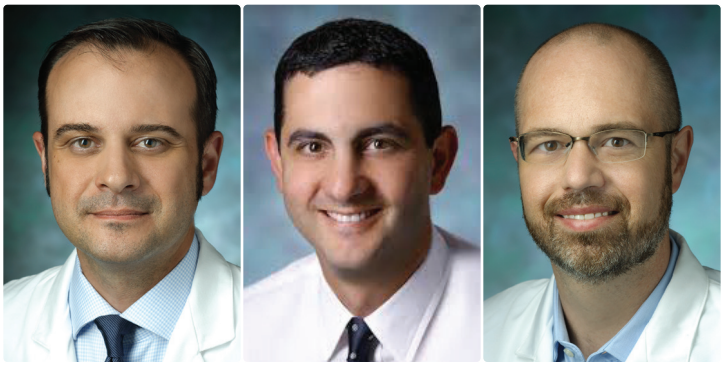
Choosing Wisely®

An initiative of the ABIM Foundation

Johns Hopkins Medicine

Background

Headquartered in Baltimore, Johns Hopkins Medicine is home to six academic and community hospitals, four suburban health care and surgery centers, over 40 patient care locations, a home care group and an international division, and offers an array of health care services.[1]



John Probasco, MD | Michael Friedman, PT, MBA | Erik Hoyer, MD

Problem

Physical Medicine and Rehabilitation and Neurology leaders at Johns Hopkins Hospital were concerned with the inpatient rehabilitation consultation process, specifically overutilization for those patients with no impairment in activity or mobility, with consequent diminished acute inpatient rehabilitation treatment frequency for those with greatest need. The goal of this multidisciplinary quality improvement initiative was to better direct rehabilitation resources for neurology inpatients.[2]

Solution

A variety of team members from the departments of Physical Medicine & Rehabilitation (PM&R) and Neurology participated in the initiative, including: nurses, physical and occupational therapists, cerebrovascular and general neurology attending physicians, neurology resident physicians, PM&R physician and administrative leaders, hospital patient safety and quality improvement coordinators, and neurosciences departmental leaders.

The study was conducted in two mixed neurology and neurosurgery acute care units over a one-year period. It included all cerebrovascular and general neurology patients older than 18 who were admitted to a neurosciences acute care unit with a rehabilitation consultation request. Data was collected from quality improvement databases and the electronic health record (EHR).

During team intervention meetings with residents, nurses, and physical and occupational therapists, a rehabilitation consultation process map was created. Physical and occupational therapists presented on appropriate rehabilitation consultation practices during resident orientation. They emphasized an individualized analysis of each patient's need for physical or occupational therapy, and cautioned against indiscriminate requesting of both forms of therapy for patients they felt had acute inpatient rehabilitation therapy needs.

Nurses were trained on the functional impairment measurement tool utilized by physical and occupational therapists, the "Activity Measure for Post-Acute Care Inpatient (AM-PAC) Short Forms." Within the first 8 hours, nurses completed initial short-form assessments for all acute inpatients. For patients who scored with no activity/mobility limitations and rehabilitation consultation requests, nurses contacted residents to determine consultation necessity. Nurse scoring was available for physician and therapist review in the EHR.

After the initial nursing assessment with the AM-PAC, resident and attending physicians utilized standard text depicting patient rehabilitation assessment that was embedded into the EHR, and discussed patients' rehabilitation needs during physician team rounds as well as multi-disciplinary team rounds. During each of these rounds, consultation requests were added and cancelled based on team assessments.[2]

Results

Overutilization patterns were reduced among acute neurology inpatient populations, and rehabilitation therapy treatment frequency increased for patients with the greatest impairment. Results were sustained after the quality improvement initiative.[2] "The utilization of AM-PAC scoring to reduce "low-value" rehabilitation consults has been generalized for use across the adult hospital," said Michael Friedman, PT, Director of Rehabilitation Therapy Services.[4]

Core Interventions[2]

- Process map for rehabilitation consultation developed during intervention team meetings
- Physical and occupational therapists' presentations on appropriate rehabilitation consultation practices during resident orientations
  - Residents were educated to enter specific indications for rehabilitation consultation requests and patient anticipated date of discharge into the electronic provider order entry and EHR
- Nursing staff assessed patient limitations in activity and mobility using the AM-PAC Inpatient Activity Short Form and Inpatient Mobility Short Form
- Standard text depicting patient rehabilitation assessment embedded into the EHR

Category[2]	Decrease During 6-Month Intervention & Sustain Periods[2]
Initial rehabilitation consults for patients with no limitations in mobility or activity	7% and 10%, respectively (P < .001)
Baseline rate for patients with no limitations receiving both physical therapy and occupational therapy consultations	21% and 39%, respectively (P < .001)
Proportion of initial rehabilitation visits for patients with no limitations decreased in both the intervention and sustain periods	42% and 17% decrease, respectively (P < .001)
Total rehabilitation visits for patients with no activity or mobility impairment	50% and 33%, respectively (P < .001)
Dual consultation for both physical and occupational therapy for patients with no impairment	66% and 37%, respectively (P < .001)

Category[2]	Increase During 6-Month Intervention & Sustain Periods[2]
Rehabilitation sessions per hospital day increased for patients with high functional impairments, from 0.52 at baseline to 0.64 in the intervention and 0.66 in the sustain periods (P=0.02)	1 more rehabilitation visit per patient hospitalization

Challenges

- **Large Number of Providers Placing Consultation.** "We have a large number of clinicians inclusive of residents and trainees who consult physical and occupational therapy. As a result there is tremendous variance in understanding the need to target rehabilitation resources to patients where we can realize the greatest outcomes," said Friedman.[4]

- **Lack of a Common Language of Function.** "Prior to develop our Activity and Mobility Promotion (AMP) effort. There was no systematic approach to assessing function and communicating across the multi-disciplinary team. We were successful in implementing a standardized use of AM-PAC and JH-HLM, reinforced by workflows in our EHR and rounding. However, a considerable amount of time is necessary to educate thousands of nurses. Turnover that happens in an academic medical center was also a barrier," said Friedman.[4]

Keys to Success

- **Frequent Data Review.** "We met on a daily basis to review data and understand how our therapy consultations were being impacted," said Erik Hoyer, MD, Vice Chair for Quality, Safety and Service, Department of Physical Medicine and Rehabilitation, Assistant Professor of Physical Medicine and Rehabilitation.[3]

- **Ongoing, Sustained Improvement.** "We saw ongoing, sustained improvement. Understanding that therapists play a critical role in maintaining patient function in the hospital, we have used the concept of *Choosing Wisely* for therapy as an important component of our early mobility program," said Hoyer.[3]

- **Medical Record Workflow.** "We continue to work on both human and electronic medical workflows, optimizing the electronic medical record with how it interfaces with humans and human decisions. We focused on not incorporating too many clicks, and ensuring that what you incorporate in an electronic medical record actually drives a clinical decision," said Freidman.[4]

- **Focusing on High Value Care.** "We focused our attention on eliminating low value consultations. Every time we can save a therapist from seeing a patient who can instead receive assistance from a technician or family member, that therapist can see more ICU, elder, post-surgical and/or long-length stay patients with special intervention needs. Our goal is to better target our consultations to patients in greatest need," said Friedman.[4]

- **Quality Improvement Process.** "This takes a team and has multiple stakeholders. Something that worked in one unit needs to be sustained and scaled, and may need to change in another unit or hospital, but the basic tenets remain the same. Executive support and recognition of immobility as a safety-quality harm has been a tremendous part of our ability to sustain this process as an institutional priority" said Friedman.[4]

References

1. The Johns Hopkins Hospital Website. https://www.hopkinsmedicine.org/the_johns_hopkins_hospital/
2. Probasco JC, et alt. Choosing Wisely Together: Physical and Occupational Therapy Consultation for Acute Neurology Inpatients. *The Neurohospitalist: SAGE Journals*. September 2017
3. Hoyer E Interview. ABIM Foundation. March 2020
4. Friedman M Interview. ABIM Foundation. March 2020

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