YaleNewHavenHealth
Yale New Haven Hospital

Medical Staff Education

Purpose

This education module is designed to support the delivery of quality patient care in these areas and satisfy regulatory mandates as well as to inform you about other matters that are important for you to understand as a Member or Affiliated member of the Y-NHH Medical Staff.

We recognize that not all aspects of this training will be applicable to all individuals.

Following your review of this material, please take and return the self-test at the end. A score of at least 80% is necessary at the time of initial and re-appointment to the Medical Staff. The test confirms a basic understanding of the concepts addressed.

Presentation Outline

- Continuing Medical Education Requirements
- Standards of Appearance
- Medical Staff Health

IV. Reportable Events
V. Special Patient Care Considerations
VI. Safety
VII. Infection Prevention & Control
VIII. TJC National Patient Safety Goals
IX. High Reliability Organization Information
X. Standards of Professional Behavior
XI. Legal compliance: fraud & abuse, private inurement and excess benefit transactions

I. CONTINUING MEDICAL EDUCATION REQUIREMENTS

Continuing Medical Education (CME) Requirements

The State of Connecticut requires physicians to participate in CME as a condition of continued licensure.

- A minimum of fifty (50) contact hours every two years in an area of the physicians practice is required

- At the time of each re-appointment, supply copies of certificates or attest to having them on file and available if requested

Continuing Medical Education (CME) Requirements (con't)

Additionally, at least one (1) contact hour of training or education must be earned on each of the following subject areas every six (6) years:

- Infectious diseases including acquired immune deficiency syndrome
- Risk management
- Sexual assault
- Domestic violence
- Cultural competency
- Behavioral health

The Yale CME Office offers on line courses in the above mentioned required topics. Go to www.cme.yale.edu, "our offerings", "on line learning", "webcasts" and scroll down to identify "CT Mandated Courses". These courses are available to all Medical Staff members.

II. STANDARDS OF APPEARANCE

Standards of Appearance

Members and Affiliate members of the Medical Staff are expected to adhere to professional dress standards when attending to patients in the hospital.

Standards of Appearance (con't)

Except in emergency situations, your cooperation in avoiding use of the following items is appreciated:

- Exercise clothing – including shorts, sweatpants, sweatshirts, t-shirts
- Jeans

Please also:

- Be sure to cover midriffs and offensive tattoos
- Follow Infection Control Policies surrounding fingernails
  - No artificial nails
  - Nails must be kept to ¼ inch or shorter

III. MEDICAL STAFF HEALTH

Medical Staff Health

Medical Staff Policy and Committee on Medical Staff Health

Goals:

- To educate Medical Staff about physical, psychological and substance abuse issues that may affect a practitioner's ability to safely deliver care
- To encourage self-referral of medical staff with health problems
- To remediate and rehabilitate physicians with health problems as quickly and to the extent possible
- To establish a mechanism for the identification and referral of medical staff with health problems
- To evaluate referred or self-referred concerns with appropriate confidentiality

Medical Staff Health (con't)

Signs of Potential Practitioner Impairment:

- Odd behavior / personality changes
- Making rounds at unusual / inappropriate times
- Lack of availability or inappropriate responses to phone calls
- Social withdrawal
- Increased problems in quality
- Changes in personal hygiene and grooming
- Inability to focus and follow conversations

Practitioners considered "At-Risk":

Impaired practitioners may be found in all specialty areas but are reportedly most often in:

- Anesthesiology
- Psychiatry
- Emergency Medicine

Medical Staff Health (con't)

Self – referrals or reports of suspected impairment should be brought to the attention of one of the following:

William Sledge, MD, *Chair, Medical Staff Health Committee*
William.sledge@ynhh.org
(203) 688-9711

Thomas J. Balcezak, MD, *Chief Medical Officer*
Thomas.balcezak@ynhh.org
(203) 688-1343

Legal & Risk Services Department
(203) 688-2291 or off hours available via page operator (203) 688-3111

Note: For a copy of the Medical Staff Health Policy, please contact the Department of Physician Services (203-688-2615) or go to the Y-NHH Intranet, click on the "Yale New Haven Hospital" tab and then "Policies"

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IV. REPORTABLE EVENTS

Reportable Events

The State of Connecticut Department of Public Health (DPH) requires that certain events that occur in the hospital setting be reported within seven (7) days of awareness.

Report these events through the Y-NHH Department of Legal & Risk Services.

(203) 688-2291

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Reportable Events (con't)

Surgical / Invasive Procedure Related:

- Surgery performed on the wrong body part, wrong patient or wrong procedure performed
- Unintended retention of a foreign object in a patient after surgery or other procedure
- Intraoperative or immediate (w/in 24 hours of surgery) death in an ASA Class I or II patient
- Patient death or serious disability as a result of surgery including hemorrhage greater than 30% of circulating blood volume
- Perforation during open, laparoscopic and/or endoscopic procedure resulting in death or serious disability

Reportable Events (con't)

Care Management Related:

- Patient death or serious disability associated with a medication error (wrong drug, dose, route, patient, rate or time) or medication reaction
- Patient death or serious disability associated with a hemolytic reaction due to administration of incompatible blood or blood products
- Lab or radiology test results not reported to the treating practitioner or reported incorrectly which result in death or serious disability due to incorrect or missed diagnosis in the emergency department
- Death or serious disability associated with hypoglycemia when onset occurs in the hospital
- Death or serious disability associated with failure to identify and treat hyperbilirubinemia in neonates

Reportable Events (con't)

Environment Related:

- Patient death or serious disability associated with a burn incurred from any source while in the hospital
- Patient death or serious disability associated with a fall in the hospital

Obstetrics Related:

- Obstetrical events resulting in death or serious disability to the neonate
- Maternal death or serious disability associated with labor and delivery in a low-risk patient

Reportable Events (con't)

Product or Device Related:

- Patient death or serious disability related to the use of contaminated drugs, devices or biologics provided by the hospital
- Patient death or serious disability associated with the use or function of a device in patient care in which the device is used or functions other than intended
- Patient death or serious disability associated with intravascular air embolism that occurs in the hospital

V. SPECIAL PATIENT CARE CONSIDERATIONS

PAIN MANAGEMENT
USE OF RESTRAINTS
ORGAN DONATION
PATIENT RIGHTS
INTERPRETER SERVICES

Pain Management

What is my role?

- Pain is expected to be assessed using objective criteria with regular reassessment and appropriate analgesia prescribed to appropriately manage pain. This includes:
  - Using and/or understanding the objective scale appropriate for your population of patients (i.e., 1 -10 numeric pain scale; faces scale; etc.)
  - Writing medication orders that define parameters for administration that match the appropriate scale for use (e.g., X medication Y mg PO PRN for Pain Score 8-10)
  - Assessing and reassessing the patients and documenting these assessments using this scale
  - Considering non-pharmacologic interventions
  - Considering an appropriate plan for ongoing pain control after discharge

For More Information:

- "Pain Assessment & Management Policy"
  - Go to the Y-NHH Intranet
  - Click on the "Yale-New Haven Hospital" tab
  - Click on the "Policies" header
  - Click on "Clinical Practice Manual" (CPM)

- For Drug Tables & Charts:
  - Go to the Y-NHH Intranet
  - Click on the "Yale-New Haven Hospital" tab
  - Click on the "Departments" header
  - Click on "Pharmacy"

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Use of Restraints

What is my role?

- Y-NHH is committed to prevent, reduce, and eliminate the use of restraints and seclusion whenever clinically feasible and to promote the rights, dignity and physical integrity of the patient to the fullest extent possible.

For VIOLENT BEHAVIOR REASONS:

•MD/DO/APRN/PA/RN must conduct and document a Face-to-Face assessment within one hour of the restraint being applied and/or seclusion initiated

•If an RN applies a restraint, a MD/DO/APRN/PA must be notified within one hour after application to obtain an order. The MD/DO/APRN/PA responsible for the patient must review the physical and psychological status of the patient, determining if the restraint should be continued and help with identifying ways to help the patient regain control so the restraint/seclusion can be discontinued

•If the restraint remains, a MD/DO/APRN/PA must conduct an initial face-to-face assessment within 4 hours (>18 years old) or 2 hours (<17 years old).

•A debrief with the patient and staff must occur and be documented within 24 hours of the restraint/seclusion

For NON-VIOLENT BEHAVIOR REASONS:

•MD/DO/APRN/PA/RN must write an order each calendar day

•MD/DO/APRN/PA/RN must complete an assessment within 24 hours of each order and documented this in the medical record

For More Information:

- "Restraint and Seclusion Policy" (C: R-4)
  - Go to the Y-NHH Intranet
  - Click on the "Yale-New Haven Hospital" tab
  - Click on the "Policies" header
  - Click on "Y-NHH Administrative Policies & Procedures Manual"

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Organ Donation

Nationwide and at Y-NHH hundreds of patients are awaiting life- saving heart, liver, kidney and pancreas transplants and many die waiting for the organ that they will never receive. Transplant can become a reality for many of these patients **IF** the guidelines below are followed:

Referrals to New England Organ Bank (NEOB) will be made in compliance with CMS conditions of participation.

Any hospital staff member can make a referral to NEOB utilizing the following clinical triggers only:

"GIVE" TRIGGERS:

G – Glasgow Coma Scale (GCS) is low, indicating cerebral insult from a catastrophic or irreversible condition
I – Intubated, unable to maintain patent airway independently
V – Ventilatory support required due to absence of, or ineffective, spontaneous respiratory effort
E – End of life discussion anticipated with potential for discussion re: brain death or comfort measures only

Referrals to NEOB should occur, **PRIOR TO** initiating brain death testing, preferably when potential to progress to brain death is determined and **PRIOR TO** discussing withdrawal of life sustaining therapies with the family / next of kin / power of attorney.

If a patient's family raises the issue of organ donation, please refer to NEOB – 1-800-446-6362. (Record this number in your cell phone)

For tissue donation deaths will be referred to NEOB within one hour of asystole for assessment and determination of medical suitability for organ donation.

YNHH has determined that a missed referral, late referral, or a donation discussion without collaboration with NEOB are "NEVER" EVENTS. All missed opportunities are reviewed by unit and organ donation committee.

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Patient Rights

What is my role?

- **Informed consent**—All patients must be properly and completely consented for procedures that will be performed.
- **Disclosure**—Patients, and when appropriate their families, must be informed of outcomes, including unanticipated outcomes, especially those causing significant harm, whether or not an error occurred. *Please contact the Legal Department for guidance regarding disclosures 203-688-2291.*
- Policies are established to manage disruptive behavior or behaviors that undermine the culture of safety.
- The **conflict of interest** policy is available online or through the Legal Department. (

For More Information:

These four (4) policies can be found as described below:

"Consent for Operation or Other Procedures" Policy (C: C-10)

"Disclosure of Unanticipated Outcomes to Patients and Families Policy" (C: D-1)

"Conflicts Among Leadership Groups Related to Patient Quality and Safety Policy " (NC: C-10)

"Medical Staff Code of Conduct" (under "Policies" header)

- **Go to the Y-NHH Intranet**
- **Click on the "Yale-New Haven Hospital" tab**
- **Click on the "Policies" header**
- **Click on "Y-NHH Administrative Policies & Procedures Manual"**

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Interpreter Services

Healthcare providers are required by State and Federal law and The Joint Commission to use appropriate interpreters to communicate with limited English proficient patients and their families/caregivers

Interpreter Services (con't)

Patient family members, friends or other non-Hospital personnel present with the patient are NOT considered appropriate interpreters.

Please call (203) 688-7523

(enter this number in your cell phone)

- Interpreters of over 150 spoken languages available
- American Sign Language interpreters
- 24 hours / 7 days a week

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VI.SAFETY

GENERAL
EMERGENCY MANAGEMENT
FIRE SAFETY
EMERGENCY / LIFE SAFETY CODES
HANDLING MEDICAL WASTE
OXYGEN/RADIATION SAFETY

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General

What is my role?

- Your identification badge must be displayed at all times while on hospital property.
- Yale-New Haven Hospital has been designated as a smoke-free facility. Blue painted lines mark the perimeter where smoking is not permitted.
- If you identify a specific problem that relates to safety risks in the hospital environment , it is important to report this through the patient service or other relevant manager and/or electronic event reporting application on the Clinical Workstation to resolve the care risk for your safety and the safety of our patients.

For More Information:

"Identification of Employee Policy" (NC: I-1)

"Smoking Regulations – Hospital Policy" (NC: S -1)

- **Go to the Y-NHH Intranet**
- **Click on the "Yale-New Haven Hospital" tab**
- **Click on the "Policies" header**
- **Click on "Y-NHH Administrative Policies & Procedures Manual"**

Remedy Application (to report safety risks)

- **Go to the Y-NHH Intranet**
- **Click on the "Yale-New Haven Hospital" tab**
- **Click on the "Applications" header**

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General (con't)

Cardiopulmonary Resuscitation Codes

- "Code" teams are available 24 hours/7 days a week
- Dial "155" from a Hospital phone and indicate the type of code (see below) and specific location:

ADULT:	"Code Blue"
PEDIATRIC:	"Code White"

For more information: "Code Blue/White Policy" (C:C-5)

- Go to the Y-NHH Intranet
- Click on the "Yale-New Haven Hospital" tab
- Click on the "Policies" header
- Click on "Y-NHH Administrative Policies & Procedures Manual"

General (con't)

Rapid Response Team (RRT) - **ADULT**

- **Team Members**
  - Hospitalist Attending Physician
  - SWAT nurse (ICU-level training)
  - Respiratory Therapist
- **When is it appropriate to call the "RRT"?**

  ***Criteria guidelines*:**
  - HR < 50 or > 130
  - RR < 8 or > 25
  - SBP < 90 or > 200
  - O2 saturation < 90% on prescribed oxygen
  - Change in mental status
  - Staff worried about patient *for any reason*

General Con't

Rapid Response Team (RRT) -- **ADULT**

- *Any member* of the healthcare team can activate the Rapid Response Team (RRT) as deemed necessary for a declining patient based on the "criteria guidelines"
- Patients and family members are also able to activate the RRT independent of the health care team in accordance with YNHH Policy

How do I activate the RRT?

1. Contact the page operator by dialing 155 (on campus)
2. Identify the patient to be seen, including location (pavilion, floor, room number)
3. Pages go out simultaneously to all RRT members and response occurs in less than 5 minutes

General Con't

Rapid Response Team (RRT) – **PEDIATRIC**

- **Team Members**
  - PICU RN
  - PICU fellow or APRN
  - Pediatric trained Respiratory Therapist (if needed)

- **When is it appropriate to call the "RRT"?**

  Airway / Breathing Concerns:

  - Respiratory distress of any kind
  - Acute / sustained change in respiratory rate:
    <12 or >80 bpm ……. infant (< 1 year old)
    <10 or >60 bpm ……. child (1 – 10 years old)
    <8 or >50 bpm …… adolescent (>10 years old)
  - Acute change in oxygen saturations (<90% on FiO2 greater than or = to 50%)
  - Asthma score >6 or difficulty speaking

General Con't

Rapid Response Team (RRT) -- **PEDIATRIC**

When is it appropriate to call the "RRT"? (Continued)

Circulatory Concerns:

- Acute/sustained change in BP after treatment
  - Systolic <60 or Diastolic <30…….Infant (<1 y/o)
    <80 or <40…….Child (1-10 y/o)
    <90 or <45…….Adol (>10 y/o)
- Acute/sustained change in HR or abnormal HR
  - <80 or >200…….Infant (<1y/o)
  - <60 or >180…….Child (1-10 y/o)
  - <40 or >130…….Adol (>10 y/o)
- Acute loss of urine output <0.5 ml/kg/hr x 4 hr
- Mottled, cool skin, prolonged cap refill

General Con't

Rapid Response Team (RRT) -- **PEDIATRIC**

When is it appropriate to call the "RRT"? (Continued)

Neurologic Concerns:

- Any unexplained decrease in consciousness
- Repeated or prolonged seizures
- A change from baseline seizures type or frequency

Other Concerns:

- Anything not listed that is concerning to you or the family/patient
- "Something just doesn't feel right"

General Con't

Rapid Response Team (RRT) -- **PEDIATRIC**

How do I activate the Pediatric RRT?

1. Call 155 from a hospital phone and ask the operator for "RRT-Pediatric"
2. Ask the operator for "Code White" if a sooner response is needed
3. Give the location of the child, including pavilion name, floor number, and room number
4. In parallel to the consult, notify the patient's attending or primary service about the consult
5. Off shift administrators should be notified of all patients requiring consults and transfers

Emergency Management

What is my role?

- Report any emergency to the patient service manager in the area or call the hospital emergency number (155).
- If you hear an alarm, see the manager in the area for more information and possible instructions which may include: assisting patients, following evacuation routes, using a fire extinguisher or accessing a fire alarm pull station.
- During a declared disaster, you may be asked to supervise other practitioners who have been granted disaster privileges. Directions regarding this would be coordinated through the Physician Services Department.

For More Information:

- Emergency Management Plan
- "Granting Disaster Privileges Policy"
  - **Go to the Y-NHH Intranet**
  - **Click on the "Yale-New Haven Hospital" tab**
  - **Click on the "Policies" header**

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Fire Safety

What is my role?

- In the event of a fire, follow the RACE protocol:
  - Rescue others at risk from the fire,
  - Sound the Alarm,
  - Close all doors/chutes/windows/etc.,
  - Extinguish the fire using the PASS method
    - Pull
    - Aim
    - Squeeze
    - Sweep

For More Information:

- Fire Safety Plan
  - **Go to the Y-NHH Intranet**
  - **Click on the "Yale-New Haven Hospital" tab**
  - **Click on the "Documents" header**
  - **Click on "Safety Manual"**

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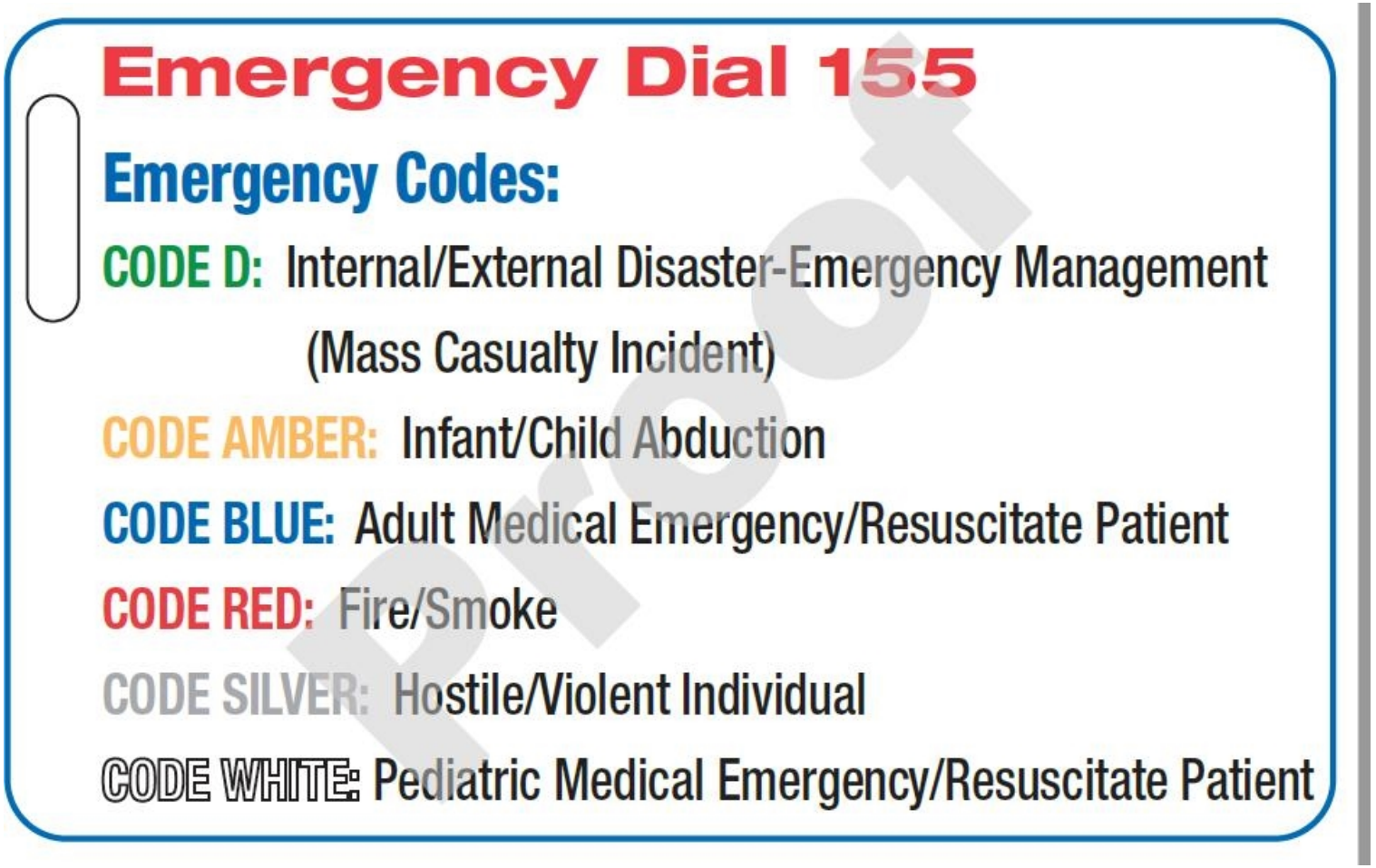
Emergency / Life Safety Codes



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Handling Medical Waste

What is my role?

- Safe handling of hazardous materials is important. Please refer to the manager of the area if you use, store, transport or need to dispose of a hazardous material, for Material Safety Data Sheet sheets (MSDS) and/or other key instructions.
- Dispose of medical waste appropriately in a leak-proof biohazard container/bag.

For More Information:

- Hazardous Materials
- Regulated Medical Waste Disposal
  - **Go to the Y-NHH Intranet**
  - **Click on the "Yale-New Haven Hospital" tab**
  - **Click on the "Documents" header**
  - **Click on "Safety Manual"**

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Oxygen and Radiation Safety

Oxygen Safety

What is my role?

•Store oxygen with the valve closed.

•Separate full and empty oxygen cylinders

•Oxygen cylinders must never be left lying down.

•Access to emergency oxygen shut off valves with gurneys, wheelchairs, etc. must never be blocked.

•During a medical emergency code, ventilators must be turned off before defibrillating or using other electrical equipment. Otherwise, concentrated oxygen will continue to be supplied to the area.

•Intentional 02 shut-offs are only indicated when there is a major fire emergency or leak in the system. Respiratory Therapists and/or Plant Engineers are the only staff authorized to shut off 02 after assessing the consequences to patient care.

Radiation Safety

What is my role?

•Key safety elements regarding radiation exposure:

- TIME—minimize time spent in room with patient who is being treated with radionuclide therapy
- DISTANCE—maintain at least 6 feet away from patients during exposure and treatment
- SHIELDING—wear appropriate protective shielding such as a lead apron and thyroid collar

•Sources of radiation include x-ray machines, therapeutic radiology equipment and radionuclides.

•Contact: Radiation Safety Officer, Michael Bohan (203-688-2950) with questions.

For More Information:

•"Radiation Safety Policy" (G-6)

•"Compressed Gas Safety"

- **Go to the Y-NHH Intranet**
- **Click on the "Yale-New Haven Hospital" tab**
- **Click on the "Documents" header**
- **Click on "Safety Manual"**

VII. INFECTION PREVENTION & CONTROL

OVERVIEW
HAND HYGIENE
STANDARD & CONTACT PRECAUTIONS

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Overview

What is my role?

- Central to our Exposure Control Plan is the **mandatory use of STANDARD PRECAUTIONS:**
  - Handwashing before entering and leaving a patient room; before and after every patient contact; immediately after skin exposure to blood or other potentially infectious material.
  - Wearing gloves when there is a risk of exposure to blood or other potentially infection materials from all patients. Gloves must be removed and hands washed immediately after the task. Wearing gloves is not a substitute for hand washing.
  - Use of goggles or glasses with side shields, masks or face shields to protect mucous membranes from accidental exposure when a procedure might result in splashing, spraying or aerosolization of blood and other body fluids.
  - Discarding of sharps in the appropriate puncture resistant containers provided in patient care rooms and treatment areas. Sharps are discarded without breaking, bending or recapping.
  - Promptly cleaning up all spills of blood or other potentially infectious material in an appropriate manner with decontamination of the site with approved disinfectant.
  - Handling of soiled linens, medical waste and laboratory specimens in a safe manner.
- Other precautions are used in situations that are designed to reduce transmission of epidemiologically significant organisms by direct or indirect contact. This may include **CONTACT PRECAUTIONS**:
  - Handwashing with soap and water or alcohol based sanitizer before entering or leaving a patient room and before or after contact with a patient or his/her environment. NOTE: If the patient is known to have C. difficile, soap and water must be used to wash hands.
  - Use of appropriate gloves and gowns
  - Appropriate cleaning and disinfection of equipment/supplies before removal from the room.

For More Information:

- Infection Control Manual
  - **Go to the Y-NHH Intranet**
  - **Click on the "Yale-New Haven Hospital" tab**
  - **Click on the "Documents" header**
  - **Click on "Infection Control Manual"**

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Hand Hygiene

Proper Performance of Hand Hygiene

Using Soap and Water

- Turn on faucet, wet hands, apply soap
- Rub hands together to form a lather for at least ***15*** seconds **making sure** to cleanse thumbs, areas in between fingers, and under fingernails
- Thoroughly rinse lather from hands
- Pat dry with clean paper towel
- Use paper towel to turn off faucet
- Dispose of paper towel in appropriate receptacle

Using Alcohol-based Hand Rub

- Push the dispenser *once* and coat all surfaces of your hands including:
  - between fingers
  - under fingernails
  - back of hands and wrists
- Rub hands together briskly until dry (No rinsing needed)

Other Considerations

- Artificial nails, nail art or nail jewelry is not permitted

- Gloves are not a substitute for hand hygiene
- Perform hand hygiene *before* putting on gloves
- Remove gloves after patient care and immediately perform hand hygiene
- Wear a new, clean pair of gloves for each patient encounter and never wash, disinfect or sterilize gloves for re-use

When should an alcohol-based hand rub not be used?

- When hands are visibly soiled or dirty
- When hands have been in direct contact with blood or body fluids
- After contact with a patient, or their environment, who has *C. difficile*

In the above cases, hand hygiene should be performed using soap and water instead of an alcohol-based hand rub.

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Standard & Contact Precautions

Standard Precautions

- Used for patients known or suspected to be colonized and/or infected with epidemiologically significant organisms (e.g., MDROs)

- MDROs are most commonly transmitted via contact:
  - *Direct contact transmission*: organisms are transferred from one person to another
  - *Indirect contact transmission:* transfer of an organism through a contaminated intermediate object or person (e.g., unwashed hands, improperly cleaned patient care devices, instruments, equipment, environment)

Contact Precautions

- Contact Precautions are intended to prevent transmission of organisms (such as MDROs) that are spread by direct or indirect contact with a patient or a patient's environment.
- Require putting on gown and gloves
  - *Prior* to entering a patient room even if…"I'm not going to touch anything."
  - Perform hand hygiene *before* putting on gloves so gloves are not contaminated. This protects the patient and you.
  - Tie gown at the waist and neck to keep it from opening and/or slipping off the shoulders to prevent contamination of your clothing.
- Remove gown and gloves before leaving the room.
- Perform hand hygiene immediately after removal of gown and gloves, before touching anything or anyone.

VIII. TJC NATIONAL PATIENT SAFETY GOALS

ANTICOAGULATION
HOSPITAL ACQUIRED INFECTIONS
MULTI-DRUG RESISTANT ORGANISMS (MDRO)
CENTRAL LINE ASSOCIATED BLOOD STREAM INFECTIONS (CLABSI)
CATHETER ASSOCIATED URINARY TRACT INFECTIONS (CAUTI)
SURGICAL SITE INFECTIONS (SSI)
FALLS

Anticoagulation

What is my role?

- **Education:**
  - Patients who receive anticoagulant therapy must be educated regarding:
    - the importance of follow-up monitoring after discharge
    - compliance with the medication they are prescribed
    - food-drug interactions
    - potential adverse drug reactions/interactions
    - Who they should contact and what they should do if they experience bleeding signs and symptoms or other described reactions/interactions
  - Education process:
    - Pharmacist identifies patients on warfarin and/or therapeutic doses of dalteparin (inpatients)
    - Patients who will be discharged soon are educated first if not already educated by the nurse
    - Documentation of education is located in patient education flowsheet
- **RN Driven UFH (unfractionated heparin) Dosing Protocol:**
  - Unpredictable pharmacodynamic profile
    - Can lead to delays in achieving therapeutic PTT goal
  - Literature supports rapid anticoagulation to achieve a therapeutic PTT
    - Local data shows patients reach PTT goal sooner when on protocol
  - Exceeding the therapeutic threshold reduces mortality compared to patients who never met therapeutic threshold
  - **<u>PTT goal of 55-95 for UFH</u>**
    - UFH is monitored by the aPTT
      - aPTT used as a surrogate measurement for anti-Xa activity
    - Therapeutic range for heparin is an anti-Xa activity level between 0.3 and 0.7 units/ml
      - Corresponds to a therapeutic aPTT range of 55- 95 seconds
      - This range will change based on type of reagent and lot #
- **Why use LMWH (low molecular weight heparin):**
  - More predictable anticoagulant response
  - Doesn't require routine monitoring
  - Administered once or twice daily as a subcutaneous injection
  - Level IA recommendation from CHEST guidelines for VTE, bridge therapy, AFib and ACS
  - LMWHs are more cost-effective, when considering the overall cost of care
- **Contraindications for LMWH:**
  - **<u>Concomitant epidural or spinal anesthesia or planned LP</u>**
    - Active bleeding
    - Hepatic failure
    - Major surgery/procedure in past 24-hrs or planned within 24-hrs
    - Bacterial endocarditis
    - Uncontrolled HTN
    - Coagulopathy (PT>16 or Plts <50K)
  - **<u>Special Considerations</u>**
    - CrCl<30
      - Requires routine monitoring of anti-Xa levels
      - May require dose adjustment

For More Information:

- "Anticoagulation Therapy Management" Policy
  - Go to the Y-NHH Intranet
  - Click on the "Yale-New Haven Hospital" tab
  - Click on the "Departments" header
  - Click on "Pharmacy"

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Hospital Acquired Infections

Hospital Acquired Infections (HAIs) are an important issue for all hospitals. The areas of current focus are:

- Multidrug-Resistant Organisms (MDROs)
- Central Line Associated Blood Stream Infections (CLABSIs)
- Surgical Site Infections (SSIs)
- Catheter-Associated Urinary Tract Infections (CAUTIs)

Multi-Drug Resistant Organisms (MDRO): Prevention and Control

Background

- HAIs are more likely to be caused by multi-drug resistant organisms (MDRO) than community acquired infections.
  - MDROs are bacteria resistant to first-line therapies.
  - MDROs are often difficult to treat due to their innate or acquired resistance to multiple classes of antimicrobial agents.
    - In some cases, there are few, if any, options for patient treatment.
  - Examples of MDROs:
    - Vancomycin resistant enterococcus (VRE)
    - Methicillin resistant *Staphylococcus aureus* (MRSA)
    - Gram negative bacteria (e.g., E. coli, Pseudomonas, Klebsiella, Enterobacter, Acinetobacter) resistant to first-line antibiotic agents and/or carrying certain resistance traits (e.g., ESBL = extended spectrum beta-lactamase; KPC = *Klebsiella pneumoniae* carbepenemase)
- MDRO infections are particularly difficult and problematic to treat in certain patient populations such as:
  - Immunosuppression
  - Prosthetic devices
  - Device-related infections (e.g., central line infection, Foley catheter related infection, ventilator associated pneumonia)
- Although *C. difficile* (C. diff) is not technically an MDRO, it poses similar challenges for prevention of transmission and treatment.
  - Outbreaks of a particularly virulent strain of C. diff are being increasingly reported across the US.

Scope

- The CDC estimates that healthcare-associated infections (HAI) account for an estimated 1.7 million infections and 99,000 associated deaths each year in the US.
  - Cost: $17 - 29 billion a year.
  - One of the top ten leading causes of death.
- HAIs are infections that patients acquire during the course of receiving treatment for other conditions within a healthcare setting.
  - HAIs are not present or incubating at the time of admission.
  - HAIs lead to:
    - increased length of stay
    - more diagnostic tests
    - more treatment
    - more antibiotics
    - more antibiotic resistance

Central Line Associated Blood Stream Infections (CLABSI)

Background

- A CVC or Central Venous Access Device (CVAD) is an intravenous catheter whose tip ends in the central venous system
- Common sites of insertion include internal jugular vein, subclavian vein, femoral vein, and as well as the cephalic & basilic veins (PICC: peripherally inserted central catheter)
- Indications:
  - Hemodynamic monitoring
  - IV fluids, medications, vasopressors, blood products, chemotherapy, total parenteral nutrition
  - Hemodialysis

Scope

- 18 million ICU days (11% of total hospital days).
- 9.7 million catheter-days in ICUs (54% of ICU days).
- 48,600 patients in the ICUs have a CLABSI (catheter-related bloodstream infection (5 BSI/1000 catheter days).
- 17,000 deaths attributable to CLABSIs in the ICU.
- Although the catheter utilization rate is lower outside of the ICU setting, as many or more CLABSIs occur outside the ICU setting.[2]

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•Wenzel RP & Edmond MB: NEJM 355(26):2781-83 (2006)

•Marschall J et al. Infection Control & Hospital Epidemiology 28(8):905-9 (2007)

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Central Line Associated Blood Stream Infections (CLABSI) (cont'd)

Efforts to Reduce CLABSI

- **Central line insertion checklist and CVAD policy:**
  - Elements of the checklist are reviewed in detail in the following slides.
  - Checklist hard copies available under "C" in the clinical workstation.
  - Completed copies should be returned to nursing leadership on each unit.
  - Completion of training required for all who insert CVADs is required upon hire and annually per the National Patient Safety Goals.
- **Patient and Family Education**
  - Education should occur at time of consent if possible using educational materials that have been developed for this purpose regarding CVAD devices in general and information related to CLABSI.
- **Maintenance**:
  - Maintenance policy in place requiring orders for maintaining the CVAD
  - Monitoring and prompt removal of unnecessary CVAD is essential component of reduction of CLABSI
  - Assess CVAD daily with prompt removal when appropriate and other lines can be used (i.e., peripheral IV)

Risk Factors

- Duration of catheterization (CVAD duration > 3 -4 days)
- Increased diameter and number of ports on catheter
- Location (femoral > internal jugular > subclavian)
- Type of catheter:
  - Tunneled catheters lower risk than non-tunneled
  - Antimicrobial/Antiseptic coated catheters are lower risk than non-coated
- Thrombosis at the site of the CVAD
- TPN or other lipid rich infusate
- Impaired skin integrity (burns, dermatologic disease)

Catheter Associated Urinary Tract Infections (CAUTI)

Background

- In 2012, The Joint Commission required that hospitals fully implement best practices to prevent indwelling catheter-associated urinary tract infections

Scope

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Surgical Site Infections (SSI)

Background

- In spite of advances in infection prevention practices, surgical site infections (SSIs) remain a substantial cause of morbidity and mortality among patients.

- A systematic approach must be applied with the awareness that SSI risk is influenced by characteristics of the patient, operation, personnel, and healthcare setting.

Scope

- Estimated 24 million surgical procedures/year
- 2 to 5% of operations are complicated by an SSI
- SSIs account for 24% of all Hospital Acquired Infections (HAI)
  - Third most frequent HAI
  - Most costly HAI
- SSIs prolong hospital stay an average of 7-10 days
- Patients with an SSI have a 2-11 times higher risk of death compared with operative patients without an SSI
- Total cost may exceed $10 billion/yr
  - Attributable costs vary: $3000-$29,000

[1]Anderson, Kaye, Classen et al. Strategies to Prevent Surgical Site Infections in Acute Care Hospitals Infect control Hosp Epidemiol 2008;29:S51-S61.

Surgical Site Infections (SSI) (cont'd)

Prevention Strategies

- Preoperative Antibiotics:

  "Timing is everything"

Antibiotic given	SSI rate
Early (2-24 hours before incision)	3.8%
Within 2 hours before incision	**0.6%**
Within 3 hours after incision	1.4%
Post-op	3.3%

- Minimize patient microbial burden
  - Surgical site disinfection before incision
  - Pre-operative antibiotic prophylaxis
  - Smoking cessation
- Optimize wound condition
- Optimize patient immune defenses
  - Control blood glucose in diabetics

Risk Factors

Wound Classification	Infection Rate
Clean	<2%
Clean contaminated	<10%
Contaminated	20%
Dirty	30 to 40%

Endogenous

- Diabetes mellitus
- Advanced age
- Obesity
- Malnutrition, recent weight loss
- Cancer
- Immunosuppressed (e.g., steroid use)
- Other remote site of infection

Exogenous

- Prolonged preoperative stay
- Preoperative hair removal by shaving
- Length of operation
- Maintenance of body temperature
- Surgical technique
- Incorrect use of prophylactic antibiotics

Surgical Site Infections (SSI) (cont'd)

Efforts to Reduce SSI

- Patient and Family Education
  - All surgical patients must be educated regarding measures to prevent SSIs.
    - Educational materials that have been developed specifically for patients should be used.
- Whiteboard
  - Pre-operative antibiotic choice (if indicated), timing, duration; follow evidence based guidelines
  - Hair removal – no shaving: razors removed from OR
  - Normothermia
  - Glucose control
- Monitor compliance with best practices or evidence based guidelines
  - ALL staff members empowered to **stop** a procedure if there has been a breach in sterile technique or any non-adherence with checklists/protocol.

Surgical Site Infections (SSI) (cont'd)

Surgical Care Improvement Project (SCIP)

- SCIP tracks all of the following at YNHH
  - Antibiotics received *within 1 hour prior to incision* for those procedures where antibiotics are indicated
    - For quinolones and vancomycin a 2 hour time frame is acceptable
  - Antibiotic selection
    - CABG, other cardiac and vascular -> cefazolin, cefuroxime, or vancomycin*
    - Hysterectomy -> cefotetan, cefazolin, cefoxitin, cefuroxime, or ampicillin/sulbactam
    - Hip/knee arthroplasty -> cefazolin, cefuroxime, vancomycin*

- **SCIP tracks all of the following Antibiotic selection**
    - Colon operations -> cefotetan, cefoxitin, ampicillin/sulbactam, ertapenam, or cefazolin, cefuroxime and metronidazole
    - For beta-lactam allergic patients alternative recommendations are available
    - **Reason for use of vancomycin must be documented by physician/APRN/PA if patient not beta-lactam allergic*
  - Antibiotic discontinuation
    - Antibiotics must be stopped within 24 hours of surgery end time for elective surgical cases
    - For cardiac surgery antibiotics must be stopped within 48 hours of surgery end time
  - Cardiac surgery patients must have blood glucose <200 mg/dl at 6AM on post-operative day #1 and day #2.
  - Hair removal must be with clippers or depilatory only (no shaving), only if necessary and performed immediately prior to incision.
  - Colorectal surgery patients must have a temperature ≥96.8^{0}F within 15 minutes of leaving the operating room.

Falls

What is my role?

- Adult patients wearing **"ruby slippers"** with corresponding signage have been identified as a fall risk
- A pediatric patient with a "Humpty Dumpty" sign identifies a pediatric patient as a fall risk.
- This, in combination of many other efforts, makes up our fall reduction program.
- You may be asked to consider a PT/OT consult for gait impairment if a patient has been identified as at risk of falls.

For More Information:

- "Fall Prevention / Evaluation Policies"

Three separate policies: Adult, Pediatric and Neonatal / Infant – all found:

- Go to the Y-NHH Intranet
- Click on the "Yale-New Haven Hospital" tab
- Click on the "Policies" header
- Click on "Clinical Practice Manual" (CPM)
- Go to "Main Index"

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IX. HIGH RELIABILITY ORGANIZATION (HRO) INFORMATION

Overview HRO/ "CHAMP" Behaviors

High Reliability Organizations (HRO) operate under very challenging conditions all the time yet manage to have fewer serious safety events by focusing on an established set of principles and practices.

HRO focuses on
Safety, Quality, Experience and Finances
to achieve Excellence.

We need your commitment on this journey!

HRO: "CHAMP" Tools

The high reliability organization journey requires a continuing commitment to behavioral change and education. YNHH has created a training video that builds on the initial training all staff received on CHAMP safety behaviors:

Communicate Clearly

Handoff Effectively

Attention to Detail

Mentor each other for 200% accountability

Practice and accept a questioning attitude

The video, "HRO: Tools in Action" is available on the following link: https://vimeo.com/207518855.

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CHAMP Behaviors
Guidelines

C

Communicate Clearly
- Repeat Backs / Read Backs with Clarifying Questions
- Phonetic and Numeric Clarifications

H

Handoff Effectively
- Situation, Background, Assessment, Recommendation (SBAR)

A

Attention to Detail
- Self-check using Stop, Think, Act Review (STAR)

M

Mentor Each Other – 200% Accountability
- Cross-Check and Coach Teammates
- Speak Up for Safety: "I Have a Concern"

P

Practice and Accept a Questioning Attitude
- Validate and Verify
- Stop the Line – "I need clarity!"

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X. STANDARDS OF PROFESSIONAL BEHAVIOR

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Standards of Professional Behavior

Patient-Centered Care – Put patients and families first
- Keep patients safe and use high reliability practices
- Deliver the highest quality of coordinated care and service
- Make patients and families part of the team
- Ensure a quiet, clean environment

Respect – Value all people
- Protect others' privacy and dignity
- Introduce yourself and your role
- Be curious, ask questions and listen without interruption
- Support, recognize and appreciate others

Compassion – Be empathetic
- Smile, make eye contact and offer a warm greeting
- Offer thoughtful gestures of courtesy, comfort and kindness
- Identify and respond to feelings, concerns and requests
- Communicate with courtesy and respect

Integrity – Do the right thing
- Be on time and prepared
- Promote diversity and be inclusive
- Work as a team and speak well of others
- Value different ideas, perspectives and feedback

Accountability – Be responsible and take action
- Own your work and follow through on commitments
- Explain what you are doing and why
- Present a professional image
- Acknowledge when wrong, apologize and take action

XI. LEGAL COMPLIANCE: FRAUD & ABUSE, PRIVATE INUREMENT AND EXCESS BENEFIT TRANSACTIONS

Stark & Anti-Kickback Law

- Stark and Anti-Kickback Statutes restrict *financial relationships* with persons or entities that make, receive, or influence referrals of patients or services to or from hospitals.

- Financial relationships include the exchange of anything of value (e.g., cash, services, support).

- Anti-Kickback Statute imposes civil and criminal liability for those who knowingly and willfully offer or pay *any* remuneration, in cash or in kind, to any person as an inducement for referrals.

- Subject to meeting certain exceptions, Stark and Anti-Kickback prohibit referrals when the physician and the hospital have a *financial relationship*. To be permissible, relationships must generally be in writing, signed by both parties, at fair market value and commercially reasonable.

- Yale New Haven Health Policy requires that, ***prior*** to entering into ***any*** financial relationship with a physician or other who is in a position to refer patients, the Health System's Legal & Risk Services Department must be contacted to review the proposed arrangement and to prepare a signed written contract that complies with the law.

Private Inurement & Intermediate Sanctions

- **PRIVATE INUREMENT**

➢ The hospital is a tax-exempt healthcare organization. As such, the hospital's income and assets may not be used for non-charitable purposes to benefit any individual who has a significant relationship with the hospital (this individual is known as an "Insider").

- **INTERMEDIATE SANCTIONS - EXCESS BENEFIT TRANSACTIONS**
  - ➢ A hospital may not provide a benefit to a "Disqualified Person" that exceeds the value received by the hospital (e.g., when the hospital pays compensation that's not reasonable).
  - ➢ A "Disqualified Person" is (a) any person who is currently or was in the prior 5 years in a position of substantial influence over the hospital's affairs, and (b) a family member or entity controlled 35% or more by a person described in (a).
  - ➢ Persons with substantial influence include voting trustees, certain officers, and others with the ability to exercise substantial influence.

- Financial relationships between a hospital and an Insider or Disqualified Person must be reasonable and fair market value, and must be approved *in advance* by the Health System's Legal & Risk Services Department, as well as by the hospital's Board of Trustees based on market comparability data that supports the appropriateness of the proposed arrangement.

Risk & Penalties

- Stark penalties can be severe
  - Denial/Refund of claims for referred services
  - Up to $15,000 per service monetary penalty
  - Exclusion from government health care programs

- Anti-Kickback violation is a felony offense
  - Criminal fines and imprisonment for up to 5 years
  - Up to $50,000 per service monetary penalty *plus* potential fine of up to three times the penalty amount
  - Exclusion from government health care programs

- Private Inurement & Excess Benefit Transaction
  - Private Inurement can result in revocation of a hospital's tax-exempt status.
  - Significant penalty taxes may be imposed on individuals who engage in impermissible transactions (including on the "Disqualified Person" and on the manager who approved the transaction). The hospital may also be subject to penalty taxes.
  - Excess benefit transactions must be corrected when discovered.

XII. Antimicrobial Stewardship

Antimicrobial Stewardship at Yale-New Haven Health System

- All acute care hospitals are required by The Joint Commission to have an antimicrobial stewardship program (ASP)
- Antimicrobial stewardship is every health care provider's responsibility and involves a multi-modal process that is a coordinated effort to mitigate unnecessary or inappropriate antimicrobial usage to improve patient care and decrease patient harm and antimicrobial resistance
- Yale New Haven Health System has an Antimicrobial Stewardship Committee that develops and monitors system-level antimicrobial use and looks for opportunities for improvement in antimicrobial therapy management
- Certain antimicrobials require pre-authorization or approval by ID and/or pharmacy prior to use as part of the ASP
- Additional components of the ASP include a Pharmacist Driven IV to Enteral Protocol and Renal Dose Adjustment Protocol

Attestation & Post Test

Please complete the Attestation of completion of this module and Post-test (score of at least 80% is required to pass)

- The video, “YNHHS Standards of Professional Behavior is available via the following link:

  https://vimeo.com/ynhh/review/187379332/3c9b5dc336

Questions

Direct questions regarding content to:

Medical Staff Administration

Phone: 203.688.2615