Appendix D: Lifting and Transferring Students/Children in a School or Other Setting (2010)

INTRODUCTION:

This appendix was developed by the Maryland Steering Committee for Occupational and Physical Therapy School-Based Programs to support Occupational and Physical Therapy Early Intervention and School-Based Services in Maryland: A Guide to Practice (Section 4.0).

The foundations of this tool were the Guidelines for Nursing Homes: Ergonomics for the Prevention of Musculoskeletal Disorders (U.S. Department of Labor, Occupational Safety and Health Administration, 2009), Strategies to Improve Patient and Health Care Provider Safety in Patient Handling and Movement Tasks (American Physical Therapy Association, Association of Rehabilitation Nurses, and the Veterans Health Administration, 2003), and Safe Patient Handling and Movement Algorithms (VISN 8 Patient Safety Center, 2006). It should be noted that the OSHA Guidelines are advisory and recommendations “should be adapted to the needs and resources of each individual work place of employment” (OSHA, p. 8).

School-based teams assist a diverse group of students with complex needs to access and participate in their educational programs. In some instances, these students require physical assistance and adaptive techniques/equipment to support safe physical management in the school environment. This appendix was created as a reference for occupational and physical therapists in school systems in Maryland who lend their expertise in this area to school teams.

PURPOSE:

1. Promote safety of students during lifting and repositioning tasks
2. Promote safety of caregivers during lifting and repositioning of students
3. Promote optimal functional status and independence for students with physical challenges
4. Promote communication among team members regarding safe lifting and repositioning of students
5. Increase statewide awareness of the principles related to safe lifting and repositioning of students
6. Provide tools for team decision making as it relates to lifting and repositioning of students

STEPS IN THE PROCESS:

1. Needs Analysis
2. Sample Decision-Making Algorithms
   a. Transferring Student between Wheelchair and Changing Table
   b. Transferring Student from Chair to Chair, Chair to Toilet
   c. Transferring Student from Floor to Chair
   d. Repositioning on Changing Table: Rolling to One Side or Scooting
3. Training
4. Documentation
STEP ONE: NEEDS ANALYSIS

Strategies for safe lifting and repositioning should be determined by the needs of the student, the staff, and environmental factors. Consider the following factors when developing a comprehensive plan for student and staff safety:

**Student Characteristics:**
- Size and weight
- Weight bearing capability (with and without orthoses)
- Level of assistance required
- Upper extremity function
- Lower extremity function
- Postural stability and control
- Level of comprehension
- Level of cooperation
- Medical conditions that may influence the choice of methods for lifting or repositioning
- Presence of IEP goals and/or supplemental aids and services for increasing independence in transferring
- Consistency of performance

**Staff Characteristics:**
- Presence of lifting restrictions
- Physical characteristics of staff members
- Capability to initiate and follow directions

**Environmental Factors:**
- Anticipated frequency of lifts and/or repositioning
- Space where task will occur (presence of guard rails, adequate room for staff members and/or equipment, flooring)
- Characteristics of available or needed equipment
- Time constraints
- Alternative sites for task (i.e. field trips)
- Need for building modifications
- Number of qualified staff available when movement of the student is needed

STEP TWO: DECISION-MAKING ALGORITHMS

Having given consideration to student, staff, and environmental factors, the following algorithms can be used to aid in decision making for student and staff safety.
a. Transferring Student Between Wheelchair and Changing Table

- Can student bear weight?
  - Fully: Caregiver assistance not needed; Stand by for safety as needed.
  - Partially: Is the student cooperative?
    - Yes: If changing table can be positioned to a low level, use a stand assist transfer. If not and caregiver is lifting >35 lbs., use a mechanical lift or a 2-person lift.
    - No: Use mechanical lift and/or 2 or more caregivers, if caregiver is lifting >35 lbs.
  - No: Use mechanical lift and/or 2 or more caregivers, if caregiver is lifting >35 lbs.

- Adjustable height changing tables would be ideal.
- During any transferring task, if any caregiver is required to lift more than 35 lbs. of a student’s weight, then the student should be considered to be fully dependent and assistive devices and/or additional staff should be used for the transfer. [Waters, T. R. (2007). When is it safe to manually lift a patient? *American Journal of Nursing, 107*(6), 40-45.]
b. Transferring from Chair to Chair, Chair to Toilet

- Can student bear weight?
  - Fully: Caregiver assistance not needed; Stand by for safety as needed.
  - Partially: Stand and pivot technique using a gait/transfer belt (1 caregiver) or powered standing assist lift (1 caregiver)
  - No: Is the student cooperative?
    - No: Use a mechanical lift and/or 2 caregivers, if each caregiver is lifting > 35 lbs.
    - Yes: Does the student have upper extremity strength?
      - No: Seated transfer aid; may use gait/transfer belt until the student is proficient in completing transfers independently.
      - Yes: Stand and pivot technique using a gait/transfer belt (1 caregiver) or powered standing assist lift (1 caregiver)

- For seated transfer aid, must have chair with arms that recess or are removable.
- If student has partial weight bearing capacity, transfer to the stronger side.
- During any transferring task, if any caregiver is required to lift more than 35 lbs. of a student’s weight, then the student should be considered to be fully dependent and assistive devices and/or additional caregiver(s) should be used for the transfer. [Waters, T. R. (2007). When is it safe to manually lift a patient? American Journal of Nursing, 107(6), 40-45.]
- An additional caregiver may be required to assist with hygiene and clothing management.
c. Transferring Student from Floor to Chair

- Can student bear weight and assist?
  - Fully: Caregiver stand by for safety and provide assistance as needed.
  - Partially: Use 1-2 caregivers depending on student weight (<35 lbs. lifting per person) and/or mechanical lift. Technique used will depend on student’s motoric abilities.
  - No: Use 1-2 caregivers depending on student weight (<35 lbs. lifting per person) and/or mechanical lift.

- During any transferring task, if any caregiver is required to lift more than 35 lbs. of a student’s weight, then the student should be considered to be fully dependent and assistive devices and/or additional caregiver(s) should be used for the transfer. [Waters, T. R. (2007). When is it safe to manually lift a patient? American Journal of Nursing, 107(6), 40-45.]
- Depending on a student’s level of comprehension and cooperation, techniques may need to be modified.
d. Reposition on Changing Table: Rolling to one side or scooting

- Caregiver assistance not needed; student may/may not use positioning aid.

- Fully

- Can student assist?

- No

- Partially

- Encourage student to assist using a positioning aid or cues.

- Use of friction-reducing device and/or 2 or more caregivers if caregiver has to move > 35 lbs.

- If student is >200 lbs:
  - Use a friction-reducing device and at least 3 caregivers.

- If student is <200 lbs:
  - Consider a friction-reducing device and 2-3 caregivers.

- The height of the changing table should be appropriate for staff safety.
- If the student can assist moving toward the head of the table, ask the student to bend their knees and push on the count of three.
- During any transferring task, if any caregiver is required to lift more than 35 lbs. of a student’s weight, then the student should be considered to be fully dependent and assistive devices and/or additional caregiver(s) should be used for the transfer. [Waters, T. R. (2007). When is it safe to manually lift a patient? American Journal of Nursing, 107(6), 40-45.]
STEP THREE: TRAINING

The following components should be considered in developing training for safe student/child lifting and transfer training.

1. Identify guidelines for safe lifting and transferring of students by determining who will analyze student/staff/environment needs and develop a plan for safe movement. This person or team should:
   a. Identify all the transfers the student needs to complete at school; consider special classes, community outings, transfers to equipment such as gait trainers and standers,
   b. Consider student characteristics, staff characteristics and environmental factors,
   c. Determine the type of lift, assistance, and/or equipment needed for identified transfers, and
   d. Identify how to document this information.

2. Identify qualified and competent trainers.
   a. For general body mechanics and lifting principles, trainers could be physical and/or occupational therapists, as well as health care or human resource staff who have training in this area
   b. For training on lifting and transfers of students, trainers should be physical and/or occupational therapists who are knowledgeable about general body mechanics, lifting and transfers, adult learning strategies, and school policies and procedures as they relate to student lifting and transfers.
   c. For training on equipment, such as mechanical lifts, trainers could be physical therapists, occupational therapists, DME providers, and/or manufacturer representatives.

3. Identify designated trainees (staff in need of training).
   a. Consider identifying “lift teams.”
   b. Identify back-up personnel that need to be trained to provide coverage when a team member is not present and the substitute is not trained.
   c. Trainees could include but are not limited to paraeducators, personal care assistants, special education teachers, regular education teachers, PE teachers, health room staff, therapists.
4. Identify resources needed to support training.
   a. Release time for trainers and trainees
   b. Space for training
   c. Materials for training
      i. Equipment (wheelchairs, changing table, mechanical lift, adapted commode seat)
      ii. Handouts
      iii. Audio-visual equipment for videos or Powerpoint

5. Identify content of training.
   a. Overview of physical disabilities:
      i. Impact of tone, weakness in various parts of the body, orthotics, and lack of sensation on transfer procedures
      ii. Features of equipment used by students with physical disabilities
      iii. Impact of student cognition and behavior
   b. Basic posture and body mechanics
   c. Reinforce importance of appropriate clothing and footwear
   d. Basic principles of lifting heavy objects
   e. Basic principles for moving students:
      i. Plan the lift or transfer
      ii. Prepare the student
      iii. Encourage independence

6. Identify methods to develop and maintain competency over time, ensure effectiveness of student movement plans, and document training:
   a. Consider role playing/practice with staff or mannequins during general training
   b. Model/coach/supervise lifts and transfers for student/child specific training.
   c. Ongoing collaboration and monitoring of the effectiveness of student movement plans.
   d. Establish plan for follow-up training (student’s needs change, staff change, determine need for and frequency of routine re-training).
STEP FOUR: DOCUMENTATION OF TRAINING

Purpose:

To document that a staff member has attended training to perform the task of lifting and transferring of a student.

Information that should be documented:

- Date
- Subject and information covered (e.g. body mechanics, two person transfer, use of Hoyer lift)
- Printed name/title and signature of instructor
- Printed name of staff member/title who received training and signature
- Include a plan for rechecking of skills as needed
- Indicate initial or follow up training

Location of Documentation:

A copy should be kept for therapist’s records and a copy should be sent to designated administrator per your jurisdiction.

Training in lifting and or transfer techniques to be used for a specific student is typically documented within the student’s log or service notes. In special circumstances, additional documentation may be indicated.
REFERENCES


RESOURCES


This document is a draft appendix for the Occupational and Physical Therapy Early Intervention and School-Based Services in Maryland: A Guide to Practice proposed by the Maryland State Steering Committee for Occupational and Physical Therapy School-Based Programs (September, 2009).

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ORGANIZATIONAL RESOURCES

American Nurses Association  
http://www.nursingworld.org/osh

American Physical Therapy Association  
http://www.apta.org/AM/PrinterTemplate.cfm?Section=Home&CONTENTID=18516&tEMPLATE=CM/HTMLDisplay.cfm

Veterans Health Association Patient Safety Center  
http://www.visn8.med.va.gov/patientsafetycenter/

National Institutes for Occupational Safety and Health  
http://www.cdc.gov/niosh/topics/ergonomics

Occupational Safety and Health Administration (OSHA)  

Washington State Department of Labor and Industries  
http://www.lni.wa.gov/safety/Topics/Ergonomics/default.asp