Implementation and Annual Evaluation of Safe Patient Handling Program Key to Technology Adoption, Continuous Improvement, and Fiscal Responsibility

Situation

A need to effectively implement and sustain the use of air-assisted lateral transfer technology to reduce injuries

Tampa General is a 1,018-bed, private, not-for-profit hospital. It is one of the most comprehensive medical facilities in West Central Florida with the area’s only Level I Trauma Center. The hospital serves a population in excess of 4 million and has over 6,700 employees. Manon Labrèche, Safe Patient Handling Coordinator at Tampa General, spearheaded the trial and implementation of the HoverMatt® Single-Patient Use (SPU) Air Transfer System in 2010 to address the high number of injuries related to lateral transfers and boosting. Previously, the facility had been utilizing patient lifts and slide sheets. Reusable HoverMatts were used minimally in L&D and ED, however managing logistics and product loss proved to be a challenge for maintaining inventory and, therefore, usage of this product. Manon presented to the nurse executive and value analysis teams to obtain support for a trial of single-patient use air-assisted transfer devices for hospital-wide use. This was preferred to replacing the reusable HoverMatts, due to the abovementioned product loss. Approval was obtained to trial patient-specific air-assisted technology for 90 days in the Trauma ICU and L&D. In November 2010, approval was obtained from the senior management team to implement the 39” HoverMatt SPU hospital-wide. Since the implementation in 2011, Manon has successfully managed the program by conducting a thorough annual review of injury data and developing action plans to address underperforming areas within the facility. A combination of HoverMatts, patient lifts, and slide sheets are used to manage transfer and repositioning tasks.

Implementation

Engaging stakeholders and training key to technology adoption and culture change

Implementation of the HoverMatt SPU took approximately six months. Following are the steps taken by Tampa General Hospital to manage the implementation, from establishing a clinical protocol to training, planning logistics, and billing.

• **Step 1** - Established protocol: Involved major stakeholders from OR, L&D, ER, ICU, Lift Team, Radiology, Transport, Nursing, and PT to establish and receive approval for new procedure. Contacted other hospitals to obtain their protocol. The HoverMatt SPU use protocol is patients >250 lbs., severe burn patients, or patients at risk of skin issues.

• **Step 2** - Communicated protocol: Presented policy to nurse management, including nurse executive team, nurse management, and nurse practice forum, for the affected departments.

• **Step 3** - Developed logistics and storage plan: Determined quantity of product and best location to store equipment based on unit configuration and nurse practice. Started with 5–10 HoverMatt SPUs on each unit as par level and 100 units in Central Supply. This number has been adjusted to double the quantity due to adoption over the last 4 years. Coordinated with Central Supply and Lift Team to restock HoverMatt SPUs. Met with Biomed so they could tag new air supplies and maintain them annually.

• **Step 4** - Established internal billing code and process: Product would be ordered from Central Supply and charged to departments.

• **Step 5** - Trained all users: In-serviced all user departments and shifts, which took 3–4 months (Lift Team, Transport, all floors, OR, Cath Lab, Radiology, etc.). Created training video to live on the hospital intranet site. Incorporated SPH technology into new hire orientation.

• **Step 6** - Involved peer leaders: Engaged over 100 unit peer leaders to further adoption of new technology and minimal lift culture.
Conclusion

Annual evaluation of metrics helps to identify areas of improvement and maximize budgets

Annual evaluation is the key to maintaining a successful program. Data used in the evaluation process includes product utilization by department, injuries by unit, type of injury, and equipment employed or not utilized. Additional data was gathered from a staff survey to identify barriers to adoption. Results and issues are communicated to the nurse executive team, nurse practice forum, value analysis committee, and any area of concern that may be under-utilizing product.

Overall, the lateral transfer injuries were reduced by 50% after the implementation of the Single-Patient Use HoverMatt. Investigation of staff injuries in the 2 years following the HoverMatt implementation revealed that for 64% (7 injuries) of the injuries, no safe patient handling equipment was utilized when the injury occurred. The remaining 36% (4 injuries) utilized a variety of transfer devices and half of these incidents were deemed training issues. (Fig. 1 and 2)

Additionally, training was conducted to improve utilization on the units so that patients would arrive for procedures or tests already placed on a HoverMatt, as the majority of injuries were occurring in ancillary areas. Achieving the balance of injury reduction and managing budgets continues to be a focus for Tampa General Hospital. In 2014, cost-effectiveness was added to the evaluation process, as it was noticed that a high number of HoverMatt SPUs were being used in areas with significant outpatient populations, such as the Cath Lab and Endoscopy. Currently, Tampa General is re-evaluating the use of HoverMatt SPUs in those areas with the goal of transitioning them to reusable HoverMatts to be more cost-effective.

![Figure 1](lateral_transfer_injuries_vs_total_number_of_employees_2008-2013.png)

![Figure 2](lateral_transfer_injury_rate_per_100_employees_2008-2013.png)