

Form: A-823-05

Rev.: 1.0

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03/26/24

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Total Lift Bed Best Practices with Mechanical Circulatory Support

INDICATIONS:

- Patients with femoral placement of invasive support such as intra-aortic balloon pump (IABP) and Impella in which hip flexion is contraindicated
- Patients with complex invasive support, where traditional mobility is difficult such as various cannulations of extra corporeal membrane oxygenation (ECMO).
- Patients who require Maximum assist or are dependent for all functional mobility with good rehab prognosis
- Patients with high BMI, especially whom are intubated/cannulated

CONSIDERATIONS:

- MAP >Physician ordered goal at rest
- HR <Physician ordered goal at rest
- Hemodynamically stable at rest
- Consistently able to maintain adequate flows (as ordered by provider) on the ECMO circuit at rest
- Cannula sites should not be actively bleeding

PRECAUTIONS:

- Weight limit of bed: 425 pounds
- Height limit of bed: 6 feet 7 inches
- Invasive lines or incisions that would prevent securement of the patient with the safety straps (alternate strapping techniques at the discretion of the clinician)
- Patient is severely agitated

CONTRAINDICATIONS:

- Patients with unstable fractures
- Untreated unstable intracranial pressure
- Hemodynamic instability refractory to vasoactive support at rest

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Pre-Mobility Checklist:

- Recommended that patient has appropriate non-slip footwear according to your hospitals protocol
- Check that all lines, tubes, and drains have enough slack for the bed to rise into a vertical position
- If the bed's stabilization frame is not already in contact with the floor, check that all power cords and water lines are not going to be under the bed frame for safety
- Recommended that all invasive lines have intact anchors as appropriate according to your hospital's mobility protocol
- Have ECMO nurse or perfusionist measure cannula locations so this can be re-assessed post mobility also, check for intact anchors/sutures
- Best Practice: Assign roles to each multidisciplinary team member present in case of emergency per your hospitals emergency procedures protocol
- Place securement straps over the patient
 - This may require movement of invasive device anchors to the inner or outer thigh to avoid straps being placed directly over cannulas for maximum safety
 - Place straps the 3 straps as follows:
 - Below the knee
 - Above the knee or mid/upper thigh
 - Over the chest/upper abdomen as able and appropriate
 - Alternate strapping techniques at the discretion of the clinician

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Verticalization Best Practices:

- Ensure patient is secured appropriately with straps
- Check that lines and drains have sufficient length for tilting
 - As patient is tilted, continue to monitor lines and drains to ensure safety
- As the bed comes into tilt position, ensure the patient's feet come in contact with the footboard as it begins to tilt
- Raise bed initially to low degree partial tilt for assessment of patient tolerance
 - Typically 15-30 degrees dependent upon patient tolerance
 - Monitor vitals and document as appropriate
- If patient is tolerating the previous degree of tilt, continue progressing tilt in increments of 5-10 degrees (every few minutes as tolerated) up to the maximal achievable angle
- If at any degree of tilt, the patient is not tolerating activity, revert to previous degree of tolerated tilt
- Once degree of tolerable tilt has been established, maintain position for as long as patient tolerance continues
 - Typically 20-30 minutes
- Document angle, weight bearing, time and tolerance
- Once desired tilt duration is achieved, slowly lower the angle of the bed until it is in a safe resting position
- Remove safety straps, have ECMO nurse or perfusionist check cannula sites and measurements post mobility
 - Store straps close by for next use
 - DO NOT THROW AWAY
- **Repeat several times per day**
 - **Typically 3-5 times per day built into the patient's normal care routine**

*****DISCLAIMER:** These recommendations were created based off successful use of the TLB with MCS in tertiary care hospitals in early mobility focused CVICU. Please consult your center's advisory board for guidelines of maximum safe practice at your facility prior to use of these recommendations***