Children's Hospital of Philadelphia

Effective Date: 4/10/2020

Job Aid: Pressure Injury Prevention Interventions

Purpose: This Job Aid outlines interventions to prevent the development of pressure injuries and to prevent the progression of existing pressure injuries (refer to Job Aid – Pressure Injury Staging and Treatment Guidelines for patients with existing pressure injury).

Choose the relevant interventions for each category on the Braden QD scale with a score above 0.

Subscale: Mobility, Sensory Perception, Friction/Shearing, Nutrition, Tissue Perfusion/Oxygenation, Devices

Mobility

Limitations in mobility put patients at high risk for pressure injury. Those who cannot self-regulate frequent position changes will require assistance in performing routine position changes and offloading bony prominences.

- Inspect the skin daily and document any signs and symptoms of breakdown.
- Encourage highest degree of mobility and activity for patient.
- Provide assistive devices to facilitate movement, e.g., trapeze, side rails.
- Discuss need for Physical Therapy consult with prescribing clinician.
- Reposition every 2 hours and document on flowsheet. Post turning schedule. When side-lying, position <30 degrees.
- Maintain head of bed < 30 degrees; Utilize pillows or wedges to off-load sacrum.
- Shift patient's position every 15 minutes while chair sitting; if unable to shift position, limit chair sitting to one hour.
- Position pillows to relieve pressure on bony prominences (e.g., between knees).
- *Suspend* heels by placing pillow under calf to relieve pressure. Do not use foam donuts or gel cushions under heels.
- If patient's feet come in contact with foot board, call Environmental (X 10557) to obtain a bed extender.
- For occiput, reposition every 2 hours and use gel pillow (Item #82409) for infants or can use Delta foam for older children.
- For patients with a hair-style that prevents assessment of the skin on the head, such as braids, twists, locks, etc., partner with the family to consider removal of the hair-style. Salon Services are available to assist with this.
- In patients who cannot tolerate repositioning AND are on ECMO, VDR or HFOV, use Z-Flo positioner (See Job Aid - Use of Z-Flo Positioner under Occiput).
- Obtain a specialty bed as needed by calling the unit-based Clinical Nurse Specialist or Nursing Supervisor (off shifts).
  - If a patient is on a specialty mattress, including the Envella bed, frequent repositioning is still required.
- Obtain a Delta foam mattress for infants as needed. (Item #20374 – Neonatal, Item #20375 – Infant).
- After 2 hours of sedation or anesthesia, assess pressure points and reposition if not contraindicated.
- Do not use rubber, foam, or inflated donut rings.

Sensory Perception

Patients with decreased sensation are at high risk for both immobility and device-related pressure injury. These include patients with spinal cord injuries or anomalies such as spina bifida, patients with cognitive and/or communicative disorders who are unable to communicate pain, patients with epidural catheters or regional nerve blocks.

- Perform frequent assessments of pressure points and under devices.
- Avoid use of hot water for bathing and pat dry.
- Apply lotion to dry flaky skin and bony prominences, unless contraindicated.
- Limit time on bedpan.
- Reposition every 15 minutes while in chair; Limit chair sitting to 1 hour if unable to reposition. Turn/reposition every 2 hours.
- Avoid vigorous massage of bony prominences.
- Position medical equipment to avoid placing pressure on skin.

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Friction, Shear

Friction occurs when skin is rubbed against another surface. Shearing injuries occur when the patient slides on a surface.

- Assist patient into a sitting position. Avoid sliding patient across bed surface.
- Maintain head of bed at or below 30 degrees.
- Lift patient carefully when using a lift (draw) sheet. Obtain necessary transfer equipment and /or number of staff needed to move patient to prevent dragging or pulling on the patient. Refer to Procedure Safe Patient Handling.
- For patients greater than 32kg in a room without a ceiling lift consider the Comfort Glide System. Refer to Job Aid - Comfort Glide Patient Turning and Repositioning System.
- Ensure safe patient handling when repositioning and toileting. Roll patient on and off bedpan rather than pushing or pulling on the bedpan.
- When sitting, maintain 90° angle. Position knees and hips on an even plane. Obtain a foot stool as needed.
- Encourage patient to assist with positioning. Obtain over-bed trapeze from orthopedics Mon-Fri at X 4-1551.
- Use long sleeves and socks to prevent friction to elbows and heels.
- Apply No Sting barrier film or Tegaderm to bony prominences exposed to friction (excluding heels, which should be suspended above bed surface). Do not use No Sting barrier on patients less than 30 days old.
- Apply Mepilex Border Sacrum dressing as indicated. Refer to Job Aid - Mepilex Border Sacrum for criteria for use.
- Keep linen dry. Use a ***minimal*** amount of linens and pads.
- Offer toileting every 2 hours while awake.
- Ensure safe patient handling when repositioning and toileting including use of positioning aids such as ComfortGlide system, slide board, and proper number of staff for moving bariatric patients to avoid shearing injury.
- Check diapers or check for incontinence at least every 2 hours and change as needed.
- If patient is incontinent or has increased frequency or loose stools refer to Standard - Diaper Dermatitis (DD)/Incontinence Associated Dermatitis (IAD): Prevention and Care and Job Aid - Perineal Skin Care Guidelines
  - Use No Sting barrier film and/or barrier cream with each change.
  - Use perineal skin cleanser (Item # 85598); avoid rubbing and friction when cleaning perineal skin.

Nutrition

Optimal nutrition is required for prevention of pressure injury and promotion of wound healing.

- Monitor nutrition/hydration status.
- Monitor weight, intake, and output prn or as ordered.
- Discuss low pre-albumin, albumin, or total protein levels with prescribing clinician.
- Discuss need for nutrition consult with prescribing clinician.
- Encourage fluids (unless contraindicated).
- Offer supplements if indicated.

Tissue Perfusion and Oxygenation

Optimal tissue perfusion and oxygenation aids in wound healing and pressure injury prevention.

- Monitor hemodynamic status including BP/MAP, SpO2, hemoglobin level and discuss any downward trends with clinical team to optimize perfusion/oxygenation
- Monitor hemodynamic status during position changes; if hemodynamically intolerant of position changes as evidenced by decrease BP/MAP, decreased SpO2, increase in heart rate, will need re-assessment at later point. May require a pause during position changes until status stabilizes; may require multiple team members to assist with position changes.
- Cluster care whenever possible to avoid excess stress leading to hemodynamic instability.

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Follow the relevant interventions below for patients with medical devices.

Devices, Device Repositionability, Device Protection

Skin and tissues under medical devices are at risk for pressure injury from the device itself. Edema / fluid shifts increase this risk.

- Select correctly sized device and fit it appropriately to the patient.
- Pad under device if possible. Options for padding include but not limited to Mepilex Lite, split gauze
- Keep skin clean and dry under device (free of moisture and secretions).
- Avoid placing devices over sites with prior or existing pressure injury.
- Increase the frequency of assessments during episodes of fluid shifts, fluid overload, edema, or anasarca.
- Evaluate the proper fit of the device as well as efficiency of the padding**.**
- Rotate placement of device if possible and per the applicable procedure or standard. Some devices have specific time frames for rotation (eg: Pulse Ox probe, Trach ties, NIV interface), others are every shift or every 2 hours (eg: orthotics, splints), while still others cannot be rotated.
- Check under device for evidence of skin injury as able, at minimum every shift, more frequently per procedure or standard for individual devices.
- Ensure that device is sufficiently secured to prevent dislodgement without creating additional pressure.
- Discuss the necessity of the device with healthcare team and remove device as soon as deemed no longer medically necessary, discuss necessity of device on patient care rounds.
- Ensure there is no excess pressure on the device (e.g., No-No's on top of peripheral IVs).
- Ensure there are no unnecessary items in contact with patient's skin, check bed linens for items left in the bed that do not belong there, ensure patient is not laying on tubing, etc.
- Observe for pain, agitation, pulling, itching or grabbing devices.

Related Documents: Standard - Pressure Injury Prevention
Job Aid - Braden QD Scale