

FDA Statement – Patient Lifts and associated MEDSUN report

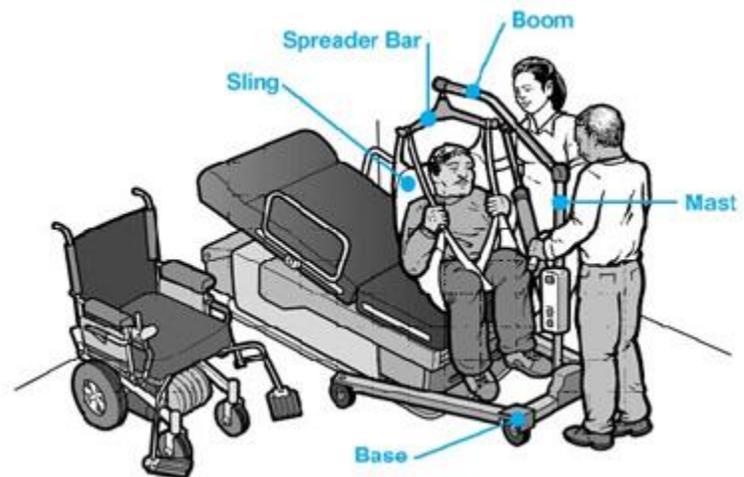
Accessed on March 25, 2013 from

<http://www.fda.gov/MedicalDevices/ProductsandMedicalProcedures/GeneralHospitalDevicesandSupplies/ucm308622.htm>

Medical Devices - General Hospital Devices and Supplies

Patient Lifts

Patient lifts are designed to lift and transfer patients from one place to another (e.g., from bed to bath, chair to stretcher). These should not be confused with stairway chair lifts or elevators. Patient lifts may be operated using a power source or manually. The powered models generally require the use of a rechargeable battery and the manual models are operated using hydraulics. While the design of patient lifts will vary based on the manufacturer, basic components may include a mast (the vertical bar that fits into the base), a boom (a bar that extends over the patient), a spreader bar (which hangs from the boom), a sling (attached to the spreader bar, designed to hold the patient), and a number of clips or latches (which secure the sling).



These medical devices provide many benefits, including reduced risk of injury to patients and caregivers when properly used. However, improper use of patient lifts can pose significant public health risks. Patient falls from these devices have resulted in severe patient injuries including head traumas, fractures, and deaths.

The FDA has compiled a list a best practices that, when followed, can help mitigate the risks associated with patient lifts. Users of patient lifts should:

- Receive training and understand how to operate the lift.
- Match the sling to the specific lift and the weight of the patient. A sling must be approved for use by the patient lift manufacturer. No sling is suitable for use with all patient lifts.
- Inspect the sling fabric and straps to make sure they are not frayed or stressed at the seams or otherwise damaged. If there are signs of wear, do not use it.
- Keep all clips, latches, and hanger bars securely fastened during operation.

- Keep the base (legs) of the patient lift in the maximum open position and situate the lift to provide stability.
- Position the patient's arms inside the sling straps.
- Make sure that the patient is not restless or agitated.
- Lock the wheels on any device that will receive the patient such as a wheelchair, stretcher, bed, or chair.
- Make sure that the weight limitations for the lift and sling are not exceeded.
- Follow the instructions for washing and maintaining the sling.
- Create and follow a maintenance safety inspection checklist to detect worn or damaged parts that need immediate replacement.

In addition to following these best practices, users of patient lifts must read all instructions provided by the manufacturer in order to safely operate the device.

Safe patient handling laws mandating the use of patient lifts to transfer patients have been passed in several states. Due to the passage of these laws, and the clinical community's goal of reducing patient and caregiver injury during patient transfers, it is expected that the use of patient lifts will increase. The best practices listed above are designed to help reduce the risks while enhancing the benefits of these medical devices.

Resources

- [Summary of FDA MedSun Survey Findings on Patient Lifts](#)¹ See Below
- [Centers for Disease Control and Prevention-Safe Patient Handling](#)²

Page Last Updated: 06/27/2012

Medsun: Newsletter #73, June 2012

Non-Powered and Powered Patient Lifts: MedSun

Small Sample Survey Summary

<http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/medsun/news/newsletter.cfm?news=73#5>

Survey Topic: Non-Powered and Powered Patient Lifts - Summary of Responses

Year Conducted: 2011

Background

There are many medical devices designed to lift and transfer patients from one place to another whether it's from a bed to a chair or stretcher, or in and out of a bathtub. Patient lift devices may be non-powered and manual, or may be powered and operate by batteries and electricity. These devices may be mounted to a ceiling or may be a portable model that can be rolled into a patient care area. Most lifts, unless specified by the manufacturer, are not designed for patient transport.

The purpose of this survey is for FDA to learn about the use of these devices for patient care from the clinical perspective. The information will help FDA better understand the experiences of hospital staff that use patient lifts for daily activities and safe patient transfers.

The survey involves healthcare professionals from nine MedSun facilities. Survey respondents include staff who are nurses, nurse managers, nurse educators, physical therapists, patient safety staff, risk managers, and biomedical engineers. The information that follows is a summary of their responses.

Summary

All respondents use either non-powered or powered patient lifts or a combination of both in their facilities. Although lift manufacturers and models vary among the respondents, all use lifts made by four or five manufacturers. Also the majority of respondents use multiple device types to assist in patient transfers including, but not limited to, ceiling mounted lifts, portable lifts, sit to stand aids, and slider aids. All but one of the nine respondents has a lift that accommodates bariatric patients. Four respondents believe staff is more likely to use the overhead lift because of easy accessibility.

The majority of respondents use slings and accessories from the original lift manufacturer. One respondent reports that occasionally a sling from another manufacturer may be used by mistake because their hospital uses slings and lifts from multiple companies. Two of nine respondents use only disposable slings. The remaining respondents say their slings are reusable or they use a combination of both reusable and disposable slings.

Responses vary to questions about how staff select the correct sling and lift for specific patients. One respondent states their slings are color-coded by size and stored that way for easier selection. Another respondent follows a specific hospital protocol that involves Physical Therapy evaluating patients and recommending the appropriate size sling. Two other respondents report that the sling and lift are kept together in their hospitals for ease of use. Another respondent reports that the manufacturer's packaging makes it impossible to identify the type of attachment (i.e., loop, button, etc) is on the sling. To address the issue, the facility has materials management staff place stickers on each sling package upon receipt to make it easier for staff to select the correct sling.

Clips are used to attach a sling to a patient lift and the design varies among manufacturers. Some have an open clip design and others a closed design. One person describes an open design with a hook for attaching the sling. This respondent adds that it's important for staff to verify that the loop on the sling is securely seated down into the hook. Other respondents describe having closed clip designs including some that are spring-loaded and snap in place when weight is applied, and other types that are made of a hard plastic tab that attaches securely onto a metal nub on the lift.

Respondents report no instances of sling detachment with either the open or closed clip design. One respondent comments that appropriate use of the correct sling is important in preventing sling detachments. Also, respondents have no concerns about the durability of slings.

Slings attach to lifts by different types of hanger bars. When discussing hanger bars, most say their staff do not remove them from lifts or interchange one manufacturer's hanger bar with another. However,

according to two respondents, there are situations when they change the hanger bars based on patient status (i.e., mobility, ability to assist, etc.) and the points of attachment on the sling needed for a safe transfer.

All nine respondents use lifts throughout their facilities. Most often, lifts are used to transfer patients who have limited mobility, are elderly, or who require total care, rehabilitation, or physical therapy. Lifts are also used for bariatric patients. Lifts are more frequently used in the intensive care units but are also used on other nursing units. In all facilities lifts are either stored on the units or delivered to the units from a supply area. Frequently during the survey, respondents report that staff will move a patient without a lift instead of waiting for one to be delivered or going to get one. However, staff in facilities with ceiling mounted lifts in patient rooms feel they are used more often because they are readily accessible.

Eight of the nine respondents report that lifts in their facilities are not used to transport patients to other departments. However, one respondent has observed patients being transported in a lift for a short distance in the hospital radiology department.

The majority of respondents have instructions for use attached to the lifts in the form of laminated cards. Whether the staff uses them and finds the instructions helpful is not known. Four of nine respondents feel that using a lift is straightforward and once staff receives training, the instruction card would not be utilized. Respondents report the average age of lifts in their facilities is between one and seven years old, however, one lift currently in use is 20 years old. One facility will keep lifts until they are obsolete or until obtaining parts for repairs becomes difficult. Another will keep their lifts for 5 to 10 years, depending on use and repairs. Preventive maintenance is only done on an as needed basis in one facility as compared to the others where it is done annually or biannually, and more often if there is a problem.

Almost all of the respondents report that the number one problem with lifts is battery charging and replacement. Most agree that use error is part of the problem with batteries because staff forget to plug in the lift to recharge the batteries when it's not in use. An issue from one facility involves the frequent breaking of an AC plug that is interchangeable for US/European voltage. The respondent believes that the connection may be weak because it's an interchangeable plug causing it to break off with continual use. This particular facility is working with the manufacturer to resolve the issue.

Three of nine respondents report a potential tipping problem with lifts. One respondent's concern is the possibility of the patient's weight shifting resulting in the lift not raising the patient up evenly. In addition, they say that positioning the lift correctly underneath the bed is critical to prevent the lift from tipping.

Six of nine respondents report some difficulty with lifts fitting under beds or stretchers especially in Radiology Departments. Some radiology equipment has to attach to the floor and positioning a lift close is not always possible. Also, with reference to ceiling mounted lifts, there may be equipment already mounted to the ceilings in radiology rooms, so installing an overhead lift may not be feasible.

When asked about patient or staff injuries, most respondents have no reported incidents. However, one respondent describes a staff injury while using a lift and believes it's because of improper body alignment and movement by the individual during the process of lifting the patient.

All respondents state their facility provides some type of staff training on the use of lifts. Some have staff complete annual competencies about using lift devices. Others have train-the-trainer programs to establish peer leaders for unit staff. All nine respondents provide training during orientation for new employees on the use of the lifts.

When discussing improvements to lift devices, respondents have many suggestions.

They include: 1) a color code for weight limits in large bold print on the lift and sling, and perhaps making the model number coincide with the weight limit, 2) a battery charge indicator on the lift that is easily read, 3) a large digital display of the weight being lifted, 4) a misalignment sensor to remind staff to lift from the patient's center of gravity and not at an angle, 5) a motor that is strong enough to lift 1000 lbs, 6) more compact lifts for easier storage and accessibility, 7) reduce the cost of lifts, and 8) improve the accessibility underneath bed frames. Additionally, one respondent suggests that a utilization monitor would be good. This feature would inform management about how often lifts are being used. Management could use the information to determine what actions may be needed such as more training, improved accessibility, etc. It would also help with purchasing decisions and deployment of lift devices in the facility.

Special Studies and Surveys are two of many tools the Agency is using to evaluate the public health impact of the potential problems associated with the use of medical devices. Additionally, FDA continues to receive adverse event reports from its Medical Device Reporting program. FDA will also continue to make use of the literature and other published information. FDA scientific, medical, nursing and engineering staff are made aware of the survey results as needed. If FDA believes there is a significant risk of adverse events as noted from the survey, it will combine those results with data gained from the other sources. FDA will work with the manufacturers and health care professional organizations to make important information known to the clinical community.

Additionally, FDA continues to work with manufacturers to ensure the development, testing and promulgation of methods for reducing the risk associated with these devices and to minimize the complications from adverse events that may occur in the course of normal usage. If the results of any survey raise serious concerns about the safety of these devices, FDA may convene an Ad Hoc group of clinical and manufacturing representatives to discuss further actions.

MedSun Newsletters are available at www.fda.gov/cdrh/medsun