

SCHOOL NURSE Train-the-trainer: Effective Medical Emergency Response Teams

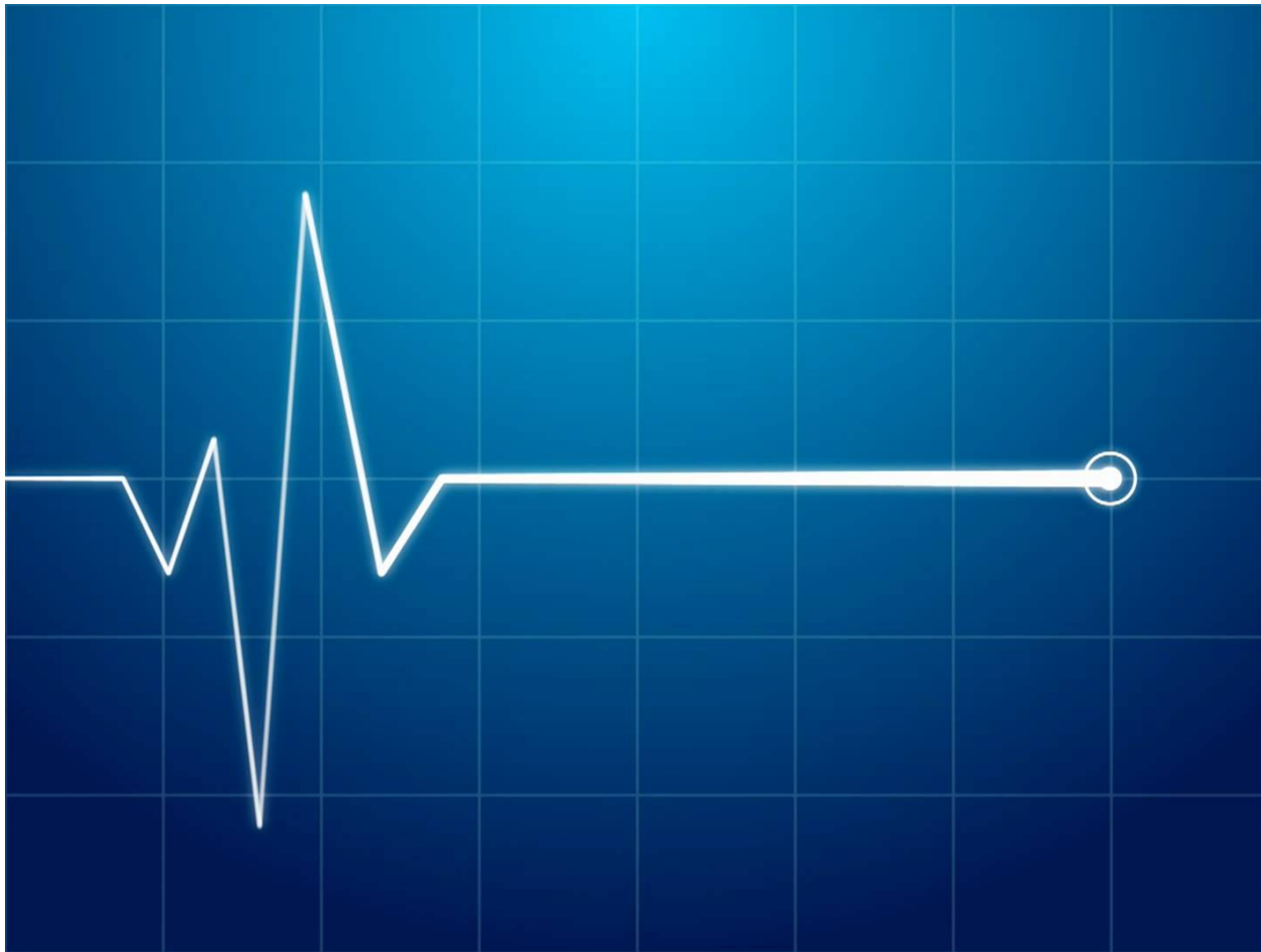
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Genesee Intermediate School District
President, Michigan Association of School Nurses

MERT Training Objectives

- Establish and train a MERT Team
- Streamline medical emergency responses
- Empower and train school staff
- Provide updates on Sudden Cardiac Arrest and the BIG 4
- Identify Essential elements of Emergency Response Plans
- Maximize effective staff communication during emergencies
- Build staff and district support
- Learn Who, what, when, and where
- Practice and plan for MERT trainings
- Receive and extensive handbook

Tragic School Death



<https://www.youtube.com/watch?v=ZeLPwW3mFJU>

ROLE OF THE SCHOOL NURSE

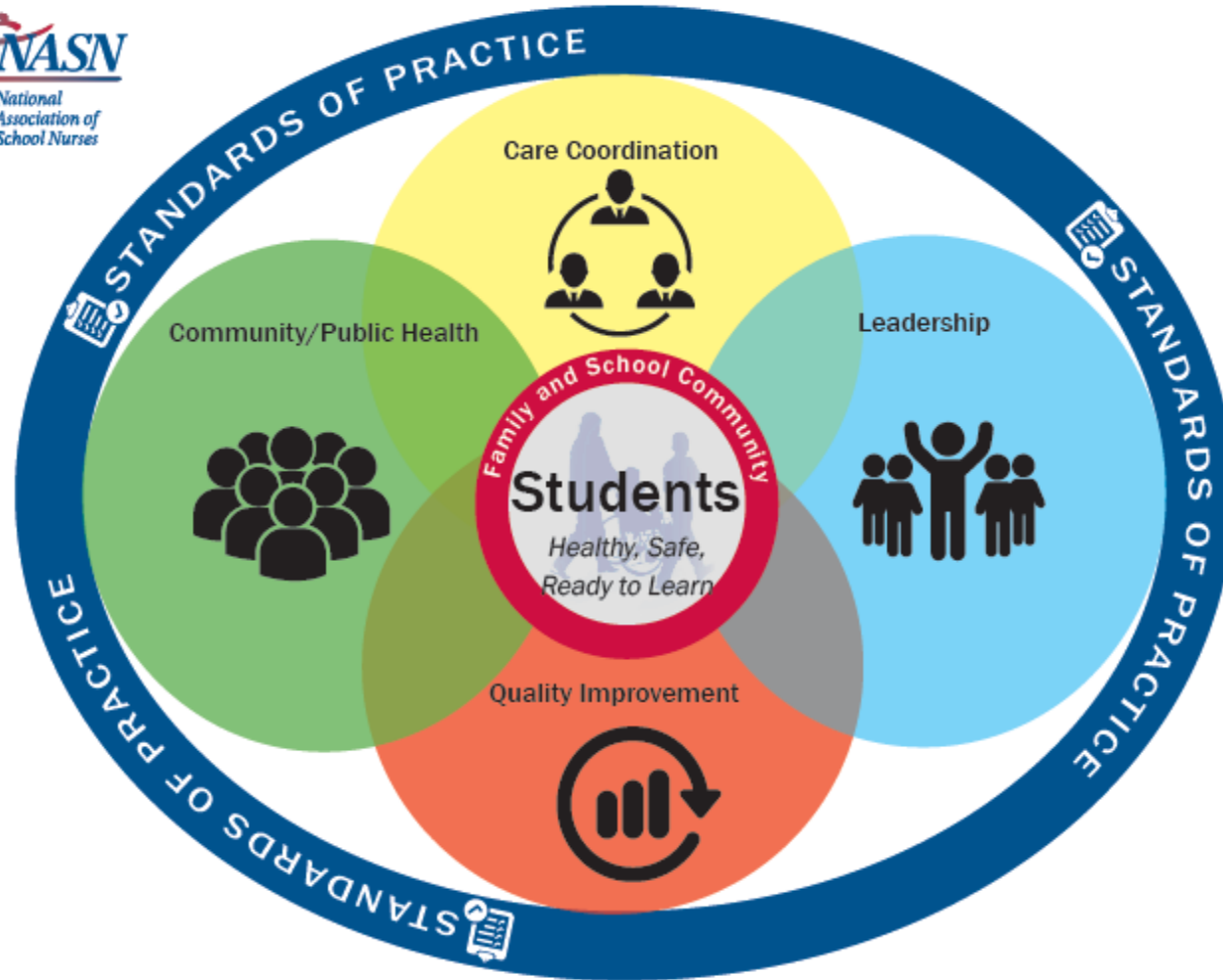
<https://www.nasn.org/PolicyAdvocacy/PositionPapersandReports/NASNPositionStatementsFullView/tabid/462/smid/824/ArticleID/87/Default.aspx>

Definition of School Nursing:

- School nursing, a specialized practice of **public health nursing**, protects and promotes student health, facilitates normal development, and advances academic success. School nurses, grounded in **ethical and evidence-based practice**, are the leaders that bridge health care and education, provide care coordination, advocate for quality student-centered care, and collaborate to design systems that allow individuals and communities to develop their full potentials.

Approved by the NASN Board of Directors June 2016.

Framework for 21st Century School Nursing Practice™



Framework for 21st Century School Nursing Practice™



Standards of Practice

- Clinical Competence
- Clinical Guidelines
- Code of Ethics
- Critical Thinking
- Evidence-based Practice
- NASN Position Statements
- Nurse Practice Acts
- Scope and Standards of Practice



Care Coordination

- Case Management
- Chronic Disease Management
- Collaborative Communication
- Direct Care
- Education
- Interdisciplinary Teams
- Motivational Interviewing/Counseling
- Nursing Delegation
- Student Care Plans
- Student-centered Care
- Student Self-empowerment
- Transition Planning



Leadership

- Advocacy
- Change Agents
- Education Reform
- Funding and Reimbursement
- Healthcare Reform
- Lifelong Learner
- Models of Practice
- Technology
- Policy Development and Implementation
- Professionalism
- Systems-level Leadership



Quality Improvement

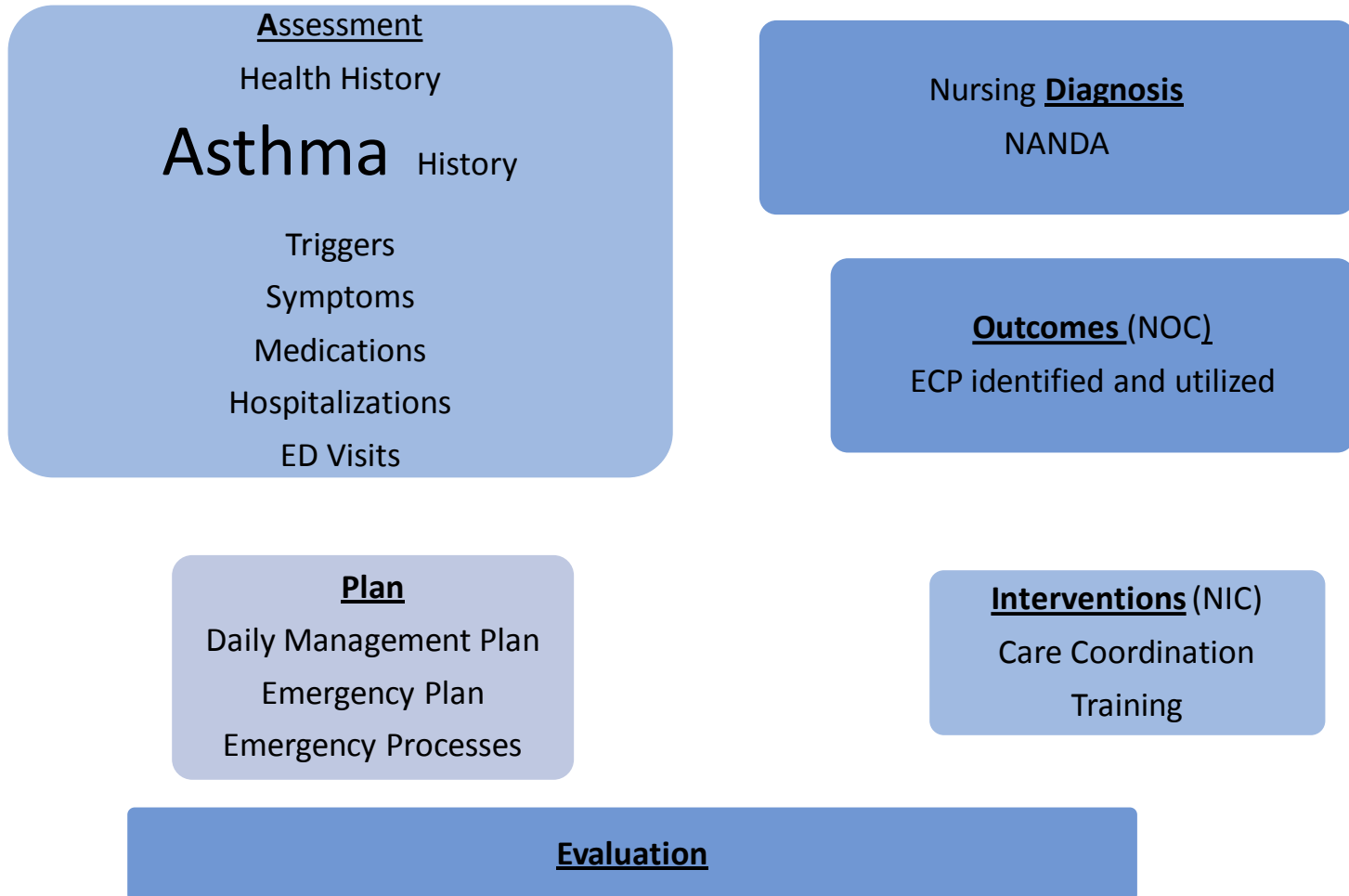
- Continuous Quality Improvement
- Documentation/Data Collection
- Evaluation
- Meaningful Health/Academic Outcomes
- Performance Appraisal
- Research
- Uniform Data Set



Community/Public Health

- Access to Care
- Cultural Competency
- Disease Prevention
- Environmental Health
- Health Education
- Health Equity
- Healthy People 2020
- Health Promotion
- Outreach
- Population-based Care
- Risk Reduction
- Screenings/Referral/Follow-up
- Social Determinants of Health
- Surveillance

Nursing Process



Nursing Process

Id Students with Health Conditions

Train staff

Secure medications

Emergency Care Plan

Division of Pupil Services



*"Could someone help me with these?
I'm late for math class."*

by Scott Spencer

"If all children had a safe harbor... none would be at risk."

The Needs of Students

- An increasing number of school-age children do not have access to basic health care
- Increased complexity of health issues
- Other health issues suicide, teen pregnancy, bullying, ATOD issues, and other mental health issues

The Needs of Students

- Treatments at school
- Medication, injections, rectal meds
- Insulin pumps and CGM
- Complex orders require
 - BS testing
 - carbohydrate counting
 - insulin administration
- Life threatening allergies to insects, foods, latex

The Needs of Students

- Communicable diseases
- Sudden Cardiac Arrest in the Young
- Common chronic illness among children ^{Vacation BERS}
 - e.g. big 4+
 - Asthma
 - Allergies
 - Diabetes
 - Seizure Disorders
 - + Obesity

- Require
 - Health Care Planning
 - Emergency Care Planning
 - Monitoring
 - Medication
 - Staff training
 - Student education

Asthma

- Affects over 10 million children in the U.S.
- Michigan 3 students in every classroom of 30

http://www.cdc.gov/asthma/most_recent_data.htm

Asthma

- ***Asthma Federal Legislation***

[https://www.congress.gov/search?q={%22search%22:\[%22asthma%20in%20school%22\]}&searchResultViewType=expandedS.2817](https://www.congress.gov/search?q={%22search%22:[%22asthma%20in%20school%22]}&searchResultViewType=expandedS.2817) —

111th Congress (2009-2010) A bill to amend part D of title V of the Elementary and Secondary Education Act of 1965 to provide grants to schools for the development of asthma management plans and the purchase of asthma inhalers and spacers for emergency use, as necessary.

- ***Asthma State Legislation***

<http://www.cdc.gov/php/publications/topic/asthma.html>

Complying with Legislation

- ▶ Anaphylaxis - PA 186 & 187
- ▶ Cardiac Emergency Response Teams PA 12
- ▶ Opioid Antagonist PA 385

Anaphylaxis

- Approximately 2 students / classroom have a food allergy.
- 16%-18% of school-age children with food allergies have had a reaction in school.
- In approximately 25% of the reactions that occur at school, the student has not yet been diagnosed with a food allergy. ([McIntyre 2005](#))

Statistics

Overall, from 15% to 18% of children and adolescents have some sort of chronic health condition, nearly half of whom could be considered disabled



Health Conditions
Per 100 U.S. Students
2011 Update



COLOR KEY

See reverse for more information

- | | | | |
|--------------|---------------------|---------------------------|----------------------------|
| Asthma | Hearing Loss | Autism Spectrum Disorders | Mental/Emotional Disorders |
| Food Allergy | Vision Deficiencies | Teen Pregnancy | Threatened by Weapon |
| Seizure | Obesity | Tobacco use | Access to Health Care |

[Perrin JM, Bloom SR, Gortmaker SL. The Increase of Childhood Chronic Conditions in the United States. JAMA. 2007;297\(24\):2755-2759. doi:10.1001/jama.297.24.2755](https://doi.org/10.1001/jama.297.24.2755)

Cardiac Emergencies

- SCA >300 Michigan children and young adults 1-39 years annually
- High school AED programs demonstrate a high survival rate for students and adults who suffer SCA on school campus. School-based AED programs are strongly encouraged.

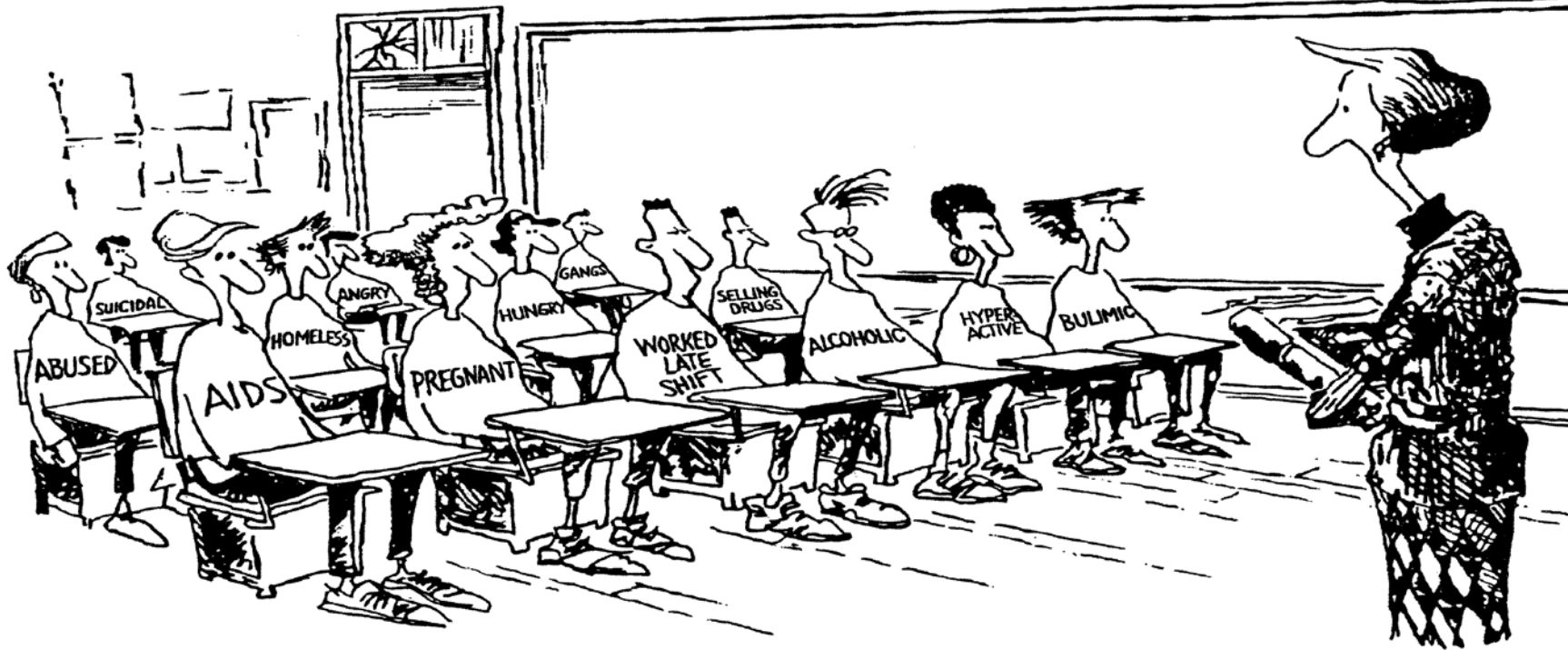
http://www.michigan.gov/mdhhs/0,5885,7-339-73971_4911_4916_47257-241907--,00.html

[Source: Br J Sports Med. 2013 Dec;47\(18\):1179-83. doi: 10.1136/bjsports-2013-092786. Epub 2013 Oct 11.](#)



* Kylee Shea

<https://www.youtube.com/watch?v=EYnUBy80muo>



GOOD MORNING, TEACHER

Illustration by Jim Borgman. Reprinted with permission from King Enterprises Syndicated.

MERT

Medical Emergency Response Team

Medical Emergency Response Plan

- Outlines staff actions during
 - Minor medical emergencies
 - Major medical emergencies
- Not first aid or CPR steps or sequences
- Recommend all faculty /staff First Aid/CPR/AED
- MERT members
 - CPR and First Aid Certified
 - MERT Members designated by Administrator

Members of M.E.R.T Team

- Principal
- Secretary
- Paraprofessional
- Teachers
- Teachers with students with special needs
- School Nurse
- P.E. Teacher
- Other

What does a medical emergency look like?

- Bleeding
- Shortness of breath
- Unconscious
- Group assembled
- Screaming for Help

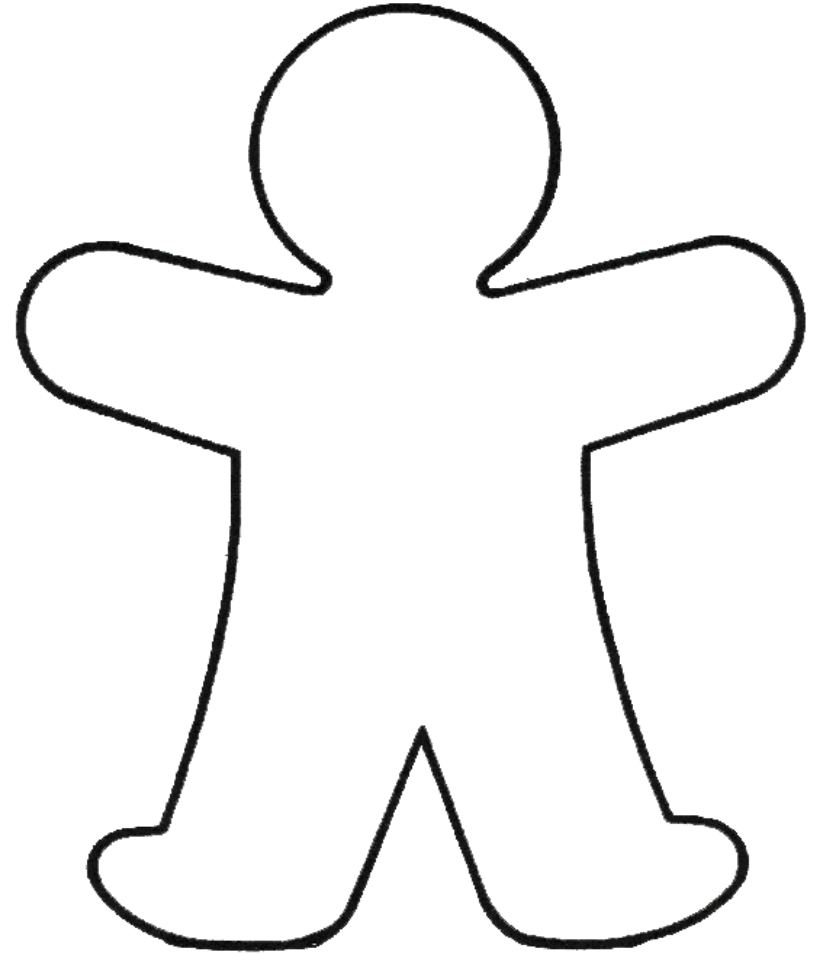
Alteration from the norm

Symptoms of medical emergency

1. Disorientation
2. Sleepiness, not responding
3. Sweating
4. Unusually quiet
5. Unusually belligerent
6. Difficulty breathing
7. Panic
8. Unconscious

M.E.R.T. Actions

1. If victim is able to walk, take them to the office for help
2. If not able to walk, call the M.E.R.T. Team to respond



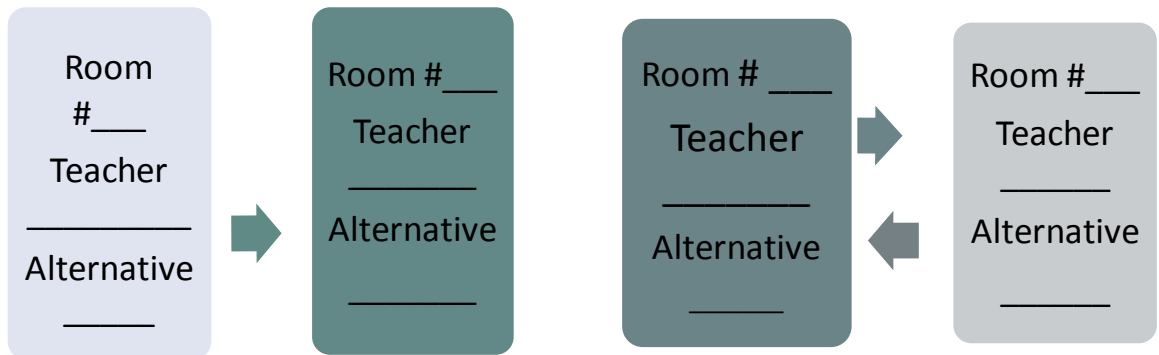
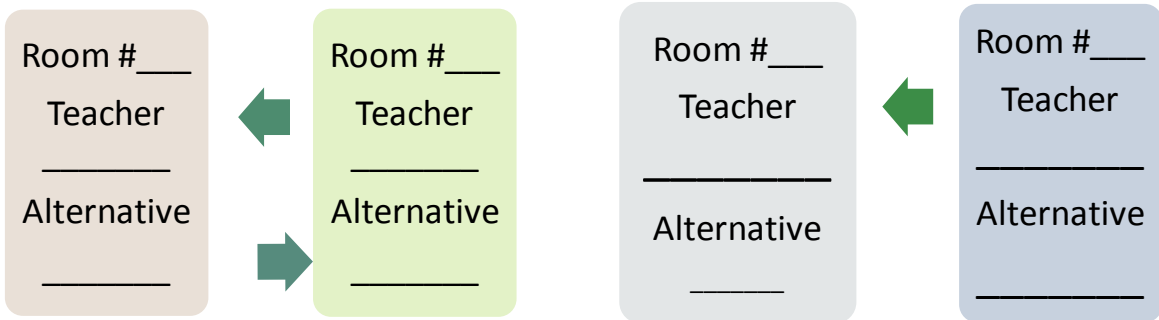
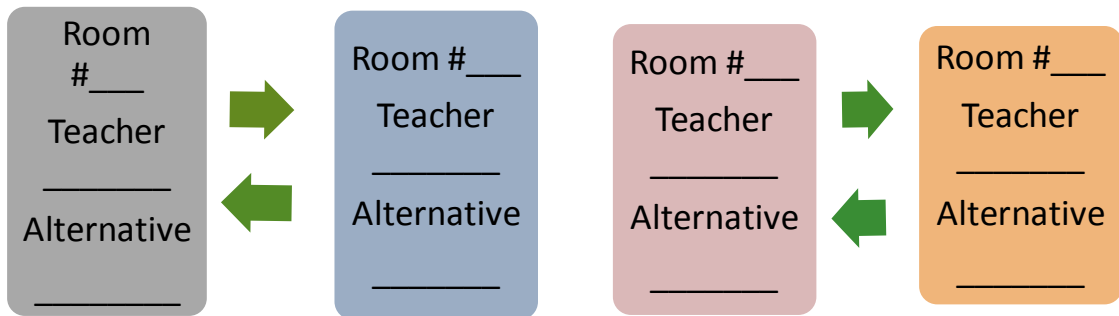
Many actions occurring *simultaneously*

1. Recognize emergency
2. Check to make sure the scene is safe.
3. Call 911 from ?
4. Assemble MERT Announce Secure Mode
5. Buddy Classrooms utilized
6. Take First Aid, AED, EPI, ECP to scene
7. Provide care to patient
8. Call parents
9. Someone meet EMS and show them to patient
10. Someone meet parents in parking lot and inform them of emergency & actions taken
11. Inform Central Administration
12. Scene control
13. Communication / Rumor control
14. Documentation of event
15. Debrief – lessons learned/ QI

MERT Assignments

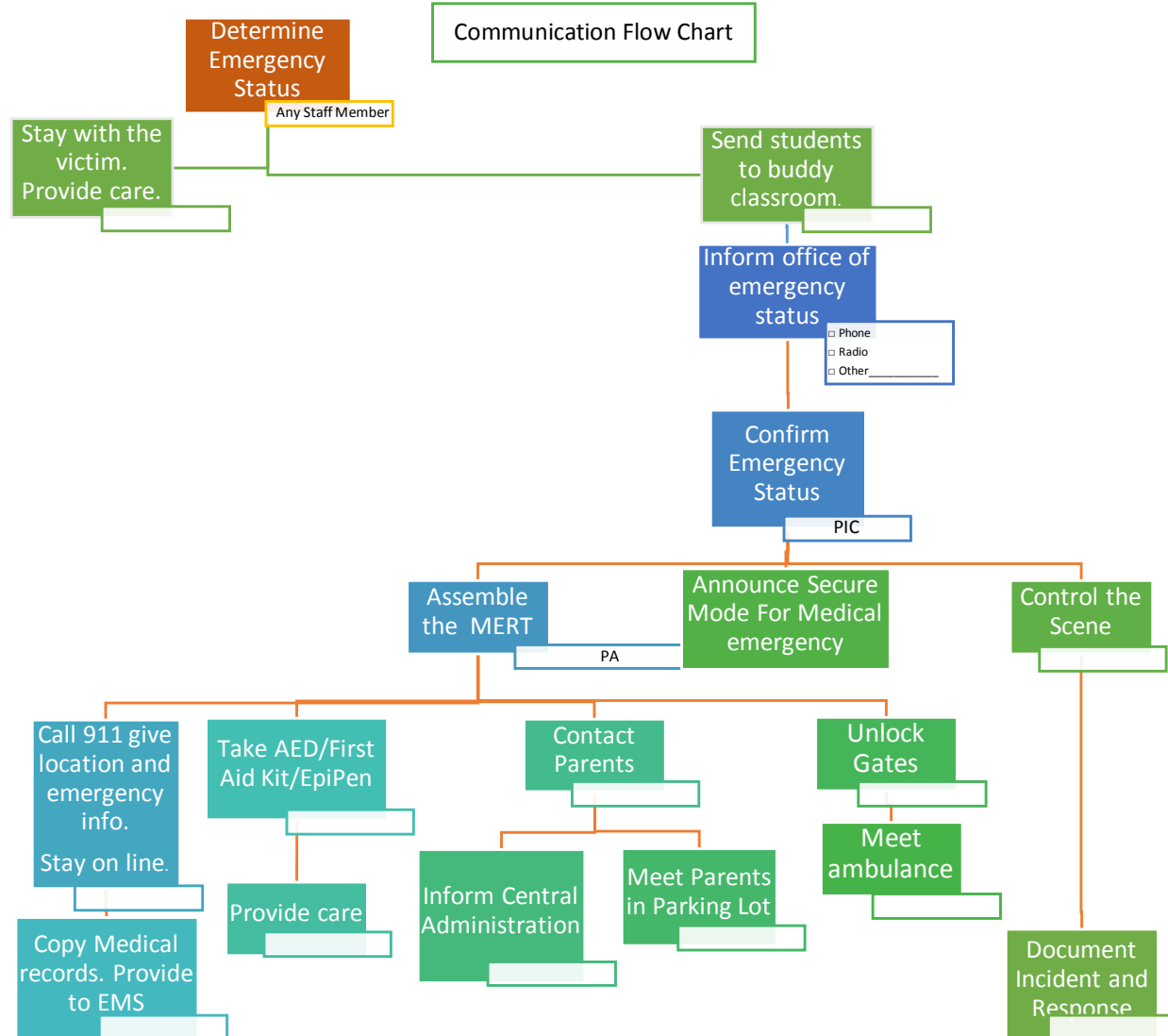
<i>Established Responsibility</i>	<i>Person Designated to Take Action</i>	<i>Level 1 Subs</i>	<i>Level 2 Subs/ Comments</i>
Determine Emergency status.	Any Staff		
Send students to Buddy Teacher.	Teachers involved		
Inform office of emergency status.			
Confirm Emergency status. Announce MERT Team and SECURE MODE for medical emergency.			
Call 911 with location & emergency information. Stay on the phone.			
Take AED, First Aid Kit and any emergency meds to location of emergency.			
Inform Central Administration of Emergency.			
Stay with the victim. Provide Care.			
Contact parents. Meet them in the parking lot.			
Meet the ambulance.			
Unlock the gate/door/ direct traffic as needed.			
Copy the medical records of the student. Provide to EMS.			
Control the scene.			
Document incident and response.			
Debrief			

Medical Emergency MERT Buddy Classroom Assignments



- Cell Phones
- Classroom Phones
- Phone in Office
- Cell Phones
- Walkie Talkie/Radio
- Runner
- Classroom buzzer/Phone

Communication Plan



Communication Plan

9-1-1 Protocol

Cell Phone

Classroom
Phone

Office Phone

Communication Mode

Phones

Call Button

Walkies/Radio

Runners

Walkie/Radios Procedure

Radio Check-in

Base

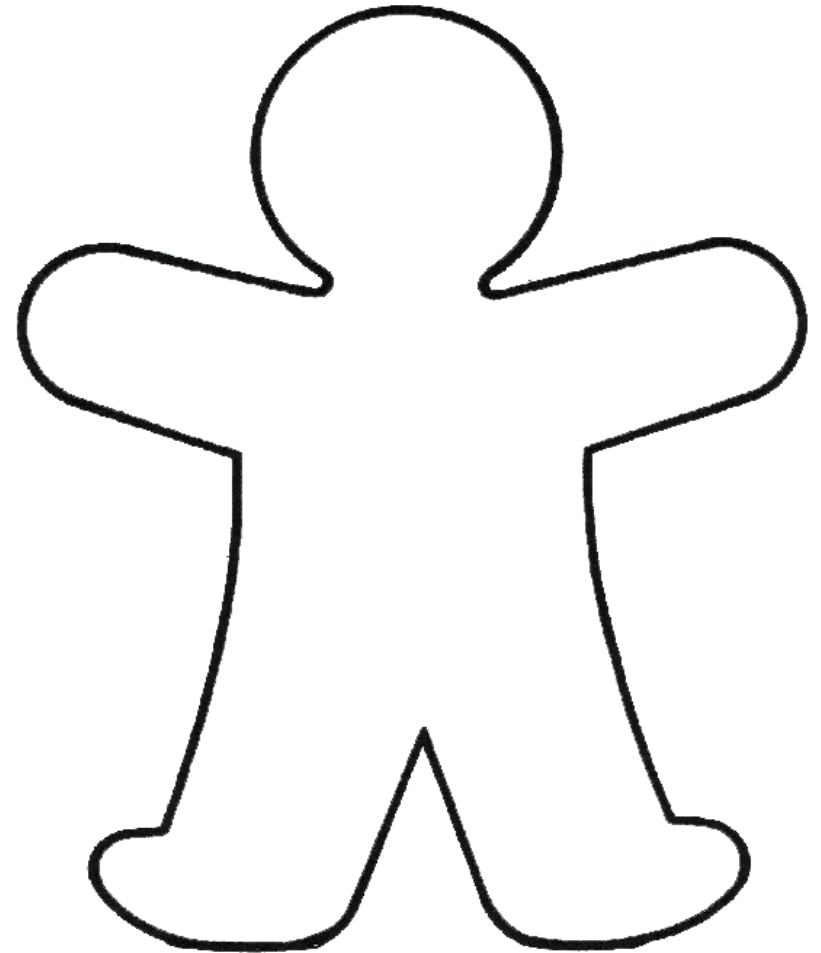
Daily Check in

Track down

Communication Flowsheet

PRACTICE

1. MERT Assignments
2. Communication Plan



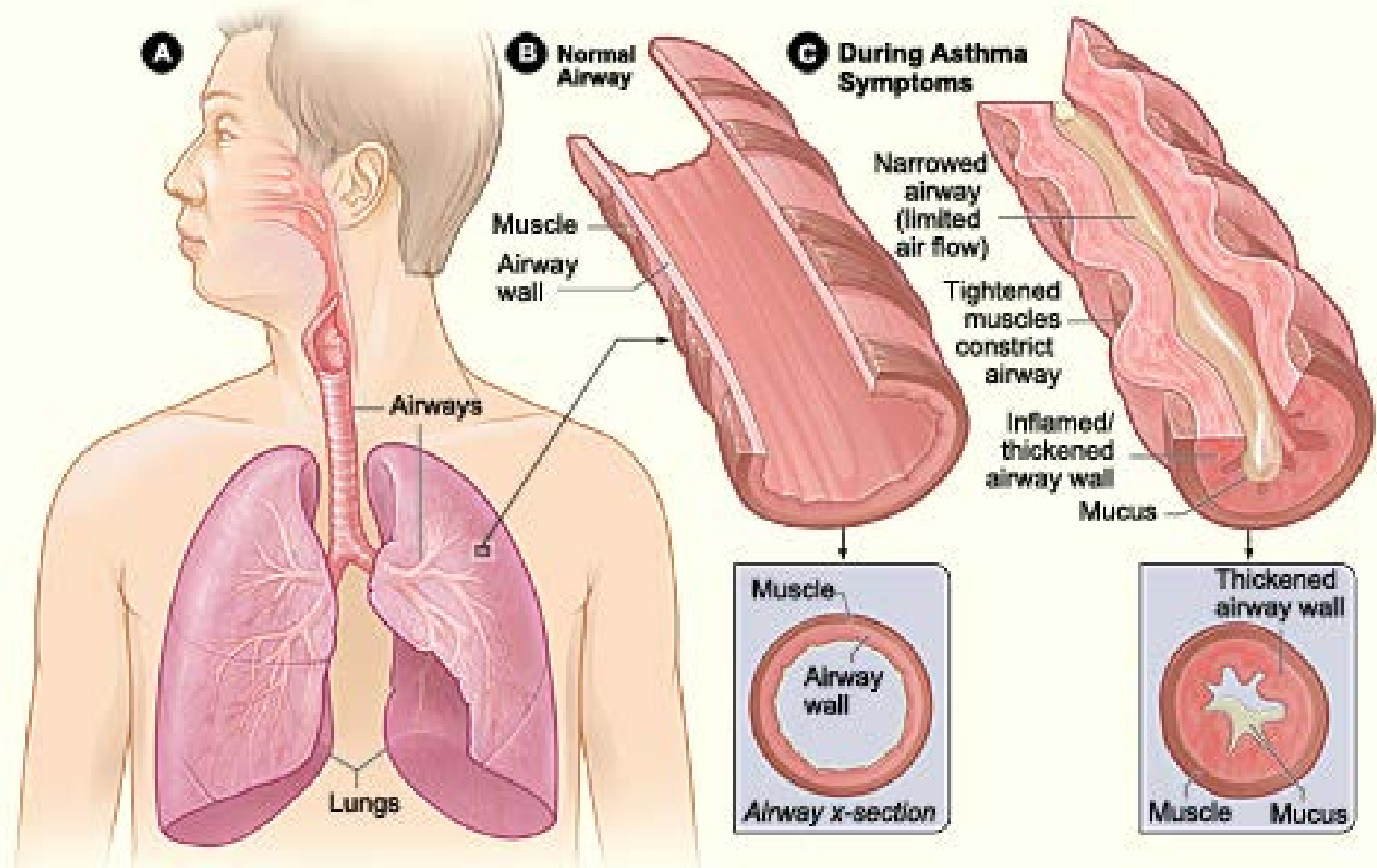
Health Conditions requiring a MERT Response

- Anaphylaxis
- Asthma
- Cardiac
- Seizures
- Diabetes
- Opioid Overdose
- Other
 - Injuries including Shock and Blood Loss

ASTHMA

<https://www.youtube.com/watch?v=U-RfbrnMJZE>

What is Asthma



<https://www.nhlbi.nih.gov/health/health-topics/topics/asthma>

Asthma Action Plan



Asthma Action Plan for Home & School

Name:

Birthdate:

Asthma Severity:

- Intermittent
 Mild Persistent
 Moderate Persistent
 Severe Persistent
 He/she has had many or severe asthma attacks/exacerbations

<p> Green Zone Have the child take these medicines every day, even when the child feels well.</p> <p>Always use a spacer with inhalers as directed.</p> <p>Controller Medicine(s): _____</p> <p>Controller Medicine(s) Given in School: _____</p> <p>Rescue Medicine: Albuterol/Levalbuterol _____ puffs every four hours as needed</p> <p>Exercise Medicine: Albuterol/Levalbuterol _____ puffs 15 minutes before activity as needed</p>
<p> Yellow Zone Begin the sick treatment plan if the child has a cough, wheeze, shortness of breath, or tight chest. Have the child take all of these medicines when sick.</p> <p>Rescue Medicine: Albuterol/Levalbuterol _____ puffs every 4 hours as needed</p> <p>Controller Medicine(s): _____</p> <p><input type="checkbox"/> Continue Green Zone medicines: _____</p> <p><input type="checkbox"/> Add: _____</p> <p><input type="checkbox"/> Change: _____</p> <p>If the child is in the yellow zone more than 24 hours or is getting worse, follow red zone and call the doctor right away!</p>
<p> Red Zone If breathing is hard and fast, ribs sticking out, trouble walking, talking, or sleeping. Get Help Now</p> <p>Take rescue medicine(s) now</p> <p>Rescue Medicine: Albuterol/Levalbuterol _____ puffs every _____</p> <p>Take: _____</p> <p style="text-align: center;">If the child is not better right away, call 911 Please call the doctor any time the child is in the red zone.</p>

Asthma Triggers: (List)

School Staff: Follow the Yellow and Red Zone plans for rescue medicines according to asthma symptoms. Unless otherwise noted, the only controllers to be administered in school are those listed as "given in school" in the green zone.

- Both the asthma provider and the parent feel that the child may carry and self-administer their inhalers
 School nurse agrees with student self-administering the inhalers

Asthma Provider Printed Name and Contact Information:

Asthma Provider Signature:

Date:

Parent/Guardian: I give written authorization for the medications listed in the action plan to be administered in school by the nurse or other school members as appropriate. I consent to communication between the prescribing health care provider/clinic, the school nurse, the school medical advisor and school-based health clinic providers necessary for asthma management and administration of this medication.

Parent/guardian signature:

School Nurse Reviewed:

Date:

Date:

Asthma Emergency Treatment Plan



MANAGEMENT OF ASTHMA EXACERBATIONS: School Treatment

Steps to Follow for an Asthma Episode in the School Setting When a Nurse is Not Available

Be prepared. Know which students have asthma and where their medicine is kept.

Be alert for students who may have asthma symptoms. Symptoms can become progressively worse and lead to severe, even life-threatening asthma attacks. Treating symptoms promptly can prevent this and allow the student to resume school activities.

Common symptoms of an asthma episode include one or more of these things: Coughing, wheezing (which can sound like noisy breathing or whistling in the chest), difficulty or discomfort when breathing, tightness in the chest (a sensation of heavy weight on the chest or chest pain), shortness of breath, and breathing hard and/or fast.

If a student has asthma symptoms or complaints and needs your assistance,* take these steps.

- » **Quickly evaluate** the situation. **Call 911** if the student is **struggling to breathe, talk, stay awake, has blue lips, or asks for an ambulance.**
- » **NEVER LEAVE A STUDENT ALONE.** Have an adult accompany the student to the health room or send for help from a school nurse or designee. **Do not wait.**
- » **Stop the student's activity.** If the episode began after exposure to an allergen or irritant,** remove the student from the allergen or irritant, if possible. Help the student be calm and in a comfortable position.
- » **Help the student locate and take his/her prescribed quick-relief inhaler medicine.**
- » **Contact the parent/guardian.**
- » **Repeat quick-relief inhaler medicine in 20 minutes** if student is still having trouble breathing.

Call 911 if any of the following occur:

- » If the student is **struggling to breathe, talk, stay awake, has blue lips, or asks for an ambulance.**
- » If the **student doesn't improve** after two administrations of quick-relief medicine, and nurse/designee or parent/guardian is not available.
- » If no quick-relief medicine is available, **the student's symptoms have not improved** spontaneously, and nurse/designee or parent/guardian is not available.
- » If you are unsure what to do.

Remember:

* Many students who carry their own medicine may be able to self-manage asthma episodes. They should follow the school protocol. Provide support as needed.

** Common asthma allergens and irritants include tobacco smoke, pollens, furry animals, cockroach droppings, dust mites, chalk dust, or strong odors (for example, from cleaning products, paints, or perfume).

SEPTEMBER 2008

Quick Relievers

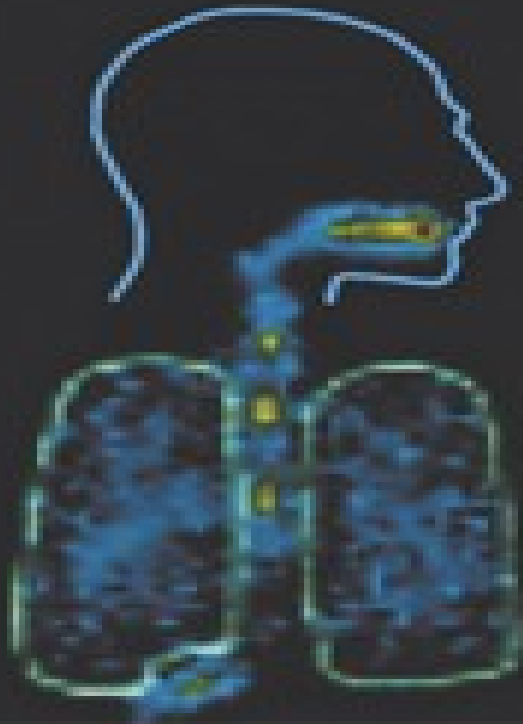
- Relax the muscles of the airway
- Generally work within 5 minutes
- ARE USED TO TREAT AN ASTHMA ATTACK OR SYMPTOMS OF AN ASTHMA ATTACK

What is a Spacer?

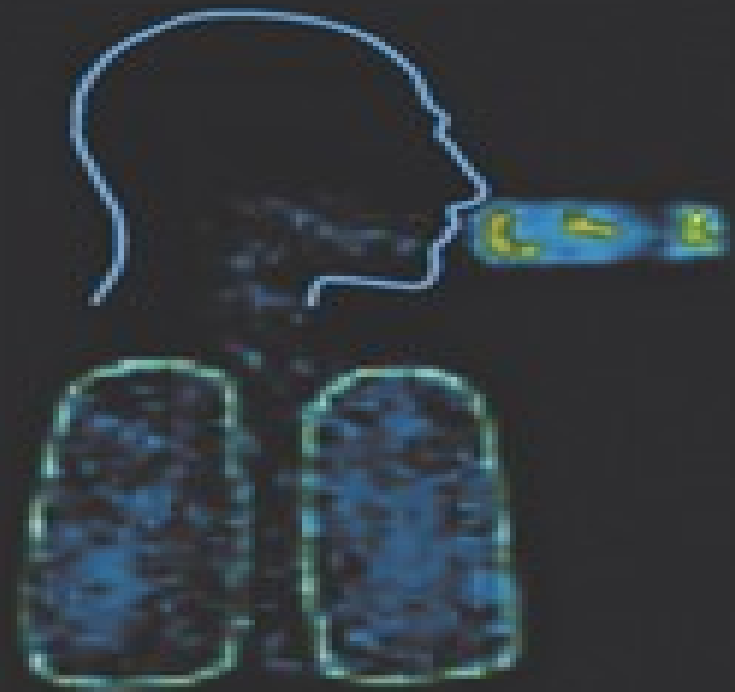
- Spacer or Valved Holding Chamber
- Holds the medicine

KEEPS MUCH OF THE
MEDICATION IN THE
AIRWAYS INSTEAD OF
ON THE TONGUE, THE
BACK OF THE THROAT
OR IN THE AIR

Benefit of using a Spacer



MDI



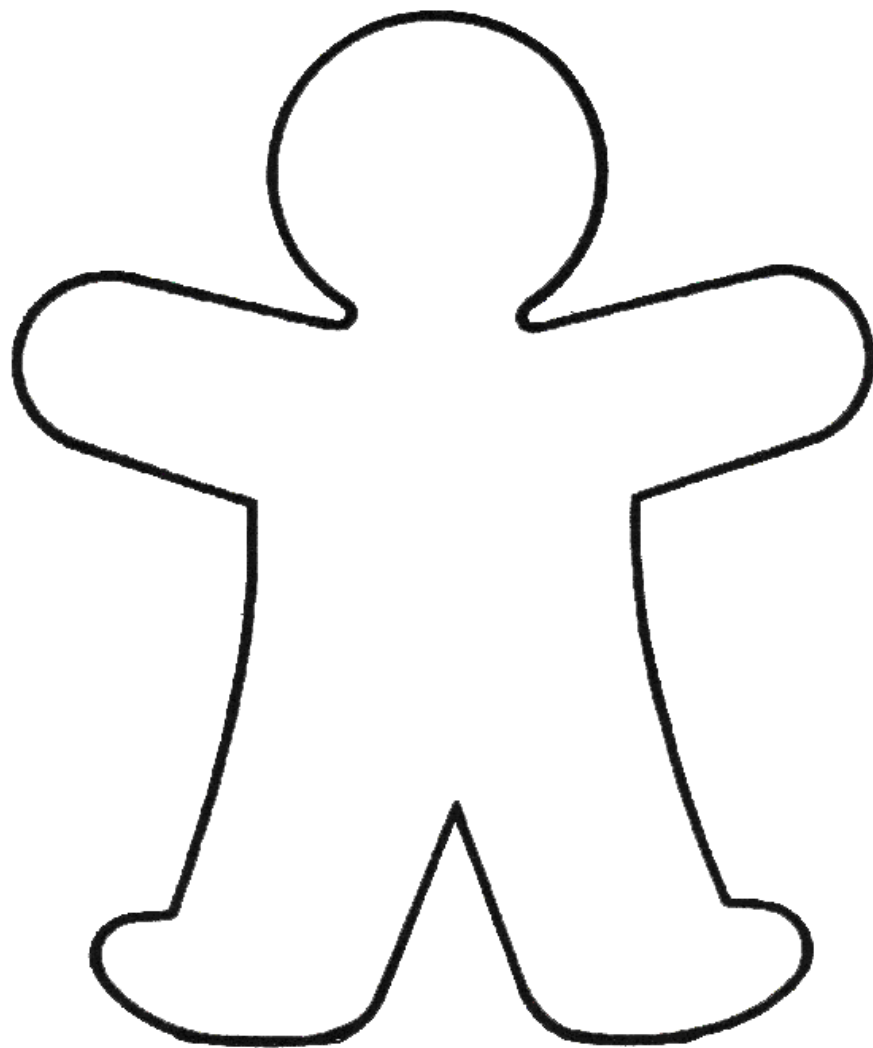
MDI + Spacer

MDI Metered Dose Inhaler

1. Take off the cap and shake canister; attach to spacer
2. Breathe out all the way
3. Hold the inhaler/spacer as instructed by the doctor
4. Press down on the inhaler one time, then breathe in slowly for 5 seconds
5. Keep breathing in slowly as deeply as possible
6. Hold breath and count to ten slowly
7. Let breath out slowly for 5 seconds
8. Wait 1 minute between each puff
9. If no improvement after 10 minutes, call doctor immediately

PRACTICE

5-10-5



RULES OF TWO[®]

When is quick relief for asthma **NOT ENOUGH?**

DO YOU...

- Take your "quick-relief inhaler" more than **TWO TIMES A WEEK?**
- Refill your "quick-relief inhaler" more than **TWO TIMES A YEAR?**
- Awaken at night with asthma more than **TWO TIMES A MONTH?**
- Measure your peak flow at less than **two times 10 (20%) from baseline** with asthma symptoms?

If **YOU** can answer "**YES**" to any of these questions, **YOUR ASTHMA IS NOT UNDER CONTROL.**





Thank You

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