Safety/Infection Control

- **Refusal of Treatment:**
  - Make sure pt. is informed of the potential results of refusal

- **Metoclopramide**
  - Antiemetic and prokinetic agent - promotes GI motility and gastric emptying
  - Used to treat N/V and gastroparesis
  - Serious side effect → tardive dyskinesia

- **Transferring a Patient:**
  - Determine:
    - Whether the client can bear weight
    - Whether the pt is cooperative
  - Bariatric Pt who can not bear weight or cooperate → 4 person sling lift transfer

<table>
<thead>
<tr>
<th>Weight bearing</th>
<th>Transfer method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full</td>
<td>• Independent; no assistance required&lt;br&gt; • 1-person standby assistance or observation for pt who are uncooperative or at high risk for falls</td>
</tr>
<tr>
<td>Partial</td>
<td>• 1-person assist stand and pivot transfer with gait belt or motorized device if cooperative&lt;br&gt; • 2-person assist with full-body sling if pt is uncooperative</td>
</tr>
<tr>
<td>None</td>
<td>• Motorized assist device if pt is cooperative and has upper body strength&lt;br&gt; • 2-person assist with full-body sling if pt is uncooperative / has no upper body strength</td>
</tr>
</tbody>
</table>

- **MRSA**
  - Bathed with pre-moistened cloths or warm water containing chlorhexidine solution

- **Highest risk for hospital acquired**
  - ex: MRSA/UTI
    - Older adults
    - Suppressed immunity
    - Long hx of antibiotic use
    - Invasive tubes or lines (hemodialysis pts)
    - ICU patients

- **Central Venous Access**
  - Sites in upper body (internal jugular or subclavian) - preferred to minimize the risk of infection
  - Access sites in the inguinal area (femoral) are easily contaminated by urine or feces
  - PICC lines can be left in for weeks or months

Resources:
- UWORLD (2017). *NCLEX-RN*
• Patient that fell
  ○ Assess for presence of adequate pulse (ABC first) (assessment of stability)
  ○ Inspect the client's injuries (assessment of injuries)
  ○ Get help and move the client to the bed (moving the client)
  ○ Notify the HCP (notification)
  ○ Complete an incident report (documentation)

• Handling Blood or Body Fluid Specimens
  ○ To prevent transmission of infection
    ■ Hand hygiene, gloves
    ■ Transport immediately in a container labels with biohazard symbol
    ■ Biohazard bag
    ■ Antiseptic scrub the catheter hub prior to use

• Nursing Interventions to reduce aspiration risk for the pt on enteral tube feedings
  ○ Assess GI intolerance to feeding every 4 hours by monitoring gastric residual and assessing for abdominal distention, abdominal pain, bowel movements and flatus
  ○ Assess feeding tube placement at regular intervals
  ○ HOB > 30 degrees to reduce GERD and aspiration
  ○ Keep endotracheal cuff inflated (25 cm H2O) for intubated patients
    ■ Low cuff pressure increases the risk of aspirating oropharyngeal secretions or gastric contents
  ○ Suction any secretions
  ○ Use caution with sedatives
  ○ Avoid bolus feedings

• Risk for Falls
  ○ At Risk → Old age, impaired mobility, cognitive/sensory impairment, bowel/bladder dysfunction, meds, hx. Of falls
  ○ Age >65-70
  ○ Medications
  ○ Orthostatics
  ○ Assistive devices
  ○ sedatives/ antiparkinson meds
  ○ Interventions:
    ■ Bed in Lowest position
      ● Raising 2-3 side rails is appropriate
    ■ Bed alarm
    ■ Making hourly rounds
    ■ Placing a fall risk ID band
    ■ Good lighting
    ■ Exercise programs
    ■ hand rails in stairwell
    ■ Rubber sole non-slip shoes

• PICC Lines
  ○ Inspect the insertion site for signs of infection (redness, drainage) and dressing integrity

Resources:
UWorld (2017). NCLEX-RN
Routine care includes:
- Sterile dressing changes every 48 hours with a gauze dressing or 7 days with a transparent semipermeable dressing (biopatch) and immediately if dressing is loose/torn, soiled, or damp
  - Do not reinforce a torn dressing with tape
- Line should be flushed before and after med administration and per facility protocol
- Blood pressure and venipuncture should not be performed on the affected arm
- All infusion medications (except vasopressors) must be paused before drawing blood from the PICC to prevent false interpretation of the pts. Serum levels
- Scrub the hub with alcohol or chlorhexidine/alcohol for 10-15 seconds
  - Before flushing, drawing blood, or administering medication

- New admission pt
  - Before giving a pt oral fluids → verify HCP prescriptions r/t oral intake and prescribed diagnostics or procedures

- Med Errors
  - Do not give warfarin to pt who is pregnant
  - IM injections are given in the vastus lateralis in children < 7 months
  - Penicillins and cephalosporins can have a cross-sensitivity
  - Narcotic induced pruritus is not a true allergy

- Natural Disasters
  - Often need mental health services for coping
  - It is essential to coordinate outreach efforts to maximize resources and avoid duplication of services and/or inefficiency in providing services
  - Mobile crisis team priority
    - 1. Check in with the local command center
    - 2. Assist in planning outreach strategies with other community agencies
    - 3. Receive assignments

- Mental Health
  - Pt is violent
    - Safety is priority
    - People should leave the area and call security immediately

- Bed Bugs
  - Prevent bed bugs from infesting other students’ homes → prevent the bugs from entering school in the first place
  - Laundering clothing in hot water and drying on the hottest temperature
  - Clothing stored in tightly sealed plastic bag to prevent additional infestation
  - Professional pest control should be brought into school/classroom to evaluate

Resources:
UWorld (2017). *NCLEX-RN*
- Seizure Precautions
  - Padded side rails
  - Oxygen available at bedside
  - Suction equipment
  - Side lying position
  - Loose clothing
  - Pillow to protect head
  - Quick release knots -- never square not
  - *Never attach restraints to side rails
  - Never position in supine

<table>
<thead>
<tr>
<th></th>
<th>Before</th>
<th>During</th>
<th>After</th>
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<tbody>
<tr>
<td>- Remove potential</td>
<td>- Remove potential sources of injury, place</td>
<td>- Protect client's head from injury if possible</td>
<td>- Document timing, symptoms</td>
</tr>
<tr>
<td>sources of injury,</td>
<td>padding</td>
<td>- Place client in rescue position (left lateral)</td>
<td>- Remain with client</td>
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<tr>
<td>place padding</td>
<td></td>
<td>- Insert nothing into the mouth</td>
<td>- Perform neurological assessment</td>
</tr>
<tr>
<td>Keep oxygen at</td>
<td>- Keep oxygen at bedside</td>
<td>- Do not restrain limbs or torso</td>
<td>- Assess for physical injury</td>
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<tr>
<td>bedside</td>
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<td></td>
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</tr>
<tr>
<td>Assess therapeutic</td>
<td>- Assess therapeutic level of antiepileptic</td>
<td></td>
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<tr>
<td>level of antiepileptic drugs</td>
<td></td>
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<tr>
<td>Identify seizure</td>
<td>- Identify seizure triggers, areas for</td>
<td></td>
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<td>triggers, areas for</td>
<td>further client education</td>
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<tr>
<td>education</td>
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</tbody>
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- Latex allergy
  - Suspected when there is a food allergy to banana, kiwis, or avocado

- Prevent Infections with Urinary Catheters
  - Wash hands
  - Clean perineum with soap and water each shift and after bowel movements

Resources:
UWorld (2017). NCLEX-RN
• Keep drainage system off the floor and contaminated surfaces
• Keep bag below level of the bladder
• Each pt. Has their own separate, clean container to empty collection bag and measure urine
• Use sterile technique when collecting urine specimen
• Avoid prolonged kinking, clamping or obstruction of catheter

● Medication Poisoning of Children
  ○ Keep med out of sight
  ○ Place in drawer or cabinet with a childproof lock
  ○ Put them away after each use

● Needle stick injury
  ○ Remove gloves
  ○ Wash area with soap and water
  ○ Notify nurse supervisor
  ○ Go to employee health clinic
  ○ Take postexposure prophylaxis

● Radiation Exposure Disaster
  ○ Victims farthest away from source are most salvageable - see them first
  ○ Least symptoms - as most damage is internal and will not be apparent initially

● Physical Restraints
  ○ Device or method used to **immobilize or limit physical mobility or body movements to prevent falls, injury to self or others, or removal of medical devices**
  ○ The pt situation determines whether it is classified as a restraint
  ○ Prescribed orthopedic immobilizers and protective devices used temporarily during routine procedures are not considered physical restraints and do not require authorization for use from HCP
  ○ Restraints should be used only after less invasive methods have failed and must be d/c at the earliest time possible
  ○ Types of restraints:
    ■ **Belt restraint** - applied at the waist and tied to the bed frame under the mattress with straps using a quick-release knot
      ● Used to protect confused or disoriented pt on bed rest
      ● Restricts physical mobility and confines the pt to the bed involuntarily
    ■ **Soft limb restraints** (wrist, ankle) - immobilize one or more extremities and are used for the prevention of falls or attempted removal of devices
      ● May be required after a procedure requiring sedation - to protect the surgical site or medical device
      ● Should be applied loosely enough that 2 fingers can be inserted underneath the secured restraint
      ● Monitor the **peripheral neurovascular status and skin integrity**

● CVC

Resources:
UWorld (2017). *NCLEX-RN*
Most lumens require anticoagulant in the form of a **heparin flush to maintain patency and prevent clotting** when not in use

- **Doses of 2-3 mL containing 10 units/ml - 100 units/mL are standard of care for flushing a CVC**
- **Doses of 1,000 - 10,000 units are given for venous thromboembolism**
- **Distal port of a triple lumen CVC**
  - Largest lumen tube
  - Should be used for CVP (right atrium pressure) monitoring
- Occlusive dressing should be changed every 7 days
- TPN should be administered through CVC or PICC

### Sterile Field for a Wet-to-Damp Dressing change

- **Hand hygiene**
- Open a sterile gauze package with ungloved hands
- Hold the inverted opened gauze package 6" (15cm) above the waterproof sterile field so it does not touch the field, and then drop the gauze dressing onto the sterile field
- Place the sterile stressing on the sterile field 2" (5cm) from the edge; the 1" margin at each edge is considered unsterile
- **Use sterile NSS** from a recapped bottle that was open less than 24 hours ago.

### The Right Client - 1 of the 6 rights of medication administration

- Must use 2 identifiers - comparing the pt statements or information on the ID band with the pt. MAR
- Should be permanent and unique
  - First and last name
  - Medical record #
  - Birth date (month, day, year)

### Home Care Setting - Infection Control Procedures for Dressing Change

- Washing hands before and after gloving
- Opening sterile supplies carefully to avoid contamination
- Placing old dressing inside a glove or plastic bag before disposal in the household trash

### PT at risk for infective endocarditis

- Can happen with oral surgery or dental work
- At risk
  - Hx. of congenital heart disease
  - Prosthetic valves
    - On warfarin - elevated INR (2.0-3.0) to stop clot formation
    - At risk for excessive bleeding during surgical procedures
- These pt. Should receive prophylactic antibiotics prior to any procedure or surgery

### Implied Consent

- Emergency situation
- Treatment is required to protect the pts. Health
- It is impractical to obtain consent
- It is believed that the pt would want treatment if able to consent

### Acceptable Abbreviations
**Child Abuse**
- Suspicious of Child abuse
  - Fractures in young children, especially nonambulatory infants
- Nurse’s Priority
  - Report suspected child maltreatment to the appropriate authorities following hospital protocol as required by law in the US and Canada
- Nurse should be aware of cultural health practices
  - Cupping, coining
  - Hemophilia
  - Mongolian spots
- After Reporting Suspected Abuse
  - Complete physical eval
  - Document facts and observations objectively
    - Include hx provided by parent and time period from injury occurrence to eval
  - Perform a review of child-care practice with caregiver

**Tracheostomy**
- Inflated cuff is used in pts who are at risk for aspiration (unconscious or on a ventilator)
  - However! It is uncomfortable for pts. Who are awake because it is difficult to swallow or talk
- Deflated cuff - when pt is improving and determined not to be at risk for aspiration and is awake
  - Before deflating the cuff - the pt is asked to cough to expectorate the secretions that have built up above the inflated cuff
- Interventions to decrease the risk of aspiration
  - Sit upright with chin flexed slightly toward the chest
  - Monitor for wed or garbled sounding voice
  - Monitor for signs of fever

**Prepping for Surgery**
- Look out for
  - Low grade temperature and cough → presence of infection
  - Report findings to HCP asap before surgery
  - Clopidogrel (plavix) should be d/c 5-7 days prior to surgery to decrease the risk for excessive bleeding
  - Acetaminophen can be taken up until surgery
- Ensure the operative permits are signed and on the chart
- Allergy band is placed **only if allergies are present**
- Operative site is marked on a limb
- IV prophylactic antibiotics are infused within 1 hr prior to surgery

**Single Most Important Factor in preventing spread of infection**
- HAND WASHING

Resources:
UWorld (2017). *NCLEX-RN*
Safe Medication Administration

- 6 Rights
  - Client
  - Med
  - Dose
  - time
  - Route
  - Documentation

- If a patient questions a drug administration - the safest option is to first check the prescription to verify the 6 rights of administration

- Check lab values before administering anticoagulants

- Compare med, dosage, and route to prescription orders prior to admission

- Discard any unlabeled meds

- Individual dose packages
  - Opened at bedside and should be placed in a med cup only immediately prior to administration

- Gloves are not required - only when administering medication that's coming into contact with a route that is potentially contaminated by blood or bodily fluids
  - IM or subQ
  - Accessing a closed IV tubing system
  - Placing a pill into a client's mouth using fingers

Neutropenic Precautions

- WBC less than 5,000
- Neutrophil count less than 2200
- Priority! → protect against infection

- Interventions
  - Private room
  - Strict hand washing
  - Avoid exposure to people who are sick
  - Avoiding all fresh fruits, veggies, and flowers
  - Ensuring that all equipment used with a pt has been disinfected

Fire Safety

- Fire Response
  - R- rescue
  - A- alarm
  - C - confine/close doors
  - E- extinguish
  - Discourage visitors from using the elevator

- Fire Extinguisher
  - P - pull
  - A - aim
  - S - squeeze

Resources:
UWorld (2017). NCLEX-RN
- S - sweep
  - Family Member Present During an Emergency
    - Nurse should support a family member that wants to be present during the resuscitation of a patient
    - Family member should be allowed to sit or stand in an area that is out of the way of the team
    - *****Priority - A staff member should be assigned to stay with the family member to explain the interventions taking place
    - If family member becomes disruptive - charge nurse should be prepared to escort family members out of the room
  - Crutches
    - Need upper body strength or balance
    - To rise from a chair - hold both crutches with the hand on the same side, slides to the edge of the chair, and grasps the armrest with the other hand or places it on the seat
      - Push down on the crutches and the armrest and use the unaffected extremity for support to rise from the chair
      - Procedure is reversed when the pt sits down in a chair
    - Interventions to promote safety
      - Keep environment clutter free
      - Remove scattered rugs
      - Look forward - not down at your feet
      - Use a small backpack to hold personal items
      - Wear a rubber- or non-skid soled shoes without laces
      - Rest crutches upside down
      - Keep crutch rubber tips dry
  - Peripheral IV Insertion - Interventions to decrease infection
    - Upper extremity -preferably hand or forearm
    - Should be cleaned with antiseptic solution using friction (preferably chlorhexidine, using a back-and-forth motion or 70% alcohol pad) and completely air dry
    - After insertion - catheter hub should be taped down with sterile tape
    - Excessive hair may be clipped but never shaved
  - OSHA
    - Sharps disposal container should not be overfilled and should be replaced on a regular basis to reduce the risk of a needle stick during disposal
    - Prevention of injury and safety in the workplace should be a priority when the nurse is delegating, planning or providing nursing care
  - Meniere disease
    - Endolympathic hydrops - result from excess fluid accumulation in the inner ear
      - Vertigo, tinnitus, hearing loss, and aural fullness
      - Vertigo can be a/w nausea and vomiting
        - Quiet, dark room, avoid sudden head movements
        - Reduce stimulation by not watching tv and avoid looking at flickering lights

Resources:
UWorld (2017). NCLEX-RN
Safe is priority for pt experiencing an acute attack
Fall precautions should be in place

• AMA
  ○ Most important - IV catheter removal - to prevent complications and misuse
  ○ Pt can still leave if they refuse to sign AMA form
    ■ Should have witnesses to the events and clearly document what happened and
      that the pt refused to sign
  ○ Pt cannot be held against their will

• Nurse Floating
  ○ Floating to an unfamiliar float → duties to be performed and the nurse’s limitations in
    skills or knowledge of specialized care should be clarified
  ○ Refusing to go can result in disciplinary action - including being fired

• Systemic Lupus Erythematosus (SLE)
  ○ Autoimmune disorder that results in inflammation and damage to body parts
  ○ Symptoms → painful/swollen joints, extreme fatigue, skin rashes, kidney problems
  ○ No cure - can be treated with immunosuppressants (corticosteroids) or
    immunomodulators (hydroxychloroquine)
    ■ Teaching:
      ● Pneumonia and annual influenza vaccines are recommended
        ○ b/c more susceptible to infections
        ○ Should avoid contact with sick people and report fever to HCP
      ● Avoid sun exposure and ultraviolet light - can worse rash
        ○ Use protective clothing and sunscreen
        ○ Rash should be cleansed only with mild soap
      ● Physical and emotional stress can exacerbate SLE
      ● Balanced exercise with alternating periods of rest is recommended

• IV Pump
  ○ If not working - nurse should replace the pump

• Critical Value Lab Error
  ○ Pt who is talking and talking, asymptomatic and normal sinus rhythm
    ■ With K+ level of 7 would be an error
    ■ A lab value of K this high would be life-threatening
    ■ Due to poor hematology technique, hemolysis, or clotting

• Falling Patient
  ○ To prevent injury to the nurse and pt - use good body mechanics to break the fall and
    guide the patient to the floor
    ■ Step slightly behind the pt and place arms under the axillae or around the pt
      waist
    ■ Place feet wide apart with knees bent
    ■ Place one foot behind the other and extend the front leg
    ■ Let the pt slide down the extended leg to the floor

• Patients who are confused and agitated
  ○ Pt safety - use least restrictive restraint

Resources:
UWorld (2017). NCLEX-RN
One-on-one supervision provided by a trained staff member who stays with the pt. At all times can promote safety while reducing or eliminating the use of restraints

- MRI
  - Contraindications
    - Pacemaker
    - ICD
    - Metallic foreign body
    - Metal plates, pins, clips, joint prosthesis
    - Implanted device - med port or insulin pump
  - Remove patches - but not contraindicated

- Needles
  - Sharps should never be recapped, bent or broken because of risk of needlestick injury

- Restraints
  - Physical and chemical
    - Assess skin integrity, neuro, and cardio q 30 min
    - Remove safety device at least q 2 hr

- Poisons:
  - Call poison control center before attempting to intervene

Resources:
UWorld (2017). *NCLEX-RN*
**Standard Precautions:**

- **HIV is standard precautions**
  - Gloves when in contact with bodily fluids
  - Gloves when starting IV line
  - Hand wash before and after pt care
- **PPE (as needed to prevent contact with bodily fluids)**
  - Hand hygiene
  - Gown
  - Mask or respiratory
  - Goggles or face shield
  - Gloves

- **Application Process**
  - Gown
  - Mask
  - googles/face shield
  - gloves

- **Removal Process:** (Alphabetical order)
  - Gloves
  - googles/face shield
  - Gown
  - mask

**Contact Precautions:**

- **Single room isolation** (preferred) or cohort with other infected pts.
- **All surfaces within 3 ft of bed** are considered contaminated
- **PPE = gown and regular gloves** → must be discarded before leaving the room
- Hand Hygiene must be performed with **soap and water**
- Alcohol based hand sanitizers do not kill C. diff spores
- **Dedicated medical equipment should remain in the room**
  - Single client use
- **MRS.WEE**
  - M - multidrug resistant organism (MRSA and vancomycin-resistant enterococcus - can use alcohol-based hand rubs or soap/water)
  - R - respiratory infection
  - S - skin infections *
  - W - wound infxn
  - E - enteric infxn - clostridium difficile (soap/water only)
  - E - eye infxn - conjunctivitis
- **Skin Infections -- VCHIPS**

**Resources:**

- UWorld (2017). *NCLEX-RN*
- V - varicella zoster
- C - cutaneous diphtheria
- H - herpes simplex
- I - impetigo
- P - pediculosis
- S - scabies (soap/water only)

**Airborne:**
- *SHOULD BE ISOLATED FIRST** PRIORITY
- MTV=Airborne
  - Measles
  - TB
  - Varicella-Chicken Pox/Herpes Zoster-Shingles
- Mandatory Barrier:
  - Private Room
  - Negative pressure with 6-12 air exchanges/hr
  - N95 Respirator for TB
  - Handwashing
- When patient leaves the room → mask only

**Droplet:** **think of SPIDERMAN!**
- S - sepsis
- S - scarlet fever
- S - streptococcal pharyngitis P - parvovirus B19
- P - pneumonia
- P - pertussis
- I - influenza
- D - diphtheria (pharyngeal)
- E - epiglottitis
- R - rubella
- M - mumps
- M - meningitis
- M - mycoplasma or meningeal pneumonia
- An - Adenovirus

**Barrier:**
- Private Room or cohort Mask
- Surgical mask when within 3 feet of pt.
- When pt. Leaves the room → mask

**Ebola**
- Viral hemorrhagic fever
- Contact, standard, droplet and airborne precautions
  - Impermeable gown/coveralls, N95 respirator, full face shield, doubled gloved with extended cuffs, single-use boot covers, single-use apron

Resources:
UWorld (2017). *NCLEX-RN*
- Single-client airborne isolation with door closed
- Maintain a log of everyone in and out of room
- Restrict visitors
  - Removal of PPE
    - Outer gloves are first cleaned with disinfectant and removed
    - Inner gloves are wiped b/w removal of every subsequent piece of PPE (respirator, gown), and removed last
- Middle East Syndrome
  - Viral respiratory illness
  - Fever, cough and SOB that can worse and cause death
  - Standard, contact, airborne with eye protection
- Room Assignments:
  - Pt with the same organism can be placed together
  - Immediate post-op patient
    - Do not assign to a room with a pt. Who is contagious or potentially infected
  - Post-splenectomy pts are at lifelong risk of sepsis
  - Pt with infection should not be assigned to a semiprivate room with recent surgery, immunocompromised or receiving immunosuppressants
  - Dementia pt. Undergoing extensive surgical debridement of a stage 4 pressure ulcer should not be assigned to a room with a pt who has an infection, vulnerable to an infection, or requires a quiet environment
  - Pediatrics
    - Based on disease process, sex and developmental stage
    - Semi private rooms → safety is priority

Resources:
UWorld (2017). NCLEX-RN