Inpatient Medicine

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What is a Hospitalist?

- The term was first introduced in 1996 and defined as
  - "A specialist in inpatient medicine who is responsible for managing the care of hospitalized patients the same way a PCP is responsible for managing the care of outpatients"
- Definition was updated and added to Webster Dictionary in 2005
  - "A physician who specializes in treating hospitalized patients of other physicians in order to minimize the number of hospital visits by other physicians"
- Society of Hospital Medicine (SHM) Definition
  - "Physicians whose primary professional focus is on general medical care of hospitalized patients. Their activities include patient care as well as teaching, research, and leadership related to hospital medicine"

Joint Statement from AAFP and Society of Hospital Medicine

- July 1, 2021
  - Stated that FM physicians acquire necessary skills and knowledge throughout residency to enable them to provide care in the inpatient setting
  - Pointed out that FM training encompasses additional skills essential to hospital medicine
    - Participation in QI projects, addressing psychosocial needs of patients and coordinating across levels of care and functioning as members of multidisciplinary teams.

What Sets Family Medicine Apart in the Inpatient Setting?

- Though most Hospitalists Trained in Family Medicine (HTFM) exclusively provide care to adults, they are trained to care for patients across all ages and can provide obstetric services as well
- More than 2/3 of HTFM are also involved in training of residents and medical students, enhancing the skills of future physicians
- Since 2009, qualifying ABFM physicians can obtain Designation of Focused Practice in Hospital Medicine. A one-day board exam that provides certification for 10 years.
    - Also available in Adolescent Medicine, Geriatrics, Hospice and Palliative Care, Sleep Medicine, Sports Medicine and Pain Medicine

Hospitalist Fellowships

- There are 17 Hospitalist Fellowships available across the US
- University of TN Nashville Hospitalist Fellowship, Murfeesboro, TN
  - 1 position available yearly
- Alabama, California, Idaho, Maine, North Carolina, North Dakota, Ohio, South Carolina, Texas, Wisconsin, Washington
- Hospitalist fellowships are 12 months duration and most offer additional exposure to ICU, Cardiology, Pulmonology/Critical Care and Neurology

What To Send To The Hospital

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What To Send To The Hospital

Neurologic

- Seizures
- Any change in Neurological Status
  - Slurred Speech
  - Facial Droop
  - Weakness
  - Somnolence
  - Confusion
- Cauda Equina

Cardiac

- Acute Chest Pain, especially with activity
- Afib with RVR
- Symptomatic Arrhythmias
- Suspect new onset HF or HF exacerbation with respiratory compromise
  - LE edema
  - Orthopnea
  - Dyspnea on Exertion
  - Rhonchi on exam

Pulmonary

- Acute respiratory distress
- COPD exacerbation requiring increased O2 supplementation to maintain O2 sat >92%
- Pulmonary edema
- Suspected PE
- Suspected Pneumothorax
- Hemoptysis
  - Causing respiratory compromise
  - Inability to obtain imaging

What To Send To The Hospital

Renal

- AKI
    - Grade II or III (Cr >2.0-3.0 x above baseline)
    - Grade I (Cr >1.0-1.9 x above baseline) with unknown duration of elevated Cr
    - Complicated comorbidities
    - Known electrolyte abnormalities (or inability to rapidly check labs)

Gastrointestinal

- GI bleed
- Ischemic Bowel
- Acute Abdomen
- Appendicitis
- Pancreatitis
- Decompensated Liver Cirrhosis
- Acute Jaundice
- Cholecystitis
- Incarcerated Hernia

Genitourinary

- Acute Urinary Retention
- Renal stone
    - Without ability to obtain imaging
    - Known stone and abnormal renal function on labs
- Concern for testicular or ovarian torsion

What To Send To The Hospital

Musculoskeletal

- Acute joint dislocation
- Concern for septic arthritis
- Flexor tenosynovitis
- Hip fracture (may be incidentally found on routine imaging with known trauma)

Dermatologic

- Concern for SJS
- Non-healing ulcers/wounds
- Shingles on face, especially near eyes

Psychiatric

- Acute psychosis
- SI/HI
- Alcohol Withdrawal or desire to detox

What To Send To The Hospital

Hematology

- Severe anemia requiring transfusion
- Severe thrombocytopenia

Electrolytes/Labs

- Hyperkalemia
- Hyper/Hyponatremia
- Severe Hypercalcemia
- AKI
- Elevated total bilirubin
- Acute hepatitis
- Elevated Troponin
- Positive blood culture

What Can Often Be Managed Outpatient

Neurologic

- Progressive weakness without focal neurological symptoms
- Paresthesia without weakness

Cardiac

- New diagnosis of Atrial Fibrillation without RVR
- Intermittent arrhythmias noted on Holter/Event monitor
- Mild HF exacerbation without significant respiratory compromise
  - Weight gain
  - LE edema

Pulmonary

- Pneumonia
- COPD exacerbation without increased O2 requirement
- Concern for lung mass

What Can Often Be Managed Outpatient

Renal

- AKI, stage I, if it can be attributed to medication or other underlying reversible cause with close follow up

Gastrointestinal

- Signs of bleeding without acute anemia (i.e. BRBPR on ROS or + hemoccult)
- Gallbladder disease without sign of acute infection
- Hernia
- IBD without acute complications
- Cirrhosis without decompensation
- Hepatitis C

Genitourinary

- Urinary retention with ability to self cath or insert foley and no sign of renal compromise
  - Outpatient Urology follow up. Urology typically will not intervene on these patients in the hospital setting.
- Renal calculi <5mm and no sign of hydronephrosis
- Painless Hematuria

What Can Often Be Managed Outpatient

Musculoskeletal

- Most fractures (usually seen in the ER)
- Ligament and tendon injuries
- Thoracolumbar compression fractures
  - <50% height loss, single segment fracture, no involvement of posterior cortex on plain films

Dermatologic

- Most cases

Psychiatric

- Majority of psychiatric conditions
  - Crisis centers are usually helpful in both outpatient and inpatient settings.
  - Admission to hospital can result in prolonged admission due to lack of resources.
  - If there is Psychiatry available at a nearby facility, evaluation in the ER with psych consult may be helpful option in specific cases.

What Can Often Be Managed Outpatient

Hematology

- Chronic anemia requiring routine transfusions
- Mild Thrombocytopenia
- Most DVTs and small PEs without respiratory compromise
- Bridging to Warfarin IF Lovenox can be approved through insurance and close monitoring is available.

Other

- Most newly diagnosed masses or suspected cancer
    - Biopsies are being coordinated as outpatient procedures with close follow up with PCP or Oncology for pathology results.

Direct Admissions

- When are they appropriate?

Direct Admissions Yes:

- Account for only 15% of all admissions
- Pneumonia that has failed outpatient treatment
  - No Increased O2 Requirement
- Abscesses requiring I&D or infection that has failed outpatient treatment
  - No signs of sepsis
- AKI with same day labs confirming no electrolyte abnormality
- Many direct admissions come from specialist who see the patient in the clinic and have plans for specific interventions
  - Surgery, Orthopedics, Vascular, Podiatry

Direct Admission No:

- Neuro
  - Concern for stroke, seizure, meningitis
- Cardiac
  - Chest pain eval, concern for MI, acute HF exacerbation
- Pulmonary
  - Any decrease in O2 saturation, concern for PE
- Gastrointestinal
  - GI bleed with acute anemia, Diverticulitis, Appendicitis, Acute Chole, Acute Abdomen
- Renal
  - AKI without same day labs or stage II or III

Direct Admission No:

- Genitourinary
  - Acute urinary retention, obstructive renal calculi, UTI with AMS
- Musculoskeletal
  - Concern for septic joint
- Electrolyte Abnormality
  - HyperK, Hyper/HypoNa, Severe HyperCa

Why Not Direct Admit?

- Timeliness of needed imaging
- Ability to repeat stat labs
- Delay in appropriate consult
- Ability to stabilize patient in the ER
  - IV access, O2 supplementation, Respiratory Therapy, ability to perform procedures, immediate access to a physician
- Evaluation for admission to appropriate location
  - Non-telemetry, Telemetry, ICU, OR, Transfer to higher level of care or to facility that has certain specialty available

Follow Up With The Hospitalized Patient

- Discharge Summary
- Discharge Medication Reconciliation
- Follow Up Appointments
- Follow Up Images/Testing
- Recommendation for Outpatient Referrals
- Patient Education
- Address Social Issues

Follow Up With The Hospitalized Patient

- Discharge Summary
  - Should contain a synopsis of patient's admission
- Discharge Medication Reconciliation
  - Most important part of discharge and hand off of patient care
  - Medications started, discontinued or doses changed on existing meds
  - Nurse intake of that patient should be thorough to document all changes in medications prior to your encounter
  - Involve patient's pharmacy or clinical pharmacist (if available)
  - Re-discuss medications in detail with the patient
  - Have patient bring home medications with them at the time of the visit
  - Consider blister pill packs

Follow Up With The Hospitalized Patient

- Follow Up Imaging
  - Repeat CXR or CT to resolution of PNA
  - Follow up scans of abscesses/infections
  - Repeat imaging following strokes
  - Repeat Echo for monitoring of CHF

Follow Up With The Hospitalized Patient

- Appointments with specialists that were consulted during the patient's admission
  - Discharge coordinators or scheduling services at each specialists' office typically arrange appointments prior to patient's discharge.
    - This does not take place on the weekend; therefore, patients are then responsible for calling the offices and arranging follow up visits themselves.

Follow Up With The Hospitalized Patient

- If not already available in EMR, consider making a template for hospital follow up visits so there is consistency with follow up
- Overall goal is to reduce readmissions to hospital, especially for chronic conditions

Follow Up With The Hospitalized Patient

- Recommendations to establish care with specialists as outpatient
  - Occasionally patient's will be advised to establish with specialty as outpatient due to non-urgent conditions or abnormalities incidentally found during admission.
    - Urology follow up for urinary retention with placement of foley or recommended in and out catheterization
    - GI follow up for new Hepatitis C diagnosis
    - Routine screening- Mammogram, Colonoscopy, PFT, etc
    - Unremarkable chest pain workup that warrants outpatient stress test or LHC

Reducing Readmissions

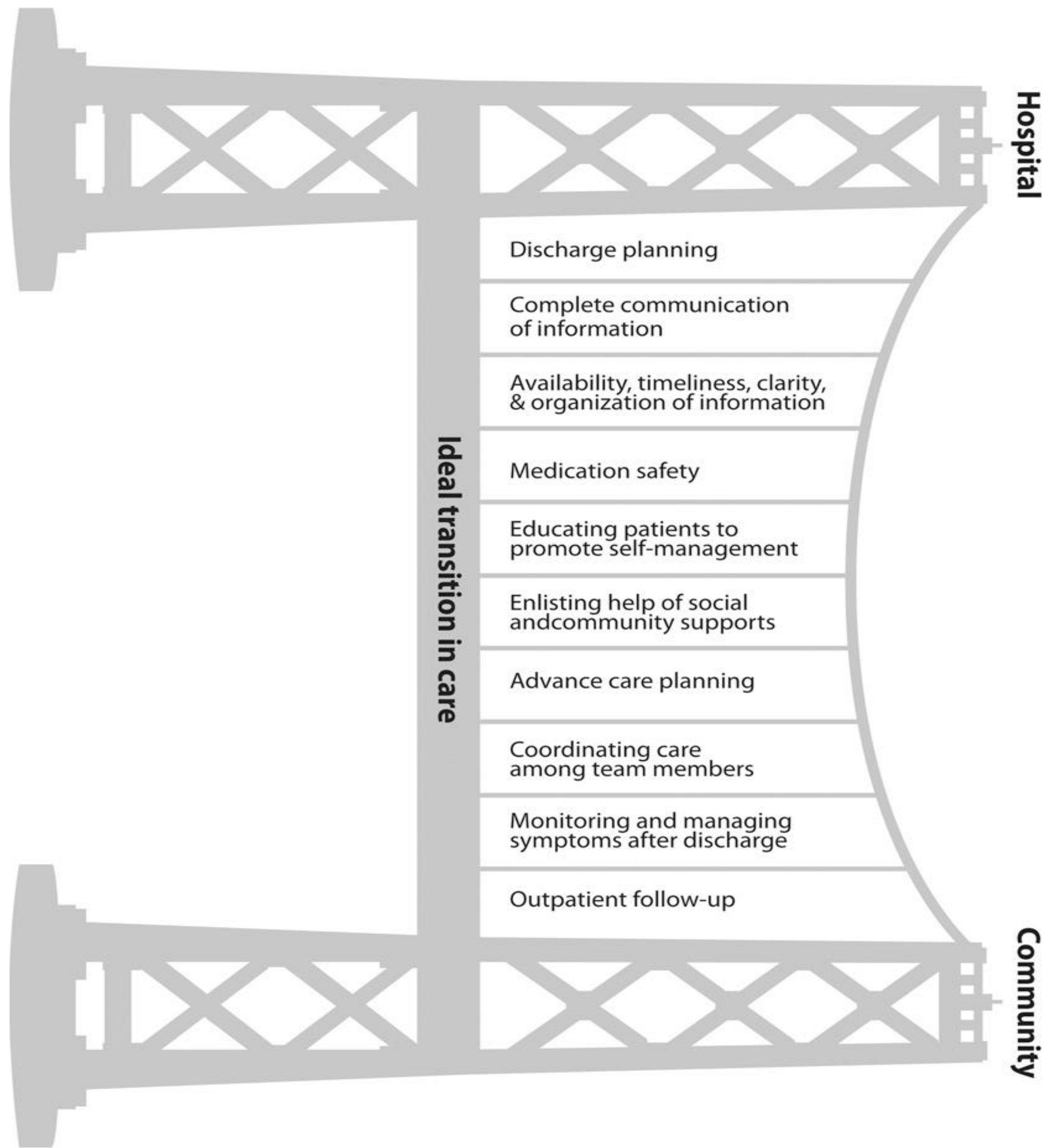
- Communication
- Educating patients about their own health
- More frequent follow up visits
- See what resources are available as outpatient
  - Heart Failure Clinics
  - Appointments with Clinical Pharmacists
  - Diabetic Educators
  - Nutrition
  - Social Work
  - Outpatient PT/OT

Reducing Readmissions

- Commonly prescribed medications that require close follow up
  - Coumadin
    - Either for prophylaxis or bridging for PE/DVT
      - Consider Coumadin clinic if unable to follow labs closely yourself
      - Monitor closely if being used with antibiotics or other meds that can alter effectiveness of Coumadin
  - Antiarrhythmics
    - Routine monitoring is required for Amiodarone and Digoxin
  - Benzodiazepines
    - Particularly in Alcoholics and elderly population that typically require tapering
  - Insulin
    - Close follow up required as patients' glucose in the hospital rarely reflects readings in outpatient setting (usually eats stricter diet in the hospital)
  - Steroids
    - Particularly in patients with extended exposure requiring taper
  - Antihypertensives

Reducing Readmissions

- Polypharmacy
  - Thorough review of medication lists with each visit, especially in the elderly and high-risk populations
  - Monitoring doses and suggested dose reduction, particularly in renal dysfunction
    - It is common to see polypharmacy in patient's admitted for acute encephalopathy and falls resulting in fractures or SDH.
  - Limit prescribing PRN medications in outpatient setting
    - This leaves it open for patient to interpret need for medication which can result in over medication
  - High risk medications
    - Narcotics
    - Benzos
    - Gabapentin/Lyrica
      - Particularly in those with renal dysfunction
    - Muscle Relaxers
    - Ambien


Hospital
Ideal transition in care
Discharge planning
Complete communication of information
Availability, timeliness, clarity, & organization of information
Medication safety
Educating patients to promote self-management
Enlisting help of social andcommunity supports
Advance care planning
Coordinating care among team members
Monitoring and managing symptoms after discharge
Outpatient follow-up
Community

Ways We Can Improve Patient Care Overall

- It has been shown that improving only one aspect of transition of care does not reduce readmissions or improve patient care.
- Communication
- Communication
- Communication
  - Hand off from physician to physician is essential between specialists and interdisciplinary teams during hospitalization but is also essential in improving transition of care from inpatient to outpatient setting.
  - Interdisciplinary communication should be ongoing even in outpatient setting.
    - Specialists, Pharmacists, Social Work, PT/OT

"Cure sometimes, treat often, comfort always" - Hippocrates

"Always remember the privilege it is to be a physician"- Daniel P. Logan

“The purpose of a doctor or any human in general should not be to simply delay the death of patient, but increase the person’s quality of life" - Patch Adams

Nurse: "Doctor, the patient you just discharged collapsed on the front step, what should I do?"

Doctor: "Turn him around so it looks like he was just arriving"

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