

NUR 306- Test 3

Unit 7- Safety/Mobility/Activity

Nursing injuries: needle sticks, radiation from x-rays (always put lead on), violence from patients or family (make sure you are always between the patient and the door)

Nursing safety: back injuries (most common), because of body mechanics (poor body alignment, poor coordination, poor balance, impaired joint mobility)

Active movement: you move it yourself

Passive movement: someone moves it for you

Positioning the patient:

- o **Trendelenburg:** table tilted with head to floor (low BP- keeps blood in brain) (Video: greater access to lower abdominal cavity and pelvic structures, used for lower GI and pelvic surgeries)
- o **Reverse Trendelenburg:** on back, feet down (Video: greater access to upper peritoneal cavity and lower esophagus)
- o **Lithotomy:** on back, knees spread and feet raised- *raise and lower legs slowly and at the same time* (pelvic exam, giving birth)
- o **Fowler:** HOB raised (respirations- SOB. 45- semi-Fowler's, 90-high Fowler's) (Video: used for facial, cranial or reconstructive breast surgery)
- o **Sims (Lateral decubitus):** face down, on left side of stomach with right knee pulled up (enema, colonoscopy) (Video: used for procedures involving the renal system and for cardiothoracic surgery)
- o **Supine:** face up on back (CPR) (Video: procedures of the abdomen, thorax, and face, orthopedic and vascular surgery)
- o **Prone:** face down on stomach (Video: access to spine, cranium, and perianal region)
- o **Jack-Knife:** modification of prone position; head down foot down posture (Video: used for anorectal surgery)
- o **Lateral recumbent:** on your side (brushing teeth, drainage, hip surgery, post seizure- post ictal)
- o **Dorsal recumbent:** on back, knees spread and feet on the table (catheter)

Patient safety:

- o Young (infant/toddler/preschool/school-aged): drinking cleaners, top heavy. Motor vehicle accidents are the leading cause of death for children ages 1-3, followed by drowning, falls, choking, SIDS, and ingestion of poison.
- o Adolescents: drugs, alcohol, driving, sports. Leading cause of death is motor vehicle accidents, followed by homicide—both frequently associated with alcohol and drug use. Peak physical, sensory, and psychomotor abilities give adolescents a feeling of strength and confidence, but lack the wisdom and judgment of adults so they are more prone to risk-taking behaviors.
- o Adult: exercise not happening anymore. Leading cause of death is unintentional poisoning, followed by motor vehicle accidents.
- o Older Adults: risk for falls. Falls are the most common cause of death for adults 65 and older.

Patient Safety: clean up spills, supportive devices, trapeze (triangle bar above bed), call light, bed low, 2 side rails, bed side table next to bed w/fluid, non-skid socks, buddy system)

Never-Events (CMMS): Healthcare-acquired complications that can cause serious injury or death to a patient.

Examples: foreign object (such as a sponge) left in patients after surgery, air embolism, administering the wrong type of blood, severe pressure ulcers, falls and trauma, infections associated with urinary or intravenous catheters, symptoms resulting from poorly controlled blood sugar levels, surgical site infections, DVT or PE following total knee or hip replacement procedures.

Falls: 3rd leading cause of injury related to death (all ages), leading cause of injury relating to death in older adults, leading reason for falls in hospital (didn't want to bother anyone or pushed the button and nobody came)

Risks for falls: brittle bones, decreased sensory, cluttered environment, previous falls, meds (narcotics, bp meds, insulin), gait issues, poor vision, hypotension, pain, high bed, low toilet seat, IV, bad lighting, dizziness, arthritis, and age greater than 80 years.

Morse Fall Scale: 0-24: no risk; 25-50: low risk; 51+: high risk

Seizure precautions: most important- protect client from injury, do NOT restrain, observe seizure (type, duration, breathing, incontinence), postictal phase, status epilepticus

Postictal phase: amnesia, confusion, deep sleep

Status epilepticus: medical emergency- continuous seizures lasting 15 min or series over 20-30 minute period

Restraints: must have physicians order, must know correct application of restraints, must follow policy and procedure, restraints are a major issue with JCAHO, must try less restrictive interventions first

Restraint types:

- o **Mechanical:** wrist restraints, posey vest, belt restraint
- o **Chemical:** meds (surgery and intensive care units)
- o **Side rails:** if all four are up and there purpose is to keep the patient in the bed

Alternatives to restraints: bed alarms, location of patient, family

Moving the patient: gait belt, walker, crutches, canes, Hoyer lift

- o Cane goes on the **STRONG** side and moves with the **WEAK** leg.
- o **Back injuries are the most common injury among nursing personnel! USE GOOD BODY MECHANICS!**
 - o Raise the bed, bend knees, keep back straight, have the pt assist as much as possible.

Factors that affect mobility and activity: nutrition (obesity), lifestyle (culture), stress (get fatigued), disease

Diseases that affect mobility: scoliosis (lateral curvature of the spine), osteoarthritis, Gout, osteoporosis, traumas (fx, broken bones), CNS (para and quadriplegic), sprains, respiratory and circulatory disorders

Children and adolescents: 1 or more hrs activity a day

Adults: 2 hrs 30 mins a week of moderate activity or 1 hr 15 mins vigorous

Older Adults: avoid inactivity, stretching to improve balance

Isotonic (dynamic) exercise: weight training, muscle building

Isometric (static or setting) exercise: muscle contractions w/out movement (wall sits, pushing against the wall)

Isokinetic (resistive) exercise: treadmill, elliptical (has resistance)

Aerobic exercise: amount of O₂ taken in exceeds O₂ required for activity performance (doing something over and over, walking, jogging, jump roping)

Anaerobic exercise: muscles cannot draw enough O₂ from bloodstream (rapid and intense, sprinting, lighting weights)

Activity:

- o **Assessment:** can they get out of bed, which extremities can they move, how well can they move them, how much weight can they bear, do they use an assistive device, have you seen them get out of bed
- o **Intervention:** how will you get them up and what will you need to ensure their safety. What type of exercises will you have them perform and for how long. Activity tolerance. Evaluate.
 - If physician gives orders: assess, determine devices needed, carry out order, assess the patient while going through the activity, gradually increase the length, evaluate

Home plan: develop with the patient; develop a way to evaluate your interventions

Immobility: where the patient cannot move

Inactivity: where the patient can move but the question is how much can they move

Consequences for sitting still:

- o Physical: muscular atrophy, fluid and electrolyte disturbance, disorders in blood clotting mechanisms, disuse osteoporosis, retained respiratory secretions, urinary stasis, long term impact on patient care
- o Cardiovascular: increased cardiac workload = increased HR, increased risk of orthostatic hypotension = decreased BP particularly when sitting up or standing, increased risk of venous thrombosis = clots in legs, lungs, brain
- o Impaired psychological well-being: increased sense of powerlessness, decreased self-concept, decreased social interaction, decreased sensory stimulation, altered sleep-wake pattern, increased risk of depression
- o Integumentary: increased risk of skin breakdown and formation of pressure ulcers
- o Metabolic: increased risk of electrolyte imbalance, increased adipose tissue
- o Respiratory: decreased rate and depth of respirations, pooling of secretions, impaired gas exchange
- o GI: disturbance in appetite, altered protein metabolism, altered digestion and utilization of nutrients = slowed digestion, flatus, constipation, impaction
- o Urinary: increased urinary stasis, increased risk of urinary calculi, decreased bladder muscle tone = incontinence
- o Musculoskeletal: decreased muscle size, tone and strength, decreased joint mobility, flexibility, bone demineralization, decreased endurance, stability, increased risk of contracture formation

Isolation:

- o Universal or standard precautions: gloves, mask, gown
- o Contact: gloves, mask, gown, face shield (C. diff)
- o Droplet: always wear a surgical mask, gown gloves (3-6 ft)
- o Airborne: N95 mask. Patient wears a mask as well.
- o Reverse: always wear mask, gown, gloves (TB- air is sucked into the room)

Moving a patient: bed to stretcher, bed to chair, bed to wheel chair, bed using Hoyer lift, movement in bed--use of trapeze bar, movement up in bed, logrolling

Protecting the pt from the dangers of immobility:

- o Ted hose: very tight hose that help with circulation. Does this by helping to keep blood from pooling
- o SCDs: sequential compression devices. These handy dandy devices work by squeezing one leg and then the other. This gives almost the same effect as walking.
- o Trochanter Roll: prevents external rotation of hips. Placed on leg externally from greater trochanter of femur to lower border of popliteal space along thigh. Prevents external rotation of hip and places patella in upward position.
- o Wedge Pillow: an abductor pillow that is triangular shaped and made of heavy foam. Placed between legs and usually secured with a belt around legs to maintain the legs in abduction (hip surgery)

Patient with bad left leg: walk to the right and slightly behind them

How to measure a cane: to the wrist, elbow should be slightly bent when holding it

Unit 8- Skin Integrity and Wound Healing

Structure of the skin: epidermis, dermis, subcutaneous, muscle

Factors affecting skin integrity:

- o Aging process: less elastic, more dry/thin, more prone to injury, chronic illness
 - Xerosis: (itchy, red, dry, scaly, cracked or fissured skin) it is a common problem for up to 85% of older adults