Skin Care Issues in the Patient with Movement Disorders
Presenter:

Carolyn Keyes RN BSN CWON
Objectives:

Learner will be able to:

- Describe potential skin injuries associated with different mobility disorders and nursing implications.
- List medical devices utilized for the rehabbing neurology patient that are associated with or potential for skin injuries.
Outline: Skin Care Issues in a Neurology Rehabilitative Setting:

1. Movement Disorders: Skin Concerns/Nursing Implications:
   ▪ Ataxia, Dystonia, Essential Tremors, Parkinson’s Disease
2. Other Conditions: Skin Concerns/ Nursing Implications:
   ▪ Spasticity, Foot Drop, Contractures
3. Medical Device Related Skin Care Issues:
   ▪ Risks for, Causes, Types of Medical Devices, and Preventative Measures
4. Pressure Ulcer Prevention Techniques:
   ▪ Inability to reposition self, OOB chair, and Heels
5. Case Studies:
Ataxia

Failure of muscle control in their arms and legs which may result in a lack of balance, coordination, and possibly a disturbance in gait. Ataxia may affect the fingers, hands, arms, legs, body, speech, and even eye movements.
Injury from falls is a concern for most patients with ataxia because of the lack of balance, and coordination.

Many different skin injuries can occur related to falls or uncontrolled muscle movement.

Nursing Implications:

- Fall prevention for patient with ataxia requires early intervention
  - Initiation of Facility: Fall Risk Assessment and Plan.
- Consider each patient and their individual problem when assessing for potential skin issues
Ataxia: Skin Concerns

As the disease process progresses ataxia or gait may change or even make it difficult to walk.

- Skin issues may arise from this now less mobile or immobile patient.

**Nursing Implications:**

- Increase nursing interventions to prevent the incidence of falls
- Initiate Pressure ulcer prevention assessments and plans
- Consider each patient their individual problem when assessing for potential skin issues
A 78 year old male with a history of afib., ischemic infarct, and ataxia admitted to a Medical Rehab. Unit for 2 weeks of Physical therapy related to the recent stroke and new onset gait ataxia. Prior to hospitalization patient was independent. Prior to transfer to MRU patient lost balance while transferring and struck left hand on wheelchair causing 3.5 cm skin tear.
Ataxia: Case Study: Skin care concerns

What would your plan be?
- Do you routinely think about skin care upon admission to a MRU?

Remember:
Prevention is key!

www.nursingcenter.com
Dystonia

Characterized by involuntary sustained muscle contractions that cause twisting or slow repetitive movements or abnormal postures.
Dystonia: Skin Concerns

- The involuntary sustained muscle contractions which cause twisting and abnormal postures may put the patient at risk for pressure related ulcers while in bed.

- Protective splints to minimize pain, joint damage, and for functional benefits can be useful and important in the management of dystonia but may also put the patient at risk for device related pressure ulcers.
Dystonia: Skin Concerns

Nursing Implications:

- Initiate Pressure ulcer prevention assessments/plans: (Remember body distortions may cause non-typical pressure points/areas.)
- Initiate Facility: Fall Risk Assessment and Plan (to prevent skin damage from falls).
- Consider each patient and their individual problem (type of dystonia or affected area) when assessing for potential skin issues.
- Prevent medical device related skin damage from (HELPFUL) splint.
Essential Tremor

Nerve disorder characterized by uncontrollable shaking, or "tremors," in different parts and on different sides of the body. Areas affected often include the hands, arms, head, larynx (voice box), tongue, and chin. The lower body is rarely affected.
Essential Tremor: Skin Concerns

Patients with ET typically experience tremors when the arms are held up and when the hands are being used for activities. Injuries may occur from dropping objects.

Nursing Implications:
- Consider each patient their individual problem when assessing for potential skin issues.
Parkinson’s Disease

A chronic progressive neurological disease chiefly of later life that is linked to decreased dopamine production and is marked especially by tremor of resting muscles, rigidity, slowness of movement, impaired balance, and a shuffling gait.
Primary motor symptoms such as rigidity (stiffness) and bradykinesia (slowness of movement), along with associated changes in posture, all contribute to risk of falls and skin injuries.

**Nursing Implications:**

- Initiate Facility: Fall Risk Assessment and Plan (to prevent skin injury related to falls).
- Consider each patient and their individual problem when assessing for potential skin issues.
Parkinson’s Disease: Skin Concerns

As the disease process progresses patient may experience greater difficulty walking.

- Skin issues may arise from this now less mobile or immobile patient

Nursing Implications:

- Increase nursing interventions to prevent the incidence of falls
- Initiate Pressure ulcer prevention assessments and plans
- Consider each patient their individual problem when assessing for potential skin issues
Other Conditions: in Neuro Rehab Setting that may effect the skin.

**Spasticity:** The uncontrolled tightening or contracting of the muscles. Common in individuals with spinal cord injuries.
- Spasticity can result in loss of range of motion in your joints (contractures).
- Severe spasms can make it difficult to transfer safely, or to stay properly seated in a wheelchair.
- Strong spasms in the trunk or legs can cause one to fall out of your wheelchair.
- Spasms can cause rubbing that leads to skin breakdown

**Nursing Implications:**
- Initiate Pressure ulcer prevention assessments/plans:
- Initiate Facility: Fall Risk Assessment and Plan (to prevent skin damage from falls).
- Consider each patient and their individual problem (when assessing for potential skin issues).
- Prevent medical device related skin damage (HELPFUL) splint.
Other Conditions:
in Neuro Rehab Setting that may effect the skin.

**Contractures:**
- The chronic loss of joint motion due to structural changes in non-bony tissue. These non-bony tissues include muscles, ligaments, and tendons.

**Foot Drop:**
- Gait abnormality in which the dropping of the forefoot happens due to weakness, irritation or damage to the common fibular nerve. leg.
Casting or splinting techniques are used to provide a constant stretch to the soft tissues surrounding a joint preventing contractures or drop foot. These devices are definitely useful but may also put the patient at risk for device related pressure ulcers.

Nursing Implications:

- Prevent medical device related skin damage from (Helpful) splint
- Consider each patient and their individual problem when assessing for potential skin issues.
Use of Medical Devices in Neuro Rehab Setting:

[Images of medical devices for arm and leg support]
Medical Device Related Pressure Ulcer

Definition:
- Localized injury to the skin or underlying tissue as a result of sustained pressure from a device (e.g., nasal cannula tubing, braces, splints, oxygen face masks, prostheses, etc).
- Tissue injury typically mimics the device shape.

According to the National Pressure Ulcer Advisory Panel
Risk for Medical Device Related Pressure Ulcer

Patients with:
- Impaired sensory perception
  - Paralysis
  - Neuropathy
- Impaired ability to communicate
  - Tracheostomy
  - Presence of language barriers
  - Nonverbal state
  - Confusion

*National Pressure Ulcer Advisory Panel*
Reasons Why Medical Devices Cause Pressure Ulcers:

- Failure to check tubing
- Lack of awareness of impact from edema
- Lack of awareness of need to remove, reposition & provide basic care to skin under devices
- Lack of best practice guidelines
- Lack of standardized practice

National Pressure Ulcer Advisory Panel
Medical Devices Cause Pressure Ulcers

Because:

- Rigidity & inelasticity of the medical devices
- Difficulties in securing devices to the body
- Difficulties in safely removing/lifting
- Prolonged pressure in the same place
- Altered microclimate from device
  - ↑ Moisture (e.g. secretions, diaphoresis) & heat
Medical Devices Cause Pressure Ulcers Because:

- (Too) Tight securement (e.g. ETT, trach plates)
- Poor positioning or fixation of device
- Inappropriate size, selection
- Obscure skin from visualization
Medical Device Related Pressure Ulcers:

- 74% were not identified until they were Stage III, IV or Unstageable
- 63% had no documentation of:
  - Device removal/q shift
  - Pressure relief –or
  - Skin inspections

Apold & Rydrych (2012)
Medical Devices Commonly Associated With PU Development

Immobilizers/Compression devices
- C collar
- Splints/braces
- casts
- Knee immobilizers
- Profore wraps
- SCD’s/teds
Medical Devices Commonly Associated with Pressure Ulcers

Respiratory Equipment:
- Nasal Cannula
- Bipap mask, Cpap
- Trach plates
- Trach tie
- O2 Saturation probes
Medical Devices Commonly Associated with Pressure Ulcers

Tubing
- Urinary catheter
- Oxygen tubing
- IV tubing
- NPWT/ Wound vac. Tubing
- Peg tubes, G-tubes, J-tubes,
Medical Devices Commonly Associated with Pressure Ulcers

Other Medical Equipment:
- Wheel chairs
- Hoyer lift pads
- Bed pans
- IV caps/hubs
- Restraints
- Wrist band
- Tourniquet
Preventative Measure:
Medical Device Related Pressure ulcers

Immobilizers/compression wraps Preventative Measures:
- Assess skin beneath device q shift (when able)
- Assess skin for swelling/edema.
- Assess if proper size device is applied.
- (If Able) Remove device during bathing. (SCD’s, teds..)
- (If Unable to remove device) Assess edges of device for redness and pt. c/o of pain (C-collar, Profore wraps…)
- Cushion or pad pressure areas. (C-collar…)
## Best Practices for Prevention of Medical Device-Related Pressure Ulcers in Long Term Care

- **Choose** the correct size of medical device(s) to fit the individual
- **Cushion** and protect the skin with dressings in high-risk areas (e.g., nasal bridge)
- **Inspect** the skin in contact with device at least daily (if not medically contraindicated)
- **Avoid** placement of device(s) over sites of prior or existing pressure ulcer
- **Educate** staff on correct use of devices and prevention of skin breakdown
- **Be aware** of edema under device(s) and potential for skin breakdown
- **Confirm** that devices are not placed directly under an individual who is bedridden or immobile

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<tr>
<th>Procedure</th>
<th>Stage</th>
<th>Description</th>
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<tbody>
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<td>Elastic Wrap</td>
<td>IV</td>
<td>Suspected Deep Tissue Injury</td>
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<td>Trach Ties</td>
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<td>Unstageable</td>
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<tr>
<td>Bedpan</td>
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Prevention Methods for the Patient Unable to Reposition Self:

- Document repositioned patient every 2 hours.
- Turn patients—even when on a specialty bed/mattress.
- Use pillows, or foam wedges for positioning patients. 30 degree turns for positioning unless inconsistent with patient’s condition.
- HOB elevated less than 30 degrees or maintained at lowest degree of elevation consistent with patient’s medical condition.
- At some facilities a turning schedule is recommended to be kept at the bedside.
Pressure Ulcer Prevention Methods in Neuro Rehab

Heel Prevention Methods:

- Float heels - place pillow **under calves so heels are not touching mattress**.
- Heel protectors do not relieve pressure on the heels. Ex. Lambs-wool booties.
- A device that suspends the heel protects the heel from pressure. Ex. Heel lift booties.
- Do not drag feet when pulling patient up in bed.
- After repositioning patient be sure heels are elevated off surface.
Pressure Ulcer Prevention Methods in Neuro Rehab

OOB Chair/ Wheel Chair Prevention Methods:

- Chair bound patients:
  - should be fitted for a chair cushion.
- When sitting:
  - If a patient cannot move self: repositioned q1 hour in chair.
  - If patient can reposition self, teach them to change positions every 15 minutes
  - Do not use donut devices or rings.
Case Study: SAH Patient

41 year female patient with large subarachnoid hemorrhage from aneurysm hospitalized for approximately 2 months. Physical therapy was asked to evaluate for foot drop and heel ulcer prevention methods. Multi-podus boots were recommended and applied.

- Found 4 purplish blisters or (DTI x4) on both feet and ankles soon after boots applied.
- Nurses having difficulty applying boots. Requested PT to demonstrate application.
Case Study: SAH

Multi Podus Boot:
- This boot is usually prescribed for decubitus ulcers, foot drop, and ankle foot contractures.
- This boot lifts heel which susceptible to ulceration if left unattended, pressing upon the bed.
Case Study: History of CVA

56 year old patient with history of schizophrenia, CVA with aphasia, and right hemiplegia (weakness and increased muscle tone.)

- Sacrum with protruding boney prominence and incontinence related redness.

- Found stage II pressure ulcer to left ear.
- Always found with by staffing with head turned and laying on left ear. Occurs shortly after soon after repositioning.

