knowledge PBL -Practice Based Learning and Improvement PC - Patient Care ISC - Interpersonal Skills and Communication PROF – Professionalism SBP - Systems Based Practice		

ADMINISTRATIVE CURRICULUM - GOALS AND OBJECTIVES

ADMINISTRATIVE CURRICULUM – FELLOW 1,2,3		COMPETENCY
Goal	To develop familiarity with the administrative issues affecting the practice of Pediatric Emergency Medicine	
Objectives	To participate in quality improvement activities to improve patient care and safety	SBP2
	To participate in education of medico-legal concerns including finance and marketing, hospital organizational structure, personnel management, community outreach and legislative issues regarding child advocacy.	SBP2
MK – Medical Knowledge, PC - Patient Care PROF - Professionalism PBL - Practice Based Learning and Improvement ISC - Interpersonal Skills and Communication SBP - Systems Based Practice		

EVALUATION OF THE FELLOWS BY THE FACULTY

The fellowship program requires its fellows to obtain Level 4 Milestones (proficient) in of the competencies. These criteria are assessed in accordance with the goals and objectives of the program. The specific goals and objectives related to the competencies are provided in this manual for each of the curriculum components, each clinical rotation and each research, teaching or administrative task.

PEM nursing staff and patients/families, the PEM faculty and the fellowship director and the rotation coordinators evaluate the fellows. These evaluations are review by the fellows clinical competency committee.

Clinical Competency Committee (CCC):

- Composed of 3 faculty members (minimum) may include faculty from other programs and non-physician members of the health care team
- Appointed by program director
- For each fellow, semi-annually review all evaluations – rotation evaluations, end of year evaluations by faculty
- Prepare milestone reports for ACGME submission
- Make recommendations to program director regarding progress, promotion, remediation, dismissal

Records of evaluations and supporting documents are maintained in a confidential manner by the Program Director. They are then compiled and discussed with the trainees by Dr. Khanna. During the first year, trainees meet with Dr. Khanna in an orientation and planning session at the beginning of the academic year. The fellows subsequently meet with Dr. Khanna at 6 months to review their evaluations and evaluate their progress in obtaining their stated goals for the year. During the next two years of training, trainees meet with Dr. Khanna at 6-month intervals. The first meeting of the year is a review of the prior six months and an opportunity to set goals for the coming year. The midyear meeting reviews the prior six-month performance and progress toward meeting the stated goals. In addition, each senior fellow meets with Dr. Khanna at the end of his training to review performance.

During the evaluation process the fellows are expected to develop and individual learning plan and goals. The plans are intended to address the needs of the fellow and generally are implemented over a 6-12 month period. Subsequent evaluations address progress toward obtaining these goals.

A summary of each meeting is prepared by Dr. Khanna and then distributed to the trainee for review. Trainees who may have difficulties highlighted in a particular evaluation or who seem to be having personal or work-related difficulties may require more frequent evaluation sessions. The fellow is encouraged to discuss any issues or concerns with Dr. Khanna at the earliest possible date.

PEM Faculty and Rotation Coordination Evaluations
Fund of knowledge
History and physical exam skills
Diagnostic decisions
Management decisions
Documentation
Procedural skills
Ability with emergencies
Leadership
Commitment to learning
Commitment to teaching
Accepts feed back / Acknowledges limits
Interpersonal skills
Systems based practice
Overall competence
Areas of commendation
Areas that need improvement

EVALUATION OF THE FACULTY BY THE FELLOW

Pediatric Emergency Medicine fellows complete a confidential written evaluation form at the completion of each academic year for each Pediatric Emergency Medicine faculty member. The evaluation specifically focuses on:

PEDIATRIC EMERGENCY SERVICE CRITERIA
Accessible for Case Discussions
Assists with Administrative Issues
Allows for Fellow Independence / Leadership
Models Professional Interactions

ACADEMIC CRITERIA
Assistance with Conference Presentations
Assistance with Lecture Presentation
Assistance with Journal Club Presentations
Assistance with Research Activities
Assistance with Administrative Roles / Issues
Role Model in Pediatric Emergency Medicine

Med-Hub summarizes each faculty member's evaluation, calculating mean scores and transcribes specific comments. The summary evaluation is distributed to each faculty in a confidential manner.

The trainees at the completion of their rotation evaluate the teaching skills of participating program faculty at all affiliated institutions monthly. The respective department chairmen evaluate clinical knowledge and scholarly activities.

Faculty members receive a verbal review of their clinical and teaching performance in a meeting with the Director or Assistant Director of Emergency Medicine that is based on a summary of the Emergency Medicine resident's evaluations. In addition, faculty are given written performance reviews of all lectures, workshops or seminars conducted for departmental review courses. Dr. Dannenberg and Dr. Mahadhevan reviews each Pediatric Emergency Medicine faculty member's academic and scholarly performance annually.

Nursing, Social Work, Resident, NP/PA, Pharmacy Evaluation
Communication, Interpersonal Skills, and Professionalism
Evaluation Form – 360°, Evaluated on 5 point Likert Scale

Family/Patient Evaluation – Evaluated as Yes/No/Unable to Assess
Did the doctor introduce himself or herself to you?
Did the doctor listen carefully to your needs?
Did the doctor answer your questions clearly?
Did the doctor provide enough time to address your questions?
Did the doctor treat your concerns respectfully?
If there were delays in the treatment of your child, were you given an explanation?
Did you understand the instructions given to you?
I would bring my child to the Stanford Pediatric Emergency Room again?

Records of evaluations and supporting documents are maintained in a confidential manner by the Program Director. They are then compiled and discussed with the trainees by Dr. Khanna. During the first year, trainees meet with Dr. Khanna in an orientation and planning session at the beginning of the academic year. The fellows subsequently meet with Dr. Khanna at 6 months to review their evaluations and evaluate their progress in obtaining their stated goals for the year. During the next two years of training, trainees meet with Dr. Khanna at 6-month intervals. The first meeting of the year is a review of the prior six months and an opportunity to set goals for the coming year. The midyear meeting reviews the prior six-month performance and progress toward meeting the stated goals. In addition, each senior fellow meets with Dr. Khanna at the end of his training to review performance.

During the evaluation process the fellows are expected to develop and individual learning plan and goals. The plans are intended to address the needs of the fellow and generally are implemented over a 6-12 month period. Subsequent evaluations address progress toward obtaining these goals.

A summary of each meeting is prepared by Dr. Khanna and then distributed to the trainee for review. Trainees who may have difficulties highlighted in a particular evaluation or who seem to be having personal or work-related difficulties may require more frequent evaluation sessions. The fellow is encouraged to discuss any issues or concerns with Dr. Khanna at the earliest possible date.

At the end of training the program directors prepares a summative evaluation of the graduating fellow.

DEMONSTRATED COMPETENCE IN CLINICAL ACTIVITIES

1. Rotation coordinator evaluations of clinical rotation performance
2. Pediatric emergency medicine faculty evaluation of PEM performance
3. Performance on in-service examinations
4. Demonstration of procedural competency
5. Participation at academic conferences

DEMONSTRATED COMPETENCE IN TEACHING ACTIVITIES

1. One on one clinical teaching in the clinical environment
2. Small group instruction - Peds and EM conferences, APLS, simulation cases
3. Lectures - PEM conference, Pediatric and EM lectures
4. Curriculum development for PEM conferences (Teaching fellow - F2)
5. Development and distribution of educational materials (Stanford Pediatric Emergency Medicine Handbook, lectures)
6. Participation in the PEM Fellow teach the teaching course

DEMONSTRATED COMPETENCE IN RESEARCH ACTIVITIES

1. Progress toward completion of a scholarly activity project that fulfills the American Board of Pediatrics criteria for scholarly activity.
2. Participation in fellows research design, biostatistics and critical appraisal of the literature course.
3. Participation in fellow research review meetings
4. Participation in journal clubs that demonstrate facility with an evidence based approach to appraisal of the literature
5. Development and distribution of article critiques (PEM NUGGET's)

DEMONSTRATED COMPETENCE IN ADMINISTRATIVE ROLES

1. Ability to manage the administrative responsibilities as the supervisor of the Pediatric Emergency Service
2. Participation in administrative discussions and design and implementation of administrative policies.
3. Completion of a quality improvement project
4. Participation in the national PEM fellow patient safety curriculum

The final milestone levels attained are included as well as a statement documenting that the fellow is at a level of practice consistent with the pediatric emergency medicine entrustable professional activities.

EVALUATION OF ROTATIONS

Fellows are required to submit a written evaluation after each completed rotation. These evaluations focus on:

Adequate Exposure to a Number of Patients
Adequate Exposure to a Variety of Patients
Opportunity with Emergencies
Opportunity for Procedural skills
Commitment to Teaching by Faculty
Didactic Experience (Lectures, Conferences)
Overall Experience

These evaluations are reviewed verbally between the trainee and Dr. Khanna. Additional comments and criticisms are transcribed as part of the rotation evaluation summary compiled by Dr. Khanna. Rotations in which the goals of the rotation are not be met will be discussed with the rotation coordinator and appropriate changes made.

EVALUATION OF PROGRAM

The evaluation of the fellowship program is a dynamic process that encompasses:

1. Evaluation of fellow performance (clinical, research, teaching and administrative)
2. Evaluation of faculty in relation to their role in fellow training
3. Evaluation of specific clinical rotations by fellows and rotation coordinators
4. Evaluation of the overall curriculum in accord with specific clinical, research, teaching and administrative goals by the Program Evaluation Committee
5. Fellow performance on the in-service and credentialing examinations
6. Fellow performance of procedural skills

The fellow is given an opportunity to review the program curriculum on an annual basis. The clinical, research, teaching and administrative curriculum are assessed on each of the following criteria. In addition, the fellows are encouraged to express additional narrative comments regarding particular areas of strength or weakness.

Each spring, the fellowship director and fellows have a retreat to discuss fellowship issues and develop a plan of action for the upcoming year

Each year a state of the fellowship meeting is held with faculty and fellows and the annual program evaluation is reviewed and an action plan for the upcoming year is developed.

In addition to the internal evaluation of the program by the fellows, the fellows also complete the annual ACGME Resident/Fellow Survey.

INTERNAL PROGRAM EVALUATION CRITERIA

CLINICAL CRITERIA

Clear Goals and Objectives
Able to Meet Goals and Objectives
Adequacy of Clinical Supervision
Opportunity with Emergencies
Opportunity for Procedures
Opportunity for Leadership
Availability of Clinical Role Models
Faculty Commitment to Teaching
Didactics - PEM Conferences
Overall Clinical Experience

RESEARCH CRITERIA

Clear Goals and Objectives
Able to Meet Goals and Objectives
Adequacy of Research Supervision
Didactics - Fellow research meetings
Didactics - Research Design Course
Didactics – Biostatistics Course
Didactics - EBM Course
Availability of Research Role Models
Faculty Commitment to Research Teaching
Overall Research Experience

TEACHING CRITERIA

Clear Goals and Objectives
Able to Meet Goals and Objectives
Opportunities to Teach
Adequacy of Supervision – AM Conference
Adequacy of Supervision – Lecture Preparation
Adequacy of Supervision – Journal Clubs
Didactics – Teaching Course
Availability of Teaching Role Models
Faculty Commitment to Teaching
Overall Teaching Experience

ADMINISTRATIVE CRITERIA

Clear Goals and Objectives
Able to Meet Goals and Objectives
Clear Fellowship Administrative Policies
Adequacy of Supervision – Admin Roles
Adequacy of Exposure to Admin Topics
Adequacy of Career Guidance (Fellow 3 Only)
Didactics – Admin Lecture Series
Availability of Administrative Role Models
Faculty Commitment to Administrative Issues
Overall Administrative Experience

EVALUATION OF THE PROGRAM BY THE FACULTY

The faculty evaluate the program annually. They are asked to comment on the program based on the following questions.

Please indicate any feedback that you would like to provide regarding the Pediatric Fellowship Program.

- Coverage/staffing
- Fellow responsibilities
- Fellow performance
- Supervision of fellows
- Suggestions for change in the current rotations,
- Suggestions for new rotations
- Administration of the program
- Educational program and conferences
- Suggestions for program development
- Suggestions for faculty development

In addition to the internal evaluation of the program by the core faculty, the core faculty also complete the annual ACGME Resident/Fellow Survey and participate in the annual program evaluation

LICENSURE

Fellows must obtain a California State License prior to matriculating into the program.

SUBSEPCIALTY IN-TRAINING EXAM (SITE)

The in-service examination is administered on an annual basis and is mandatory for the fellows. It is an opportunity to participate in a process that closely approximates the Certification exam in Pediatric Emergency Medicine, allows for self-appraisal of knowledge acquisition and for the program directors to gauge the progress of the individual fellow and to provide feedback on the effectiveness of the curriculum**.** Specific areas on the examination that a majority of the fellows have difficulty with will targeted in the fellowship didactic curriculum. The examination is a 4-hour, computer examination that is given in the winter each year of training and provides the participant with ongoing feedback.

SITE will be offered as a computerized examination available at Prometric testing centers. There will be approximately 190 multiple-choice questions. There will be approximately 4 hours to complete the exam. The cost of the exam is $160 (2017 examination). Registration will be available at the ABP web site (http://www.abp.org) beginning in October of the year prior to examination. The fellow will be reimbursed for the registration for the exam.

INDIVIDUALIZED LEARNING PLAN (Program of Study)

The best way to prepare for the credentialing examination is to develop an individualized program of study that begins early in the training process. I would suggest a process that reviews specific core content topics during the corresponding clinical rotation. For example, toxicology review should be performed during the rotation in toxicology. There are two excellent Pediatric Emergency Medicine Texts. (Fleisher and Ludwig or Barkin). There are also question and answer review books that parallel each of these texts. These are an excellent way to test your mastery of the core contents that will be covered by the credentialing exam. Regular conference attendance will supplement these preparations.

We hold monthly board review sessions for the fellows as part of the Wednesday conference schedule.

CERTIFICATION

After the completion of training the fellow applies to the American Board of Pediatrics in order to take the credentialing examination in pediatric emergency medicine. The exam is given every other year on the odd numbered years in the late winter or early spring.

FELLOW WELLBEING

STRESS

FELLOW WELLNESS

The PEM conference administrative seminar series includes topics related to physician wellness. In addition fellow wellness is assessed and discussed at each semiannual review and intermittently as needed.

The Department of Graduate Medical Education is committed to ensuring that residents and fellows remain physically and mentally healthy while completing their training program. Residency can be an inherently stressful time, and it is important to take care of yourself so that you can get the most out of your educational experience.

If you are experiencing a particularly stressful or otherwise difficult situation, please feel free to contact:

WellConnect PHONE: 650-724-1395	Well-Being Panel PHONE: 650-346-3241
Consultation and service jointly sponsored by the Department of Psychiatry and Stanford Healthcare to facilitate timely access to counseling, stress management and coping skills, and mental health services. Mickey Trockel, MD, PhD, Clinical Associate Professor, Director Christina Khan, MD, PhD, Clinical Assistant Professor Kristin Raj, MD, Clinical Instructor ▪ 24x7 Access (someone is always on call via the phone number above- also available for emergencies) ▪ Non-urgent issues also can be communicated via e-mail to wellconnect@stanford.edu and will be reviewed and answered on business days ▪ Confidential ▪ One-time visits or longer term care through Stanford or referral to providers in the community	Led by psychiatrist Janet Spraggins, MD, the panel of 60 therapists offers 12 free sessions to all housestaff (courtesy of the Well Being Committee). ▪ Not for emergencies (you will receive a call back within 24 hours) ▪ Confidential ▪ Access to 60 Non-Stanford Clinic Psychiatrists & Psychologists ▪ 12 Free Visits (no insurance) ▪ After 12 free visits, you can use insurance or pay cash

The recently re-named Stanford Committee for Professional Satisfaction and Support was launched in 2010 by then Chief of Staff Bryan Bohman in an effort to help physicians balance the increasing demands of the modern practice environment. Since its inception SCPSS's guiding principle has been that the professional satisfaction of physicians and other caregivers is inextricably linked to quality, safety and patient-centeredness. The SCPSS brochure highlights many of the efforts the committee promotes or sponsors.

The following resources are also available to you:

- Ann Dohn (GME Director) has an "open door" policy and is always ready and willing to help with resident concerns and problems. She can be reached at 650-723-5948. You can also

anonymously report a concern to the Department of Graduate Medical Education using this form.

- The Stanford University Help Center - To contact the Help Center, call 650-723-4577. In addition to the Faculty Staff Help Center, you can also use the Value Options EAP - which has the same benefit of 10 free and confidential sessions. They can be reached at 855-281-1601.
- The Office of the Ombudsperson at the Stanford University School of Medicine at 650-723-3682.
- Well Being Committee - It is imperative that housestaff in a position of responsibility, whether for patient care or other areas, not have their performance impaired by drugs, alcohol or other circumstances. For those who recognize that they have such a problem or feel they may be developing a problem or need advice concerning substance abuse, there is a Physician Support Panel which functions on a confidential basis. Members are knowledgeable about the subject and act as physician advocates, offering advice on sources of treatment and other aspects. For access to the Well Being Committee, contact Dr. William Berquist, Chairman of the Physicians Support Panel at Stanford University Medical Center. He can be reached at 650-498-5603.

Taxi Vouchers for Residents and Fellows

The Office of Graduate Medical Education provides taxi vouchers to any resident or fellow who feels too tired to drive home safely after a long work shift. Please note that the vouchers are only to be used in the event a trainee is unfit to safely drive home. The voucher is good for a one time, two-way ride in a Yellow Cab from SHC to the trainee's home then back to SHC at no cost to the trainee.

If you have any questions regarding this program please call the GME Office at (650) 723-5948 or Email: gme@med.stanford.edu

Location of Voucher Pick-Up: Taxi vouchers may be obtained either in the GME Office on the 4th floor (HC 435) or at the SHC Security Office after hours or on weekends. The Security Office is located at Room H0258 (Ground Floor of hospital, take the escalators down, turn left, then left again at the next corridor, office is on your left-hand side, follow the signs). Security Office phone: 650.723.7222, open 24 hours.

Trainees will be asked to show their SHC Housestaff Photo ID badge, sign a log-sheet and provide their program name, number of hours worked, and provider ID.

Schedule a Taxi: The voucher/card is good for a one-way, one-time ride home with Yellow Checker Cab Company. To schedule a pick-up, residents and fellows should first pick up the voucher, and then call the Yellow Cab at (650) 321-1234.

SHC will be piloting the use of UBER as a means for transportation home **when you are too tired to drive home**. As an authorized user, you will receive an invitation from UBER to complete the setup of your Stanford account.

Please observe the following guidelines when using your SHC UBER account. GME will monitor usage and review the UBER report monthly and a formal policy will be created using the same guidelines.

- If you have both a personal and SHC business account with UBER, select the SHC account only for its intended purpose. As a reminder, **UBER is only to be used if you are too tired to drive home**. It is not to be used if your car is being repaired or for any other reasons.
- You must limit the car selection to UBER X.
- Pickup point must be limited to 300 Pasteur Drive.
- You must limit the destination to your home address.
- You must limit the return point to within 0.25 miles of 300 Pasteur (in case your car is parked off premises).
- You should not ask UBER to make personal stops e.g. dry cleaners, fast food, post office,

etc.

Keep in mind that cab vouchers will continue to be available in GME and the Security Offices at SHC and LPCH.

For any questions on your UBER account, please contact Jonathan Orana with the Controller's Office at jorana@stanfordhealthcare.org or 650-721-4240.

LANE STANFORD MEDICAL LIBRARY

Visit the Stanford Medical Library at Lane Stanford Medical Library.

When you enter a search term, it provides resources from Up to Date, national guidelines, Pubmed, the Cochrane collaboration, many textbooks and a vast array of other resources. This is a great place for one stop shopping including quick answers in the clinical setting.

FELLOWSHIP WEBSITES

PEM Fellowship – Our fellowship site includes the fellowship manual, annual schedule, course materials for our statistics, research design and critical appraisal curriculums, sentinel articles and suggestions for upcoming journal clubs.

ADDITIONAL INTERNET RESOURCES

PEM Database
http://www.pemdatabase.org
PEM database.org has a variety of resources. Probably the most useful is their listing of recent studies. Each week they review the literature and select out the studies relevant to PEM. If you register for the site they will send you a weekly e-mail announcing the new studies

PEM Fellow (http://pemfellows.com) AKA PEM Network (http://pemnetwork.org)
This was started by PEM fellows and now hosts a variety of resources. The national PEM fellow patient safety curriculum that we will participate in this year is accessed through this site. Register for an account.

Journal Table of Contents
(http://www.journaltocs.hw.ac.uk)
Register for an account. You then select the journals that you want to follow. When a new issue is published they e-mail you the table of contents. This is a great way to keep up to date with the new literature.

Pediatric Emergency Medicine Discussion List
https://listserv.brown.edu/?A0=PED-EM-L
Before there was Facebook and before there was Twitter there was the Brown pediatric emergency medicine discussion list. Subscribe to the site and you will be able to follow and contribute to discussions on just about every topic in pediatric emergency medicine. It is a good way to get a feeling for how our field views some of the more controversial topics and to keep abreast of how things are done elsewhere.

Evidence Based Medicine Calculators
http://ktclearinghouse.ca/cebm/practise/ca/calculators/statscalc
This site is run by the Center for Evidence-based Medicine in Canada. It has a number of excellent EBM calculators.

BLOGS
One of our faculty, Dr. Nikita Joshi, is well-versed in the social media/blogs related to emergency medicine and is a great resource for learning more about free open-access medical education.

Life in the Fast Lane
http://lifeinthefastlane.com/foam/foamed/
This is a general emergency medicine site with a variety of resources. I particularly like the EKG library. Everything you need to know about EKG's (including pediatric EKG's) is presented here in multiple format.

Academic Life in Emergency Medicine
http://www.academiclifeinem.com
I consider this the most rigorous of the general emergency medicine sites

Pediatric Emergency Medicine Morsels
http://pedemmorsels.com

PEM Blog
http://www.pemcincinnati.com/blog/

RADIOLOGY RESOURCES

PEM XRAY was put together by a peds EM physician (not a radiologist) and consists of almost 140 cases with accompanying XRAYS
https://www.hawaii.edu/medicine/pediatrics/pemxray/pemxray.html

Royal College of Radiologists - The 'Tutorials' and 'Galleries' tabs are free and semi-interactive.
http://radiologymasterclass.co.uk/tutorials/tutorials.html

ON CALL ROOMS

Resident on call rooms are located on the 4th floor of the hospital over the "C" wing (access is via the staircase located adjacent to the hospital's Gift Shop) and adjacent to the ICUs and operating rooms. Rooms are assigned by service.

Door combinations can be obtained from your chief resident or by contacting the GME Office at 723-5948.

A number of unassigned on call rooms are located on the 4th floor as well. They are clearly marked as "hotel rooms" and are open to any resident/fellow. The door combinations can be obtained from the GME Office.

The 4th floor also has a lactation lounge for nursing residents and a fellow work room with computers and telephones. There is a small exercise facility available for use by housestaff.

IDENTIFICATION BADGES

In order to obtain a team card we will first need a professional high-resolution photo with a grey background. **If residents/fellows do not have one, residents/fellows may come to our team cards photoshoot to obtain one. The session after they begin will be held on August 1st from 11:00 am to 2:00 pm in the SHC Atrium.**

We will use the photo to create the team card. If the resident/fellows has a photo, they may send it to the GME Office and we can review it to ensure that it is suitable. They will also need to provide the following information:

- Name
- Credentials
- Provider type
- Specialty
- Mail code

Contact Team Cards: teamcards@stanfordhealthcare.org

California Medical License:

- Initial CA Medical License:
  - Interns: Stanford interns are eligible to receive reimbursement of the initial application fee ($491) if the application is submitted to the GME office for review no later than March 3rd of the internship year. They are eligible to receive an additional reimbursement of the $416.50 license if issued no later than September 1st of the PGY II year.
  - Interns will not receive reimbursement if they leave after their intern year.
  - New PGY II Residents: New PGY II residents (completed internship elsewhere) are eligible to receive partial reimbursement of application/license fees ($893). The license must be issued no later than September 1st to be eligible for reimbursement.
  - New PGY III and above: New PGY III and above are eligible to receive partial reimbursement of application/license fees ($893). The license must be issued after receipt of an offer letter from a Stanford program and before you start training at Stanford.
- CA Medical License Renewal (Continuing Residents):
  Reimbursements for California Medical License renewals are done throughout the year. Please complete the reimbursement form and attach proof of payment.
  - Renewal will be reimbursed for only those CA MD licenses that expire while the resident is under contract with Stanford Hospital and Clinics.
  - Reimbursement will not be given to housestaff that let their CA MD license lapse.
  - Reimbursement will be in the amount of $805.

DEA Certificate:

Reimbursements are done throughout the year. Renewal will be reimbursed for only those DEA Certificates that expire while the resident is under contract to Stanford Hospital and Clinics.

Residents can only obtain a DEA Certificate after receiving their California Medical License.

USMLE Part III:

Only Stanford Hospital and Clinics interns are eligible for reimbursement. SHC will reimburse for one sitting of USMLE III.

Reimbursement Form

Meal Money Reimbursement:

Earned food money funds will be paid on the second paycheck of every month.