

Organization: University of Maryland Medical Center Downtown Campus

Solution Title: Implementation of a Mobility Technician Program at University of Maryland Medical Center Downtown Campus

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Program / Project Description

University of Maryland Medical Center Downtown Campus (UMMC DTC) physicians, nurse managers and rehab leadership identified that patients were not meeting the best practice standard of frequent ambulation, based on Early Recovery After Surgery (ERAS) guidelines and an early mobility literature review. Multiple disciplines collaborated with leadership to create the position of a Mobility Technician (MT). In 2017, the first MT was hired on the Cardiac Telemetry Unit. The goal of the program was to support nursing staff in the frequent mobilization and ambulation of patients in order to facilitate a high level of mobility and independence upon discharge. Patients were encouraged to be up for all meals and ambulate at least three times daily, as appropriate based on their functional ability. Feedback about the benefits of unit MTs from nursing staff, physicians, patients and their family members was overwhelmingly positive. As the program progressed the positive impact of the MT role along with other initiatives was seen in discharge phone calls and length of stay. The implementation group decided to monitor ambulation count, patient falls, staff injuries and HCHAPS outcomes to determine impact of the program and support the need for continuation and growth of the MT program. Since its implementation in late 2017, the UMMC DTC MT program has expanded to fourteen MTs covering ten different units. The program's success and exponential growth is supported by a robust and multidisciplinary orientation process and a structure that empowers the MT to be a part of the culture of safety both on the unit and at the hospital level.

Process

In October 2017, despite the implementation of a comprehensive early mobility program, barriers to frequent patient ambulation persisted. The UMMC Downtown campus utilized the Plan, Do, Study, Act (PDSA) approach to find a resolution. Multidisciplinary leadership asked the three general process improvement questions:

1. What is the problem?
2. Who are our stakeholders?
3. How will be success be measured?

The PDSA Cycle for Learning and Improvement



The primary barrier to frequent ambulation involved a lack of human resources to perform the task with patients. Through collaboration with other system hospitals to explore best practices, the “Exercise Technician” role at St Joseph Medical Center (SJMC) was identified as a potential solution. The Exercise Tech role at SJMC was implemented on the Cardiac Surgery unit.

Planning involved an evaluation of the hospital’s current gaps. The initial focus was ambulatory patients (identified as Mobility levels 4 and 5 in the Early Mobility program). The pilot unit goal was to ambulate patients at least three times per day. Less than 20% of the patients were meeting this benchmark. It was also determined that the new role would support mobility efforts beyond just ambulation. Core elements of the organization’s Early Mobility program needed additional support to assist with getting patients out of bed with the use of lift devices as appropriate. Evaluation of the current job description for “Exercise Technician” revealed the need for modification to meet current needs. It was determined that UMMC DTC would maintain the minimum qualification of a bachelor’s degree with a preference for Exercise Physiology. In an effort to have the position title more accurately reflect their team role, the position was retitled “Mobility Technician”. Responsibilities of the MT were designed to align with the “Joint Statement on Delegation” by the American Nurses Association and the National Council of State Boards of Nursing using The Five Rights of Delegation:

1. Right task
2. Right circumstances
3. Right person
4. Right directions and communication
5. Right supervision and evaluation

Since physical therapists and occupational therapists are considered experts on mobility, there was also due diligence taken to ensure the design of the MT job description supported the boundaries of professional roles and responsibilities per state board regulations. The practice of occupational therapy is defined as the therapeutic use of purposeful and meaningful goal-directed activities to evaluate, consult and treat individuals that have a disease or disorder impairment, activity limitation, or participation restriction that interferes with ability to function

independently in daily life roles (Comar.10.46.01). The practice of physical therapy is defined as the physical rehabilitation of patients or clients with a congenital or acquired disability which includes performing an evaluation of the physical therapy needs; performing and interpreting tests and measurements; planning treatment programs based on test findings; and administering treatment with therapeutic exercise, therapeutic massage, mechanical devices or therapeutic agents (Comar.13.01.01).

Solution

Following a detailed examination of the problem, best practices and current resources, initiation of the MT role at UMMC DTC was deemed a viable solution. Once the modification of the job description was finalized, the planning for recruitment and onboarding began.

As additional dollars were not available to fund MT positions, leadership was required to use out of the box thinking to operationalize the role. Challenging to fill positions, like the Patient Care Technician (PCT), were converted to MT positions. Nursing leaders collaborated with finance, business operations, and compensation to create the requisitions, compensation and benefits. Nurse leaders also worked with talent acquisition to ensure recruiters understood the job description and qualities managers were looking for in MT candidates.

Another challenge in creation of the MT position was encouraging current staff to embrace the idea of exchanging one support role for another. As in many aspects of healthcare today, the MT position was not an additional resource for the team but rather a reallocation of resources. Previous conversations with staff regarding a shift in resources was met with resistance, but after several sustained vacancies for one of the supportive positions, staff were open to trialing a new role on the unit. Initial education of MTs purpose and function was provided to the team, including the success of the role at a sister hospital. Significant planning around the initial training needs of MTs were outlined prior to the hire and onboarding of the first MT in December 2017.

The MT orientation has been an evolving process in order to meet the needs of newly hired MTs on multiple different units, including ICUs. MTs work within the nursing license, and it was decided a senior nurse would serve as the initial preceptor on the unit. This model facilitated communication, accountability and designed a workflow that benefited all teams. Nursing and rehabilitation services partnered to create a collaborative schedule that included general unit orientation, and multidisciplinary didactic and clinical orientation. The first iteration of the process set aside three weeks for orientation. Once a schedule was formalized, an orientation checklist was created. The checklist incorporated both nursing and rehabilitation components to ensure the MT was fully educated on the processes, equipment and safe patient handling and mobility expectations that would be required of them on a daily basis.

The MT orientation includes general hospital orientation and electronic medical record education, in addition to review of unit policies and processes as is standard for all new employees. MTs are paired with a bedside nurse to understand daily workflow and management of patients, as well as to begin building rapport with the nursing staff on their unit. The MT also spends time reviewing and participating in education that is provided to patients prior to discharge. On some units, MTs attend nursing EKG and VAD education classes to improve

foundational knowledge for the patient population. The first MT also spent observation time at SJMC, as there was no other MT at UMMC DTC to assist with orientation.

Rehabilitation services provides orientation and mentorship that is woven throughout the orientation process. Initial education on any medical or surgical precautions specific to the unit is provided prior to engaging in mobilization of patients. The MT then spends dedicated time with physical and occupational therapies to understand the therapy workflow, and receive coaching on proper handling and mobilization techniques, use of assistive devices, guarding techniques, and therapeutic exercises. MTs also attend the early mobility class offered for the organization and complete share time with the safe patient handling and mobility specialist for education on body mechanics and the use of minimal lift devices owned by the hospital. The process includes a final checkoff by a senior therapist or clinical specialist to ensure skill and knowledge acquisition and carryover.

As the organization grows the MT program, the process continues to evolve. New MTs spend share time with other experienced MTs to become familiar with their role and processes. As the position expanded to the ICU, additional education was required, including more equipment training and didactic education for more medically complex patient populations. The orientation timeline increased from 3 weeks to between five and six weeks, with flexibility allowed for individual MT and unit needs.

The MT position helps both therapy and nursing by providing additional opportunities for patients to ambulate and mobilize out of bed, as well as reinforcing therapy education and exercise programs. MT work flow has several core components, with the ability to make modifications based on unit culture. MTs attend a huddle each day, in addition to debriefing with each nurse to receive delegated goals for the patients. MTs assist with transfers / transports and discharges, reinforce teaching about mobility, fall prevention and applicable precautions. On some units, MTs assist with getting patient weights and encourage incentive spirometry. MTs are able to document patient mobility in the EMR to help the hospital track patient outcomes.

Staff and patient / family satisfaction improved with the increase in patient mobility, relieving much of the stress from the bedside nurse who could not easily achieve a goal of three walks/day for each of their patients. Depending on needs identified by the unit, the MT schedule was created to cover up to seven days a week, including holidays.

Measurable Outcomes

Post implementation of the MT role on the Cardiac Surgery Telemetry (CS) Unit and TIMC, nursing and rehab leadership in collaboration with the Patient Experience Team and Quality department created and identified survey questions to evaluate patient satisfaction related to mobility. The questions identified include the following:

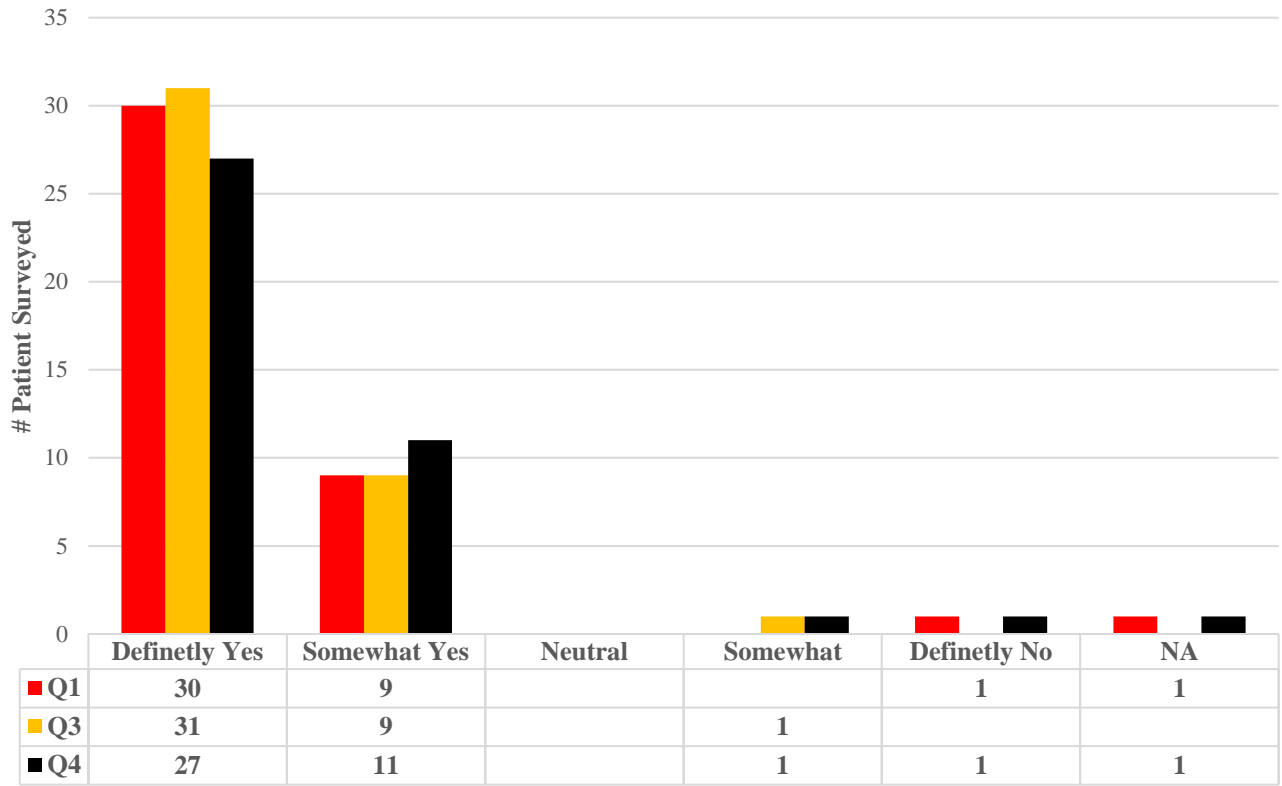
- *I was able to spend as much time standing, stretching, exercising, or walking as I would have liked.*
- *Who supported you in completing the tasks above? (Check all that apply)*
- *I was given as much support and assistance as I wanted from the staff to complete the activities above.*
- *I feel prepared to be able to move around my home or recovery location.*

Patients and families were provided the satisfaction survey upon discharge. The CS Telemetry Unit had response of 41 participants and the TIMC had 21 patients/families. Overall, both units had positive response to all questions, particularly with “I was given as much support and assistance as I wanted from staff to complete the activities above”, In addition to “I was able to spend as much time standing, stretching, exercising or walking as I would have liked”. Patients and families were able to provide additional comments regarding mobility. Both units has positive comments, these include “Marcus and Brady (MT) were so helpful and polite. I feel that they were a part of my recovery. Keep them on your staff! “Marcus is good to talk to and walk with; good and great guy”, “Mobility team unreal (Marcus and Brady are great). “Very encouraging and caring team”.

With the addition of the MT on the CS Telemetry Unit and TIMC, staff and physician satisfaction have increased. The Medical Director on the TIMC stated patients and families always provide continuous feedback post discharge about the quality care and encouragement received from the MTs. Physicians and Advance Practice Practitioners (APPs) are satisfied with the consistency on mobilization of patients on the units. This is evidenced by the constant request from other physicians and service lines to replicate the role in other areas, which has led to the expansion of the role to other units and continued professional growth and development. The MT plays a crucial role with our patient experience and engagement. The implementation of the MT role has impacted the HCAHPS scores on both units. Comments were received from the HCAHPS survey about the high quality of care provided by the MT.

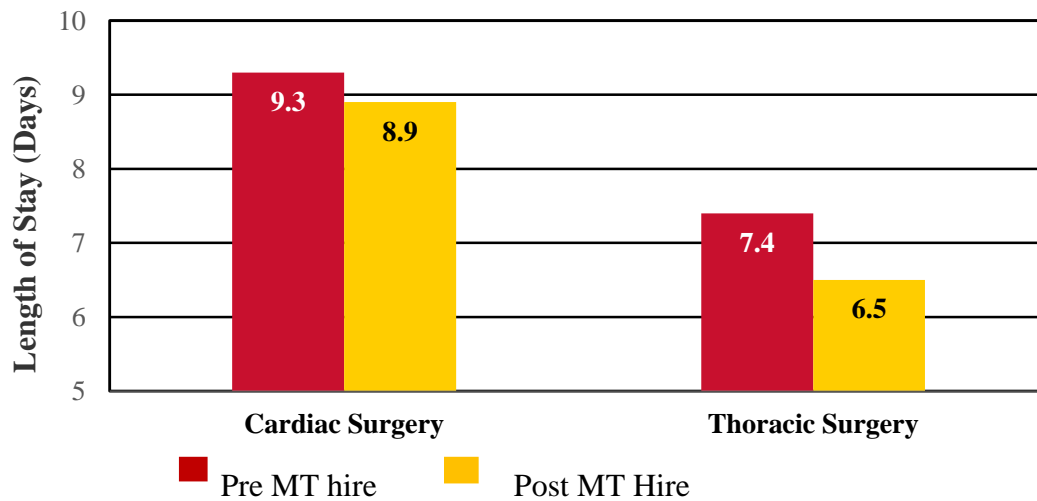
Outcomes of the MT position on both the Cardiac Surgery Telemetry unit and the Thoracic Intermediate Care Unit (TIMC) were measured for effectiveness, including patient satisfaction through discharge interviews and the effect of PTs’ ability to decrease unnecessary consults and provide an increased number of treatments to those who had ongoing therapy needs.

**Cardiac Surgery Telemetry Unit
University of Maryland Medical Center DTC**

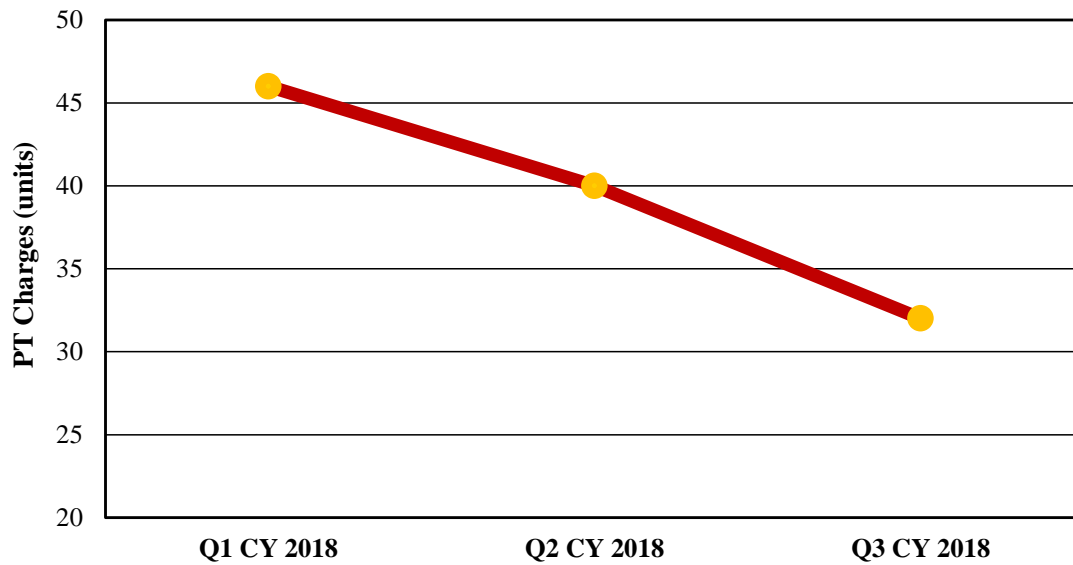


- Q1 ■ I was able to spend as much time standing, stretching, exercising, or walking as I would have liked.
- Q3 ■ I was given as much support and assistance as I wanted from the staff to complete the activities above
- Q4 ■ I feel prepared to be able to move around my home or recovery location.

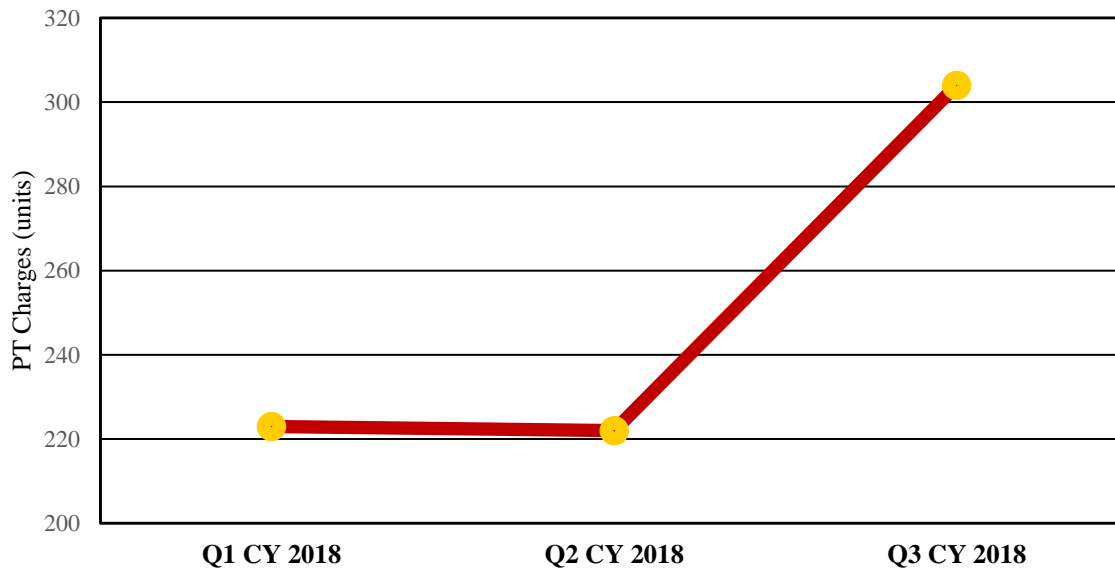
Average Length of Stay for Patients who Discharge Home



PT Evaluation Charges on Thoracic Surgery

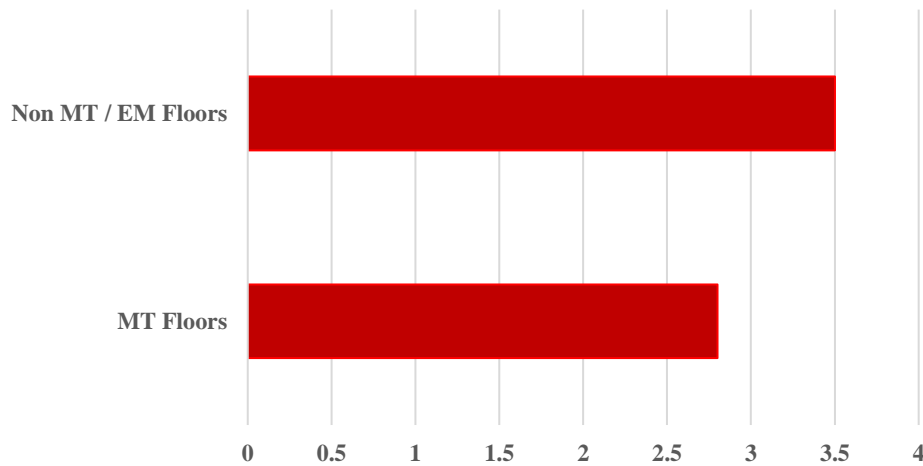


PT Treatment Charges on Thoracic Surgery



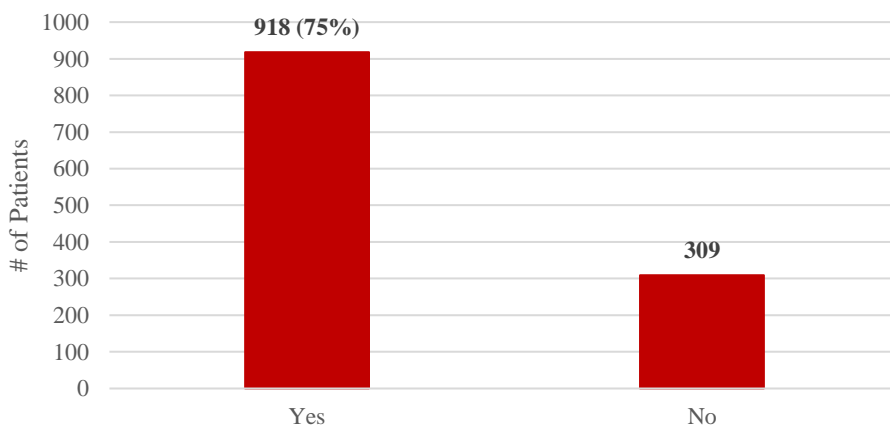
More recently falls were examined for the first quarter of FY 2020. On average, inpatient units that had a MT and full role out of the Early Mobility program had fewer falls compared to inpatient units without a MT

Avg # of falls per unit FY 20 Q1

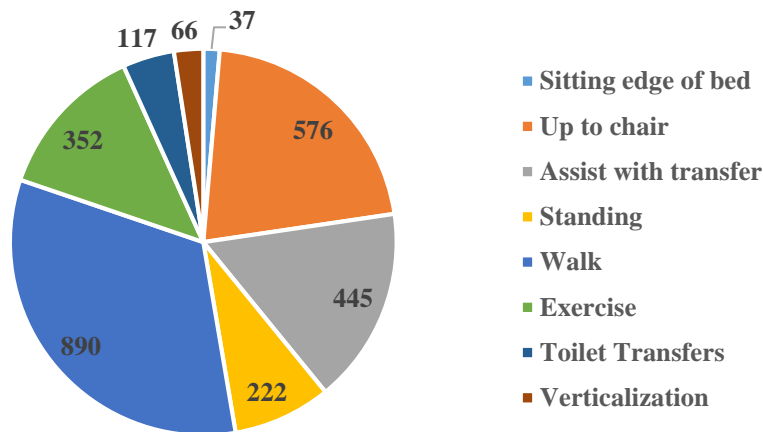


As the MT program progressed, leaders sought a new way to collect standardized information about the productivity of MTs. Since September 2019, MTs have had over 1,000 patient interactions with patients. Of those patients, over 75% were able to achieve unit mobility goals, which are based on ERAS, physician recommendation and patient ability. MTs assist with multiple types of mobility including sitting at the edge of the bed, standing with a patient, walking, and reviewing and encouraging exercise programs prescribed by PT, OT or nursing.

Did patient meet mobility goal? Sept - Oct 2019



MT Interventions Sept - Oct 2019



Sustainability

As the MT program grows both leadership and the MTs play a crucial role in sustainability. Leadership has been supportive and flexible, allowing for changes in the program to meet the needs of staff and patients. Monthly meetings are held for all MTs with multidisciplinary leadership present, including a director of nursing and rehabilitation services leadership, to provide continuing education as well as address concerns and questions of the MTs. MTs are empowered to develop solutions to barriers and collaborate with nursing staff and rehabilitation staff. In 2019, MTs worked with the fall prevention program to identify ways they could support roll out of a new initiative, and developed a presentation on their scope of services to help other staff better understand the MT role. MTs participate in hospital wide committees, including the Fall Prevention Committee and the Safe Patient Handling and Mobility Taskforce. They are champions of fall prevention and Safe Patient Handling and Mobility on their individual units. The MT Implementation Group continues to examine measured outcomes to prove value of the role and return on investment.

Role of Collaboration and Leadership

Leadership across the UMMS system supported the implementation of the MT role at the downtown campus. Tina Cafeo, VP of Patient Care Services and A-CNO, supported development of the position, and Eileen Skaarer, a nurse manager at SJMC allowed for staff to observe the role of the exercise tech and supported the first MT orientation at the downtown campus. Disciplines outside of nursing, including rehab and HR, supported the orientation process and ensured the appropriate orientation and educational opportunities to make MTs successful in the academic acute care setting.

Innovation

Creation and expansion of the MT role helped to support the early mobility program and needs of individual units. The availability of the MT position enabled nurse managers to decide the right blend of staffing on their units to meet patient needs. Rehab and nursing collaborated to allow for the transition of rehabilitation aides to move in to a mobility tech role if they met qualifications of the job. Throughout the process, leadership had the foresight to understand how facilitation of patient mobility would be a continuing focus in the healthcare industry. Having MTs puts the UMMC DTC in an excellent position to support new ERAS guidelines. One of the most innovative aspects of the program was the creation of the role to include a bachelor's degree or higher. The unique skill set of a background in exercise science or kinesiology supports safe mobility. MTs hired at UMMC DTC often aspire to higher education or an advanced role in the healthcare field. The role allows MTs to interact with multiple different disciplines. Some who apply to PT or OT school are able to meet experience pre-requisites based on their time shadowing with therapy. MTs also have opportunities to present to groups such as the Fall Prevention Champion committee, or their nursing units in a professional capacity.

Culture of Safety

MTs are an active part of the culture of Safety at the UMMC DTC. MTs are fall prevention champions, with one MT serving on the Fall Prevention Leadership Steering Committee. They provide insight as to how their role can support fall prevention interventions, and engage in post fall huddles with the ability to complete event reports. Currently, MTs participate in a toileting pilot on three different units, and assist with the hospital wide implementation of the Tailoring Interventions for Patient Safety (TIPS) program. MTs are also identified as safe patient handling and mobility champions. They attend safe patient handling and mobility training, and spend time with the specialist during the orientation process. MTs advocate for the safe mobilization of patients using equipment, such as portable lifts and ceiling lifts, based on patient need and the Early Mobility program guidelines. MTs provide education to nursing staff if they are unfamiliar with a particular piece of equipment. In the monthly MT meetings, learning experiences and solutions are shared to promote safety of patients and staff across all units.

Patient and Family Integration

MTs support both the patient and family throughout the patient's stay on the unit. MTs are able to interact and converse with the patient and family as they assist with mobilization, providing companionship during a difficult time. MTs engage patients and family in both unit and hospital based education, including the TIPS fall prevention program, Get to Know Me boards, and unit based Journey Boards. One patient was quoted to say, "My increased mobility was an indicator of my recovery, so this service is a welcome necessity" and another patient stated that the MT on the unit "Clearly taught me proper precautions in getting around, avoiding injury; I'm pleased with overall care provided".

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Related Resources and Tools: Early Mobility Program Description & MT Job Description

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