The Complications of Immobility

The Benefits of Safe, Early Patient Ambulation

What Evidence Shows About the Use of Safe, Early Ambulation

Safe, Early Patient Ambulation Guide

Determine the Savings of Implementing Patient Ambulation

How to Implement a Safe Early Patient Ambulation Program

Discover Nezzie™ as a Key Component of Your Early Ambulation Program
Post-surgical immobility can have various detrimental effects on a patient’s mind and body. The physiological effects may include ventilator-associated pneumonia, urinary tract infections, bowel obstructions, deep vein thrombosis and pressure ulcers. In addition, immobility may contribute to various levels of depression. Preventing these complications can benefit the patient, caregiver and medical facility in terms of both costs and better outcomes. The links below provide further and related reading.

**Evidence-Based Practices**

- **Impact of early mobilization protocol on the medical-surgical inpatient population: an integrated review of literature**
- **Efficacy and safety of very early mobilization within 24 h of stroke onset: a randomised controlled trial**
- **Temporal trends and risk factors for readmission for infections, gastrointestinal and immobility complications after an incident hospitalisation for stroke**
- **Knowledge on complications of immobility among the immobilized patients in selected wards at selected hospital**
- **Effects of bedrest 1: cardiovascular, respiratory, and hematological systems**
- **Prevalence and outcomes of low mobility in hospitalized older patients**
- **Hospital management of older adults**
- **Diagnosis-related group-adjusted hospital costs are higher in older medical patients with lower functional status**
- **Functional decline in hospitalized older adults**
- **Missed nursing care: view from the hospital bed**
- **Attitudes and expectations regarding exercise in the hospital of hospitalized older adults: a qualitative study**
The Benefits of Safe, Early Patient Ambulation

Nurses and Physical Therapists are aware of the benefits of early, safe, frequent patient ambulation. The physiological benefits for the patient include improved functional mobility, muscle strength, and a reduced duration of mechanical ventilation. Early, safe, frequent patient ambulation can also help avoid complications including urinary tract infections, ventilator-associated pneumonia, bowel obstructions, pressure ulcers and deep vein thrombosis. Benefits for the hospital may include reducing costs via decreased length of Stay and reducing the incidence of hospital readmissions. The links below provide further and related reading.

Evidence-Based Practices

- Early mobilization in the intensive care unit: a systematic review
- Transforming the culture: the key to hardwiring early mobility and safe patient handling
- Surgical intensive care unit mobility is increased after institution of a computerized mobility order set
- ICU early mobilization: from recommendation to implementation at three medical centers
- Postoperative ambulation in thoracic surgery patients: standard versus modern ambulation methods
- Move to improve: the feasibility of using an early mobility protocol to increase ambulation in the intensive and intermediate care settings
- Transforming ICU culture to facilitate early mobility
- Early postoperative ambulation: back to basics
- What are the barriers to mobilizing intensive care patients?
- Active mobilization for mechanically ventilated patients: a systematic review

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According to \textit{Am J Crit Care. 2009;18(3):212-221}, evidence indicates that patients in intensive care units have high morbidity and mortality, high costs of care and a marked decline in functional status. Safe, early and frequent ambulation programs facilitated by Physical Therapists and clinicians in the ICU can promote functional independence without any adverse reactions. Such programs can also help avoid common, secondary post-surgical complications including urinary tract infections, ventilator-associated pneumonia, bowel obstructions, pressure ulcers and deep vein thrombosis. Benefits for the hospital may include reducing costs via decreased Length of Stay and reducing the incidence of hospital readmissions.

Ongoing education and coordination with the inter-professional team as well as changes in protocols, equipment, and ICU culture have been recommended to increase success.

The links below provide further and related reading.

### Evidence-Based Practices

- **Respiratory weakness is associated with limb weakness and delayed weaning in critical illness**
- **Early mobility and walking program for patients in intensive care units: creating a standard of care**
- **Early mobilization on continuous renal replacement therapy is safe and may improve filter life**
- **Very early mobilization in stroke patients treated with intravenous recombinant tissue plasminogen activator**
- **Safety of out of bed activity and ambulation in patients with pulmonary artery catheters**
- **Early mobilization of LVAD recipients who require prolonged mechanical ventilation**
- **Does ambulation immediately following an episode of deep vein thrombosis increase the risk of pulmonary embolism?**
- **The feasibility of early physical activity in intensive care unit patients: a prospective observational one-center study**
- **When can the patient with deep venous thrombosis begin to ambulate?**
- **Success of an early mobility program with a patient s/p mechanical ventilation with severe axonal polyneuropathy in the intensive care unit: a case report**
- **Safety of out of bed activity and ambulation in patients with pulmonary artery catheters**
- **Feasibility of very early mobilization in IV-tPA treated stroke patients: a prospective study**
- **Fighting VAP one step at a time: early mobility for the ventilated patient**
- **Early mobilization of patients receiving extracorporeal membrane oxygenation: a retrospective cohort study**
According to even the most conservative financial projections, the implementation of an Early Mobility Rehabilitation Program for post-surgical and ICU patients can generate net savings for U.S. hospitals. The investment will vary by hospital, but the return on investment is clearly positive relative to the improvements in patient outcomes, potential reduced length of stay and the possible avoidance of secondary complications. The links below provide further and related reading.

**Evidence-Based Practices**

- WakeMed Cary Hospital “get up and move” early progressive mobility
- ICU early physical rehabilitation programs: financial modeling of cost savings
- The importance of early rehabilitation and mobility in the ICU
- Early rehab in ICU generates net financial savings for hospitals
- ICU early physical rehabilitation programs: financial modeling of cost savings
- ICU early physical rehabilitation programs: financial modeling of cost savings
- Early progressive mobility and other nurse-led initiatives yield positive patient outcomes, financial savings at North Carolina hospitals
- Reduction of intensive care unit length of stay: the case of early mobilization
- Improving mobility to decrease the length of stay
- Early mobility in the ICU
- Early mobility program for patients post acute ischemic stroke and acute hemorrhagic stroke
- Early and progressive ambulation in the open heart surgery patients
- ICU Early Physical Rehabilitation Programs: Financial Modeling of Cost Savings
- Cost Analysis of Shock Wave Lithotripsy
- DVT Costs
- Delirium Costs
If we want to achieve substantive and sustainable improvements in patient outcomes, we have to change the flawed components of the systems in which clinicians work. We must redesign systems to consistently produce wellness instead of harm.

Reference: Early Mobility Toolkit

The success of a safe, early patient ambulation program is anchored in its development. Hospitals must establish the need and define the objectives of such a program, not only to gain buy-in and give life to the program on an administrative level, but to ensure buy-in on a daily basis through all clinical levels to ensure the protocols are adhered to. Implementation involves communicating clearly defined objectives and establishing protocol specifics to ensure the highest possible levels of adherence. The links below provide further and related reading.

Evidence-Based Practices

- Early progressive mobility protocol
- Implementing a mobility assessment tool for nurses
- Early mobility and safe patient handling
- A resource guide for implementing a safe patient handling program in the acute care setting
- Keep the beat, move your feet early & progressive mobility for cardiac surgery patients
- Critical care nurses’ role in implementing the “ABCDE bundle” into practice
- Walk this way early progressive mobility in the ICU
- Let’s move It! early mobility protocol implementation in a surgical ICU and acute care setting
Discover Nezzie as a Key Component of your Early Ambulation Program

Developed by a Thoracic Surgeon and available exclusively through Blickman — Nezzie, is designed to be parked bedside, holds all devices, monitors, oxygen and IV poles, thereby eliminating the need to transfer and carry each item during ambulation. Nezzie reduces the number of clinicians needed; creating a better department workflow. Nezzie features a superior design that holds more equipment than competitive products, yet remains stable, enhancing patient and staff safety. Nezzie uses no more room than a standard IV pole.

Nezzie is Designed to:

- Facilitate Frequent Patient Ambulation
- Reduce Complications of Immobility
- Improve a Patient’s Sense of Independence and Well-Being
- Increase Patient and Staff Safety
- Increase Department Efficiency and Workflow
- Increase Staff Satisfaction
- Reduce Cost

It Matters: Clinically Validated + Safety Tested

Savings Calculator

Nezzie’s Features

Dr. Nesbitt study

Nezzie Device Test Report
Prepared by: SGS

Tech bulletin safety test results