

## **Immobility Related to Accidents, Injuries, and Diseases**

**Live Satellite Conference and Webcast  
Wednesday, July 8, 2009  
2:00-4:00 p.m. Central Time**

Produced by the Alabama Department of Public Health  
Video Communications and Distance Learning Division

## **Faculty**

**Becky Leavins, RN  
Educational Nurse Consultant  
Bureau of Home and Community Services  
Alabama Department of Public Health**

**Shirley Offutt, RN, BSN  
Educational Nurse Consultant  
Bureau of Home and Community Services  
Alabama Department of Public Health**

## **Objectives**

- **Recognize three conditions that could cause someone to become bedbound**
- **Know the hazards of immobility**
- **Understand how nutrition can affect a bedbound patient**

## **Objectives**

- **Identify ways the Home Aides and Home Health Attendants can help prevent skin break down in a bedbound patient**
- **Describe how to move and transfer the bedbound patient**

## **Immobility Related to Accidents or Injury**

- **Motor vehicle accidents**
- **Work related accidents**
- **Diving accidents**
- **Surfing accidents**
- **Hard contact sports**
- **Horseback riding**
- **Gunshot wound**

## **Immobility Related to Accidents or Injury**

- **The injuries in all of these accidents are usually caused by trauma to the head or spinal cord**
- **The injury could be a compression fracture of or laceration of the spinal cord**

### **Immobility Related to Accidents or Injury**

- Head trauma could have caused a hemorrhage into the brain causing damage to the nerve tissue
- Trauma to the head could also cause compression of the vascular supply to the brain causing neurological damage

### **Immobility Related to Accidents or Injury**

- Trauma to the head or spinal cord usually results in temporary or permanent paralysis
- The victim could have a temporary or permanent change in life style
- Paralysis could result from the accident or injury

### **Immobility Related to Accidents or Injury**

- Two types of paralysis from injuries
  - Paraplegia
    - No feeling or movement from the waist down or one side of the body
  - Quadriplegia
    - No feeling or movement of all 4 extremities and usually the trunk

### **Diseases That Cause Immobility**

- The most common debilitating disease that HA/HHA's deal with in the home setting is Cerebral Vascular Accident (CVA) – Stroke
- The CVA could cause only temporary weakness

### **Diseases That Cause Immobility**

- The CVA could cause one sided paralysis – Hemiplegia
- The CVA could also be so severe that the patient is comatose and requires total care

### **Diseases That Cause Immobility**

- Some debilitating diseases that affect the nerves system and/or muscles
  - Multiple Sclerosis
  - Parkinson's Disease
  - Myasthenia Gravis
  - Lou Gehrig's Disease
  - Guillain-Barré Syndrome
  - Muscular Dystrophy
  - Cerebral Palsy

### **Diseases That Cause Immobility**

- Alzheimer's Disease
- End stages of cancer
- Some cardiovascular diseases like congestive heart failure and other cardiac disorders
- Chronic Obstructive Pulmonary Disease (COPD)

### **Hazards of Immobility**

- Immobility affects each body system
- The injured or diseased patient will develop complications from prolonged immobility without adequate intervention

### **Hazards of Immobility**

- HA/HHA's who care for bedbound patients and must be aware of the hazards they may encounter when providing care

### **Hazards of Immobility by Body System – Respiratory System**

- Decrease in Respiratory activity
- Decreased ability to cough and breathe deeply
- Secretions pool in the lungs and could result in hypostatic pneumonia

### **Interventions for the Respiratory System**

- Elevate the head of the bed
- Turn the patient frequently
- Encourage deep breathing and coughing (if on Plan of Care)
- Encourage the patient to move around in the bed (when possible)
- Active and Passive range of motion exercises (if on Plan of Care)

### **Hazards of Immobility by Body System – Skin**

- Loss of Skin Integrity due to
  - Friction
    - Caused when skin is dragged over a rough surface
  - Pressure
    - Anywhere the skin contacts the support surface

### **Hazards of Immobility by Body System – Skin**

- Loss of Skin Integrity due to
  - Shearing
    - Caused when skin is dragged over a hard surface
- Moisture caused from sweating, urinary and fecal incontinence leads to skin break down

### **Hazards of Immobility by Body System – Skin**

- Other risk factors that hasten skin breakdown
  - Infection
  - Trauma
  - Obesity
  - Sweating
  - Poor nutrition
  - Increase in age

### **Turning and Positioning**

### **Intervention for Skin Integrity**

- Keep the patient clean and dry
- Inspect the skin on every visit
- Family to inspect skin 1-2 times a day
- Report any redness to your supervisor

### **Intervention for Skin Integrity**

- Specific areas to inspect
  - Ears
  - Shoulders
  - Back
  - Elbows
  - Fingers
  - Hip bones
  - Coccyx
  - Inner aspect of the knees
  - Inside and outside of ankles
  - Toes and heels

### **Intervention for Skin Integrity**

- Patient must be turned every 2 hours
- The HA/HHA can turn the patient every 2 hours while in the home
- When turning a patient use a turning sheet to help prevent trauma to the skin from friction and shearing

### **Intervention for Skin Integrity**

- Use the assistance of another person when available

### **Two Person Move**

### **Intervention for Skin Integrity**

- Use the assistance of a hoyer lift to move a large patient up in the bed or transfer to a wheelchair

### **Hoyer Lift**

### **Intervention for Skin Integrity**

- The patient may have a special support surface, hospital bed, wheelchair cushion, or mattress
- Position properly to relieve pressure using pillows for support

### **Intervention for Skin Integrity**

- Elevate the heels with a small pillow when heel protectors are not available
- Use of elbow and heel protectors help prevent pressure to those extremities

### **Intervention for Skin Integrity**

- Always make sure all of the pads used stay clean and dry
- Talk to the nurse about flotation pads and other pressure pads

### **Linen Change**

### **Consequences: Breakdown of Skin Integrity**

- Development of Pressure Ulcers
  - Suspected Deep Tissue Injury
    - Purple or maroon localized area

### **Consequences: Breakdown of Skin Integrity**

- Stage I
  - Pressure Ulcers
  - Skin reddened, non-blanchable, darker skin discolored
- Stage II
  - Partial Thickness Skin Loss
  - Looks like a shallow crater or blister

### **Consequences: Breakdown of Skin Integrity**

- Stage III
  - Full thickness skin loss involving damage of the subcutaneous tissue
  - The ulcer looks like a deep crater
- Stage IV
  - Full thickness skin loss of tissue muscle and bone

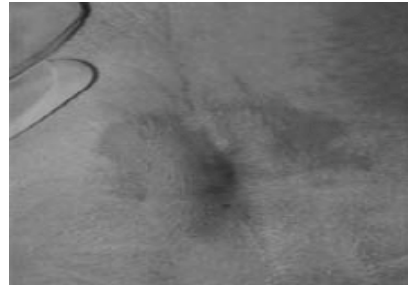
### **Consequences: Breakdown of Skin Integrity**

- Unstageable
  - Base of ulcer is covered with slough (yellow, tan, gray, green, brown) or eschar (tan, brown, black)

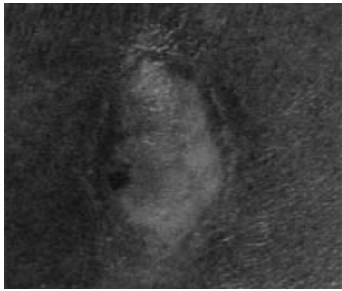
**Suspected Deep  
Tissue Injury**



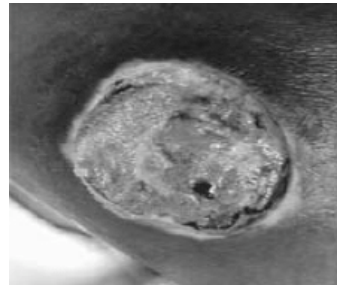
**Stage I**



**Stage II**



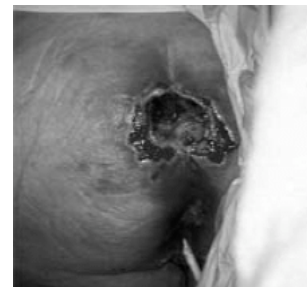
**Stage III**



**Stage IV**



**Unstageable**



### **Hazards of Immobility by Body System – GI System**

- Constipation
  - Most common complication
  - Patient frequently becomes impacted and requires medical intervention
  - Frequency of bowel movements needs to report to the nurse

### **Hazards of Immobility by Body System – GI System**

- Diarrhea
  - Less frequent unless the patient is on tube feeding
  - It is important that the patient stays clean and dry

### **Hazards of Immobility by Body System – GI System**

- Fecal incontinence
  - Inability to have controlled bowel movements
- Fecal impaction
  - Hardening of the stool which could cause liquid stool to seep around the impaction

### **Interventions for GI System**

- Increase fluid intake
- Turning and movement in the bed
- Elevating the head of bed
- Use of stool softening agents, laxatives or suppositories (talk with nurse)
- Keep patient clean and dry
- When able transfer to bed side commode

### **Hazards of Immobility by Body System – Musculoskeletal System**

- With disuse muscles atrophy
- Joints develop contractures secondary to muscle shortening
- Contractures can develop quickly and take months to correct

### **Hazards of Immobility by Body System – Musculoskeletal System**

- Immobility disrupts the balance of bone growth and the patient develops Osteoporosis



### **Intervention for Musculoskeletal System**

- Position the patient correctly
- Provide active and passive range of motion exercises (if on Plan of Care)
- When possible get patient up in a chair for a portion of the day as tolerated

### **Hazards of Immobility by Body System – Urinary System**

- Stasis urine in bladder could lead to infection
- Indwelling foley catheter could lead to infection
- Urinary incontinence leads to skin break down

### **Intervention for Urinary System**

- Increase fluid intake
- Report to nurse if the patient complains of
  - Burning or pain on urination
  - Difficulty urinating or no urine
  - Blood in the urine

### **Intervention for Urinary System**

- Catheter care per policy & procedure (with indwelling catheter)
- Keep urinary drainage bag below the bladder level
- Keep skin clean and dry

### **Hazards of Immobility by Body System – Cardiovascular System**

- Increased incidence of blood clots, especially with an accident where there is a large bone fracture or improper positioning
- Increase work load on the heart because of poor circulation from immobility

### **Hazards of Immobility by Body System – Cardiovascular System**

- Decreased ability to adapt to standing position
  - Standing up could result in patient passing out after prolonged bed rest (Postural Hypotension)

### **Intervention for Cardiovascular System**

- Active and passive range of motion exercises (if on Plan of Care)
- Frequent turning with proper positioning
- Get patient up in a chair for short periods of time when able
- Slow increase in mobilization when and if patient is able

### **Psychosocial Problems of Immobility**

- Injury or accident could be disfiguring
- Amputation
- Paralysis
- Uncontrolled movements
- Facial paralysis – face twisted
- Difficulty communicating
- Difficulty swallowing

### **Intervention for Psychosocial Problems**

- Immobile patients require patience and understanding
- Allow the patient to do as much as possible
- Maintain dignity, respect, and privacy

### **Intervention for Psychosocial Problems**

- Explain what you are doing as you perform each procedure, even to the comatose patient
- Never appear to be in a hurry as you assist or perform care
- Assure the patient's comfort and safety

### **Intervention for Psychosocial Problems**

- Be a good listener
- Allow the patient to communicate as little or as much as needed
  - It may be easier for the patient to talk to you instead of the family
- Report any concerns to your supervisor/HH nurse

### **How Immobility Affects Nutrition**

- Accident injury could result in the inability to chew or swallow
- CVA or injury could result in loss of the ability to swallow
- Paralysis could result in loss of the ability to feed self

### **How Immobility Affects Nutrition**

- Alteration in functional ability or body image could may result in depression and loss of appetite

### **Intervention for Nutritional Problems**

- Paralyzed patients who can swallow will need assistance with feeding to get adequate nutrition
  - Provide a relaxed setting
  - Sit down to feed the patient so they won't feel rushed
  - Offer fluids frequently

### **Intervention for Nutritional Problems**

- Offer small bites to prevent choking
- Check the temperature of the food to make it isn't too hot

### **Intervention for Nutritional Problems**

- Patients who have difficulty swallowing
  - May have to eat pureed foods
  - Allow as much independence
  - Small bites and small sips are necessary

### **Intervention for Nutritional Problems**

- Patients who will not eat or unconscious patients may require tube feedings
  - The tube feeding could be for a short period of time or indefinitely

### **Intervention for Nutritional Problems**

- A tube feeding can be delivered by a continuous or intermittent method
- The tube feeding can go through a machine or be given through a large syringe by gravity

### **Intervention for Nutritional Problems**

- Patients may be able to progress from a tube feeding to oral feeding as their condition improves
- The liquid nutritional supplements can be given orally to patients who are not taking in enough solid or soft foods

### **Intervention for Nutritional Problems**

- Immobile patients' diet needs should be related to their activity level
  - Weight gain or loss could cause complications related to their immobility

### **Intervention for Nutritional Problems**

- Regardless of what route the nutrition, the immobile patient requires adequate nutrition to prevent the complications of immobility

### **Intervention for Nutritional Problems**

- Even though the patient is inactive/less active they may have greater nutritional needs due to their medical condition

### **References**

**A Hand Book for the Home Care Aide  
National Home Caring Council, 1992  
Foundation for Hospice and Home Care**

**Basic Nutrition and Diet Therapy  
Corine H Robison**

**Medical Surgical Nursing Clinical  
Concepts and Clinical Practice  
Phipps, Long, Woods**

**National Pressure Ulcer  
Advisory Panel Staging System**