Patient Safety Alert

Veterans Health Administration Warning System
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Item: Ceiling mounted patient lift installations

Specific Incident: While preparing to transfer a patient from their bed to a wheelchair, using a new ceiling mounted lift system, the lift motor fell off the track, striking the caregiver. Investigation of the event revealed that the installing contractor had not followed proper installation procedures, which led to missing parts, in this instance, the track safety stop. The lack of a formal 'post installation' inspection of the lift equipment by the sub-contractor and the facility staff contributed to the missing track safety stop remaining undetected. It was also discovered, during the investigation, that this facility is located in a seismic area and the installation was not in compliance with VA Handbook H-18-8, VHA Directive 2005-019, and VHA Master Design Specifications 13.05.041.

Actions:

1. By Close of Business (COB) April 16, 2010, **the Facility Director (or designee)**, shall determine if the facility has installed **any** ceiling mounted patient lift system (of any brand or manufacturer) and ensure the following are completed:

   a. Verify that documentation attesting to the structural integrity of the system exists and if it is not available obtain it from the designer, prime contractor or installer of the system.

   b. If an after installation inspection has not been accomplished, complete the 'After Installation Checklist' on all ceiling mounted patient lift systems currently installed (see Attachment 2).

2. By COB April 16, 2010, if the facility is located in a seismic area as identified in VA Handbook H-18-8 Seismic Design Requirements, **the Facility Engineering Service** will verify that the patient lift installation is in compliance with the requirements of VHA Directive 2005-019 Seismic Safety of VHA Buildings and VA Master Design Specification 13.05.041 Seismic Restraint Requirements for Non-Structural Components.

3. By COB March 31, 2010, **Facilities Engineering Service**, will have a process in place to review and inspect the installation of all **future** ceiling mounted patient lift systems:

a. For patient lift systems that are under design, ensure the requirements on the 'Design Checklist for Ceiling Mounted Patient Lifts' are met (see Attachment 1).

b. Complete the 'After Installation Checklist for Ceiling Mounted Patient Lifts' (see Attachment 2) prior to permitting the equipment to be used for patient movement.

4. By COB April 30, 2010, the **Patient Safety Manager** shall document the status of this Patient Safety Alert on the VHA Hazardous Recalls/Alerts website.

Attachments:

1) Design Checklist for Ceiling Mounted Patient Lifts
2) After Installation Checklist for Ceiling Mounted Patient Lifts

References:

1) VA Handbook H-18-8 Seismic Design Requirements.
2) VHA Directive 2005-019 Seismic Safety of VHA Buildings.
3) VA Master Design Specification 13.05.041 Seismic Restraint Requirements for Non-Structural Components.

Source:

VHA facility

Contacts:

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Mr. Bryanne Patail, National Center for Patient Safety (NCPS) at (734) 930-5890

Design Checklist for Ceiling Mounted Patient Lifts

(A) Location information.

(B) Manufacturer information, including model and serial number(s).

(C) Verification of as-built drawings and structural engineering drawings for lift units.

(D) If your facility is located in the seismic area, verify that contractor is aware of VA Master Design Specification 3.05.041 **Seismic Restraint Requirements for Non-Structural Components** to incorporate into the installation design.

(E) Verification of compliance with NFPA 13 for fire sprinklers.

(F) Verification of compliance with NFPA 99 and NFPA 70 for proper grounding and bonding.

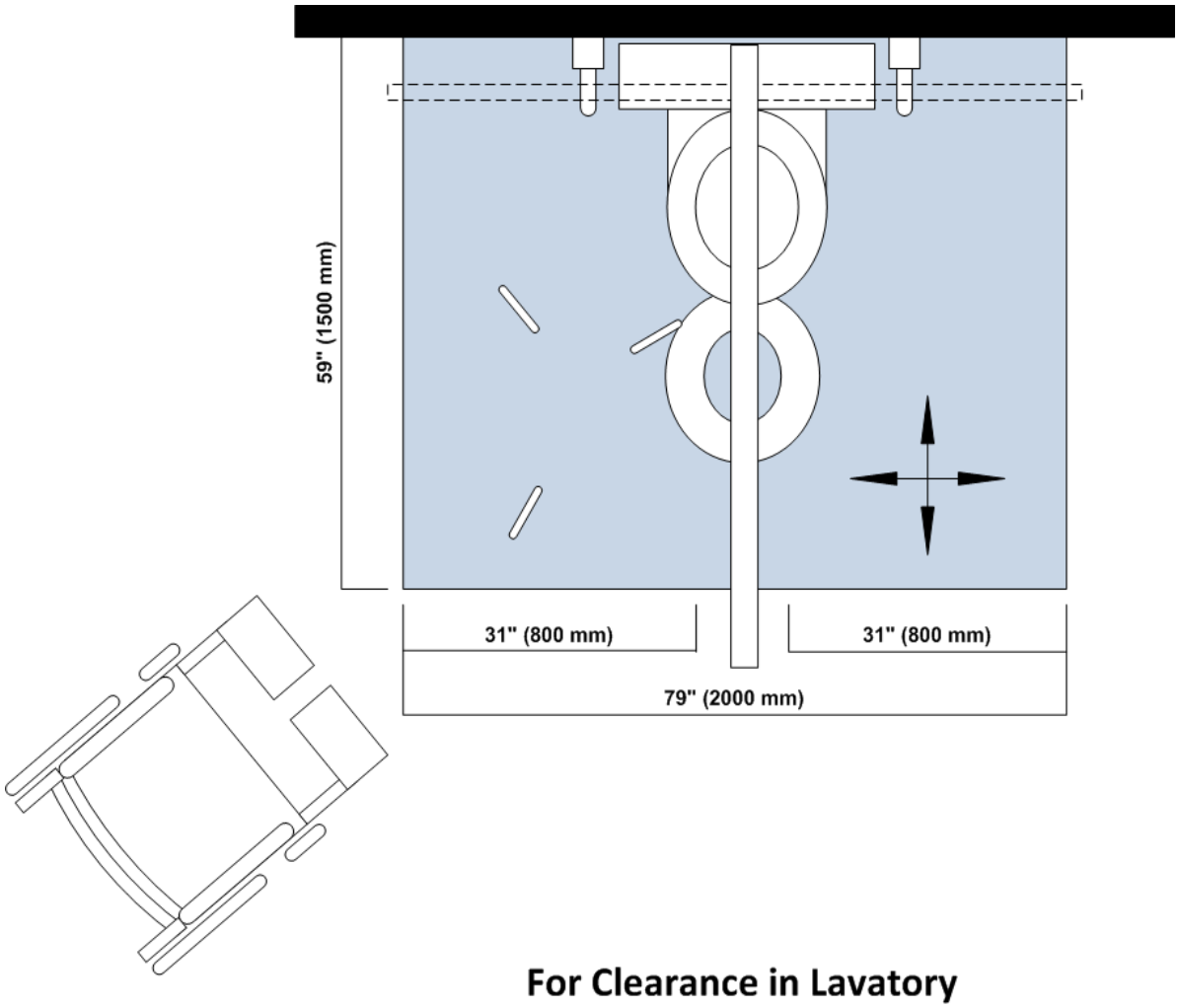
(G) Verification of compliance with NFPA 99 and NFPA 70 for access to electrical and safety systems.

(H) Verification of required access to engineering mechanical, HVAC, and fire systems components within the mounting area of the lift units.

After Installation Checklist for Ceiling Mounted Patient Lifts

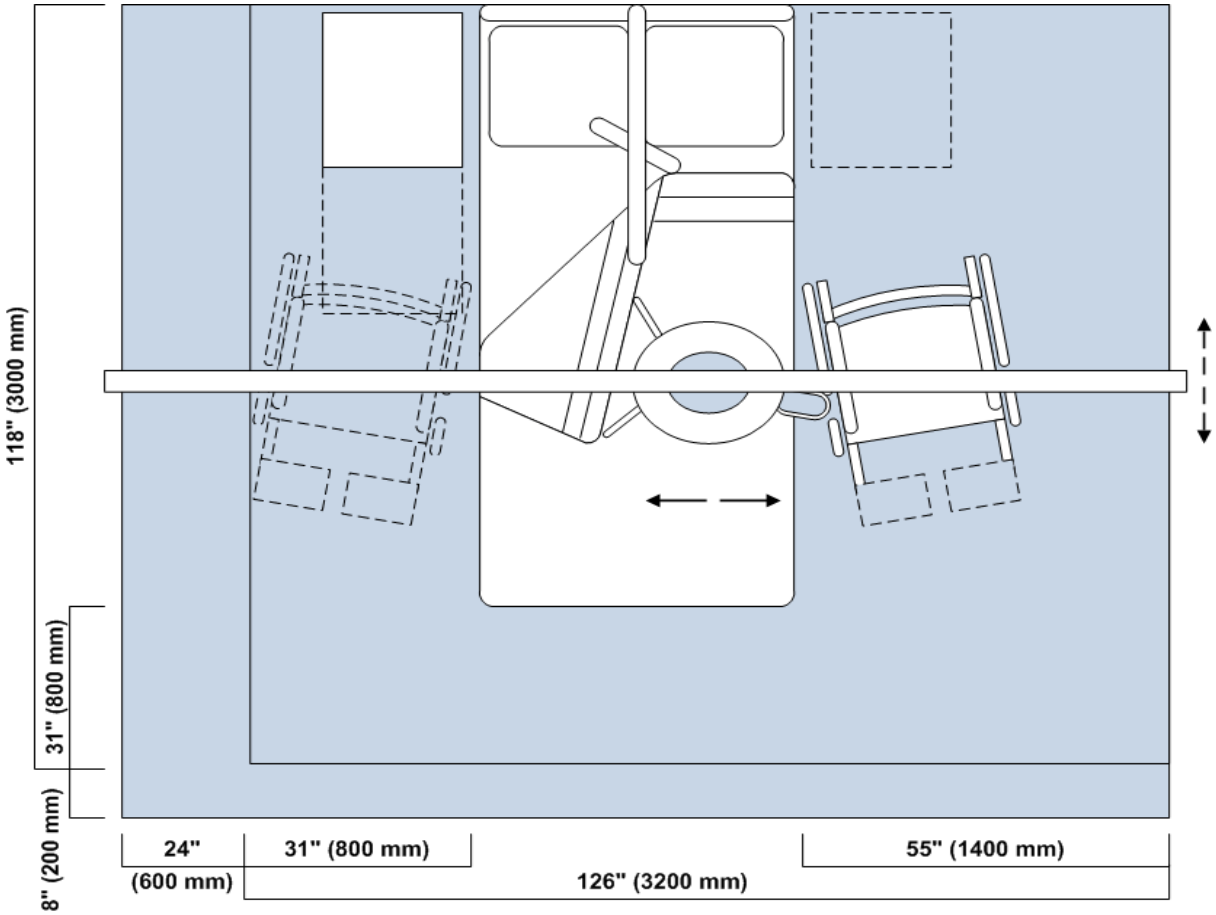
The commissioning for a patient ceiling lift system(s) shall include, but not be limited to, the following points as components of the commissioning procedures. Proper personal protection equipment (PPE) shall be worn by staff during these commissioning procedures. **Verify that ceiling lifts are not installed in treatment units with actively suicidal patients.**

(A) Refer to manufacturer's specific model and specifications to verify all location information, including minimum clearances for operation are compliant. If clearance information is not provided, refer to illustrations below; suggested clearances are 31 inches beside toilet and 55 inches beside a bed.



For Clearance in Lavatory

ATTACHMENT 2 (continued)



For Clearance in Patient Room

(B) Manufacturer information, including model and serial number(s).

(C) Confirm receipt of operator and maintenance manuals.

(D) Verification of proper connections of structural system to the building's structure including seismic bracing if applicable.

(E) Verification of proper structural component sizing and physical installation to make sure that proper structural system and size is in place and properly installed to support the lift.

(F) Verification of proper interface of lift unit at ceiling (hard deck or soft tile) and proper installation of all protective features around the support rods and rails/tracks.

(G) Inspection of lift motor casing for cracks and alignment.

(H) Full extension and inspection of lift strap for loose threads or frays.

ATTACHMENT 2 (continued)

(I) Inspection of sling material and sling stitching for loose threads or frays.

(J) Inspection of spreader bar and clips for cracks and for loose or missing rings or cotter pins.

(K) Verification that all rail end stops are in place and tightened.

(L) Inspection and activation of hand control for full operation (e.g., up, down, left, right) and “return to charge” function if applicable.

(M) Inspection and activation of emergency up/down motor case control buttons if applicable.

(N) Confirm any and all motor case indicator lights are functioning (e.g., red service warning light, charging state light).

(O) If included in installation, verify rail turntable function, exchanger function, and gate alignment.

(P) Confirm track is clean and clear of all debris (suggest wiping entire length of interior track channel with a soft cloth). Note: Use manufacturer’s recommended cleaning materials to avoid damage to the motor case and other components. Phenol or chlorine solutions may damage some motor case surfaces.

(Q) Verification of any “soft start” or “soft stop” features and that lifting speed does not exceed 2.5 inches per second with “zero” load.

(R) Verification of load testing and deflection testing at lift listed maximum for each lift unit at its maximum rated lift capacity. Conduct this test in three progressive stages starting with a 100 lbs load, then 50% of maximum rated lift capacity, then 100% of maximum rated lift capacity.

(S) Verification of any “soft start” and “soft stop” features and that lifting speed does not exceed 1.5 inches per second under maximum rated lift capacity.

(T) Verification of function of emergency brake at maximum rated lift capacity.

(U) Verification of emergency lowering feature at maximum rated lift capacity.

(V) Inspection of units by Contracting Officer’s Technical Representative (COTR: Maintenance & Repairs, Facilities Engineering Services, Biomedical Engineering, or Safety) prior to release of lift(s) to clinical use.

(W) Training of clinicians and other staff who move and handle patients on the use of patient handling equipment is accomplished by the manufacturer or their designated representative. Training is documented and competency verified prior to release for use with patients.