KALEIDA HEALTH

POLICY/PROCEDURE/PROTOCOL/GUIDELINES

Title: ZERO MANUAL LIFT	**Policy # CL. 73**	
Audience: Corporate		
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Distribution: All Corporate Policy Holders		
Prepared by: Zero Lift Steering Committee Clinical Education Department	**Effective Date: 7/14/06**	
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Reference NYS/Federal/JCAHO:		

Review Date				5/06						
Revision Date	12/18/04	4/25/05	9/29/05	7/06						

I. Introduction:

Kaleida Health has a commitment to workplace safety and is implementing a Zero Manual Lift Program for mechanical lifting, transferring, and repositioning patients/residents. The basic objectives of the program are as follows:

- To increase the quality of care for the patient/resident.
- To perform a safe and comfortable mechanical lift and/or transfer for the patients/residents.
- To create a safe working environment for the staff by reducing the frequency of manual lifting, transferring and repositioning.
- To reduce and prevent work related injuries to caregivers.
- To reduce loss time hours related to injury and/ or fatigue in staff.

II. Communication and Responsibility:

All department heads, Kaleida management team and master trainers.

III. Scope of Practice:

All Kaleida employees who are responsible for lifting/transferring and positioning patients.

IV. Level:

Independent.

V. Policy:

A. All lifting and transferring of patients shall be performed utilizing the approved lift/transfer devices and methods to prevent patient and employee injury.

B. RN's, LPN's and other licensed professionals may assess patient lifting and transferring needs and determine the appropriate method to lift/transfer the patient.

C. Unlicensed assistive personnel may lift and transfer patients after assessment has been completed by the RN/LPN or licensed professional.

D. All employees responsible for lifting and transferring patients shall attend the Zero Manual Lift Training Program and demonstrate competency prior to lifting/transferring patients. (Attachment #1 – Kaleida Employee Acknowledgement.)

E. The organization will provide ongoing training and annually validate employee competency to improve safety and monitor compliance.

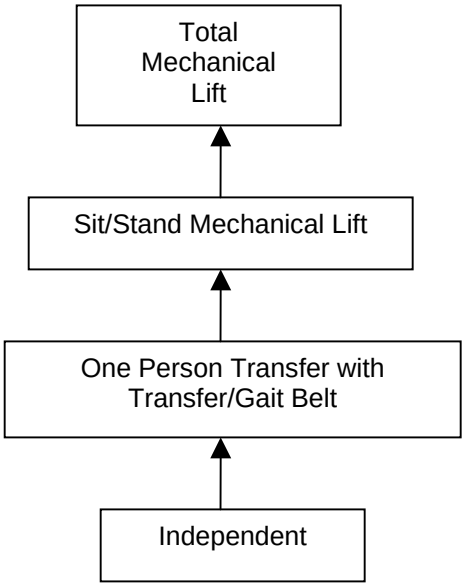
F. Employee Competency shall be validated and remediation provided for the following employees:
- Those transitioning back to full duty following an injury related to patient/resident handling.
- Those involved with any patient/resident incident or near miss.
- Any observed poor performance.

VII. Protocol:

A. **Patient Assessment and Data Collection**

1. An initial lift/transfer needs assessment will be completed by the licensed professional on the day of admission or at the time of a change in the patient/resident status. Additionally a quarterly assessment shall be done for long- term residents.
2. Select the appropriate lift/transfer status of the patient by referring to the *Lift/Transfer Protocol* (Attachment #2) for assessment of patient criteria, contraindications, sling criteria and required staff.
   Keypoint: A patient/resident status may differ based on the time of day or other patient factors. This may require two different levels of transfer during a single day. A secondary lift shall be identified when appropriate.
3. The caregiver shall consider his/her own ability, the environment and the patient/resident current status prior to any lifts or transfers. When the caregiver feels that the current patient/resident handling technique cannot be performed safely it is acceptable to move to the next higher level of transfer (i.e. Sit/Stand Mechanical Lift to a Total Mechanical Lift, Independent to a One Person Transfer with Transfer/Gait Belt).
   Keypoint: The caregiver shall not move to the next lower level of transfer without first reassessing the patient's transfer lift status.
   Keypoint: Long Term Care Unlicensed personnel/unlicensed personnel must notify the licensed caregiver immediately prior to the lift/transfer so that a reevaluation can be done.
4. Refer to the Decision Tree when changing the patient/resident lift status.

Decision Tree



B. **Care and Management**

Patient:

1. The patient/lift transfer shall be performed as determined by the lift/transfer assessment.
   Exception: The licensed professional caregiver shall determine the appropriate method of lift/transfer on the patient/resident in the event of a medical emergency or fire.

Lift/Transfer Equipment

1. All mechanical lifts shall be maintained in the designated area and plugged in for recharging when not in use.

Slings

1. Place all soiled slings in designated laundry bag/hamper.

C. **Safety**

1. Assess integrity and function of all lift equipment prior to use. Any broken or malfunctioning equipment shall be removed from use and tagged with a "Do Not Use" label. See Kaleida Corporate Policy # SS_F.1 Medical *Equipment Management Plan.*
2. Inspect prior to use all slings for signs of wear and tear or signs of compromised integrity including loose stitching, tears, or fraying straps. Remove damaged slings and tag "DO NOT USE" and return to unit manager.
   Keypoint: Damaged slings shall be replaced never repaired.
3. Do not leave repositioning Non-Friction Device under the patient after move/transfer is completed.
4. Always close the legs of the lift when moving the lift.
5. The brakes are to be on when the lift is parked and being charged and during the initial set up of the Sit/Stand lift.
   Keypoint: Whenever you are operating the lift or lowering the lift the brakes **must** be off.

D**. Infection Control**

1. Barriers shall be used between the patient's skin and the sling. (E.g. underwear, incontinent pad).
2. Slings with minor soilage may be spot cleaned using hospital approved disinfectant wipes.
3. A single dedicated sling shall be used for a patient on isolation/or a LTC patient known to have a multi resistant organism or communicable illness and laundered after discontinuation of isolation or discharge, whichever comes first.
4. The framework/hardware shall be wiped down with hospital approved disinfectant wipes prior to use on another patient.

E. **Complications and Reportable Incidents**

Report:

- All non-functioning equipment as per Kaleida policy.
- All damaged slings to manager.
- Employee injury during lifts or transfers. Report to employee health. Report to employee health and manager. Complete incident report.
- Patient injury during lift or transfer. Report to unit manager and physician. Complete incident report.

Keypoint: Report all of the above to the No-Lift Director and Coordinator.

VI. A. **Procedure for use of Total Mechanical Lift**

Definition: A Total Mechanical Lift provides a safe transfer for patients/residents from a supine to seated position or seated to seated transfer. A Total Mechanical Lift will be used by those patients/residents who have no weight bearing abilities or who have been assessed to need a Total Mechanical Lift for transfer.

1. **Equipment/Personnel**
   a. Total mechanical Lift
   b. Two (2) or more caregivers

2. **Procedure**
   a. There must be two caregivers present with their hands on the Total Mechanical Lift.
   b. Adjust bed to a height that promotes good body mechanics.
   c. Visually inspect sling for signs of wear and tear. Do not use any sling that is visibly damaged.
   d. Position patient/resident on the appropriate sling.
   e. Position lift with the base open so that the spreader bar is perpendicular to the patient's/resident's shoulders and hovering above the chest.
   f. Attach the sling straps without pulling or tugging, to the desired setting.
   g. Verbally prepare patient/resident for transfer.
   h. Gently raise patient/resident minimally from surface.
   i. Turn patient's/resident's legs towards the perpendicular support bar of the lift during the move.
   j. Gently lower patient/resident into chair.
   k. Remove sling from under patient.
   l. **Before** a resident/patient that is on the floor is moved, touched or mechanically lifted, a licensed professional **must** assess the resident/patient. In order to promote safe resident/patient handling, **use** a full mechanical lift when getting a resident/patient off the floor.

Keypoint: The two methods for the hammock sling applications are:
The cross through method and the cradle method.
The cross through method is the safer method that anchors the patient/resident.
The cradle method is used on a patient/resident with an amputee of their lower extremity(ies), and for a patient/resident who experiences discomfort in the cross through method (i.e., patient/resident with increase girth at their thigh).

B. **Procedure for use of Sit/Stand Mechanical Lift.**

Definition: A Sit/ Stand Mechanical Lift provides a safe seat-to-seat transfer for the patient/ resident who has partial weight bearing capabilities in one or both legs and has good cognition. The patient/resident must be able to move from a supine position to sitting position and balance in a sitting position on the edge of the bed.

1. **Equipment/Personnel**
   a. Sit/Stand mechanical Lift
   b. Two (2) or more caregivers

2. **Procedure**
   a. Apply proper harness so that the bulk of the harness rests in the patient's/ resident's lower back region. Tighten the inner belts so that they fit snug to the patient. Apply leg straps if applicable.
   b. Position the Sit/Stand Mechanical Lift with the base of the lift open and lift is facing patient/resident.
   c. Instruct/assist patient to place feet in the foot-plate of the lift.
   d. Attach the strap of the harness to the lift without pulling or tugging.
   e. Instruct/assist patient/resident to grasp handles on lift with arms on the outside of the harness.
   f. Close the legs of on the lift during movement of the lift with patient in it. **Do not** move the lift with the legs open.
   g. Verbally prepare patient/resident for transfer.
   h. Instruct/ assist patient/resident to lean back into the harness as they are gently lifted minimally from the surface.
   i. Transfer patient/resident to new surface.
   j. There must be two caregivers present with their hands on the Total Mechanical Lift.

C. **Procedure for use of Transfer/Gait Belt**

Definition: A transfer/gait belt provides a firm, grasping surface for the caregiver, protects the patient/resident from accidental trauma to the skin, provides a sense of security to the patient/resident, and protects the caregiver from injury while transferring or ambulating a patient/ resident. Transfer/gait belts are used on a patient/resident who is not independent in rising or during ambulation. The patient/resident must be able to move feet in the desired direction during a transfer. Also, the patient/resident should not require lifting or need to be held up. If a patient/resident is at risk for collapsing or falling, the Transfer/Gait Belt is not the safest mode of transfer. A reassessment is indicated. The Sit/Stand Lift with the TT Harness and leg straps may be indicated or a full mechanical lift.

1. **Equipment/Personnel**
   a. Transfer/Gait belt
   b. One caregiver – second caregiver assistance used only to manage medical equipment or a wheelchair.

2. **Procedure**
   a. Explain purpose of belt and the procedure of its use to the patient/resident.
   b. Put the belt on over the patient's/resident's clothing and around the waist and make sure the belt is snugly in place.
   c. Assist patient to a standing position by grasping the handles on the transfer/gait belt.

Keypoint: Caregiver should be able to insert two fingers between the belt and the patient's/resident's clothing.

Keypoint: Before assisting patient/resident in transfer or ambulation make sure that the belt is properly positioned and that the buckles are securely fastened.

Keypoint: Do not allow patient/resident to place hands or arms around the caregiver's neck.

Keypoint: If a patient/resident begins to slide while getting up, lock the patient/ resident's knees against the caregivers knees.

Keypoint: If the patient begins to fall during transfer/ambulation, pull the resident close to the caregiver's body using the transfer/gait belt, call out for help and lower patient/resident as far as your arms will extend to the floor.

Keypoint: Use Total Mechanical Lift to lift patient from floor.

D. **Procedure for use of the Non-Friction Device**

1. **Definition**: A Non-Friction Device helps to reduce the push pull forces associated with repositioning and laterally transferring patients/residents.

2. **Equipment/Personnel**:
   a. Non-Friction Device
   b. Two (2) or more caregivers

3. **Procedure for use of Non-Friction Device to reposition in Bed:**
   a. Adjust bed to a height that promotes good body mechanics and place the bed in the flat position.
   b. Roll the patient/resident to one side and position the Non-Friction Device underneath the patient. Place a sheet between the patient/resident and the Non-Friction Device.

Keypoint: Do not pull the Non-Friction Device. Pull the sheet that is between the patient and the Non-Friction Device.

c. With at least one caregiver on either side of the bed, grasp the sheet with the caregiver's palms down and maintain wrists flat on the bed while transferring.
d. Using proper body mechanics, caregivers will shift their weight sliding patient/ resident into proper position on the bed.
e. Roll patient/resident until the Non-Friction Device can be removed.

E. **Procedure for use of Non-Friction Device to Laterally Transfer**

1. Roll the patient/resident until he/she is positioned on the Non-Friction Device. A sheet should be positioned between the patient/resident and the Non-Friction Device.
2. Adjust bed so that it is at the same height as the stretcher and so that bed is in the flat position.
3. The caregivers should be positioned: one on the side of the supporting surface. (Example: bed, stretcher, procedure table) and the other caregiver on the close side of the other supporting surface.
4. Grasp the sheet the caregiver's palm's down and maintain wrists flat on the bed.
5. Using proper body mechanics, the first caregiver shall push the patient/resident towards the stretcher while the second caregiver receives patient/resident and pulls the rest of the distance.
6. Roll patient/resident till Non-Friction Device can be removed.
   Keypoint: The Non-Friction Device cannot be left under the patient/resident after use.

F. **Procedure for use of the Air Matt**

1. **Definition:** An Air Matt technology increases employee and resident safety by reducing friction, push-pull forces and load during all positioning, repositioning, turning and lateral transfer acts conducted.

2. **Equipment/Personnel**:
   a. Air Matt
   b. Two (2) or more caregivers

3. **Procedure for use of the Air Matt to reposition in bed:**
   a. Adjust bed to a height that promotes good body mechanics.
   b. Air Matt is placed on top of the mattress under the bedding.
   c. Air Matt stays under the patient/resident for as long as needed.
   d. Air Matt is always deflated under the resident.
      Keypoint: Air Matt is only inflated when caregivers are standing next to the patient/resident and next to the bed and **prepared** to conduct the following tasks: Turning, repositioning and performing a lateral transfer. .
   e. Air Matt use requires two side rails to be up before turning on the air supply and it requires the resident to be centered on the Air Matt.

4. **Procedure for use of the Air Matt to laterally transfer:**
   a. Adjust bed so that it is at the same height as the stretcher and so that bed is in the flat position.
   b. Make sure patient is centered on the Air Matt.
   c. The caregivers should be positioned: one on the side of the supporting surface (example: bed, stretcher, procedure table) and the other caregiver positioned close to the side of the other supporting surface (side rails positioned up if available on surface).

d. Using proper body mechanics, the first caregiver should push the patient/resident diagonally (feet first) towards the supporting surface while the second caregiver pulls receiving patient/resident (feet). Same procedure is performed when the patient/ resident torso is diagonally transferred to the supporting surface.
e. Once patient/resident is safely transferred to supporting surface, deflate the Air Matt.

5. Procedure for use of Air Matt to position patients:

a. Adjust bed to a height that promotes good body mechanics.
b. Make sure patient is centered on the Air Matt.
c. Make sure bed rails are in the up position. A pillow should cover the bed rails in the direction the patient/resident is rolling.
d. The caregivers should be positioned on both sides of the bed working as a team.
e. Using proper body mechanics, one caregiver will push the patient towards the second caregiver, while the second caregiver pushes down on the inflated Air Matt and pulls the straps towards them.
   Keypoint: This will cause the patient/resident to begin to roll easily on their side, so the caregivers should not over exert or use excessive force.
f. Once the patient/resident is safely positioned on their side, the Air Matt should be deflated.

6. Procedure for applying portable x-ray cassette for diagnostic procedure:

a. Adjust bed to a height that promotes good body mechanics.
b. Make sure patient is centered on the Air Matt.
c. Inflate Air Matt and slide x-ray cassette under Air Matt.
d. Deflate Air Matt and perform procedure/diagnostic test.
e. Inflate Air Matt and remove the x-ray cassette.
f. Deflate Air Matt making sure patient is properly positioned in bed.

VII. Documentation:

Documentation will include: (See attachment #3)

- Identified transfer/lift status
- Identified sling/harness
- Identified size when indicated
- Any special transfer/lift needs

VIII. Compliance:

A. Ensuring staff participation, understanding Kaleida Health's program, and having a qualified resource person with whom staff members can communicate problems are all forms of compliance.

Daily compliance with the program is the responsibility of each staff member. It is mandatory that all staff members adhere to Kaleida Health's policies and procedures regarding patient/resident handling.

The Kaleida Health Zero Manual Lift Committee will meet regularly to continually adjust the program. Kaleida Health promotes open communication between all parties involved in the program.

Each unit/floor's manager shall provide compliance reports by completing Attachment 8: Kaleida Health Zero Manual Lift Policy Compliance Audit Tool and submitting it to the Zero Manual Lift Compliance Officer. These forms will be used to monitor the effectiveness of the policies on the floor and allow for continual improvement of the program.

B. Quality of Care

C. References:

Manufacturer's recommendations, BHM Medical.
Resource Reference: Paula Pless, Ergonomic Evaluation Specialist.

Attachment 1: Kaleida Health Employee Acknowledgement

Kaleida Health Employee Acknowledgement

I, _____, do hereby acknowledge receiving a copy of
(Printed Name)

the Kaleida Health policy regarding the facility's **Zero Manual Lift Policy**. I further acknowledge that I have been offered the opportunity to ask questions regarding this policy and I know that failure to follow this policy will result in disciplinary action up to and including termination.

_____
Signature

_____
Date

A Close Look at the Pivot Transfer

Altering Technique to reduce injury risk during patient transfer

Pless is an Injury Prevention Specialist and Director of Safe Patient Handling and Movement at Kaleida Health in Buffalo, NY. She has over 23 years of experience in health care, with nine of those years working in zero lift environments. In 1997, she spearheaded the implementation of a zero lift program in a long-term care facility in Niagara Falls, NY, expanding the program to acute care settings in 2003. She has helped many organizations and facilities implement zero lift and patient handling safety initiatives.

The pivot transfer is frequently used in long-term care to move patients with decreased weight-bearing ability, despite its high risk causing injury to both patient and caregiver. This editorial will discuss the risks involved in the pivot transfer and present a safer alternative-zero-lift sit/stand patient transfer equipment.

I have experienced reluctance on the behalf of some practitioners to acknowledge the dangers associated with the pivot transfer.

The pivot transfer is an interim transfer used while a patient is gaining skill and strength, and it warrants close monitoring when used in daily living. When used successfully, the patient moves independently during the transfer. More often than not, the pivot transfer is executed with some level of assistance from the caregiver, increasing the injury risk. In my experience conducting incident investigations, I often discover that the patient involved was performing a pivot transfer, and either the caregiver was thrown off balance because the patient could not move his or her feet or the caregiver and patient lost their balance because their feet got tangled when the patient's feet or foot did not move. However, I have experienced reluctance on the behalf of some practitioners to acknowledge the dangers associated with the pivot transfer.

Pivot Transfer – What It Is and Isn't

In a true pivot transfer, the patient has to take at least one step, un-weight at least one foot during the pivot, and move toward the desired target. The reality of what occurs during the typical "pivot transfer" is much different, and the likelihood that it will go well each time it is executed is extremely poor. The patient's function and performance can be inconsistent or can be affected by time of day and behavior.

Often, the patient is moved from one surface to another without his or her feet moving and without a gait belt. The caregiver twists and swings the weight of the patient and move him or her to the desired surface with the patient's feet stationary. The patient's body is moved in parts; the top half is moved in the opposite direction from the planted bottom half. It is the patient's trunk that is actually "pivoted". Frequently, the transfer becomes a manual lift: the caregiver just lifts the patient, so that the patient's feet barely make contact with the floor and do not bear any weight.

The pivot transfer is appropriate for a very small population. It has a sizable room for error, and it should never be used to move patients over a long period of time—patients who can perform the transfer are candidates expected to improve enough that they will not longer need the pivot transfer. In my experience, 90% of patients using the pivot transfer for 30 to 90 days experienced a deterioration of skills, exacerbated shoulder or knee injuries, or disease progression in those joints. Many had to stop using the transfer within 24 to 48 hours because of injuries suffered during the transfer. In addition, I have observed incidents or injuries in 100% of patients using the pivot transfer for more than 90 days.

After the patient is sitting upright, a band harness is placed around the lower truck. The patient places his or her feet on the base of the lift; the lift is then pulled up close to the patient and, with the lift arms lowered, the band harness is attached to the sit/stand lift. As the caregiver activates the electronic hand control, it begins to raise the lift arms that the patient's band harness is attached to and, as the lift arms rise, the patient is brought from a sitting to a standing position with minimal to no exertion by the caregiver.

Assessing Risk – Can Patients Pivot?

The first thing to look for when deciding whether patients should use the pivot transfer is their ability to move their feet. If you believe they can and do move their feet during transfer, have them demonstrate that to you over a 24-hour period, on all surfaces and to all surfaces. Sometimes caregivers do not realize that the patient's feet barely make contact with the floor and do not bear any weight during transfer. Also, talk to the caregivers and observe the transfers on all shifts at different times of day. Some caregivers have been doing improper transfers for so long that they do not recognize the manual lifting involved in a pivot transfer that is no longer successful. Weight bearing by the caregiver during transfers and ambulation with a degree of buckling are some of the most common causes of injuries. Be sure to meet with any caregivers who have been injured pivoting someone on or off the toilet, and analyze the employee injury records to see what other transfer tasks are causing injuries.

Examine the locations where pivot transfers take place. Does the environment always allow patients to move and pivot with their strong side first? When caregivers are faced with awkward postures and confined spaces, the success of the transfer decreases the risk of injury increases. In any given 24-hour period the pivot transfer can be conducted repeatedly on a patient, as many as 16 times, with the level of weight borne by the patient and his or her ability to execute this transfer changing every time. Add to this the unpredictability of the amount of weight that the patient can bear, and the caregiver is manually lifting under the worst conditions.

Sit/Stand Lift: Caregiver Considerations

1) This procedure always requires two people to assist.
2) Patient cooperation throughout the length of the transfer is necessary.
3) Endurance, performance, and ability to actively participate throughout the transfer are key.
4) Minimize the distance that needs to be traveled during a transfer to improve the caregiver's safety and decrease the risk for injury during push or pull acts.
5) Floor surface: non-carpeted surface is best for the caregiver, with less friction and effort during push and pull. Lifts are stable on carpet if it has a low pile, a tight weave, and a smooth surface. All flooring types need to be seamless and without cracks or breaks. Never bring the lift onto a wet, slippery area.
6) Doorways should be wide enough to admit the lift and patient without either one hitting the doorframe.
7) Thresholds need to be smooth and seamless. The lifts should not be pushed or pulled over a threshold that offers resistance due to its height or incline.
8) The area where the final transfer is going to occur needs to offer enough space for two caregivers to protect the patient and maneuver the lift without having to struggle or assume awkward postures.

Injuries from Pivot Transfers

Improper pivot transfers increase the risk of injury to both the caregiver and the patient. Repetitive traumas, bruises, skin tears, damage to the soft tissue supporting the joints (especially hips and knees), and fractures of a spiral or impact nature at the hips, knees and ankles are common. A correlation is not always drawn between the accidents or incidents and the pivot transfer. However, at one facility I saw a 64% decline in fractures and a 37% decline in skin tears and bruises 14 months after implementing zero lift- as well as zero lower extremity spiral fractures, compared to two the previous year.

The pivot transfer is appropriate for a very small population.

Many times the shoulders of the patient are used as weight-bearing joints, providing leverage for the caregiver and functioning as anchors. Exacerbation of arthritis and degenerative joint disease, as well as loss of range of motion occur over time, and the subtle damage caused by each pivot begins to compound and further compromise any chance for improvement in weight bearing. The facility mentioned above experienced a 26% improvement in upper extremity range of motion overall, with fewer cases of shoulder joint decline and an increase in cases that remained stable or improved.

The use of a gait or transfer belt can reduce the risk of shoulder joint injuries, but it is not enough to correct the problems associated with the patients' inability to move their feet and take a true step toward the desired transfer target. The gait or transfer belt erroneously may also become a lifting tool when proper weight bearing and the ability to move the feet are absent.

Zero lift environments recognize these serious safety hazards. Most successful zero lift environments have stopped using the pivot transfer entirely, or have minimized and closely monitored its use, leading to reduced injuries, increased safety, and prolonged weight bearing for patients.

Patient Criteria for Sit/Stand Lift Use

1) At least 30-60% weight-bearing status. May be done with the use of one leg with the right set-up and harness.
2) Ability to hold on to the lift. If the ability to hold on is compromised then a harness needs to be selected that promotes increased safety and comfort. Harness styles vary; some incorporate lower body support to compensate for the inability to hold on.
3) Cooperation that is maintained throughout the transfer. There may be confusion, dementia, or behavior problems present as long as these conditions do not interfere with safe use of the lift. Over time, with repeated practice in a controlled setting, a patient can get accustomed to using the lift.
4) Able to move from supine to set when transferred from a bed. The risk of injury is great if the patient cannot assist with this move, as it becomes a manual lift for the caregiver, and the joints of the patient may be used as leverage. Some patients who cannot sit up may be transferred with the sit/stand lift after they have been mechanically lifted out of bed and are in a support upright position.
5) Certain medical conditions are contraindicated with the use of certain harnesses. Abdominal aneurism, stomas, wounds, skin integrity issues, colostomies, and new pet tube sites or spinal fractures could prohibit the use of a harness that fits snugly around the abdomen or trunk.

A full mechanical lift is the only alternative if the patient does not meet the above criteria for use of the sit-stand lift. If a patient's status or condition changes a reassessment is required. This lift should be considered for all transfers that involve minimal, moderate, or extensive assist by the caregiver.

An Alternative-Sit/Stand Lift

Sit/Stand patient transfer equipment is an alternative to the pivot transfer that allows patients to bear weight while it facilitates safe and proper joint alignment and increases protection and comfort (see photo, right). This equipment is for patients with at least 30% to 60% weight-bearing status and the ability to hold on with at least one hand, or two hands if a simple band harness is used, and who are cooperative with the use of the equipment and have the endurance to tolerate weight bearing and upper extremity use.

The distance that the lift is moved during the transfer depends on the patient's functional status with upper body use, weight bearing, endurance, fatigue, and tolerance to prolonged standing. You must always consider the type of flooring, doorways, and thresholds that patient may need to travel over. Remember this is an active participation transfer, not a passive transfer like the full mechanical lift.

The properly assessed candidate can experience an improved quality of life and increased safety. They are afforded the opportunity to be repositioned safely and more frequently, placing less burden on the caregiver's back, and can bear weight safely and for longer periods of time. Patients that were traditionally pivoted from one place to another—for example, from a wheelchair to a stable chair in a dining room or from a wheelchair to a toilet—can be transferred properly with the sit/stand lift.

Most successful zero lift environments have stopped using the pivot transfer entirely, or have minimized and closely monitored its use, leading to reduced injuries, increased safety, and prolonged weight bearing for patients.

The therapy department can also use the sit/stand lift for treatment in the clinic setting, since it is an active transfer with therapeutic value. The patient who may have difficulty accepting the transfer or who may require special considerations in use of the lift would benefit from an assessment and monitored use in this professional controlled setting. Patients with altered weight-bearing status due to orthopedic concerns can use the lift to bear weight on one leg only. Using the sit/stand lift during recovery from a total knee or hip surgery facilitates recovery with less risk of trauma or inflammation to the surgical joints. It can also decrease edema that is often caused by an improperly done pivot transfer.

The site/stand lift is for patients with at least 30% to 60% weight-bearing status and the ability to hold on with at least one hand, or two hands if a simple band harness is used.

Assess Lifting at Your Facility

The health care industry has changed and the types of patients in our care have changed, yet some organizations have not changed their patient handling practices. The sit/stand lift is underutilized in health care, and it can be of enormous value in the care and treatment of patients. I often find either that health care workers don't know about the sit/stand lift or that there are none available in their facility. I recommend that facilities have at least one sit/stand lift for every eight to ten patients able to use one.

A system for employee training and competency with the use of sit/stand lift equipment needs to be embedded in the organization. The program needs to include new hire and present employees, and should be conducted as a yearly mandatory in-service. Repeated training and a competency check should also take place for any employee involved in an incident involving equipment use. Periodic audits conducted during routine transfers can help ensure that sit/stand lift transfers are being done properly. The very same equipment intended to prevent injuries can cause injuries if used improperly or by people who have not been properly trained.

As facilities and institutions begin to recognize the value of patient transfer equipment, they will also begin to understand the need to use this equipment in areas beyond the patient's room. When we change the culture and truly understand the impact of the misused pivot transfer, we will enhance patient and employee safety.

This article was originally published in December 2005 *Caring for the Ages*, an official publication of the American Medical Directors Association (AMDA). For more information on *Caring for the Ages* and/or AMDA go to www.amda.com.

ESTIMATED EQUIPMENT NEEDS AND COST
FOR ZERO LIFT IMPLEMENTATION
PAULA PLESS, ERGO/SAFETY SPECIALIST

EQUIPMENT TY PE	*AMOUNT NEEDED*	*COST PER ITEM*
1. Floor Lifts or Full Mechanical Lifts	**1 per 8 residents of need. All on the same unit**	**$3,500 - $4,500**
2. Sit to Stand Assist lift	**1 per 8 residents of need. All on the same unit**	**$2,700 - $3,500**
3. Gait Belts with handles and padded fabric. A variety of sizes required.	**1 per resident of need. Gait Belts should be used On any resident who requires hands on assist to rise, transfer or ambulate.**	**$38.00 -$45.00**
4. Non Friction Sheets & Non-Friction devices. Slipp Sheet, Tru-Slide Maxi Slide and Surehand products.	**1 per 4-6 residents of need. Used for lateral transfers, positioning, re-positioning. Pulling up residents with friction removed decreases the load and resistance to the caregiver's spine. Prevents injuries to the resident and caregiver.**	**$90.00- $180.00 Wide range of cost dependent on product, size or type.**
Hover Mat or AirMatt		**$1,700 - $3,000**
5. Ceiling Lifts & Ceiling Track lift Systems. This technology truly is Zero Lift. No push/pull forces. No resistance. Zero Risk after the sling has been applied.	**-Tub Rooms. - Therapy Gyms. - Rooms with multiple beds. - Shower rooms. - Individual resident rooms. - Bariatric care rooms. - E.R, x-ray, surgery, morgue.**	**Varies depending on the length of track. Track cost $100.00 per foot installed. Fixed lift - $3,000 Portable lift - $2,500**

IT IS POSIBLE TO REMOVE ALL RISK OF INJURY WITH CEILING LIFTS.
P.PLESS

6. Slings for Lifts various types and styles. **- Hygiene slings** **- Universal slings** **- Quick fit slings** **- Hammock slings** **- Sit to Stand slings** **- Amputee slings** **- Positioning slings** **- Mesh slings** **- Padded slings** **- Full body slings** **- Bathing slings**	**2 slings per res. Varied styles and sizes.**	**$160 - $300.00 per sling depending on size and style. The price could be more if custom designed.**
7. Electric Control Beds. **Increase compliance with proper body mechanics during care delivery tasks. Awkward postures avoided at a higher rate due to quicker and easier adjustments of the bed.**	**1 Per resident** **Various sizes styles and functions. Bariatric heavy reinforced hardware and frame.**	**$1,000 - $10,000 per bed depending on function and style.**

IN ORDER TO ADDRESS ERGONOMICS IN THE WORKPLACE AN EMPHASIS MUST BE PLACED ON EQUIPMENT, TRAINING, SURVELIANCE AND AUDITING. PROPER USE OF EQUIPMENT TRAINING IS ON GOING.

THE EQUIPMENT MUST MEET THE NEEDS OF THE EMPLOYEE POPULATION AND THE RESIDENT/PATIENT POPULATION SERVED.

THE END USER OF THE EQUIPMENT MUST BE INVOLVED PRIOR TO PURCHASE. MANY MISTAKES ARE MADE WHEN THE END USER IS THE LAST TO BE INVOLVED.

PREVENTATIVE MAINTAINENCE, LOGS AND TAGS FOR MONITORING EQUIPMENT MUST BE STARTED AS THE EQUIPMENT ENTERS THE BUILDING AS WELL AS WARRENTY AND PARTS INFORMATION. P.Pless

OTHER EQUIPMENT CONSIDERATIONS FOR ZERO LIFT ENVIRONMENTS

It is important to consider all job tasks and the equipment that is available to make the job safer, easier and with decreased risk to the employee and resident/patient.

1.Grab Bars & Super Poles– Can assist to bear some of the resident/patients weight. Strategically placed they can be used after toileting or during dressing. The resident/patient can hold on to the grab bar or Super Pole and stand while the care giver manipulates clothing or provides hygiene. Grab bars and Super Poles can be used in combination with a half side rail to assist a resident/patient with a transfer or allow them to stand up while their w/c is pulled up behind them. The Super Pole can also be purchased with a pivoting/swinging arm that functions to support the resident/patients weight during transfers. These devices can also assist the resident/patient to be (I).

2. Drop arms or removable arms – Chairs and commodes that have this feature add to safety and function. The transfers become safer and the barriers are removed for improved ergonomics and avoidance of awkward postures.

3. Side Rails, Half Rails, Smart Rails & Bed Canes – The leverage and the weight bearing potential that these devices provide increase resident/patient function and (I) and they decrease the load to the caregiver's spine.

4. Trapeze – All residents/patients need to be assessed for the possible use of a trapeze. This device can build strength and (I) for the resident/patient. It decreases the workload and strain on the caregiver during positioning, pulling up and bed pan use. It increases safety and minimizes risk of injury. It also assists with decrease risk of shearing to the resident/patient skin.

5. Lift Chairs/Lift Cushions – These devices mechanically bring residents/patients to their feet. The leverage comes from the equipment not the caregiver's body.

6. Large Wheels – Wheels added to stationary equipment increases safety. Large wheels function better and wheels with brakes increase safety even further. Push/Pull forces can be eliminated when wheels are added to frequently moved or relocated furniture.

7. Commodes or Shower Chairs on wheels – Used bedside they increase safety and allow the resident/patient to sit on a toilet without the added risk of the distance or required maneuvering to get on a toilet. It decreases the distance that a heavy resident/patient has to be pushed in a stand lift or shower chair. While a resident/patient is ill or might have limited weight bearing due to an orthopedic problem the bedside use of a commode increases safety and assists the resident/patient to remain continent Paula Pless 2006 update

LIFT/TRANSFER DOCUMENTATION

Lift Type	Sling Criteria	Date/Initials	Recommendation (size, attachment method)
 **Total Mechanical Lift**	**Hygiene Sling**		
	Hammock Sling **Size: circle one** **S – 45 – 100 lbs.** **M – 100-210 lbs.** **L – 210-440 lbs.** **XL – 440-600 lbs.**		
	Hammock Sling Attachment Method Circle one below: **Cradle method or** **Cross Thru method**		
 **Sit/Stand Mechanical Lift**	**Band Harness**		
	Total Transfer Harness (TT) **Circle one below:** **With leg straps or** **Without leg straps**		
 **Transfer/Gait Belt**			
 **Non- Friction Device or Air Matt**			
 **No-Lift Device**			

Supplied by Kaleida Health

Kaleida Health Zero Manual Lift Policy Compliance Checklist

KALEIDA HEALTH AUDIT TOOL- ZERO LIFT COMPLIANCE

Date: _____ Site/Unit_____ Unit Contact Person _____

Time: _____ Auditor(s):_____ Manager _____

PATIENT ASSESSMENT AND DOCUMENTATION	COMPLIANCE	COMMENTS
1. Care Plan (LTC) or Assessment Tool Bedside Book (Acute) updated. Method of transfer/lift and style/size of sling documented.	# Reviewed ___ # Compliant ___	
2. Method is appropriate for the physical status of the resident and the transfer observed to be performed correctly.	# Reviewed ___ # Compliant ___	
Care of Equipment		
1. Lifts, transfer belts and non-friction devices available to staff on unit. Staff knowledgeable of equipment location.	# Reviewed ___ # Compliant ___	
2. Lifts placed on one side of hallway and lift brakes locked when not in use. Cord is wrapped.	# Reviewed ___ # Compliant ___	
3. Slings immediately available on unit. -Hygiene sling -Hammock sling	# Reviewed ___ # Compliant ___	
4. Sit-stand slings immediately available on lift. -Band sling -Total Transfer Harness	# Reviewed ___ # Compliant ___	
5. Slings have no evidence of wear and tear, loose stitching, or fraying straps. -Date legible -Number legible	# Reviewed ___ # Compliant ___	
6. Staff can identify designated laundry hamper for soiled slings and verbalize proper cleaning required for: -Non friction device -Transfer gait belt -Slings	# Reviewed ___ # Compliant ___	

Follow up required: **Yes** (if yes list concern below) or **No**

_____

_____

_____

_____

_____

Who is responsible: _____ Date completed: _____

At the completion of training Licensed Personnel will be able to:

Safely utilize the mechanical lift/repositioning equipment

PERFORMANCE CRITERIA	CRITICAL INDICATORS	LEARNING OPTIONS * Mandatory	Date Met Initial Evaluator
1. Evaluate the patient to determine the correct lift/repositioning equipment to be used.	1. Evaluate the appropriate method for transferring/lifting/ repositioning based on the physical condition of the patient. 2. Documents the transfer/lift status and style/size of sling on the patient/resident status transfer evaluation tool and the patient care plan/closet plan. 3. Places the evaluation tool in the designated area. 4. Acute care: Evaluates the need/type of lift based on any change in the patient status. Long Term Care: Evaluates the need/type of lift based on any change in the resident status and quarterly.		
2. Sets up and uses specific equipment according to manufacturer's instructions.	1. Non Friction device a. Transfers/repositions patient using non friction device • Transfers laterally • Repositions in chair • Repositions in bed b. Patient weight considered to determine number of caregivers necessary to complete transfer/repositioning. c. Non friction device removed from patient after transfer/reposition completed. 2. Transfer/Gait belt a. Identifies any contraindications to using the Transfer/Gait belt for specific patient. b. Applies transfer/Gait belt correctly. c. Transfers patient using Transfer/Gait belt as per procedure. d. Removes Transfer/Gait belt after transfer completed. e. Positions patient after transfer.		

3. Sets up and uses specific equipment according to manufacturer's instructions	1. Sit /Stand lift a. Identifies any contraindications to using the Sit/Stand Lift belt for specific patient. b. Uses appropriate sling as per Patient transfer evaluation tool. c. Determines patient's ability to move from a supine position to a sitting position and balance on the edge of the bed. d. Places a barrier between the patient's skin and the sling. e. Transfers the patient using Sit /stand lift as per procedure. f. Removes sling from patient after transfer. g. Positions patient after transfer. 2. Total Mechanical Lift a. Uses appropriate sling as per the Patient transfer evaluation tool. b. Places a barrier between the patient's skin and the sling. c. Transfers the patient using Total Mechanical Lift as per procedure. d. Removes sling from patient after transfer. e. Positions patient after transfer.		
4. Maintains and trouble shoots the lift equipment	1. Lifts a. Returns lift to designated area after use. • Plugs in lift to charge • Locks wheels b. Places a "do not use sign" on any lifts felt to be malfunctioning and reports to manager (?). c. Wipes down equipment and non-friction sheets with hospital approved disinfectant between uses. 2. Slings a. Inspects all slings for wear and tear, loose stitching and fraying straps before using. b. Tags any slings with wear and tear or compromised integrity "Do not use" and returns to manager. c. Puts dirty slings in designated laundry bags/hamper. d. Spot cleans with approved solution for minor soilage. e. Verbalizes cleaning of slings: • Hygiene sling • THA Hammock • TST Band harness • Total Transfer Harness		

MASTER TRAINER ONLY 5. Functions as a Master Trainer	1. Acts as a resource. 2. Assists with patient assessments. 3. Problem solves with staff to determine appropriate lift/transfer method. 4. Conducts audits weekly and faxes to designated number/areas. 5. Validates Lift/transfer competency of staff. 6. Investigates near misses, accidents and injuries. 7. Remediates near misses, accidents and injuries. 8. Maintains a Zero-lift notebook including • Zero manual lift policy • Original audits • Sling application Guide		

At the completion of training Certified Personnel will be able to:

Safely utilize the mechanical lift/repositioning equipment

PERFORMANCE CRITERIA	CRITICAL INDICATORS	LEARNING OPTIONS ✻ Mandatory	Date Met Initial Evaluator
1. Determine the correct lift/repositioning technique/equipment to be used.	1. Determine the appropriate handling technique as identified on the Safe Patient Handling Tool (Acute), or the Care Plan for LTC. 2. Determine when the Patient/Resident current handling technique cannot be performed safely and utilizes the next higher level of transfer.		
2. Sets up and uses specific equipment according to manufacturer's instructions. The use of Non-Friction devices including the Air Matt technology increase employee and resident safety by eliminating friction, drag and load during all positioning, repositioning, turning and lateral transfer acts conducted.	1. Non Friction device and Air Matt a. Transfers/repositions patient using non friction device • Transfers laterally • Repositions in chair • Repositions in bed b. Patient weight considered to determine number of caregivers necessary to complete transfer/repositioning. c. Non friction device removed from patient after transfer/reposition completed. d. Air Matt is placed on top of the mattress under the bedding. e. Air Matt stays under the resident for as long as needed. f. Air Matt is always deflated when under the resident. g. Air Matt is only inflated when caregivers are standing next to the resident and next to the bed and **prepared** to conduct the tasks of turning, positioning and moving up or down the bed. h. Air Matt use requires the side rails to be up before turning on the air supply and it requires the resident to be centered on the Air Matt.		

3. Sets up and uses specific equipment according to manufacturer's instructions. When sling straps are left hanging down the wheelchair and into the wheels they get damaged. The straps get frayed and cut when caught in the w/c wheels. If a resident is left on a sling the straps must be tucked up on to the seat of the chair and not left hanging over the sides. When a resident is on the floor a licensed professional must evaluate them before they are touched or moved with the use of the full mechanical lift. Residents are transferred off the floor with a full mechanical lift, minimized movement and with the hips protected by reclining the resident in the sling so that the hips are behind the trunk.	1. Sit /Stand lift a. Identifies any contraindications to using the Sit/Stand Lift belt for specific patient. b. Uses appropriate sling as per Patient Transfer Evaluation Tool. c. Determines patient's ability to move from a supine position to a sitting position and balance on the edge of the bed. d. Places a barrier between the patient's skin and the sling. e. Transfers the patient using Sit /stand lift as per procedure. f. Removes sling from patient after transfer. g. Positions patient after transfer. 2. Total Mechanical Lift a. Uses appropriate sling as per the Patient Transfer Evaluation Tool. b. Places a barrier between the patient's skin and the sling. c. Transfers the patient using Total Mechanical Lift as per procedure. d. Removes sling from patient after transfer. e. If the sling is left under the resident be sure the straps are tucked up and not hanging down into the wheels. f. Positions patient after transfer. 3. Transfer/Gait Belt a. Identifies any contradictions to using the Transfer/Gait belt for specific patient. b. Applies Transfer/Gait belt correctly. c. Transfers patient using Transfer/Gait belt as per procedure. d. Removes Transfer/Gait Belt after transfer completed.		

4. Maintains and trouble shoots the lift equipment. Broken lifts are tagged and removed from use. Report this to the TAC #859-7776.	1. Lifts a. Returns lift to designated area after use. • Plugs in lift to charge at the charge station. • Locks wheels b. Places a "do not use sign" on any lifts felt to be malfunctioning and reports to manager for follow up. c. Wipes down equipment and non-friction sheets with hospital approved disinfectant between uses. 2. Slings a. Inspects all slings for wear and tear, loose stitching and fraying straps before using. b. Tags any slings with wear and tear or compromised integrity "Do not use" and returns to manager. c. Puts dirty slings in designated laundry bags/hamper. d. Can verbalize how proper sling size is determined. e. Can verbalizes how to recognize Hammock slings by size. • Large • Medium • Small • Total Transfer Harness-for Sit/Stand Lift		
<u>MASTER TRAINER ONLY</u> 5. Functions as a Master Trainer Know where your inventory of equipment is, communicate to others where to find it and protect it from damage.	1. Acts as a resource. 2. Assists the Licensed Professional with patient assessments. 3. Problem solves with staff to determine appropriate lift/transfer method. 4. Conducts audits weekly and faxes to designated number/areas. 5. Validates Lift/transfer competency of staff. 6. Investigates near misses, accidents and injuries. 7. Remediates near misses, accidents and injuries. 8. Maintains a Zero-lift notebook including • Zero manual lift policy • Original audits • Sling application Guide		

At the completion of training the RN/LPN/UAP will be able to:

PERFORMANCE CRITERIA	CRITICAL INDICATORS	LEARNING OPTIONS ✻ Mandatory	Date Met Initial Evaluator
Set up and use specific equipment according to manufacturer's instructions.	1. Air Matt a. Transfer/reposition patient using Air Matt • Transfers laterally • Repositions in bed • Turn and position • Taking Portable X-Ray b. Patient girth considered to determine size of Air Matt and number of caregivers necessary to complete transfer/repositioning. c. Air Matt stays on bed/gurney deflated on top of mattress when not in use. d. Inflate Air Matt when performing the transfer/ repositioning with the caregivers next to the patient for safety.		