Geisinger Clinical Instructor Orientation

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Welcome to Geisinger

We hope that you and your students have a great experience at our facilities!

- **This course will provide you with information on best practice, our policies, and quality data to help you and your students best care for our patients. For questions, please reach out to us at NSG_AFFILIATES@geisinger.edu**

Patient Assignments

To create an atmosphere of teamwork, better dispersion of patient assignments, and enhance communication between Geisinger staff and all our nursing students, we ask that when student assignments are created, they are either:

- Provided to the charge nurse
- Posted at the assignment board and huddle board

Please work with your unit's management to create the process that works best for that unit.

Instructors should arrive before student groups to get report from charge nurse when making assignments.

Badging

All students and faculty need to use their school issued badges. Geisinger will not issue badges except in special circumstances to students and faculty.

- *Note: Employees who are also clinical faculty must wear a school badge and not their employee badge.*
- Ideally, badges should specifically state complete role (Ex. Nursing Student, Faculty) and not just “student” or list credentials.

HIPAA

Access to Protected Health Information

- Rule of Thumb: Must have a legitimate business reason to access patient information
  - Minimum necessary HPI
  - Highly Protected Health Information
- Clinical education requires access to patient information to provide safe and effective care
  - You may review charts for appropriate assignments
  - You may not open a chart to show a group how to use Epic, please utilize EPIC playground for this scenario—each student/faculty member is required to complete a GOALS course on Epic use
  - You may not access your own or your family's medical records

Please stress ramifications of inappropriate social media use!

Bloodborne Pathogen Exposures

Students will be followed by Employee Health. Student insurance will get billed for student testing, however Geisinger will cover the testing costs for the patient, the employee health nurse, and the provider visits.

During the hours of 7a-4p, students should go to Employee Health after an exposure. If at a site where there is not an Employee Health office, go to the on-site ED. If neither is available, call Employee Health at 570-214-9424.

If after hours, go to the ED or call Employee Health at 570-214-9424.

Employee Health will follow the student for the first month, if necessary.

Geisinger Policy Manager

Policy Manager is a great way to view all Geisinger policies and information needed to best take care of our patients

P&P Manager - PolicyMedical

Suicide Precautions

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Definitions

- **Suicide**
  Death caused by self-directed injurious behavior with an intent to die as a result of the behavior.
- **Suicide attempt**
  A non-fatal, self-directed, potentially injurious behavior with an intent to die as a result of the behavior; might not result in injury.
- **Suicidal ideation**
  Thinking about, considering, or planning suicide.

Risk Factors

- Family history of suicide
- Family history of child maltreatment
- Previous suicide attempt(s)
- History of mental disorders, particularly clinical depression
- History of alcohol and substance abuse
- Feelings of hopelessness
- Impulsive or aggressive tendencies
- Cultural and religious beliefs

Warning Signs

- Acting anxious or agitated
- Withdrawing from family and friends
- Changing eating and/or sleeping habits
- Rage or revenge seeking
- Taking risks that could lead to death
- Mood swings
- Talking or thinking about death often
- Giving away important possessions
- Saying goodbye to friends and family
- Putting affairs in order, making a will

- Talking about wanting to die or wanting to kill themselves
- Talking about feeling empty, hopeless, or having no reason to live
- Making a plan or looking for a way to kill themselves, such as searching online, stockpiling pills, or buying a gun
- Talking about great guilt or shame
- Talking about feeling trapped
- Talking about being a burden to others
- Increased use of alcohol or drugs

Suicidal Statements

“I wish I were dead.”
“I’m going to end it all.”
“You will be better off without me.”
“What’s the point of living?”
“Soon you won’t have to worry about me.”
“Who cares if I’m dead, anyway?”

Suicide Myths and Realities

Myth

- Asking about suicide will give them the idea
- Some talk, some just act
- There's nothing you can do if they really want to commit suicide
- They really won't commit suicide because they made _____ plans

Reality

- It gives them permission to talk about it
- Most have talked about it
- Acute risk for suicide is time-limited, most suicide ideation is associated with treatable disorders
- Intent can override rational thinking and must be taken seriously

Adult Risk Categories

After the screening questions are answered, it will automatically calculate a risk score for adult patients.

- Low Risk
- Moderate Risk
- High Risk

Low Risk Interventions

Low Risk	• Locate patient close to nurses station, if possible • Rescreen patient using CSSR if change in behavior, statements, or condition • Ensure resources are provided at discharge

Moderate Risk Interventions

Moderate Risk	• Alert provider and charge nurse of status • Psych Consult as ordered by practitioner • **Assign to direct visual observation. May assign continuous in person and/or video** • Locate patient close to nurses station, if possible • Complete room and body search immediately for any potentially harmful objects - Remove patient belongings - Screen all visitor belongings - Paper scrubs - Plastic dinnerware • Complete room checks each shift • Re-screen patient using CSSR if change in behavior, statements, or condition • Ensure resources are provided at discharge

Patient should be in a private room

High Risk Interventions

High Risk	• Alert provider and charge nurse of status • **Assign to 1:1 continuous in person visual observation** • May use video monitoring as secondary precaution in conjunction with direct 1:1 • Psych Consult as ordered by practitioner • Locate patient close to nurses station, if possible • Complete room and body search immediately for any potentially harmful objects - Remove patient belongings - Screen all visitor belongings - Paper scrubs - Plastic dinnerware • Complete room checks each shift • Re-screen patient using CSSR if change in behavior, statements, or condition • Ensure resources are provided at discharge

Patient should be in a private room

Patient Belongings

Any patient item that could be potentially hazardous to the patient should be removed and secured on the unit (GMC use blue bins and secure storage)

Example of items to remove:

- Belts
- Any glass or breakable objects
- Make sure you are accounting for all plastic utensils when trays are removed from the room
- Sharp or potentially sharp objects (sharps container may remain)
- Razor, needles, scissors, knitting needles, safety pins, wire hangers, metal combs, nail files, etc.
- Any dangerous or flammable liquids
- Perfume, deodorants, & products like Efferdent

Patients may be allowed to have supervised access to certain items/toiletries at times.

Additional Considerations for Moderate/High risk

- Do thorough search; be sure to look under mattresses at hand off
- Nurse to do mouth checks if suspicion of “cheeking” medications
- Remove “extra” not needed items from room.
- Remove sharps containers
- Paper bags in place of plastic bags for trash and linen
- Bags or totes with handles removed
- Remove call bell or make one to one aware.
- Remove telephone

Patient on Suicide Precautions- Masks

- Disposable masks have metal twist tie in nose bridge
- Remove this metal twist tie before giving mask to patient

Suicide

If the patient is at risk for suicide, apply the appropriate interventions based off of the level of risk. Then notify the provider.

The provider will assess the patient, and may modify interventions based on risk assessment, may consider a psychiatric consultation for any psychiatric problem or issue.
Patients transferred from ED to Inpatient areas of hospital will be accompanied by 1:1 direct visual observation.

If needed, security may be contacted to assist with the escort.

1:1 observation may be discontinued after provider assessment and upon order of the provider/consulting behavioral health practitioner.

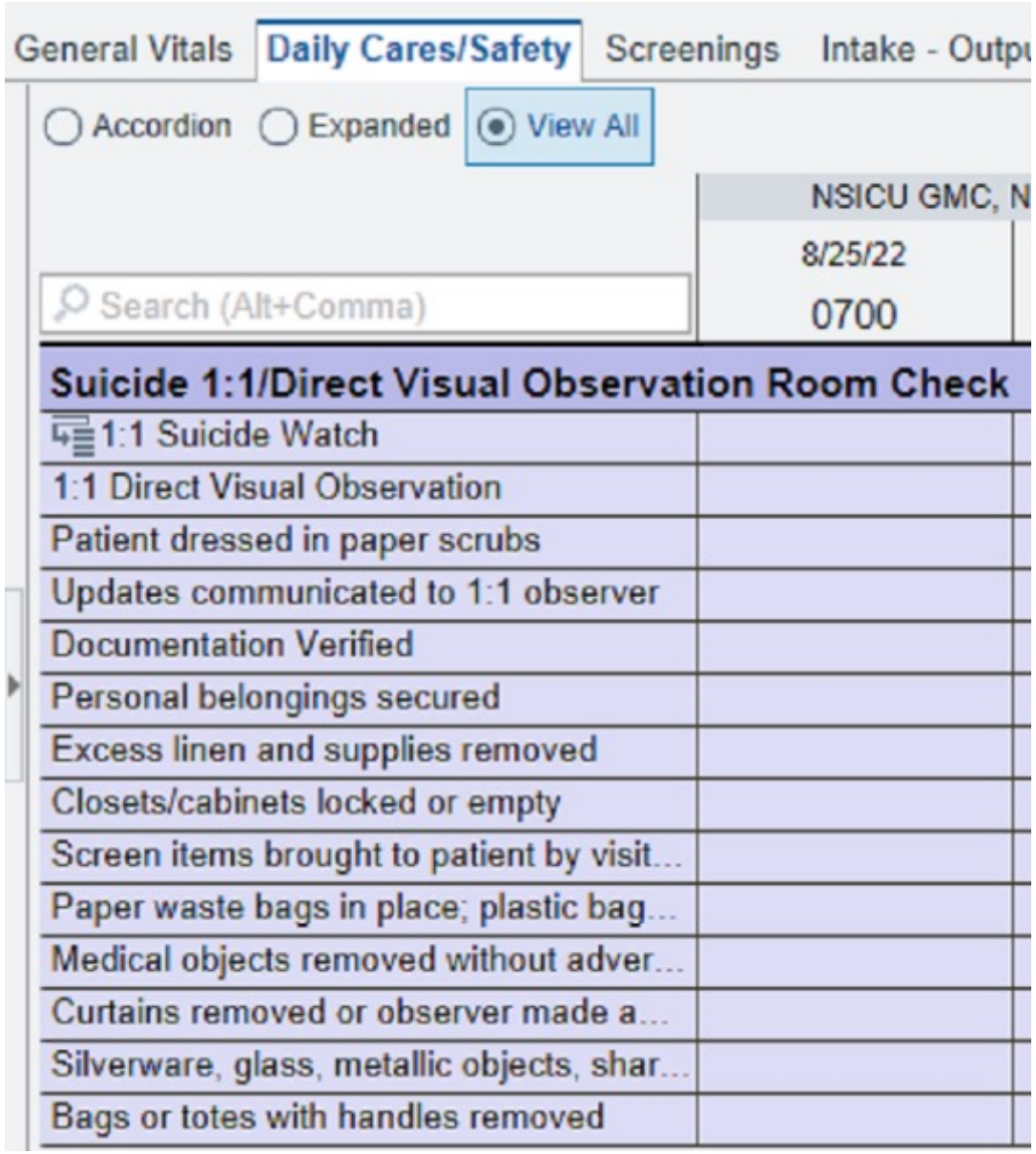
GWV – 1:1 cannot be discontinued without psychiatric evaluation

Documentation

- Used for moderate and high risk patients.
- Utilize the Direct Visual Observation Room check group in Daily Cares/Safety.

  Document Initiation & Qshift

- Documentation verified is documented by the RN/LPN after they review the room check documentation.
- Document 1:1 Suicide Watch hourly



Potential Weapons Used For Harm

Non-environmental

- Gun
- Knife
- Taser
- Box Cutter
- Lighter

Environmental

- Cords/Strings
- Outlets
- Glass
- Plastic Bags
- Furniture
- Plate/utensils
- Razors
- Pens/Pencils
- Bodily Fluids
- Nails/Teeth
- Clothing

1:1 Observer Expectations

Continuous, **unobstructed** view of the patient.

You should have the ability to see the patient's hands at all times.

Patients head should not be under the blanket.

- **Even if the patient's family is present**
- **Even if they are in the bathroom**
- **Even if they are bathing/showering- REMOVE SHOWER CURTAIN**

The patient must be observed at all times and **never left alone**.

1:1 observer should not bring any items into the patient room that distracts from continuous 1:1 visual observation.

Communicating with Staff

- Report should be given at the beginning of the shift to the one to one. The care needed for the patient will be discussed at this time. Items to include but not limited to:
  - Patient activity (e.g. up to bathroom with help, bed rest)
  - Special patient needs
  - Any concerns you have about caring for the patient
- Offer breaks/lunches to the one to ones.
- One to one should notify you any plans to commit suicide that the patient has shared with you and/or strange/unusual patient behavior.

Communicating with the Patient

Can I talk to the patient?

Can I talk to the patient about suicide?

Talking to someone about suicide is important and does not give them ideas about suicide; it gives them permission to talk about it.

- Convey attitudes of compassion, empathy and understanding. Do not offer to counsel the patient spiritually or emotionally.
- Allow the patient to talk, but do not offer your judgments or opinions. Do not promise the patient that you will not tell the staff what you have been told.
- It is important to respect the patients by speaking to them in a calm and friendly tone. Raising your voice may cause the patient to become upset
  - Avoid arguing with the patient
  - Remain calm
- Some patients may become agitated because you are continuously watching them. Tell the patient you are staying with them for safety reasons; we care for their safety and it is hospital policy.
  - “I am doing this for your safety.” or “It is our policy to monitor you closely for your safety”

What if my patient needs help behind a locked door?

- Please locate the key/device on your unit in case of emergencies.
- Play video for tutorial.
- ***Ensure you know how to open doors on your unit***

Geisinger Codes

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Know the Codes

Code Orange – Lockdown/suspicious incident that may threaten patients, staff or visitors. 

Code Gray – assistance in securing an out of control or disruptive patient or visitor that presents an immediate danger to self, others, or that exhibits patient behaviors such as verbal outbursts indicating harm to themselves or others. 

Code Amber– indicates that a child or infant is missing/abducted. 

Code Black – mass casualty.

Code Yellow – Hospital Incident Command Activation

Code Green – Evacuate area

Code Blue / Pediatric Code Blue – indicates an adult/pediatric cardiac arrest.

Code Lavender- indicates an obstetric or postpartum event that is related to pregnancy or postpartum period.

Code Red – indicates that a fire or suspected fire has been detected. 

Code Silver – this code is activated when there is a person or persons on the premises that has used or continues to use a gun against person(s) on the Geisinger property. 

Patient Identification: Color Coded Bands

- White-with black lettering is regular ID band
- Red
- Yellow
- Purple
- Green
- Pink
- Beige
- Orange
- White with Red letters

MEWS

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Modified Early Warning Signs (MEWS)

It is VITALLY important to document vital signs as soon as they are completed

As you enter the vital signs, the computer will calculate what is entered & produce a MEWS score

This score indicates the potential of a patient experiencing a crisis in the next several hours

New MEWS: the most recent MEWS score if higher than the previously documented/calculated score
Ex: Patient was previously a MEWS of 0-2 and is now a MEWS of 3

Full set of Vital Signs includes: GCS, Temperature, HR, BP, RR, and Pulse Oximetry

Please refer to the Modified Early Warning Sign Policy in Policy Manager

Modified Early Warning Score (MEWS)

MEWS (Modified Early Warning System)							
	3	2	1	0	1	2	3
Respiratory Rate per minute		Less than 8		9-14	15-20	21-29	More than 30
Heart Rate per minute		Less than 40	40-50	51-100	101-110	111-129	More than 129
Systolic Blood Pressure	Less than 70	71-80	81-100	101-199		More than 200	
Conscious level (AVPU)	**U**nresponsive	Responds to **P**ain	Responds to **V**oice	**A**lert	New agitation Confusion		
Temperature (°c)		Less than 35.0	35.1-36	36.1-38	38.1-38.5	More than 38.6	
Hourly Urine For 2 hours	Less than 10mls / hr	Less than 30mls / hr	Less than 45mls / hr				

Rapid Response Team

RRT – Rapid Response Team.

The RRT should be activated for individual who meet the previous criteria and may be activated for any situation in which there is a perceived need for medical intervention or support

Remember no RRT is a wrong RRT

A physician's approval is not required to activate an RRT.

Rapid Response Team: When do we call

For Adult Patients

- Staff or Family concern
- New MEWS score ≥ 5 (if appropriate)
- RR ≤ 10 or ≥ 30 (Unless patient's baseline)
- SpO2 ≤ 90 on max O2 (if appropriate)
- HR ≤ 40 or ≥ 140
- Acute mental status changes
- Airway compromise
- SBP ≤ 80mmHg or ≥ 200 mmHg
- Continued deterioration or failure to improve from patients' baseline

For Children

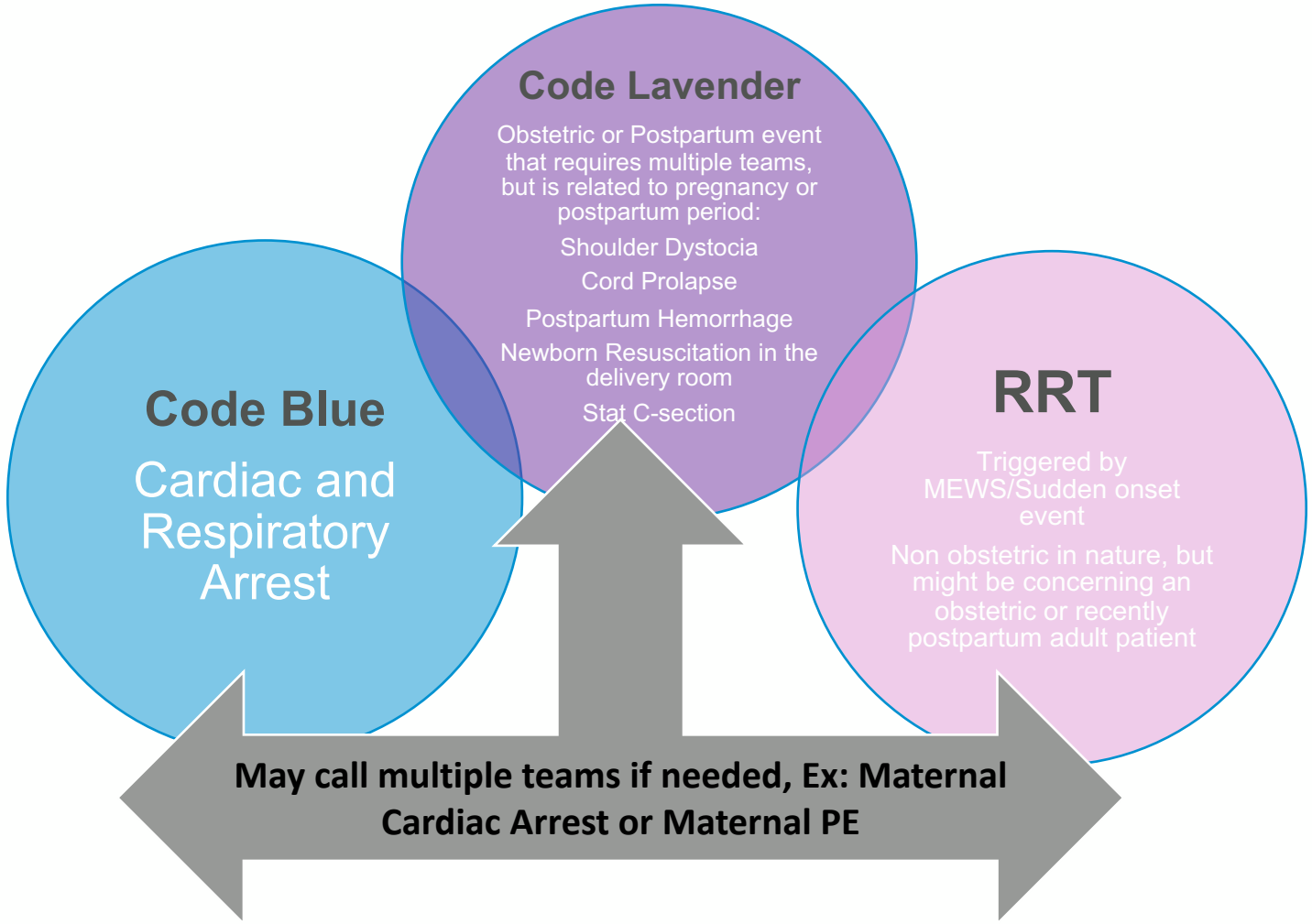
- Staff or family concern regarding patient's medical condition
- Acute change in RR
- Acute change in SpO2
- Acute change in HR
- Acute change in BP
- Acute change in mental status or level of consciousnes
- Staff or parental concern about child
- Continued deterioration or failure to improve from patients' baseline

Code Lavender

Code Lavender will be called for **ALL** obstetric emergencies (ANY emergency with a mom/baby, before or after delivery on ANY unit in the hospital)

One call to get all members needed.

Code Lavender Overview



Perinatal Loss

- To ensure proper communication regarding a patient that has experienced a perinatal loss (loss of pregnancy or death of a newborn) this visual cue must be displayed outside of the patient's room to alert any personnel that may enter the patient’s room of the patient’s situation.
- These cards are available from the OB unit as needed.

Patient Actively Passing/Has Passed

Sepsis Alert

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Sepsis Alert

An emergency caused by the body's response to an infection that can lead to organ failure and even death.

Time is of the essence to recognize and treat sepsis so you must know the symptoms:

Shivering:	**E**levated	**P**ressure	**S**leepy or	**I**mmune:	**S**hort of
Fever or Feel Cold	Heart Rate	Low	Confused	High or low WBC	breath

CMS Core Measures for Severe Sepsis/Shock

3 Hour Bundle

- Blood Cultures x2
- Administer broad spectrum antibiotics
- Measure Lactate
- 30 mL/kg fluid bolus

6 Hour Bundle

- Recheck Lactate
- Reassess volume status & document findings
- Vasopressors if needed

BOTH Bundles MUST be met to satisfy the Core Measures

Stroke Alert

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Inpatient Stroke Alert

Activate

Check Blood Glucose – WHY?

Obtain Vital Signs/Neuro Checks

- Q15 min x 4, then hourly until further orders placed.
- If O2 less than 94% apply oxygen

What does the service want to know:

- Last known well
- Why the stroke alert was called
- What was the blood glucose

GOALS:

- 20 min to CT/MRI
- 45 min for interpretation of tests/IV thrombolytic treatment

Hypoglycemia Management

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Types of Insulin Treatment

Sliding Scale Insulin (SSI)

-Covering a patient's insulins needs utilizing a scale.

-The higher the blood sugar, the more the insulin.

Carb Counts (ICR)

-Covering a patient's insulin needs at mealtime based upon how many carbohydrates consumed.

-Allows flexibility while achieving glycemic control.

Ex. 1 unit insulin for every 5 grams of carbs (1:5 ratio)

Insulin Sensitivity Factor (ISF)

-Correction of Pre-Meal Glucose

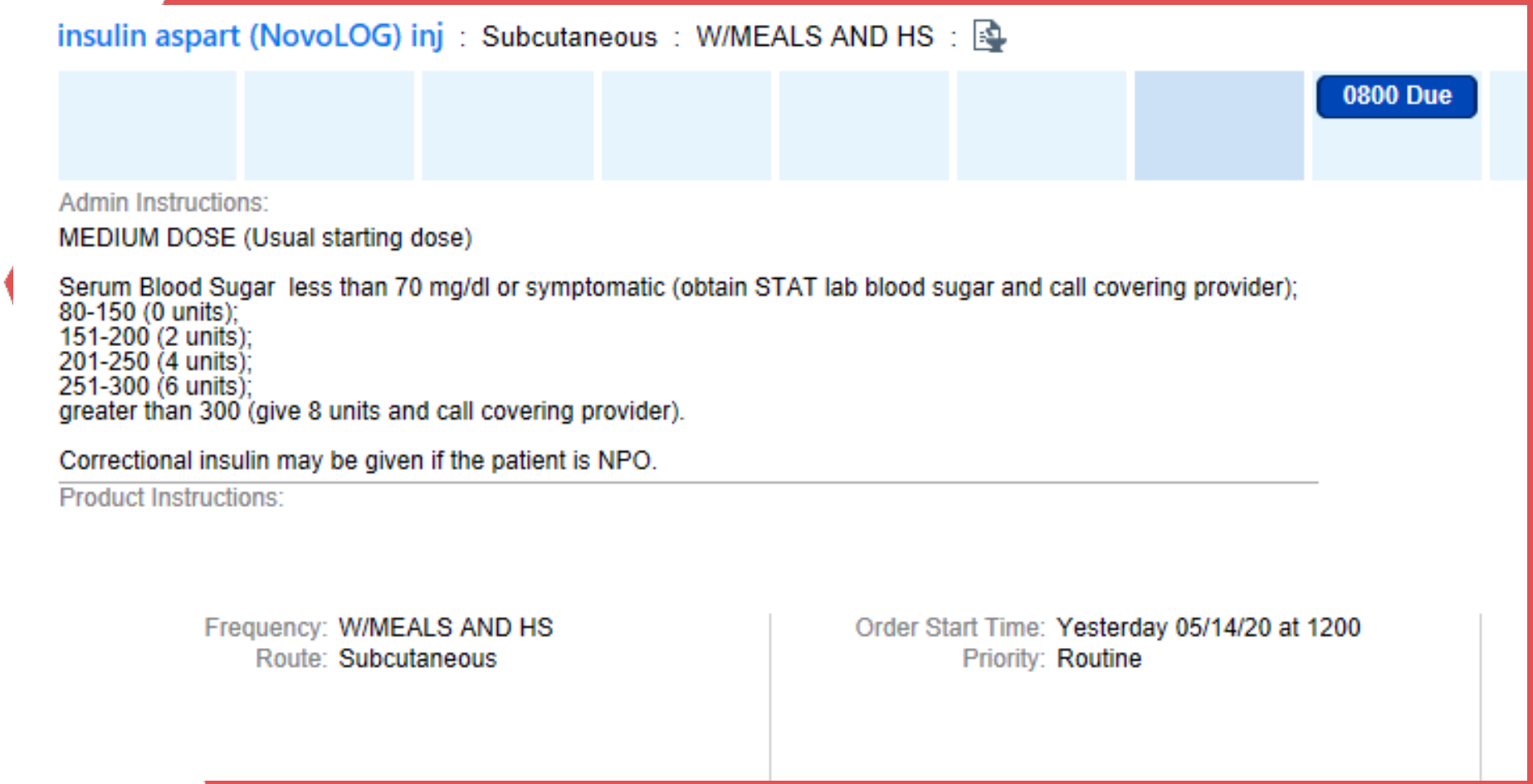
-This is the drop in blood sugar (mg/dl) caused by each unit of insulin administered.

Ex. Pre-meal glucose – Target Glucose / Insulin Sensitivity Factor = # of units

IV Insulin

Covering a patient's insulin needs at a more rapid-acting rate

Insulin Administration using the Sliding Scale Method



Insulin administration using carb counts

Glucose control by balancing carbohydrate intake and insulin administration

Carbohydrate counting - Grams of carbohydrate are indicated on the meal slip for each item on the patient's tray

Ex: 1 unit of insulin for every 15 grams of carbs. This is patient specific be sure to check the MAR

Mrs. N receives her lunch tray and consumed 60 grams of carbs. How much coverage would Mrs. N receive using the carbohydrate counting formula (listed above)? 60 grams/15 grams= 4 units of insulin.

Alcohol Withdrawal

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CAGE Screening

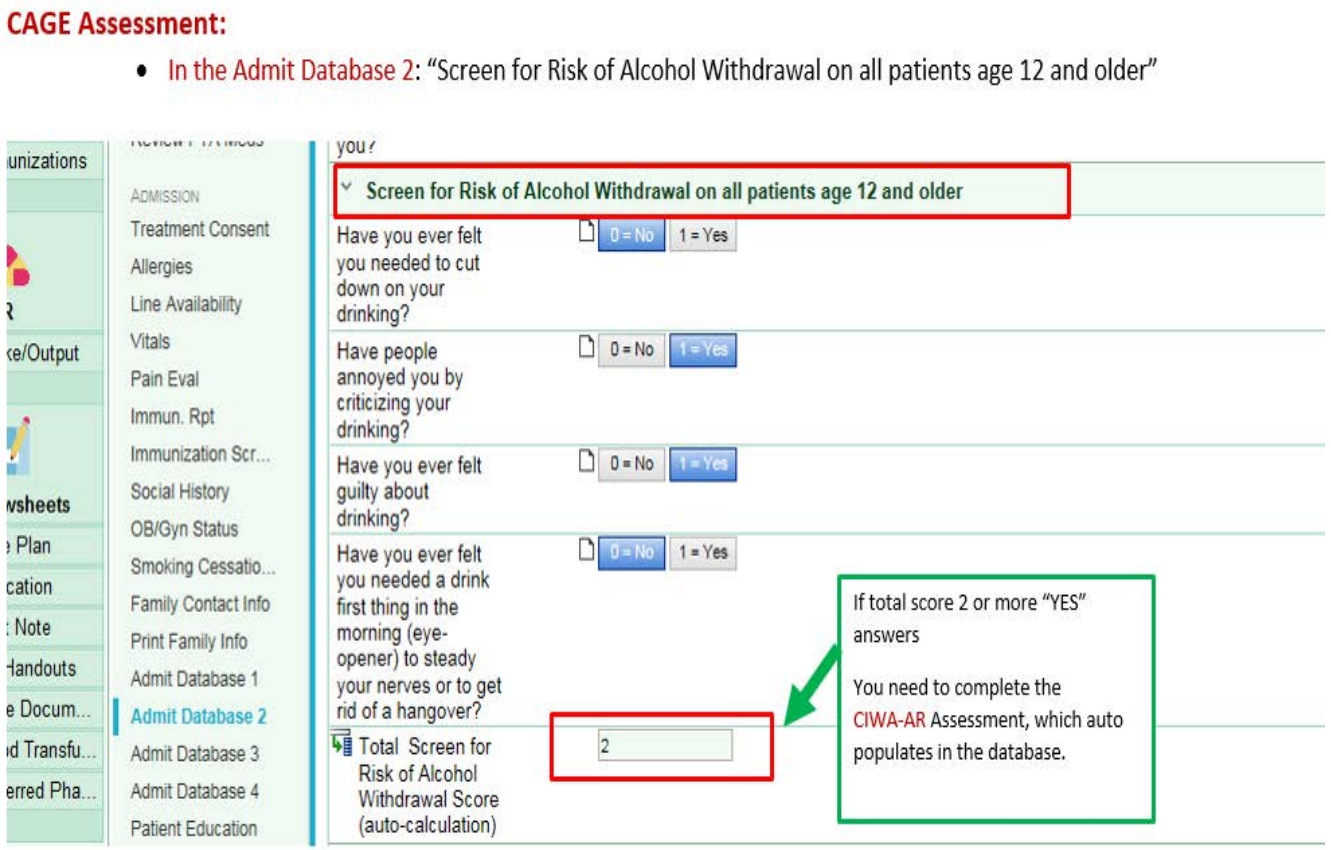
Screen for Risk of Alcohol Withdrawal done on all patients 12+ years old

Completed by an LPN or RN on admission

Screening questions are:

- Have you ever felt you needed to **C**ut down on your drinking?
- Have people **A**nnoyed you by criticizing your drinking?
- Have you ever felt **G**uilty about drinking?
- Have you ever felt you needed a drink first thing in the morning (**E**ye-opener) to steady your nerves or to get rid of a hangover?

Based off the scoring on CAGE, it generated CIWA



MINDS

Minnesota Detoxification Scale – assessment protocol for treatment of alcohol withdrawal

For Intensive Care Units

MINDS (Critical Care Only)

Initiate the MINDS assessment tool after obtaining a CAGE score greater than 2.

Document and notify physician with initial and subsequent MINDS scores

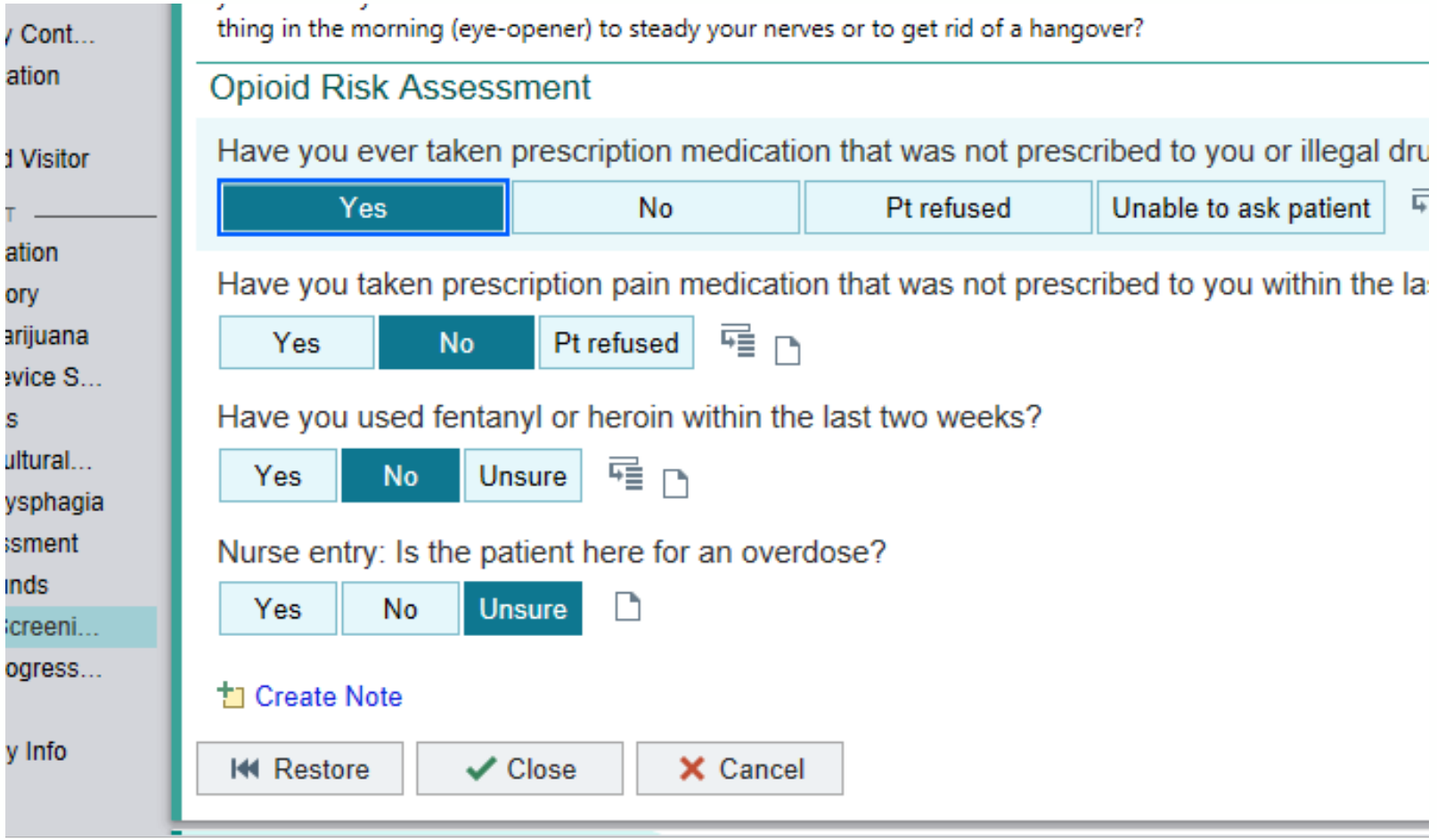
Other causes for delirium and agitation must always be considered before initiation (i.e. hypoxia or sepsis).

Clinical Opioid Withdrawal Scale (COWS)

On Admission

- On admission, complete the Opioid Risk Assessment on patients 18 years and older

  If the first question is answered "YES", complete a COWS assessment and notify provider.



COWS Orders

The patient should be placed on telemetry monitoring and initiate fall precautions per policy.

- Vital signs Q4 hours
- Complete COWS q4 hours
- Call For: COWS greater than 15 for two consecutive checks

Medication Bar Coding

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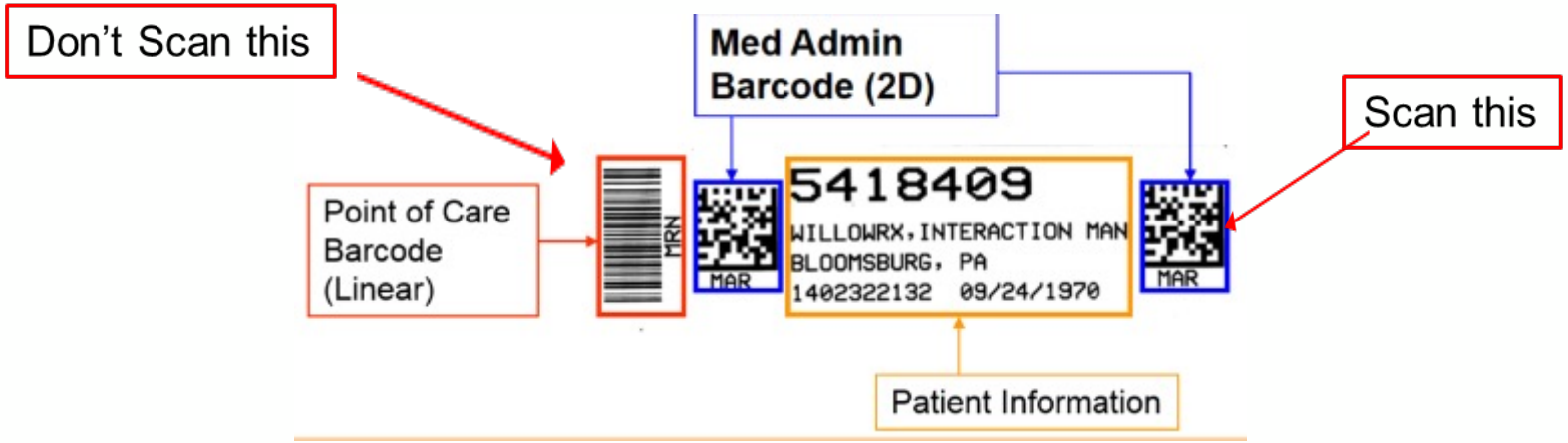
Bar Code Medication Administration (BCMA)

- What & Why?
  - An additional safety feature to the 5 rights of medication administration to decrease the incidence of medication errors

- All patients & medications must be scanned prior to administration



Bar Code Medication Administration (BCMA) Exceptions

- *There are some exceptions*:
  - Oxygen
  - Ready to feed formulas not pharmacy mixed
  - NG water flushes
  - IV rate changes

- Special situations that do not require scanning:
  - Codes
  - Patient emergency
  - Trauma
  - Absent or unreadable barcode
  - Wireless failures

If medications are not scanning, please notify pharmacy

High Alert Medications

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What is a high alert medication?

High risk drugs are those that require special handling due to a narrow therapeutic index, multiple drug/disease reactions, severe life-threatening side effect, or require special monitoring before, during or after the administration of the drug. Students cannot dual sign for these medications.

Examples:

- HEPARIN
- ARGATROBAN
- INSULIN
- PCA'S
- PCEA'S
- THROMBOLYTICS (TPA)
- BLOOD PRODUCTS

Independent Double Check

Required for high alert medications

Done at the bedside

An independent double-check of a high alert medication is a procedure in which two clinicians separately check - (ALONE AND APART FROM EACH OTHER, THEN COMPARE RESULTS) each component of prescribing, dispensing, and verifying the high-alert medication before administering it to the patient.

GNs and students may not act as a dual sign.

Pharmacy Website

Pharmacy Homepage:
Pharmacy - Home (sharepoint.com)

IV Guidelines:
Pharmacy - IV Guidelines - All Documents (sharepoint.com)

Pain Management

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Pain Assessment & Management Policy

Patients are to be evaluated for pain

on admission	during shift evaluation	hourly rounding	to evaluate efficacy of an intervention	any additional times as needed

Self-reporting of pain level is the **GOLD STANDARD** – pain is what the patient says it is!!!

If a patient is sleeping after an intervention, chart “sleeping” rather than a number

If the patient is off the unit (PT/OT, testing) when it is time for evaluation chart that the patient is “off unit”

Geisinger Adult Pain Scale

- Geisinger Pain Scale combines numeric pain scale with descriptions to help patients more accurately report their level of pain

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Pain Scale				
Not Well Controlled	Severe Unable to engage in normal activities	10	Immobilizing	Needs ER, bedridden unable to move or talk
		9	Severe	Can't think about anything else, can barely talk
		8	Intense	Can't concentrate, conversation is difficult
		7	Unmanageable	Pain interferes, unable to work, nothing seems to help
		6	Distressing	Pain preoccupies thinking, give up activities due to pain
Well Controlled	Moderate Interferes with many activities	5	Distracting	Pain barely tolerable, some activities limited by pain
		4	Moderate	Constantly aware of pain but can continue with normal activities
	Minor Does not interfere with most activities	3	Uncomfortable	Pain is troubling but can be ignored
		2	Mild	Noticeable when not distracted
		1	Minimal	Hardly noticeable
		0	No Pain	

USP 800

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What is USP 800?

Set of standards published by United States Pharmacopeia (USP) that describes practices and quality standards for handling hazardous drugs to promote patient safety, worker safety and environmental protection

Usp.org. 2020. *USP 800 | USP*. [online] Available at: <https://www.usp.org/compounding/general-chapter-hazardous-drugs-handling-healthcare> [Accessed 23 December 2020].

USP 800 Signage

This is the symbol that is used to alert any staff that go in a room where a patient is taking a hazardous medication. This alerts anyone (PT/OT) that they need to take precautions with the patient.

Quality

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Student QI or Research Projects

Any project done on Geisinger campus and collects/uses Geisinger data **must**:

- be deemed as a QI project or research by the GIRB (if deemed research, must go through full approval process)
- Must obtain a data use agreement

*Regardless of the length of time or amount of data, this is a requirement

[Nursing Quality with Dr. Lauren Murphy.mp4 (vimeo.com)]

Documentation

Documentation

Why?

- Main support for legal case/regulatory complaints
- Can facilitate quick resolution or even dismissal
- Chart documentation found to be most dependable
- Reflects the quality of care
- Supports decision-making process
- Shows continuity of care

But Why Notes?

- Notes help to tell the story and add details that the flowsheet does not.
- They assist in reconstructing the events
- Help with memory in deposition
- Resolve conflicts

Goals

- Complete and accurate
- Timely
- Facts and only facts
  -no personal feelings/emotions

Practice makes perfect!

Common Errors

When we do not document:

- Patient's negative comments to treatments
- Follow up
- Prior history/medications
- Conversations with family or other healthcare providers-especially regarding care
- Correcting information that is not true
  -must be completed in a timely manner

When we:

- Criticize other's care/decisions
- Keep handwritten notes
  -these are not protected from legal case
  -can be considered can be used as evidence
- Use copy/paste
  -leads to many errors

Flowsheets

- Do not look thew same when printed out
- Can lead to problems with putting together the story
- Must think about what you will remember

Fall Prevention

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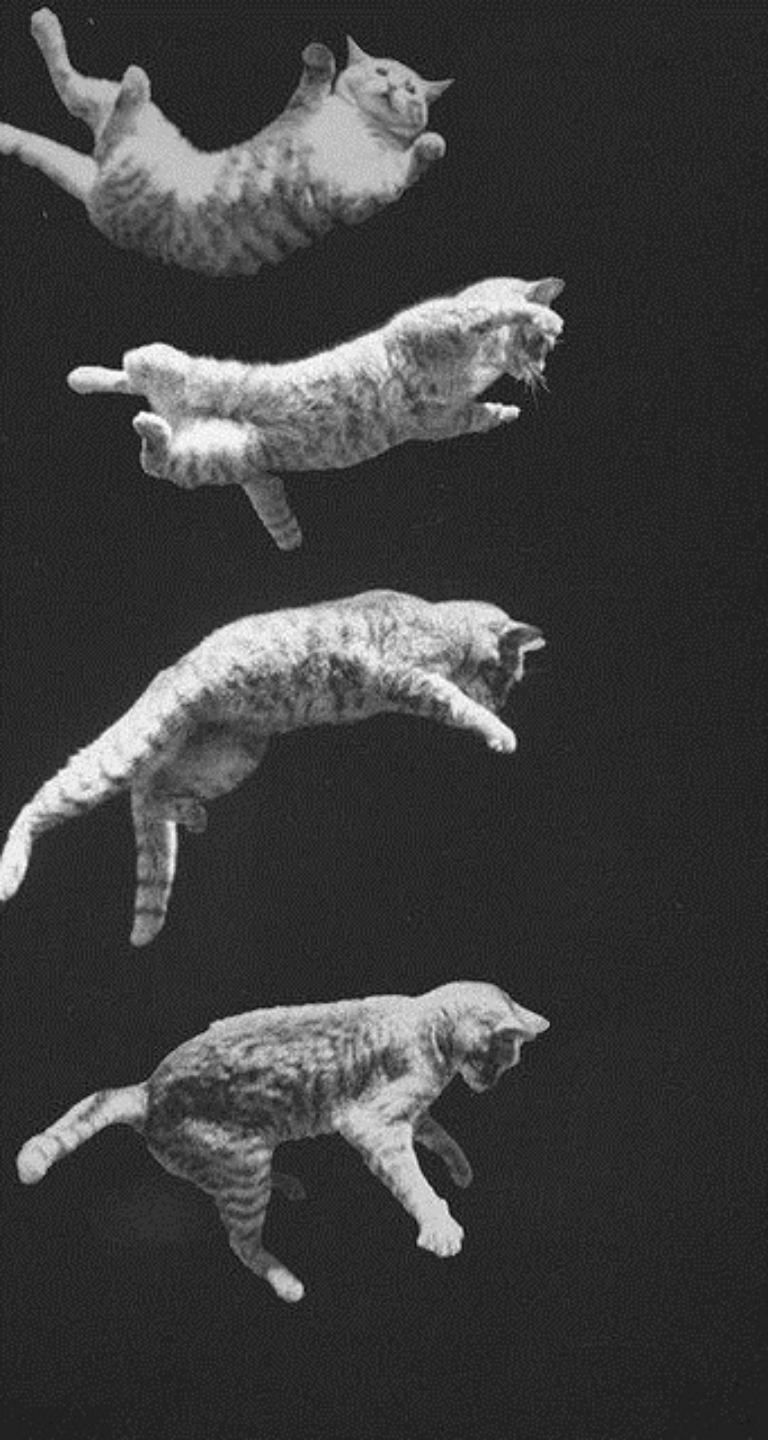
Fall Risk

Low Risk – 0-24

Moderate Risk – 25-45

High Risk - >45



Definition of a Fall

Sudden, unintentional descent, with or without injury, to the patient that results in the patient coming to rest on the floor, on or against another surface, on another person, or an object.

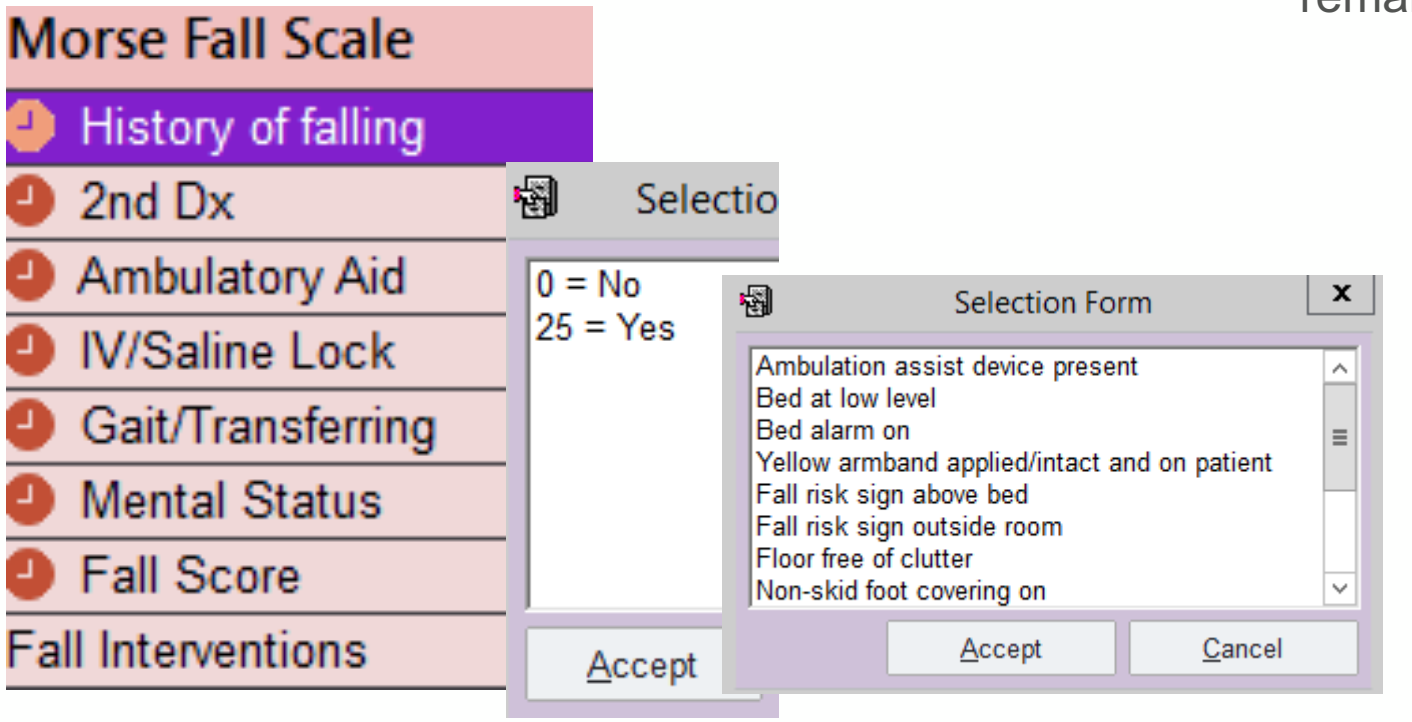
Types of Falls

- Baby drop
- Developmental fall (child learning how to walk)
- Suspected Intentional Fall (for those aged 5+)
- Assisted fall
- Falls During Play
- Physiologic Fall (attributable to one or more intrinsic physiologic factors; i.e. delirium, intoxication, dementia, gait instability or visual impairment)

How do we chart if someone is at risk for falls?

Adult: Morse Fall Scale

Completed on admission, qshift, mental status change or post fall.



Children: GRAF-PIF Tool

Completed on admission, once per day, and when there is a change in patient status that might increase their risk of falling

Once the patient is determined to be at risk for falling, the child remains at risk for falling for the remainder of their hospitalization

			Score
Length of hospital stay	1-4 days	0	
	5-9 days	1	
	10 or greater	2	
IV/Saline Lock	No	1	
	Yes	0	
PT/OT (current or expected in near future)	No	0	
	Yes	1	
Anti-seizure medication, given for any reason	No	0	
	Yes	1	
Acute or chronic orthopedic, musculoskeletal diagnosis	No	0	
	Yes	1	
History of fall within past 1 month	No	0	
	Yes	2	
Fell during this hospitalization	No	0	
	Yes	2	
Impaired mobility/balance; cognitive impairment; anti emetic or narcotic medications	No Yes	0 2	

Let's Stop the Drop!

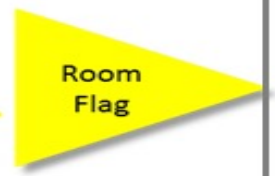
OUR FALL PREVENTION STRATEGIES

For ALL Patients

Keep the bed position **LOW**

Call bell **ALWAYS** within reach

For a Fall Risk Score of 25 - 45 ALWAYS do these



Additional recommended strategies

Bed Exit Alarm System

STOP

Bed Alarm

Set Middle to Most Sensitive Bed Exit Alarm

The higher the Fall Risk Score (46 or greater), do ALL of the previous & MORE

Remain within **arm's length** when toileting / ambulating

Consider Direct Observation

Consider Continuous Video Monitoring

Revised 1/2023

Proactive Chair Alarm

ALL staff answering

ALL call lights

ALL the time

Continuous Video Monitoring (CVM)

- The Geisinger Continuous Video Monitoring program provides a continuous observation and communication system using the Caregility iObserver platform for at-risk patients.
- iObserver uses a healthcare purpose built audio-visual solution
- The Continuous Video Monitoring program provides continuous visual viewing of up to 12 at-risk patients on a single display
- The simple design eliminates technology barriers and allows the user to focus on patient observation

Policy:

https://geisinger-main.policymedical.net/policymed/anonymous/docViewer?stoken=b56d3615-2484-49b0-9ca8-8024d9b5d6ef&dtoken=cd9d4da5-bb7f-4ba7-aa52-d68cebfb8f22

Skin Injury Prevention

Geisinger

BRADEN SCORE

Braden Scale - Daily	
Sensory Perception	
Moisture	
Activity	
Mobility	
Nutrition	
Friction and Shear	
Braden Score (auto-calculation)	

Mild Risk = 15-18

Moderate Risk = 13-14

High Risk = 10-12

Severe Risk = 9 or below

REMEMBER YOUR HIGHER RISK FACTORS

- Advanced age
- Fever
- Poor dietary intake of protein
- Diastolic pressure below 60
- Hemodynamic instability

Medline Products

COLOR CODING

GREEN IS FOR CLEAN

PURPLE IS FOR PROPER MOISTURIZATION

BLUE IS FOR BARRIER BEFORE BREAKDOWN

ORANGE IS FOR OPEN SKIN

RED IS FOR RASH

OFFLOADING

CHECK FORMULARY FOR SPECIFIC PRODUCTS

HEELMEDIX
Basic Heel Protector

Sacral Offloading Wedges

Infection Control

Geisinger

Hand washing must be done :

- Before and after contact with the patient and/or their environment
- When hands are visibly dirty—remember to use soap & water
- After handling body fluids
- After removing gloves
- Hand hygiene must be performed between procedures on the same patient to prevent cross contamination

- VRE can survive on dry environmental surfaces for up to **4 months**

VRE

- MRSA can survive for more than **38 weeks**

- Spores can live in the environment for up to **5 months**

Isolation Precautions

- Standard Precautions
- Isolation Precautions:
  - Contact
  - Enteric
  - Contact/Droplet
  - Droplet
  - Airborne
  - Enhanced Droplet with Respirator

Standard Precautions

- Use with all patients when contact with blood, body fluids, mucous membranes or non-intact skin is anticipated
- Gowns and masks should be worn when there is a risk of splashing
- **Gloves must be removed before leaving the patient room**
- Use PPE to protect mucous membranes of the eyes, nose and mouth during aerosol-generating procedures/activities that likely to generate splashes/sprays of blood, body fluids, secretions and excretions (eg. Bronchoscopy, suctioning of respiratory tract, endotracheal intubation)
- Dedicated disposable equipment is preferred, and should be discarded upon discharge
- **Shared equipment must be low level disinfected after each use with the appropriate isolation specific EPA registered hospital approved disinfectant**
- **Linen:** Handle properly to prevent contamination of HCWs clothing and the patient's environment

Examples:

- MRSA
- VRE
- CRE
- ESBL
- RSV
- Metapneumovirus
- Parainfluenza
- Draining wounds that can't be covered

In Caddy:

- CaviWipes
- Gowns
- Gloves

Dedicated Equipment:

- Stethoscope
- Thermometer
- BP cuff

Examples:

- C.Diff or GIPP (suspected and/or pending test)
- Confirmed C.Diff, Norovirus or Rotavirus
- Unexplained diarrhea

In Caddy:

- **Dispatch wipes (bleach-based disinfectant)**
- Gowns
- Gloves

Dedicated Equipment:

- Stethoscope
- Thermometer
- BP Cuff

- **Soap and water sign to be placed on hand sanitizer dispenser**

Examples:

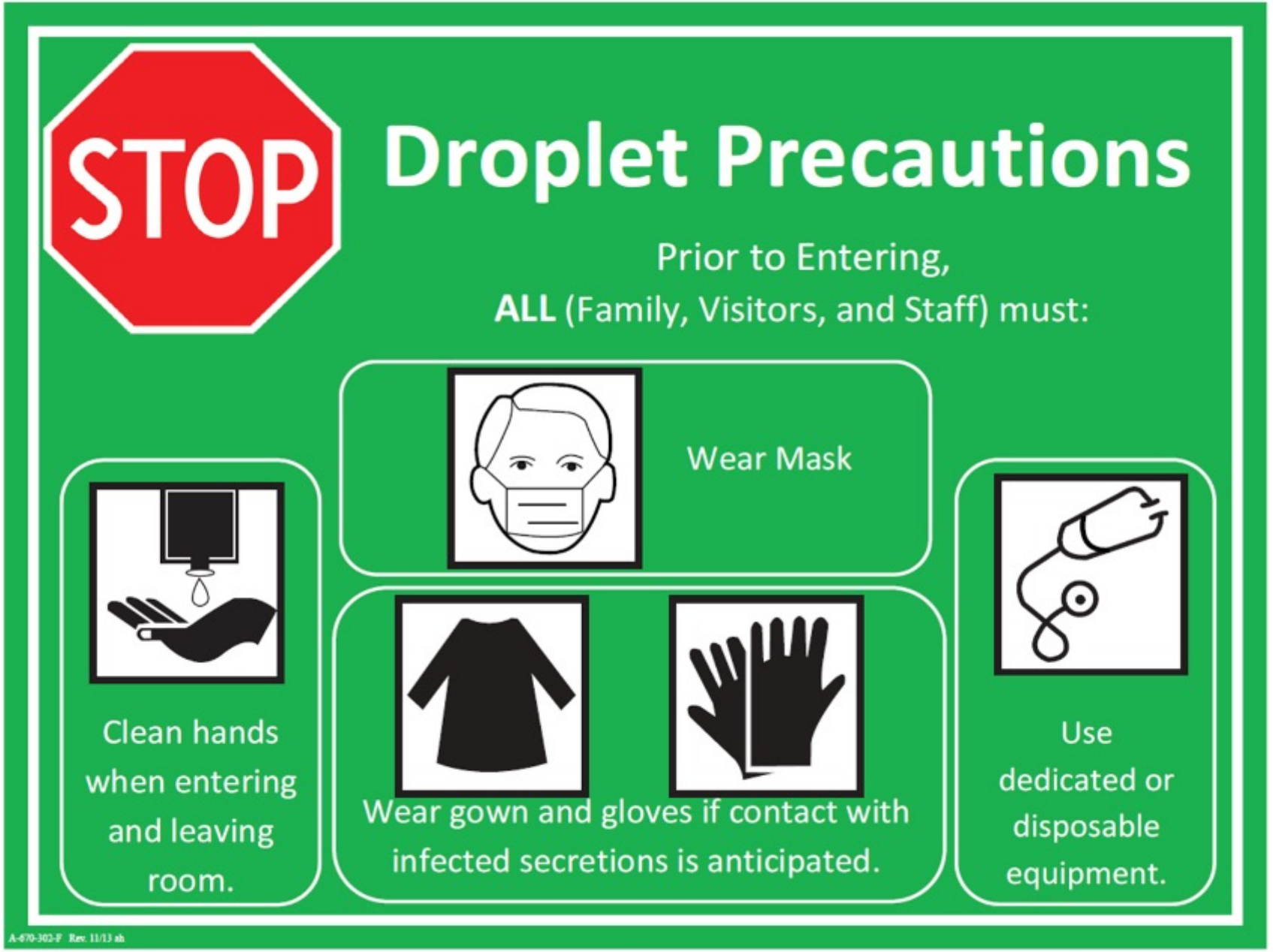
- Meningitis—isolate when LP is ordered
- Influenza A or B
- Rhinovirus/Enterovirus
- Bordetella pertussis
- Mycoplasma
- Rubella
- Mumps
- Epiglottitis due to Haemophilus influenzae type b
- Invasive Haemophilus influenzae in infants/children
- Group A Strep

In Caddy:

- Cavi Wipes
- Gowns
- Surgical masks
- Gloves

Dedicated Equipment:

- Stethoscope
- Thermometer
- BP cuffs



Example:

- Adenovirus

In Caddy:

- Cavi Wipes
- Gowns
- Surgical Masks
- Gloves

Dedicated Equipment:

- Stethoscope
- Thermometer
- BP Cuffs

Isolate when test is ordered/pending/confirmed for:

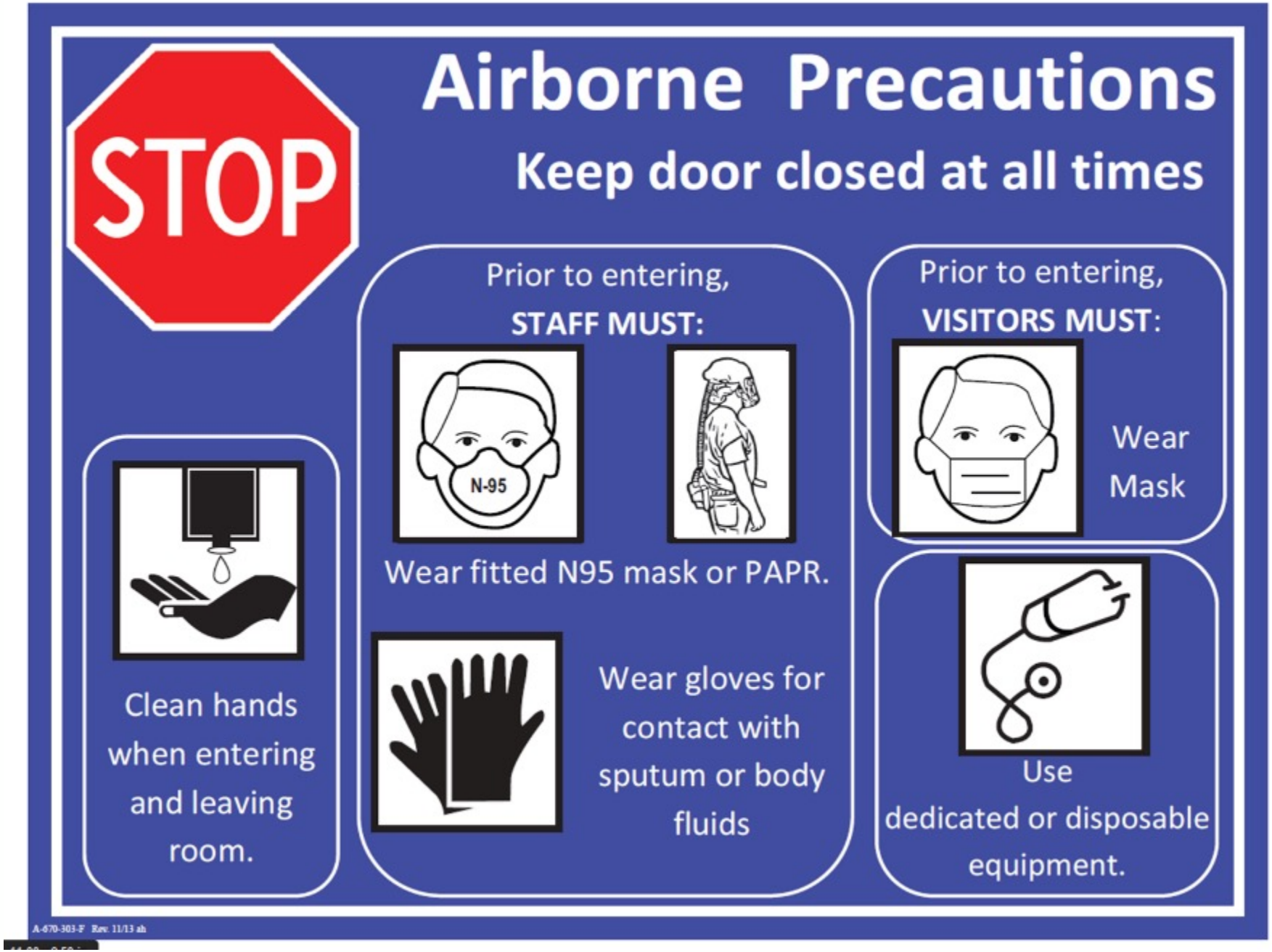
- Pulmonary Tuberculosis(AFB smears)
- Measles
- Chickenpox
- Herpes Zoster
  - Localized or disseminated in immunocompromised patient
  - If disseminated in normal patient

In Caddy:

- Cavi Wipes
- Gowns
- Gloves
- N-95 Masks & PAPR
- **Surgical Masks for visitors**

Dedicated Equipment:

- Stethoscope
- Thermometer
- BP Cuffs



Isolate when test is ordered/pending/confirmed for:

- RPPCR ordered/pending for symptomatic patients
- Known positive for SARS-CoV2(COVID-19)-can be home antigen test
- Known exposure to COVID-19

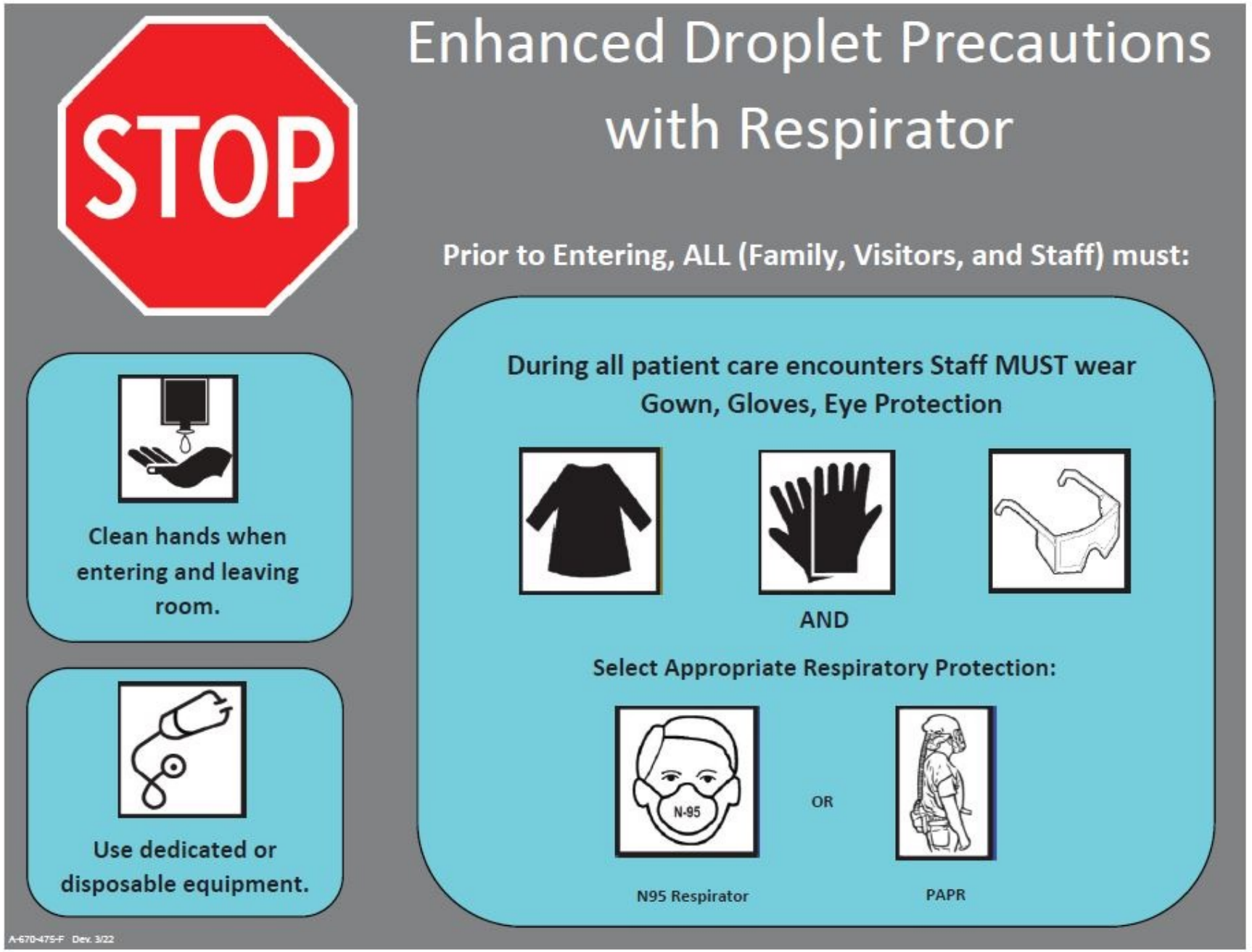
Patient requires a private room; negative pressure room only needed for aerosol-generating procedures

In Caddy:

- Cavi Wipes
- Gowns
- Gloves
- Eye protection
- N-95 Masks for fit tested employees
- PAPR for non-fit tested employees
- Surgical masks for visitors

Dedicated Equipment:

- Stethoscope
- Thermometer
- BP Cuffs



Donning/Doffing COVID-19 PPE

Green “CLEAN” Tape

The green tape features a special adhesive that removes cleanly without leaving a residue. Once items are clean and disinfected, you will need to place a piece of the "CLEAN" green tape over an operational area of the equipment that must be completely removed prior to patient use (ex: must go over the opening of the EKG machine, the scanning portion of the glucose machines, etc.)

Prevention of Hospital Acquired Infections (HAIs)

Central Line Blood Stream Infection (CLABSI)

- Daily Necessity Assessment
- Scrub the access points with alcohol for 15 seconds and allow 5 seconds to dry
- Alcohol Caps

Catheter-Associated Urinary Tract Infections (CAUTI)

- Daily Necessity assessment based against the evidence-based criteria
- Alternative methods to measure
  - Weighing incontinence pads
  - Straight caths
  - Female External Cath (Purewick)
  - Male External Cath (Condom Cath)

Prevention of Hospital Acquired Infections (HAIs)

Ventilator Acquired Pneumonia (VAP/PNEU)

- HOB 30-45 degrees
- Check ability to breath on own to limit vent time
- Clean patients' mouth with hospital approved mouth care solution

Cdiff

- Appropriate use of Abx and hand hygiene
  - Use soap and water
- Sporicidal cleaner

Wipe Out Infections

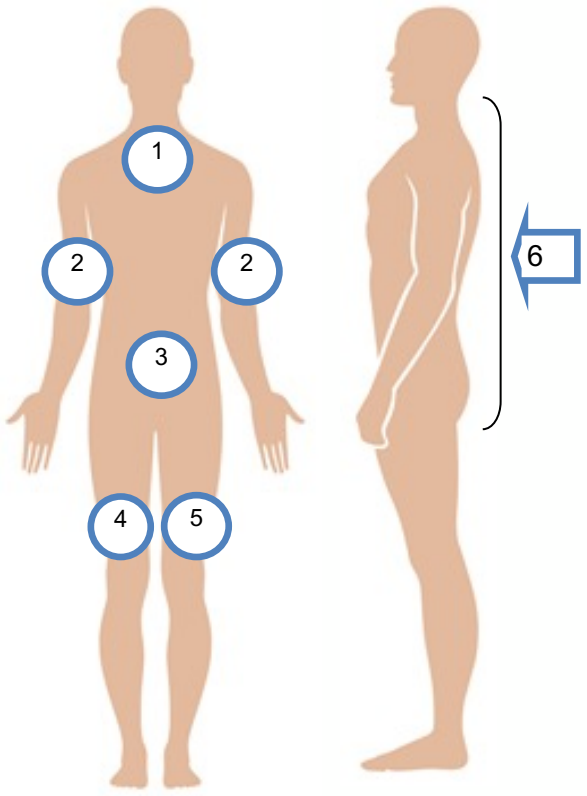
BATHE or SHOWER with CHG compatible product then utilize Chlorhexidine (CHG)

CHG treatment is to remove germs and prevent infection

CHG is a protective treatment

CHG cloths are less drying than soap

Apply as shown below



Avoid eyes, mouth, & ear canals

REMINDERS

- **Your enthusiasm** helps patients understand why CHG is important
- CHG works for 24 hours to kill germs
- **Firmly massage** CHG onto skin
- Clean **6 inches** of lines, drains, tubes
- Use only CHG-compatible bathing products and lotions
- If patient refuses CHG treatment after being educated, escalate to provider

Clean all skin areas with attention to:

- Neck
- All skin folds
- Skin around all devices (line/tube/drain)
- Armpit, groin, between fingers/toes, external genitalia

Application of CHG cloths

1. Tell patients these cloths are their protective barrier to remove germs and prevent infection.
2. Use all 6 cloths. More, if needed.
3. **Firmly massage** skin with cloth
4. Do not clean over semi-permeable dressings, such as central line dressings
5. Clean **6 inches** of lines, tubes, and drains
6. Air dry. Do not wipe off.
7. Put used cloths in trash. **Do not flush.**

Documentation

1. Document CHG treatment on EMAR.
2. Document CHG treatment in flowsheets
3. For patients who are refusing to complete the full body treatment, document adequate counseling and provider escalation.

Oral Care for patients with Central Lines

Oral Hygiene: Mouth Swab with dentifrice
Oral, QID
Starting today, Until Discontinued

Critical Care

- [x] Adult Oral Care for Patients with CVAD
  - [x] chlorHEXIDINE (Periogard) 0.12 % oral rinse 15 mL
    15 mL, Swish & Spit, BID (0800,2000)
    Starting today, Until Discontinued
  - [x] Oral Hygiene: Mouth Swab with dentifrice
    Oral, QID
    Starting today, Until Discontinued
    To be used with 1.5% hydrogen peroxide solution or 0.05% cetylpyridium chloride oral rinse
  - [x] Vaseline to Lips
    QSHIFT, Starting today • Routine

Vascular Access Education

Geisinger

CVC Complications

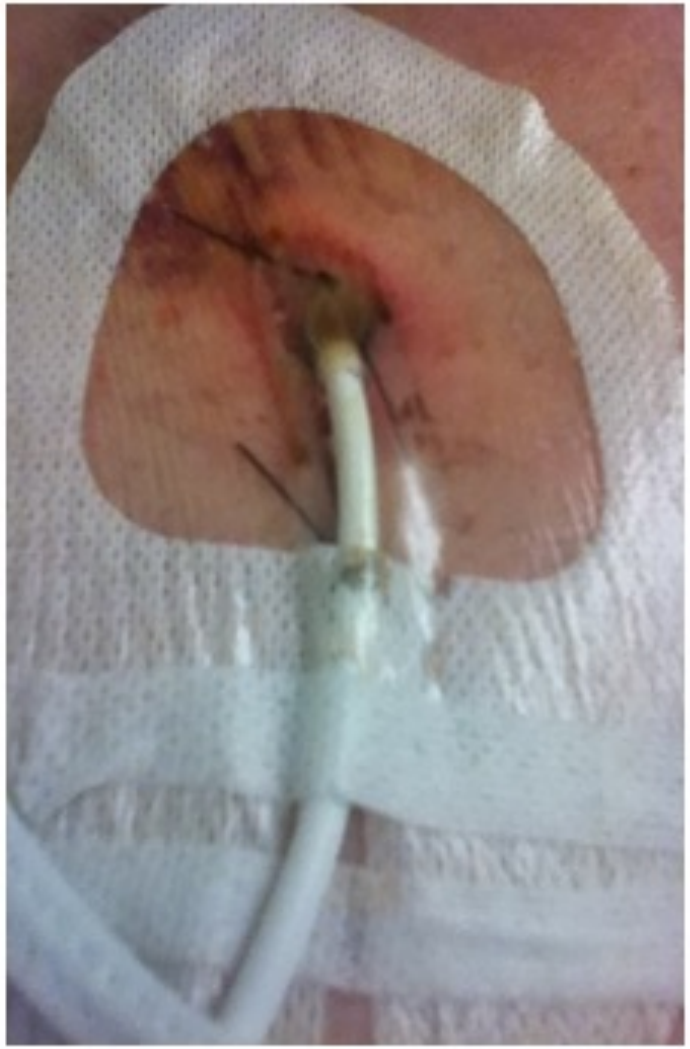
Infection

Signs and symptoms

- Redness and tenderness at the site
- Discharge of purulent drainage from the site
- Elevated temperature, chills, malaise, tachycardia, ↑WBC

Treatment

- Stop the infusion
- Notify provider and IV Team
- Monitor patients vital signs
- Fill out Midas
- Document your findings and interventions performed



Occlusion

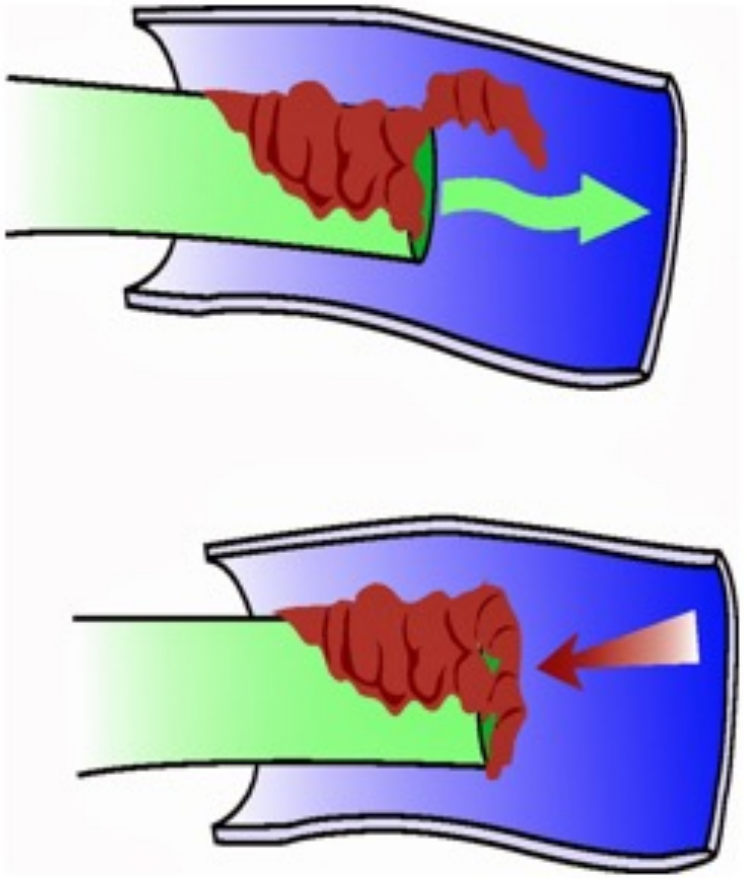
Signs and symptoms

- Unable to flush line
- Unable to get a brisk or any blood return
- Mechanical occlusion (Kink, patient positioning)

Treatment

- Contact provider for Cathflo Order
- Contact IV Team to instill TPA
- Document your findings and interventions performed

Call VAT team if no blood return prior to use

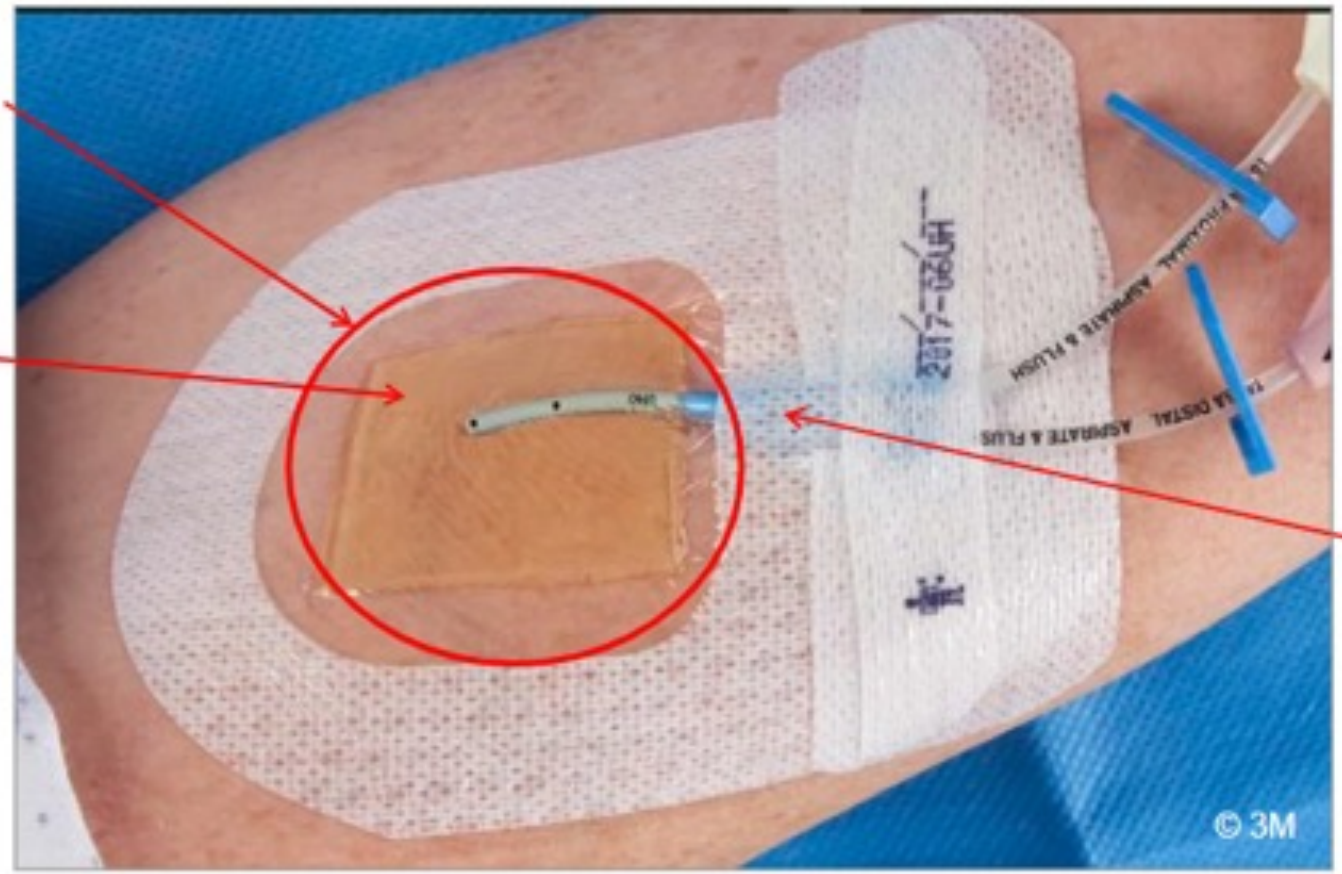


Clean Dry and Intact - Example

Tegaderm™CHG is Geisingers dressing of choice

Dressing is not soiled, saturated with fluid, or leaking blood.

Catheter exit site covered by CHG gel pad (cover suture sites when possible as well)



PICC junction is located under dressing and tape strip.

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Parenteral Nutrition

TUBING AND END CAP NEED CHANGED EVERY 24 HOURS (TUBING PROVIDED BY PHARMACY WITH SOLUTION)

NEVER ADJUST THE RATE OF PPN/TPN TO “CATCH UP”

ALWAYS USE AN INFUSION PUMP TO ADMINISTER PPN/TPN

IF THE PATIENT IS TRAVELING OFF THE DEPARTMENT FOR TESTING DO NOT STOP THE PPN/TPN WITHOUT A PHYSICIAN ORDER

Always!!!!

- Scrub the hub for 15 seconds with each access and new alcohol wipe
- Check for blood return (notify vascular access team if absent)
- Make sure dressing is intact and clean
- Make sure alcohol caps are on all unused ports

- Make sure IV tubing are dated correctly
- Notify VAT when a patient is admitted with any CVC. The line should be assessed before use.

Progressive Mobility

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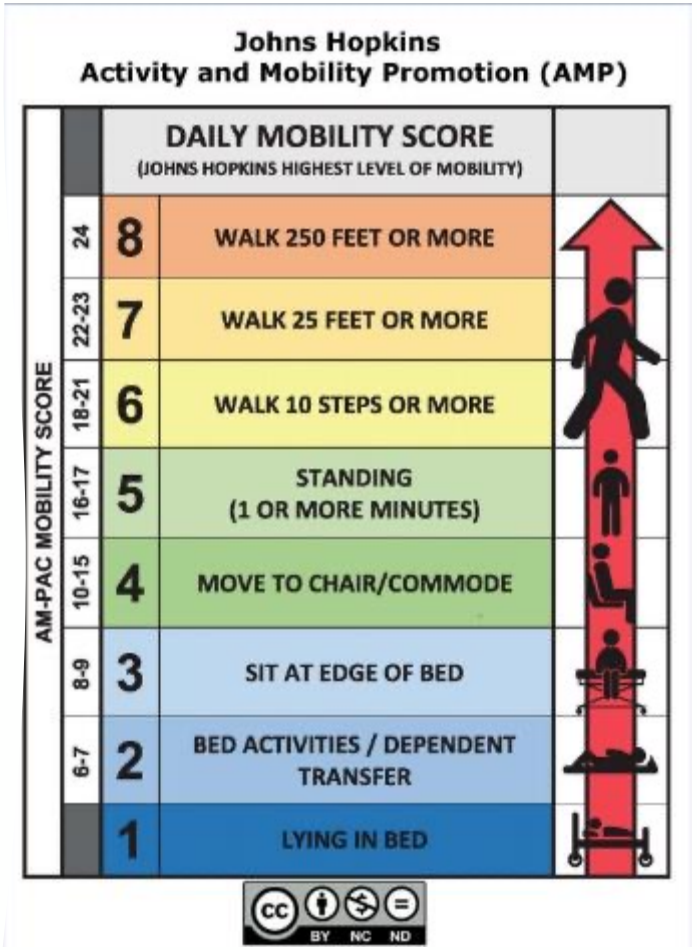
AM-PAC

- The AM-PAC mobility score in Epic automatically generates a JH-HLM goal
- Each day, the goal is to move the patient to the next higher level



Progressive Mobility

- Patient should reach Mobility goal 3 times each day (at minimum)
- Combined efforts of PT and nursing
- DO not document activity that PT does with patient
- If patient does not reach goal, an appropriate reason needs documented for each episode

Progressive Mobility

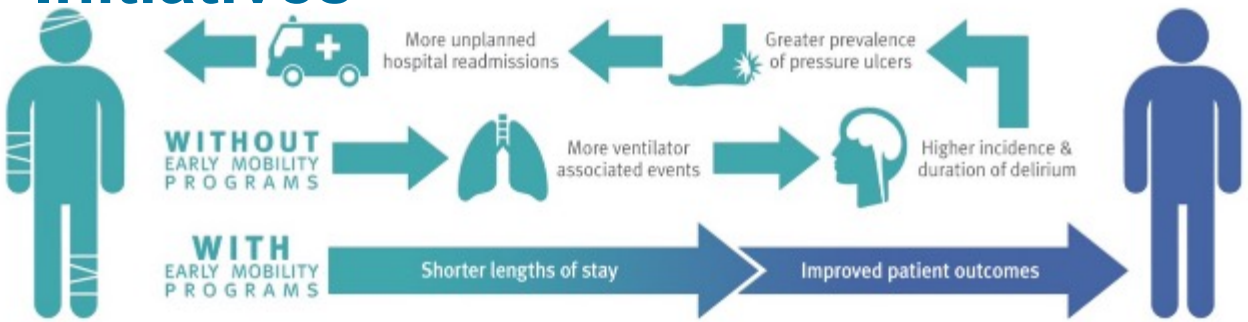
- Provide an explanation to each patient for “why” we want him/her out of bed sitting in a chair for meals
- Provide an explanation to each patient for “why” we want him/her to walk three times a day
  - Include the information of our assessments for AM-PAC and what level (JH-HLM) he/she is and what the “goal” level will be, sharing that our goal is to improve each day

Include what distance he/she is to walk each time (correlating with the JH-HLM level)

How do you explain?

“Mr. Smith, it is important for you to get out of bed and walk several times a day so there are less risks for complications for being in bed. The activity will help improve your overall strength and endurance, will decrease the days you need to spend in the hospital, and will help prepare you for discharge to home.”

Moving to Discharge: Mobility Initiatives



- Increase the daily mobility of adult patients
- Combined efforts of PT and nursing
- The AM-PAC Assessment should be done by observation of patient mobilizing
- The AM-PAC mobility score in Epic automatically generates a JH-HLM goal
- Each day, the goal is to move the patient to the next higher level
- All adult patients with a JH HLM score of 3 or more should be out of bed in a seat for meals
- If patient is refusing—Document education on the benefits of mobility
- Discuss mobility daily in BOOST rounds/IDT meetings
    1) Consider PT/OT consult if not progressing daily

Mobility Documentation

Mobility Assessment (AM-PAC) - Completed Daily - Assess your patient "How much help do you currently need..."			
Turning from your back to your side		4	
Moving from lying on your back to		4	
Moving to and from a bed to a chair		4	
Standing up from a chair using your		4	
To walk in hospital room?		4	
Climbing 3-5 steps with a railing?		3	
AM-PAC Score With Stairs		23	
JH HLM (Highest Level of Mobility)		Level 7 walk 25 feet or...	

- AMPAC Score must be completed daily

Mobility Actions and Activities	
Mobility Based Activities	Ambulate in hall
Number of Assistive Personnel	Independent
Assistive Device	No device
Distance Ambulated (feet)	50
JH HLM (Highest Level of Mobility)	7 - Walked 25 feet

- Must Meet AMPAC Goal 1 x

Mobility Actions and Activities			
Mobility Based Activities	Ambulate in hall	Ambulate in room	Ambulate in hall
Number of Assistive Personnel	Independent	Independent	Independent
Assistive Device	No device	No device	No device
Distance Ambulated (feet)	50	25	250
JH HLM (Highest Level of Mobility)	7 - Walked 25 feet	7 - Walked 25 feet	8 - Walked 250 feet / ...

- Document Mobility 3x Before Midnight

  -Please note all mobility boxes must be filled in to receive credit

Seat to Eat Initiative

- All adult patients with a JH HLM score of 3 or more should be out of bed, in a seat to eat at least 2 out of 3 meals
- Increase the daily mobility of adult patients
- Easy to remember, designated time to get patients out of bed

Mobility

Goal is to mobilize patients a minimum of 3 times daily

Get patients OOB for meals

Students must document mobility activity and distance ambulated on the vital signs flowsheet (under treatments)

All hallways are marked with foot markers to determine distance

Include OOB to chair, OOB to stretcher and OOB to bathroom mobility activities

Restraints

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Restraints

New order every 24 hours for non-violent restraints.

Any time the type of restraints change, the order must be updated to reflect this.

For example – if you have both mitts and soft wrists on and ordered, and remove the soft wrists, the order should be updated to reflect it is only for mitts.

Restraint orders cannot be written as PRN. If they are discontinued and need to be put back on the patient, a new order will need to be written.

4 Side Rails Up

Considered a restraint when:

- If four bed rails are used to prevent the patient from willfully exiting the bed, then the four bed rails are considered a restraint.
- If patient or family member requests the use of four bed rails it is considered a restraint and requires a physician order unless the patient can demonstrate the ability to lower the side rails. **This ability must be documented in the patient chart.**

Not considered a restraint when:

- If patient's have the ability to get out of bed, they have the right to get out of bed.
- If the patient has no ability to move at will, a Glascow Coma score of 7 or below, four bed rails may be used as a safety intervention and not consider a restraint.
- When used as a safety measure per manufacturer recommendation for low air loss specialty bed (Citadel) or when the bed will not function without the use of the four bed rails.

Tracheostomy

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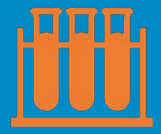
Types of Tracheostomies



There are several types of tracheostomy tubes, depending on the requirements of the patient:

Shiley: Standard

Bivona: a silicon tube with metal rings that are good for airways with damage to the tracheal rings or otherwise not straight.

Fenestrated: supports use of a Passey Muir Valve

May include but is not limited to; laryngectomy tube, single lumen tracheostomy tube, and tracheostomy tube.

Cuffed

Indication for Use:

Used to obtain a closed circuit for ventilation

Recommendations:

Cuff should be inflated when using with ventilators.

Cuff should be inflated just enough to allow minimal air leak.

Cuff should be deflated if patient uses a speaking valve.

Cuff pressure should be checked twice a day by respiratory.

Inner cannula can be either be disposable or non-disposable.

Fenestrated

Indications:

Used for patients who are on the ventilator but are not able to tolerate a speaking valve to speak

Permits speech through the upper airway when the external opening is blocked

Recommendations:

There is a high risk for granuloma formation at the site of the fenestration (hole).

There is a higher risk for aspirating secretions.

It may be difficult to ventilate the patient adequately.

Are not recommended for small children

Can obstruct the opening with granulation tissue

In an emergency a solid inner cannula must be inserted to ventilate the patient

Trach Ties

- First change to be done by ENT
- Will usually be twill ties initially
- Patient should have a sign at HOB
- Changing ties is a two person job

Bedside Emergency Supplies

Shiley

- ✓ Suction set-up in room attached to regulator and functional
- ✓ 14F suction catheter
- ✓ Yankauer (Hard Suction catheter)
- ✓ (1) Oxygen outlet which is connected and ready to flow oxygen
- ✓ Ambu Resuscitation bag hanging at the head of the bed (regardless of Isolation)
- ✓ Kelly Clamps-obtain and replace from CSR
- ✓ (1) Shiley Trach tube-Utilize size currently in patient- place at head of bed OR on bedside nightstand (regardless of Isolation)
- ✓ (1) Shiley Trach tube exactly one size small than currently in patient- place at head of bed OR on bedside nightstand (regardless of Isolation)
- ✓ (2) Tracheostomy care kits
- ✓ Goggles or mask with eye shield and personal protective equipment available upon request

Jackson (Metal)

- ✓ Kelly clamps
- ✓ ETT 1.5x size of Jackson
- ✓ Clean Jackson tube
- ✓ Bottle of alcohol
- ✓ Bottle of NSS
- ✓ Trach care kit

Chest Tubes

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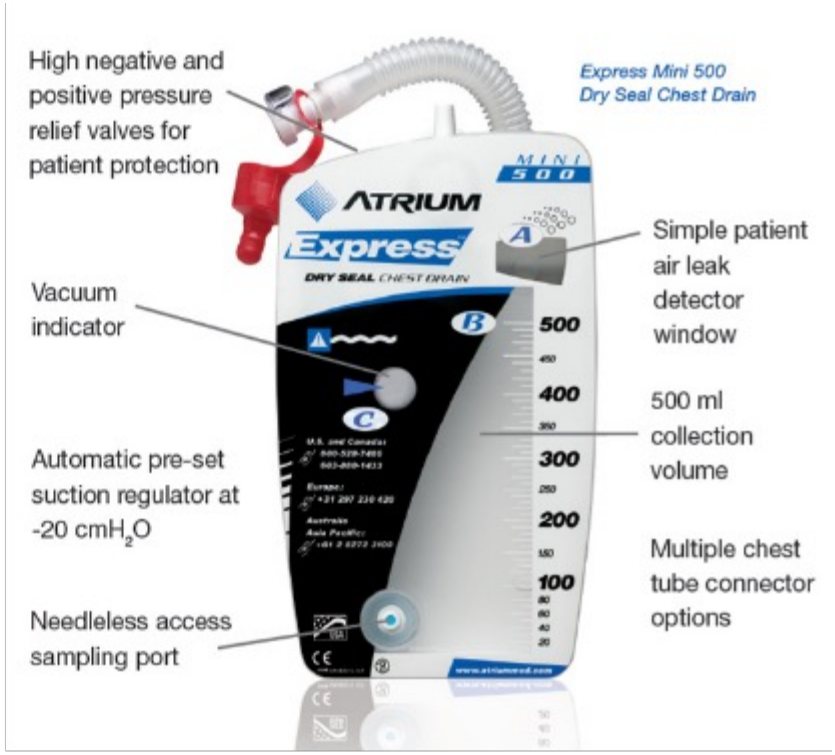
Chest Tube

https://www.getinge.com/us/education/chest-drain-education/#

Click On Oasis Dry Suction Water Seal Chest Drain and scroll down for video



CADD Pump

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CADD Pump: PCA/PCEA/ Nerve Block

- Patient Controlled Analgesia (PCA) delivers analgesic – opioid - using the CADD Solis pump via the IV for pain management
- Patient Controlled Epidural Analgesia (PCEA) delivers analgesic – opioid and/or local anesthetic - using the CADD Solis pump via an epidural catheter for pain management
- Peripheral Nerve Block (PNB) delivers analgesic – local anesthetic - via a catheter placed by the anesthesiologist

Nursing Responsibilities…

The pump for PCA must be programmed by two licensed nurses

Prior to the start of the infusion, two licensed nurses one of which is an RN must verify the following information

- **Medication ordered**
- **Pump programming**
- **Patient name and MRN on the medication cassette**

This same process must also occur with each bag change, nurse change or prescription change

For PCEA both nurses involved must be RNs

… PCA continued

Patients receiving IV narcotics must be monitored for over sedation that can result in respiratory distress or failure *(please reference the Nursing Care for patient receiving IV narcotics policy for specifics)*

Patients are assessed using the Pasero Opioid-induced Sedation Scale (POSS) in the medical-surgical units and the Richmond Agitation and Sedation Scale (RASS) in the intensive care units

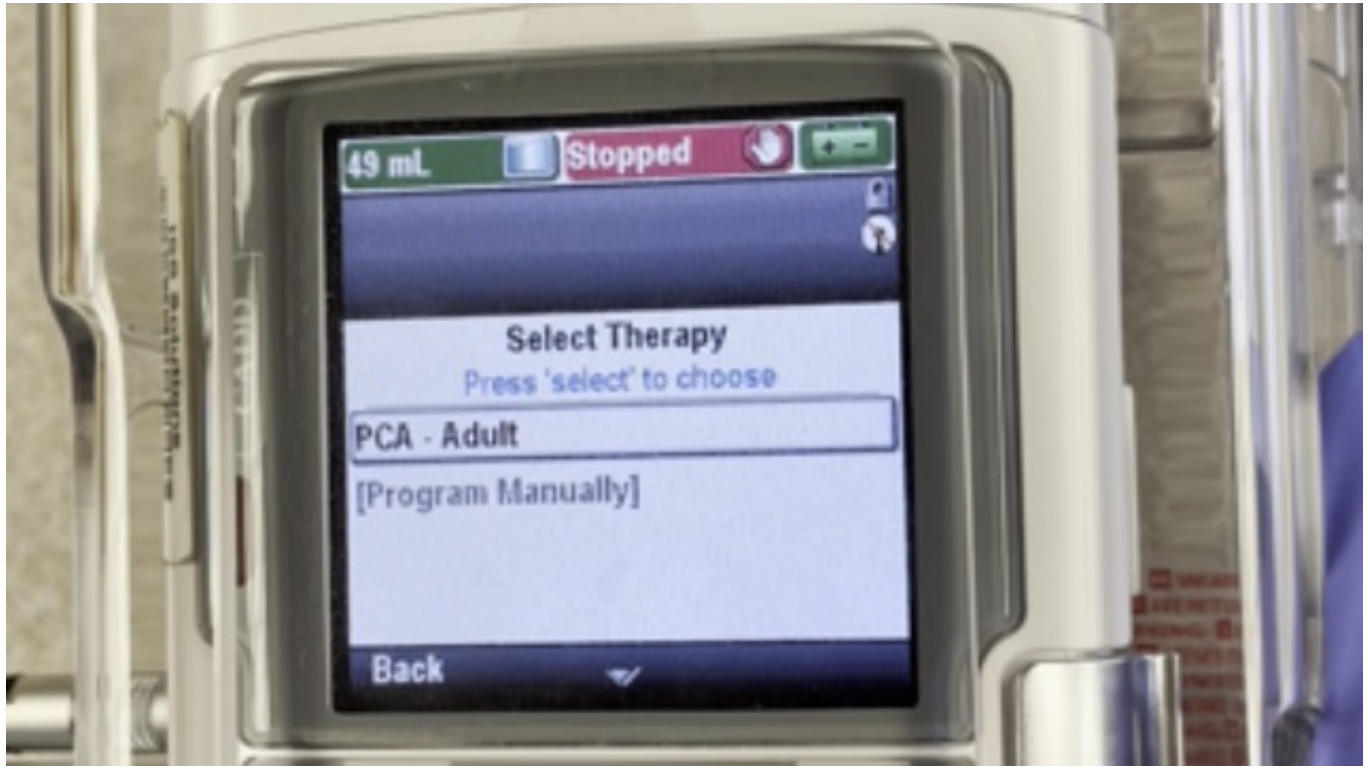
Vital signs for a PCA are monitored and recorded prior to the start of the infusion:

- Q15 x 4, Q1 x 2, and then Q2 hours until the infusion is discontinued
- Vital signs include blood pressure, heart rate, respiratory rate and quality, SpO2, end-tidal CO2, pain evaluation and sedation scale

Capnography (end tidal CO2) monitoring Q2

- Normal 35-45
- Monitor alarm limits set 50 (h) & 30 (l)

PCA with Lockbox – Pump programming



Bbraun Pump

Geisinger

Bbraun pump video

https://youtu.be/7L1J4p4PXPU

Kangaroo Pump

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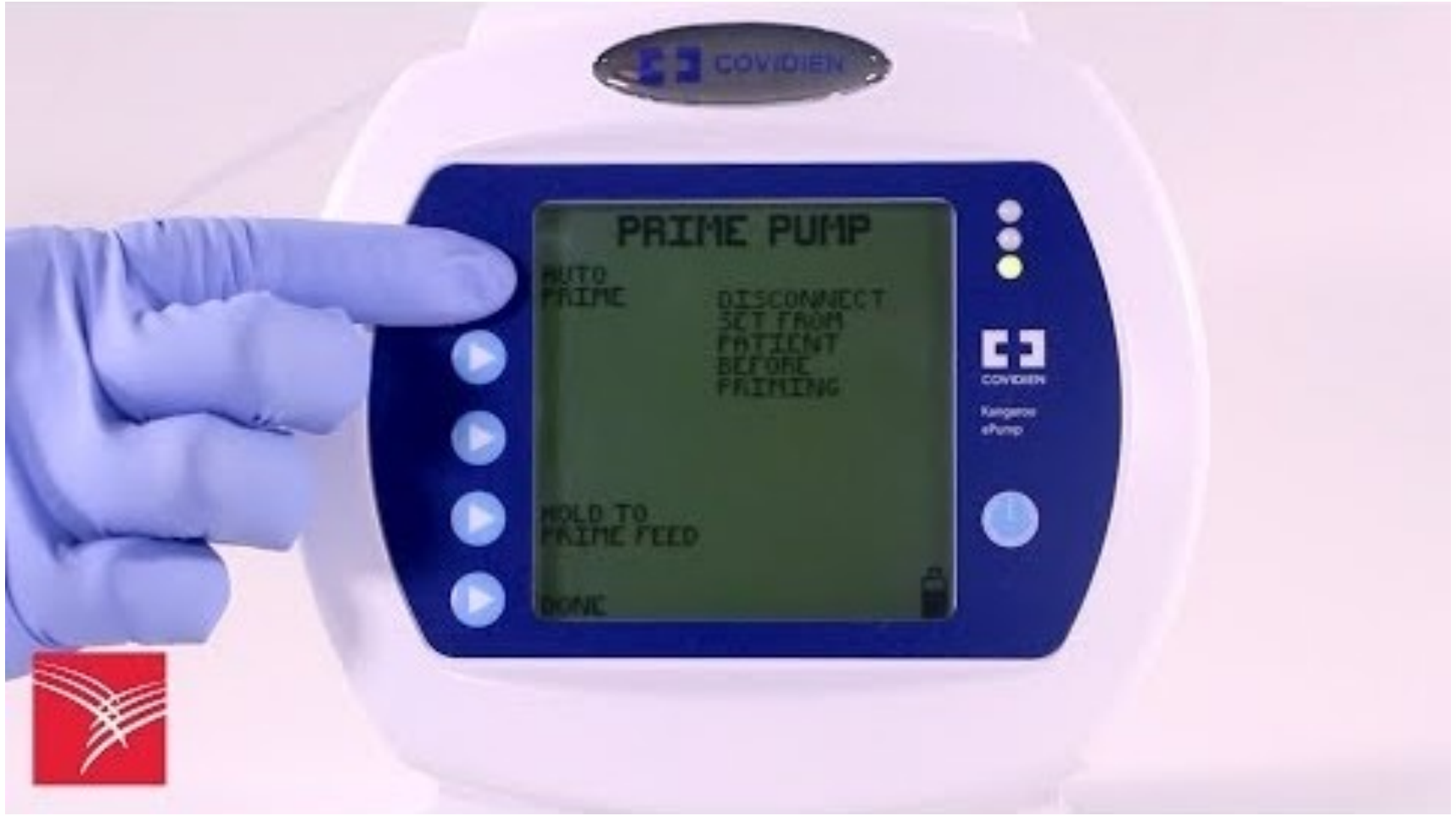
Kangaroo Pump: Set Up

Kangaroo Pump: Prime

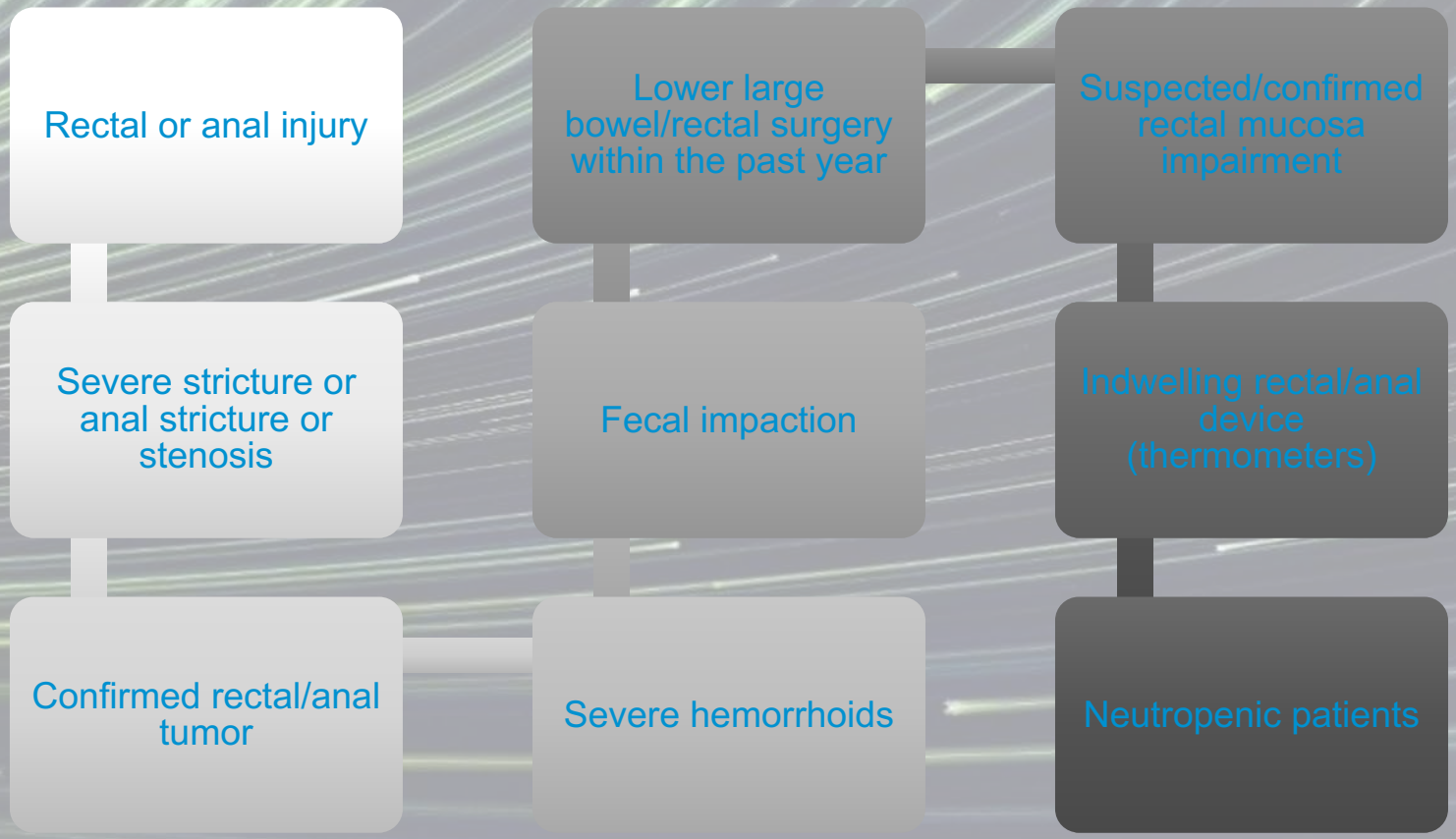


Dignishield

Fecal Incontinence Device

- Use for patients who have reddened, excoriated skin in order to prevent further skin breakdown
- Not be used for more than 29 consecutive days
- This device is approved for use of instillation of rectal medications, such as PR Vancomycin and PR Lactulose

Dignishield Contraindications



Urinary Bladder Catheter

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IUBC: Indwelling Urinary Bladder Catheter

Indications

- Acute Urinary Retention (48-72hrs)
- Chemotherapy
- Chronic
- GU Wound
- Critically Ill
- Epidural Catheter
- Periop/Returning to OR in 48 hours
- Pelvic Surgery/Trauma
- Spinal Trauma/Instability
- Stage III or IV Decubitus/wound protection
- Terminally ill (Palliative Care)

If none of the above are met get them OUT! Nurse driven protocol

IUBC General Information

Difficult insertion anticipated

- Extra supplies, additional kit
- Consider Urology consult

Known latex allergy – LATEX FREE must be obtained from supply chain

Male with enlarged prostate or >50 = COUDE

Never irrigate without physician order

We do not “test the balloon” inflation prior to insertion

CAUTI Bundle

Hygiene

- Peri-care with approved *Medline* products
- IUBC care with CHG impregnated wipes
  - Males-pull back foreskin if not circumcised
  - Females cleanse front to back

Bag below bladder – secured to frame of bed

- Minimize dependent loops
- Bag not touching floor

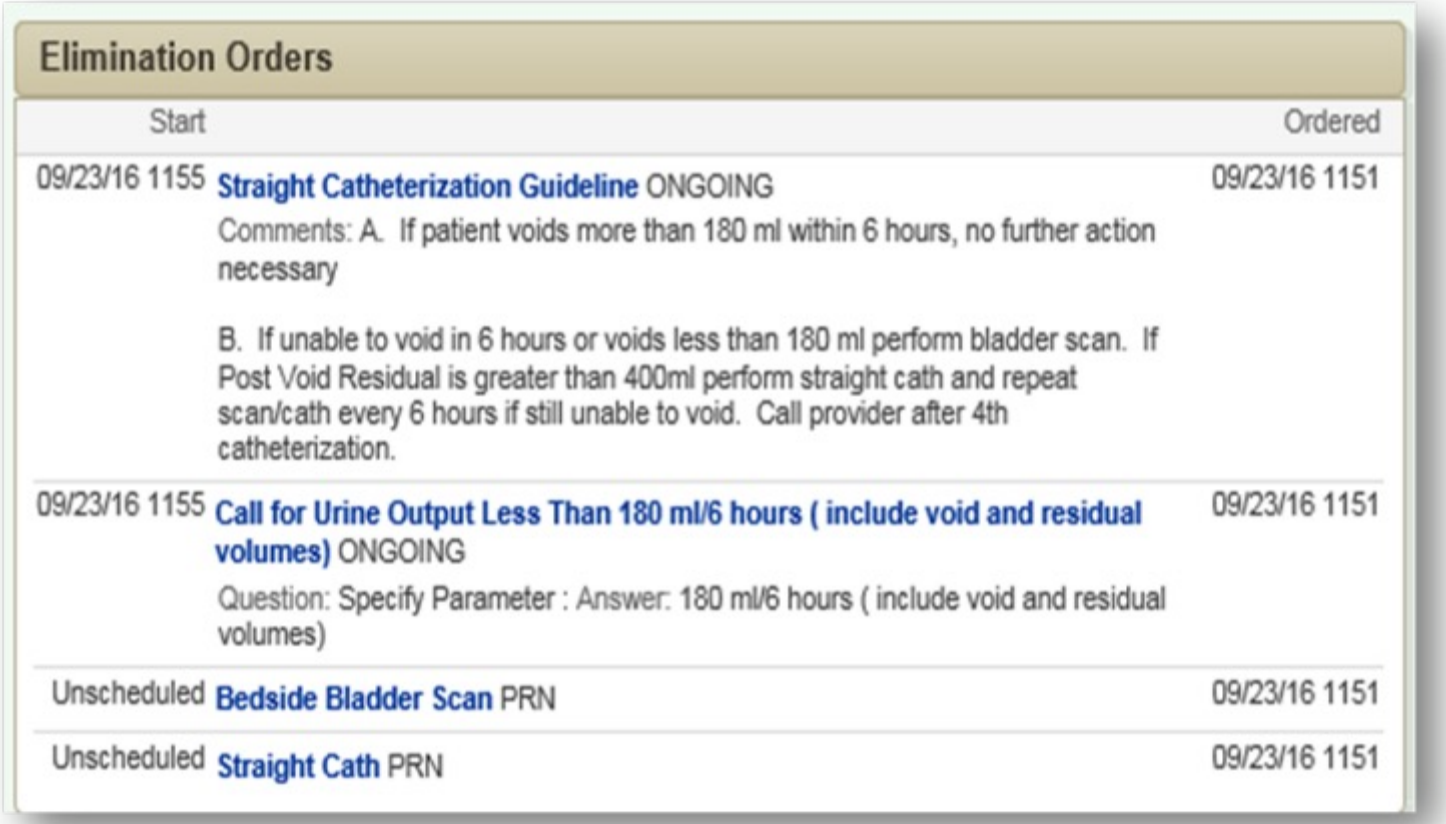
Securement device (*Stat-Lok*)

Review need for continued use and indication per policy

- *Policy Indwelling Urinary Bladder Catheter Insertion System 10.21.01*

Straight Cath Order Set

Per EBP… straight caths cause a decreased risk for infection compared to IUBCs



Elimination Orders

Start		Ordered
09/23/16 1155	**Straight Catheterization Guideline** ONGOING Comments: A. If patient voids more than 180 ml within 6 hours, no further action necessary B. If unable to void in 6 hours or voids less than 180 ml perform bladder scan. If Post Void Residual is greater than 400ml perform straight cath and repeat scan/cath every 6 hours if still unable to void. Call provider after 4th catheterization.	09/23/16 1151
09/23/16 1155	**Call for Urine Output Less Than 180 ml/6 hours (include void and residual volumes)** ONGOING Question: Specify Parameter : Answer: 180 ml/6 hours (include void and residual volumes)	09/23/16 1151
Unscheduled	**Bedside Bladder Scan** PRN	09/23/16 1151
Unscheduled	**Straight Cath** PRN	09/23/16 1151

This is how the orders will look in the Nursing Kardex Report

Exception are Pediatric Patients

External Catheters

Female – Purewick Catheter

Male – Texas Catheter

NG Tube

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NG TUBE

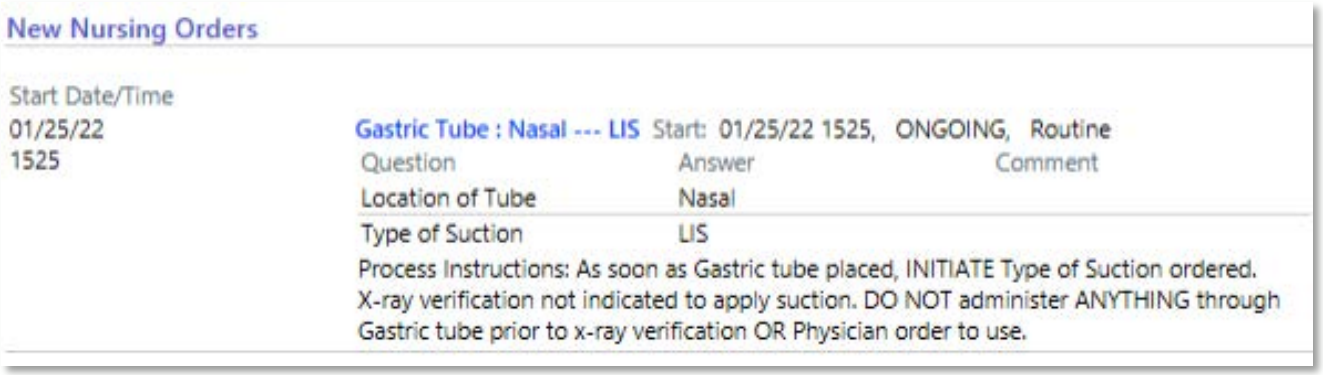
16 French Salem Sump – gastric feeding

- a. Routine administration of medications/nutrition in mechanically ventilated patients. Oral insertion should be the default route for mechanically ventilated patients.
- b. Treatment for gastric ileus or decompression
- c. Gastric lavage

12 French Salem Sump – gastric feeding

- a. Administration of medication/nutrition in non-mechanically ventilated patients. Nasal insertion should be the default for these patients.

NG tube order



New Nursing Orders

Start Date/Time			
01/25/22 1525	Gastric Tube : Nasal --- LIS Start: 01/25/22 1525, ONGOING, Routine		
	Question	Answer	Comment
	Location of Tube	Nasal	
	Type of Suction	LIS	

Process Instructions: As soon as Gastric tube placed, INITIATE Type of Suction ordered. X-ray verification not indicated to apply suction. DO NOT administer ANYTHING through Gastric tube prior to x-ray verification OR Physician order to use.

- If ordered to be connected to suction. After placement of the NG tube, hook to ordered suction, then obtain X-ray. Prior to any fluids, feeding, or medications x-ray confirmation must be completed and an order “Okay to use NG Tube” must be placed.

NG Tube Escalation algorithm

GWV/GCMC
1. Seek a more experienced nurse on the unit
2. Call the nursing supervisor for assistance
3. Call for the Resource Nurse from ICU (RIC) nurse
4. Notify provider

GSWB
1. Seek a more experienced nurse on the unit
2. Utilize the ED staff
3. Notify provider

GBH
1. Seek a more experienced nurse
2. Nursing professional development to assist if available
3. Notify provider

GJSH
1. Seek a more experienced nurse
2. Utilize the ED staff
3. Call the nursing supervisor for assistance
4. Notify provider

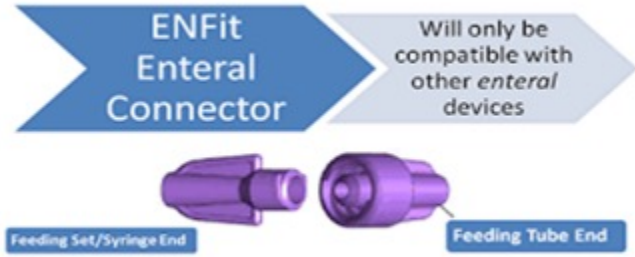
GMC
1. Seek a more experienced nurse on the unit
2. Contact critical response nurse
3. Seek nursing professional development team if available
4. Notify provider

GSACH
1. Seek a more experienced nurse on the unit
2. Notify provider

GLH
1. Seek a more experienced nurse on the unit
2. Seek nursing professional development team if available
3. Call the nursing supervisor for assistance
4. Notify provider

ENfit

- ENFit is a global safety standard to make all enteral (tube feeding) devices specific to tube feeding.
- ENFit® Enteral Feeding Syringes and Accessories are designed to increase patient safety and optimal delivery of enteral feeding by reducing the risk of tubing misconnections to non-ENFit devices, such as IV lines, respiratory tubing or urinary devices.
- Every extension set, syringe, long tube/PEG, Jejunostomy and NG tube will include the ENFit design so that you can only use products designed for enteral/tube feeding access.



Respiratory

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Oxygen is a medication

It can only be started, adjusted or discontinued by a licensed staff member.

Oxygen can be delivered multiple different ways:

- Nasal cannula
- Simple mask
- Partial re-breather mask
- Non re-breather mask (NRB)
- Venturi Mask
- Oxygen Hood
- Oxygen Tent
- Ambu bag
- Tracheostomy collar
- T-piece

How long will your E cylinder Last ?

minutes

- 4 L/min 2 hrs – 20 minutes
- 6 L/min 1 hr – 30 minutes

1000 PSI / "Empty"

- 2 L/min 2 hrs – 20

Breathing Lessons: Basics of Oxygen Therapy

A normal PaO_2 value is 80 to 100mmHg

The saturation of Hgb with Oxygen can be measured via pulse oximetry (SpO_2)

A normal SpO_2 is above 94%

An SaO_2 or SpO_2 value below 90% means the PaO_2 is below 60mmHg, indicating that the patient isn't adequately oxygenated

Normal SpO_2 values in COPD patients may be lower. Patients with COPD can have an adequate SpO_2 of 88-92% and not require supplemental oxygen.

Nasal Cannula

Use for a patient who has adequate ventilation and tidal volume but needs more oxygen

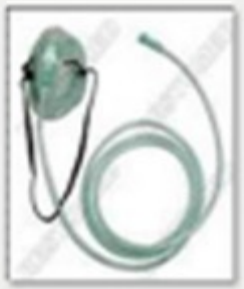
Humidified oxygen should be applied at 4LPM and above or at patient request

Nasal passages must be patent

Approximate FiO2:
1LPM = 24%
2LPM = 28%
3LPM = 32%
4LPM = 36%
5LPM = 40%

Simple Face Mask

- Another low flow device, the simple face mask is indicated for a patient who needs a little higher oxygen concentration. The higher flow rate keeps the patient from rebreathing exhaled carbon dioxide (CO2).
- Minimum flow rate = 5LPM (to clear exhaled CO2 from mask)



Approximate FiO_2
6 LPM = 40%
7 LPM = 50%
8 LPM = 60%

Non-Rebreather Mask

Has a reservoir bag that fills with oxygen and the bag must at least 1/3 inflated

It has a one-way valve on the outside of the mask and another inside the mask at the top of the bag where it connects to the mask.

These valves allow expired CO_2 to leave the mask.

Delivers non-humidified oxygen. Do not use a bubble humidifier with a NRB mask.

Used for emergency delivery

FiO_2 range = 60-80%

Reservoir bag minimizes room air dilution

Flow rate is adjusted according to the patient's ventilatory pattern to keep reservoir bag inflated

Use extreme caution in patients with known CO_2 retention

Venturi Mask

- Delivers oxygen at rates above the normal inspiratory flow rate and maintains a fixed FiO2 regardless of the patient's flow and breathing pattern
- Uses a nozzle to accelerate the oxygen flow and mix it with air in a precise ratio
- The venturi mask can easily deliver from 24-50% oxygen by using different adaptors with different sized nozzle openings.

Thank you for all you do!

Geisinger