

Developing A Facility Plan For Bariatric Patients

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Outline

- Statistics & Importance
- Policy and Procedure
- Transition of Care
- Admission to Discharge
- Equipment Options
- External & Internal Resources



Statistics & Importance

- 1 billion adults worldwide are overweight
- Globally, 300 million are obese
- 38 million in US are obese
- 9 of 38 million are severely obese
- Cost is \$70 billion/yr.

How this affects Nurses?

- Average age of a nurse is 49
- Average wt. of pt. admitted is over 240 lbs
- Safe working wt. limit is 35 lbs
- 1 leg of a 200 lb pt. is 32 lbs.
- Need for technology

Citations/References

- BRFSS, Behavioral Risk Factor Surveillance System <http://www.cdc.gov/brfss/>
- Mokdad AH, et al. The spread of the obesity epidemic in the United States, 1991—1998 JAMA 1999; 282:16:1519–1522.
- Mokdad AH, et al. The continuing epidemics of obesity and diabetes in the United States. JAMA. 2001; 286:10:1519–22.
- Mokdad AH, et al. Prevalence of obesity, diabetes, and obesity-related health risk factors, 2001. JAMA 2003; 289:1: 76–79
- CDC. State-Specific Prevalence of Obesity Among Adults — United States, 2005; MMWR 2006; 55(36):985–988

Obesity Trends Among U.S. Adults Between 1985 and 2007

Definitions:

- Obesity: Having a very high amount of body fat in relation to lean body mass, or BMI of 30 or higher.
- Body Mass Index (BMI): wt/h^2 (kg/m²)



Obesity Trends Among U.S. Adults Between 1985 and 2007

Source of the data:

- CDC's Behavioral Risk Factor Surveillance System (BRFSS). Data via monthly telephone interviews with U.S. adults.

Statistics

- In **1990**, 10 states had a prevalence of obesity < 10%
 - No states had prevalence equal to or greater than 15%.
- By **1998**, no state had prevalence < 10%,
 - 7 states between 20-24%, and no state equal to or greater than 25%.
- In **2007**, only 1 state (Colorado) had a prevalence of obesity < 20%.
 - 30 states equal to or greater than 25%; 3 of these states (Alabama, Mississippi and Tennessee) had a prevalence of obesity equal to or greater than 30%.

Policy & Procedure

Every facility should have a bariatric policy, which includes:

- Describes ways to ensure that employees use SPHM techniques & equipment specific for bariatric patients.
- Provides an environment of dignity and respect in a supportive caring culture.

Bariatric Policy Outline

- Purpose
- Policy
- Definition of terms
- Procedures
- Delegation of authority

Transition of Care

- Process from admission to discharge
- Bariatric patient enter emergency room
- Think of transporting them from car to ER
- Care within hospital & transition of care leaving hospital



Equipment Options/Technology

- Patient & equipment assessment
- Medical conditions
- High risk tasks
- What's new in bariatric technology?
- Other helpful equipment
- Summary Charts-Function/Lift/Sling type
- Conclusion



Special Needs Of The Bariatric Patient

Immobility-related complications:

- Skin breakdown
- Cardiac de-conditioning
- Deep vein thrombosis (BMI >29)
- Muscle atrophy
- Urinary stasis
- Pain management
- Pulmonary concerns
- Respiratory Issues-high BMI
- Obesity hypoventilation syndrome (OHS)-apnea & hypopnea
- Candidiasis
- Pressure ulcers

How Do These Relate To Mobility & Transfers?

Bed Mobility

- Skin Integrity-shear forces, use of FRD's, mechanical aids
- Pulmonary-need for FBLRT and CLRT, use of beds, air mattresses
- Respiratory-importance of positioning, use bed head, FRD's
- Sling insertion and FRD's
- Bed Egress-side exit or foot of bed exit?

Bed Mobility and Patient Care

- Size of bed should accommodate bariatric patient
- Leaving FRD's under patient-depends on several factors
- Chair positioning feature of bed
- Lateral transfers-max inflate mattress before transfer
- Mechanical-best option for any transfer

Patient Transfers

- Early Mobility & ambulation-sit to stand lifts
- Ambulation-sit to stand lifts, gait training device, ceiling lifts with harness system
- Vertical Transfers-ceiling lifts, floor based lifts
- Lateral transfers- mechanical devices, air assisted devices & bariatric sized FRD's

Identifying Equipment

- Use a generic sticker with the term "EC" for "Expanded Capacity" followed by the weight limit (i.e. EC 1000 would mean that equipment is rated for a 1,000 lb. patient).

EC1000

Patient Assessment

- Consider Medical Conditions of the patient
- What are your options in technology to safely transfer this patient?
- Do you have the right slings for the lift?

Medical Conditions to Consider

- Hip/Knee Replacements
- History of Falls
- Paralysis/Paresis
- Unstable Spine
- Severe Edema
- Postural Hypotension
- Severe Osteoporosis
- Splints/Traction
- Fractures
- Respiratory/Cardiac Compromise
- Amputation
- Urinary/Fecal Stoma
- Contractures/Spasms
- Tubes (IV, Chest, etc.)
- Severe Pain, Discomfort
- Wounds Affecting Transfer/Positioning
- Severe Diaphoresis/Sweating
- Poor Skin Integrity
- Shoulder Replacements

Medical Conditions Affecting Patient Transfers

Examples:

- **Medical condition:** Hip and Knee Replacements, joint instability, unstable spine, history of falls
- **Consequence:** Pain, fall risk, increased injury.
- **Discussion:** Sling position important for avoiding pressure on affected area; weight bearing activities during transfers places pt. at a risk for falls

Equipment Assessment

- All equipment designed for bariatric patients is not alike—one size does not fit all.
- Use the proper equipment for your patient's weight, height, size, shape or other special needs.
- Contact your resource expert on bariatrics.

High Risk Tasks

- Manual patient transport
- All patient transfers (Lateral, Vertical)
- Repositioning in bed
- Turning a patient in bed
- Sling application
- Dressing a wound/Positioning for procedures

What's New in Bariatric Technology?

- Bed Improvements
- Patient Transport Options
- Specialized Slings
- Expanded Capacity Lifts
- Turning & Repositioning Sheets/Straps

Technology For Bariatric Care Bed Improvements

- **Bed Frame**
 - Expandable
 - Chair Positioning
 - Tilt Table
 - Bed Exit Options
 - Side Rail Design
 - Patient Assist Devices (grab bars, bed handles etc)
 - Knee Gatch/Foot Elevation (for edema)

Bed Improvements

- **Specialized Surface**
 - Low Air Loss
 - Alternating Air
 - Lateral Rotation Therapy
 - Turn Assist
 - Percussion
 - Vibration

High Risk Task #1: Patient Transport

Bed Movers

- Pushing an occupied bed with a 200 lb patient requires about 45 lbf
- This exceeds limits for push/pull limits (42 lbf) by Snook & Ciriello
- Solution-Bed Movers?

Bed Movers

- Detachable device that attaches to a bed
- Battery life depends on usage, varies from 12-24 hrs
- Minimal force required to operate

Bed Movers

Advantages

- Less force required to operate
- Reduces risk of caregiver injury
- Faster than manually pushing bed

Disadvantages

- Price ranges from (\$5500-10K)
- May not fit into elevator
- May only be compatible with certain beds

High Risk Task #2: Patient Transfers

Expanded Capacity Patient Lifts

Uses:

- Vertical & lateral patient transfers
- Repositioning up in bed
- Turning a patient in bed

Lift Types:

- Floor Based Lifts
- Sit to stand Lifts
- Twin Motor Ceiling Mounted Lifts

Challenges of Using Floor Based lifts

- Under Bed Clearance
- Sling Insertion & Placement
- Matching pt. wt. to safe working load of lift
- Space in patient room

Benefits of Floor Based Lifts

- Eliminates manual transfers from bed to chair
- Reduces risk of injury to patient and caregiver
- Can assist caregiver in getting patient off floor

Challenges of Using sit to Stand Lifts

- Sling Insertion & Placement
- Foot placement difficult due to redundant tissue on legs
- Compression of tissue under arms/chest area

Benefits of Sit to Stand Lifts

- Promotes partial weight bearing and independence
- Postural change to standing promotes blood flow & reduces skin breakdown
- Functional activity
- Strengthens arms & legs by assisting themselves during transfer

Challenges of Using Ceiling Lifts

- Older hospital ceilings lack structural support
- Cost may be prohibitive
- May have to purchase additional slings (supine, repositioning sheet etc)
- Need to ensure weight capacity can accommodate higher patient weights

Benefits of Ceiling Lifts

- No floor space used in patient room
- Very versatile in how patients can be transferred
- Reduces risk of caregiver and patient injury

Functions of Ceiling Lifts with Gait Harness Slings

- Mounted to a ceiling track and fully harnessed for patient & caregiver safety
- Assist patient to functional sit-stand position
- Overcomes limitations of floor based lifts (no manual pushing or floor space is used)

Gait Harness

- For fully dependent patient, use gait harness with Ceiling Lift
- Progress to using a walker
- For patient learning to get out of bed, use bed exit at foot end & walker for support

Lateral Transfer Options

Is the lateral transfer feasible and safe?

Think Mechanical 1st !!

- 1) Ceiling Lift with Supine sling
- 2) Mechanical lateral transfer device
- 3) Air assisted device

Lateral Transfer Options

If the lateral transfer is not feasible or safe, what are other options?

Move patient via:

- Powered bed/stretchers
- Bariatric converta chair

High Risk Task # 3: Bed Repositioning

Bed Repositioning Options

Think Mechanical 1st !!

1. Ceiling lift with seated/supine/repositioning sheet or sling
 - ✓ Refer to wound care nurse for leaving slings under patients.
2. Use bed features if available
3. Air assisted device

High Risk Task #4: Turning a Patient in Bed

Turning a Patient in Bed

High risk task if done manually, due to :

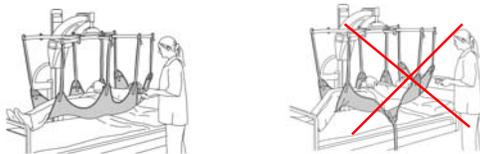
- mass of patient increases caregiver effort/force used to move patient
- awkward position caregiver has to adopt to turn patient
- Sustained position of holding patient on the side

Turning A Patient In bed

Solution:

- Use a turning or repositioning sheet with ceiling lift
- Use straps

High Risk Task #5: Sling Application



Safe Use of Patient Care Slings

- Use right sling with right lift. (Refer to sling toolkit)
- <http://www.visn8.med.va.gov/patientsafetycenter/safePIHandling/toolkitSlings.asp>
- New slings include repositioning or turning sheet; used with twin motor ceiling lift
- Supine slings used with CL to reposition a patient up in bed

Sling Application in Bed

Assessment:

- Can the patient roll side to side?
- Does the bed space accommodate the patient rolling side to side?
- Can the patient tolerate lowering the head of the bed?

If yes:

- Use the traditional method- having the patient participate.

If no:

- Use standard log-rolling procedure
- Insert the sling together with a friction reducing device, slide the sling head-to-toe or toe-to-head under patient

Sling Application in Chair

- Patient Seated & Leaning Forward
 - Insert the sling head-to-toe under patient
- Patient Seated & Cannot Lean
 - Insert the sling together with a friction reducing device, slide the sling head-to-toe or toe-to-head under patient

Using a FRD for Sling Insertion

High Risk Task #6: Dressing a Wound



Dressing a Wound

- Use a limb support sling and lift
- Tip: Use a FRD to slide the limb support sling under the leg.
- Raise the leg a minimal amount necessary to dress.

Other Helpful Equipment

- Abdominal binders
- Bariatric wheelchairs while patient ambulates
- Gait Harness
- Converta Chairs
- Refer to Equipment checklist in handout

Abdominal Binders

- Used to lift tissue while cleaning area/dressing wounds
- Reduces need for caregiver to manually hold excessive folds/skin
- Follow laundering & infection control procedures

Converta Chairs

Advantages:

- Useful for providing electronic patient positioning
- Features include: seat assist with ambulation support poles, power recline & height adjustability, elevating leg supports, self-retracting foot rests.
- Seat assist allows safe transfer to stand & ambulate with walker
- Eliminates number of transfers

Converta Chairs

Disadvantages:

- Not all converta chairs have powered features to change positions
- Not easy to transport bariatric patient manually
- May be good for static patient positioning, but not for patient transport

Key Points

- When dealing with bariatric patients, think mechanical or powered first !!
- If you do not have a mechanical lift or device needed, rent one !
- Be creative in using lifts with different slings, instead of lifting manually



Use of Sling Type & Lift

Task/Function	Sling Type	Lift Type
Bed-chair, floor-bed/chair	Seated/Universal	Floor Based Lift
Lateral transfer, lifting off floor	Supine	Ceiling Lift
Boosting up in bed, turning to the side	Repositioning/ Turning sheet/straps	Ceiling Lift
Ambulation	Gait harness	Ceiling Lift, gantry lift, walker, wheelchair

Uses of Technology

Task/Function	Type of Equipment
Lifting off the floor	Elk, floor based lift, ceiling lift, gantry lift
Transport	Bed Movers, wheelchair movers, powered beds/stretchers
Lateral rotation	Powered feature in some beds
Chair positioning	Powered feature in some beds
Sit-stand transfer	Bed/converta chair with seat assist, tilt table, ceiling lift with gait harness, sit to stand lifts

Conclusion

- Know limitations of each piece of equipment
- Subjecting more caregivers to the patient task does not reduce your risk by sharing the load, it increases the risk of more people getting injured!

Questions

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