CRITICAL CARE BC
Provincial Health Services Authority

ICU Liberation Bundle – Element E

Early Mobility and Exercise.

Introduction

The "E" element of the ICU Liberation Bundle consists of early mobility and exercise. Early mobilization of critically ill patients has been shown to be safe and feasible in both adult and pediatric populations. In adults, studies have shown that early mobilization decreases delirium, improves functional outcomes, and is cost effective.

Mobilization of critically ill patients is a shared responsibility between allied health, nursing and support staff. Physicians can help by asking about mobility progress and pain during daily interdisciplinary rounds. The ICU Liberation Bundle is about unit culture, and we all contribute.

Assessment

Early mobility in critical care means as soon as *safely* possible after admission. Hodgson et al. (2014) provide consensus recommendations on safety parameters for mobilizing adult, mechanically ventilated patients, including termination parameters. Mobilizing critically ill patients can vary based on the strength of activity, from passive stretching to active walking. Consider the following *safety* aspects before declaring a critically ill patient's activity goal:

• Neurologic	level of alertness, weakness of an extremity, deconditioning
• Cardiac	hemodynamic stability and vasoactive medication dose
• Pulmonary	ventilation and oxygenation requirements
• Lines and drains	stability of lines, location, comfort if mobilized
• Available people	i.e. nursing, respiratory therapy, occupational and/or physiotherapy and family/essential care providers

If activity goals are not being met, consider these questions:

- Is pain adequately controlled to allow for comfortable activity?
- Is the patient alert enough to participate?
- Does sedation need to be optimized?
- What was the patient's activity level prior to admission?
- Is there enough support staff available to assist with mobilization?
- What other barriers exist?
- What can be modified to reduce barriers to early mobilization?

Intervention

While encouraging and physically supporting patients' efforts to achieve their individual goals, staff must watch the patient, watch the monitors, and watch the lines while gradually increasing the activity level.

Early mobility is a team intervention requiring coordination across nursing and allied health disciplines to reach goals. It is important to set a daily activity goal with each patient based on their clinical status and resources available for support.

Recommendations

- Encourage use of a standardized early mobility protocol, such as described in Berry et al. (2017) and Critical Care Services Ontario (2022) - see references for links.
- Conduct daily mobility assessments using protocolized tools, and document in the patient's record.
- Determine whether sedation should be suspended or reduced. Do not delay or defer physical activity because of agitation if it can be safely managed by the mobilizing team.
- Schedule a time to work on physical activity with the patient, family, nurse, respiratory therapist, physiotherapist and/or occupational therapist.
- Engage patients, caregivers and family as partners in identifying individualized daily mobility goals and actions to support recovery.
- Assess, manage and document the patient's pain before, during, and after mobility activities.
- Monitor and document the patient's work of breathing, level of alertness and vital signs.

Additional tools:

- ICU Liberation A-F Bundle Overview Videos – Click on Element E on the left-hand side
  - ICU Liberation A-F Bundle Overview (sccm.org)
- Early Mobility Resources – Johns Hopkins
  - Websites for Early Mobility - Early Mobility - Welch Medical Library Guides at Johns Hopkins University-Welch Medical Library

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