



Reducing Delay in Completion of Title XIX Forms in a **Physical Medicine and Rehabilitation Department** Marina Ma, MD

Background

In the fall of 2022, the Physical Medicine and Rehabilitation Department (PM&R) at Texas Children's Hospital (TCH) received numerous complaints from equipment vendors regarding significant delays in completing Title XIX forms.

- Title XIX form are required for insurance to process request for durable medical equipment
- Insurance authorization delays negatively \bullet impact patient care
- Patients unable to obtain equipment in timely \bullet manner



Project Aims

Reduce the length of Title XIX completion by our PM&R office by 50% in 3 months

Methods

- Title XIX QI working group formed, consisting of representatives from the physician group and administrative leadership
- Working group assessed processes affecting Title XIX completion
- Baseline data provided by two main vendors.
- Title XIX process and key issues evaluated in quarterly Quality and Safety Rounds, faculty meeting, and administrative staff meeting
- Options for intervention ranked by feasibility and level of effort
- Bi-monthly vendor data will be tracked to assess the impact of interventions



Texas Children's Hospital, Department of Physical Medicine and Rehabilitation, Baylor College of Medicine

Lack of standard expectations

Discussion of Findings

Results

- Analysis of key drivers indicated the need to implement near term intervention to address critical delays in Title XIX process.
- Prior to interventions, average length of Title XIX completion was 19 days
- After initial interventions, vendor complaints and leadership notifications have ceased
- Bi-monthly vendor data still pending

Proposed solutions

- Near-term Interventions:
 - Notify leadership of Title XIX delays
 - Replace face-to-face visits with procedure notes to address 6-month visit requirement
 - Schedule appointment with APP if primary physician is not available
 - Send Title XIX to PCP
 - Standardize the signing process with clear expectations for both physician and administrative staff
- Medium term: increase staff support
- Long term: Implement technology to enable automation and integration with current Electronic Health Record system

Barriers

- Buy in from staff (physician and administration)
- Inability to get data quickly from vendors
- Continued administrative staff turn-over and delay in replacing them

Future directions

- Use data from vendor for 2nd PDSA cycle
- Discuss with other departments regarding use of electronic document signing platforms



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Title XIX reviewed by PMR admin and faxed to vendor

Title XIX sent by vendor for insurance approval

Use of Volume Targets Per Session Effect on Practice Efficiency and Faculty Well Being

[†] Weill Cornell Medicine, Department of Physical Medicine and Rehabilitation, New York, NY

RESULTS BACKGROUND Figure 1. Number of physicians needing to improve practice efficiency • Weill Cornell Dept of PM&R department is housed in an academic center in NYC, one of the most expensive cities In the setting of rising practice costs with dropping reimbursement, it is important to have an optimized system to maximize departmental revenue # sessions@@sctarget # sessions did not meet targe • Currently, the department gives all physicians autonomy on how to control their schedule and patient Figure 2. Survey of faculty of how they would want to change their schedule volume Changes to schedule to increase practice efficiency There has not been a recent evaluation on what it costs to run a practice at our satellite sites • 100% of surveyed Weill Cornell Medicine attendings did NOT have a clear understanding of how many patients Drop 1 clinical session, but keep total number of patients seen per week the same (increase volume) on other days) needed to be seen at each clinical site for our Covert 1 in person session to 1 session of video visit department to cover all costs and breakeven Increase number of patients seen per session INTERVENTION TIMELINE METHODS • Calculated the revenue required to cover all costs of 2 clinical sites and backed that into our RVU model Surveyed faculty on references on how to change thei Analysis of what schedule to bes Provided faculty with wRVU target numbers needed to annualized wRVU optimize efficienc productivity for and barriers to Re-do financial lepartment to break become more cover costs at each site as well as their individual analysis of 2 sites even at 2 clinical sites clinically productive annual wRVU numbers. • Surveyed faculty on preferences on how to adjust mplement schedule faculty with changes and track schedule to help best meet targets wRVU for 6 months epartment targets and individualized vRVU numbers at each clinical site • Surveyed faculty to evaluate well-being related to clinical load and what are the biggest barriers to being more clinically productive.



Jennifer Soo Hoo, MD[†]; Jaspal Ricky Singh, MD[†]







Figure 3. Biggest barriers for our faculty to be more clinically productive

What do you feel are the biggest barriers of being more clinically productive? (top 2) 10 responses



• With optimized and efficient clinic schedules, potential increase in wRVU for CY 2021 was 1,155 wRVU as well as increased capacity to hire additional physicians with same office space

- schedule





COLUMBIA UNIVERSITY

		(50%)	
	-4 (40%)		8 (80%
10/1			
176)			
1%)			
2	4	6	8

NEXT STEPS

• With clear production targets in mind faculty will have a better idea on how to craft their schedules to help optimize practice efficiency for the department as well as having autonomy over their

• Extra revenue generated due to increased practice efficiency can then be used for: • Increasing wRVU conversion rates Increased clinical support staff Social events

Vagelos College of Physicians and Surgeons

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Vagelos College of Physicians and Surgeons





Background

Prior to 2018, the Department of Rehabilitation Medicine at our institution administered a single clinical elective for 4th year medical students with small enrollment numbers. To date, we now offer 4 separate clinical electives, each with higher enrollment numbers. Rotations are either 2 or 4 weeks (Monday-Sunday) with the last day of direct student contact typically being the last Friday of the block. With the increase in the number of students rotating though our department and affiliated sites comes an increase in the evaluation workload for our core faculty, volunteer faculty, and house staff. Formal student evaluations at our institution occur through the online "New Innovations" evaluation software. The software allows an evaluator to complete the evaluation, decline the evaluation (duplicate request, didn't work with the person, didn't spend enough time with the person, other), or leave it in an incomplete state. Over recent years, it has become increasingly more difficult to receive completed evaluations, and if completed, to receive them in a timely manner.

In the 2021-2022 academic year, the overall completion rate of all requested evaluations (n=235) was 57%. Of the 133 completed evaluations, only 50% were completed in a timely manner (as defined by completion of the evaluation by the due date which is 10 days after the end of rotation). 29% of the requested evaluations were declined and 14% were left in an incomplete state. During this same timeframe, a significant proportion of students' final composite evaluations were delayed beyond the grade deadline (4 weeks after the end of rotation), most commonly due to insufficient numbers of completed requested evaluations. Ultimately, we would like to improve evaluation completion rate and timeliness which would allow students to obtain grades sooner, ensure our department meets LCME benchmarks, and decrease departmental administrative stress.

Goals & Objectives

- To reduce the incomplete evaluation rate to 0%.
- To improve evaluation overall completion rates to 80% or above. • To improve the proportion of completed evaluations in a timely manner to 80%
- or above. • To initiate the instillment of a culture where direct, timely feedback to students is not only expected, but upheld.

Study Design

Over a period of 16 weeks, spanning the blocks 5 through 8 that roughly correspond to late August through mid December of the 2022-2023 academic year, we implemented an automated texting system to encourage evaluation completion. The automated texting system was implemented using the iPhone's automation features. On the last Friday of each 2-week interval, house staff and attending physicians who have worked with students over the prior 2 weeks received a text message from my personal number to their identified work/ personal cellular device. The text read as follows:

"Good afternoon rehab rotation faculty & house staff. You are receiving this message because one of our medical students has likely worked with you during the previous 2 weeks. Please take a moment to fill out any assigned evaluations for students you have worked with thus far. Jefferson student evaluations can be found here: [link inserted] and completed right from your phone. A link to evaluate our visiting students via a Qualtrics survey has been sent to your email (if applicable). Have a great weekend and thanks for all that you do for our medical students! -Shawn Peterson, Rotation Director."

During the study period, our education coordinator continued the standard work flow. This includes assigning the evaluations to the evaluators at the start of the rotation, setting up automated evaluation email reminders through the New Innovations system, and sending personal emails for incomplete evaluations that are past the due date. Visiting student evaluations were not included in the data sets as those evaluations do not occur through the New Innovations system.

Improvement of Timely Medical Student Evaluations

Shawn M. Peterson, DO¹ Internal Mentor: Nethra Ankam, MD¹, External Mentor: David Haustein, MD, MBA² Thomas Jefferson University, Department of Rehabilitation Medicine¹, University of Missouri School of Medicine²

Figures









Study Period is to the right of the line

Results

During the study period, the overall completion rate for requested evaluations (n=97) was 51% [Figure 1]. This compares to a rate of 58% during blocks 1 through 4 (n=102) and a rate of 59% during the same blocks of the prior academic year (n=73). The rate of evaluations left in an incomplete state during the study period was 36%. This compares to a rate of 23% during blocks 1 through 4 and a rate of 8% during the same blocks of the prior academic year. For the current 2022-2023 academic year to date, blocks 1 though 8 (n=199), the rate of overall completion is 55% and 17% for those left in an incomplete state.

When looking at the proportion of individual evaluations which were completed during the study period (n=49), 55% were submitted on time. This compares to a rate of 53% during the same blocks from the previous academic year (n=43). When stratified across the individual blocks, there was a more consistent timely completion rate (ranging from 50%-67%) when compared with the same blocks from the prior academic year (ranging from 10%-87%) [Figure 2]. Half of the study period blocks showed an increase in the timely completion rate compared to the prior academic year; though the other half displayed a decrease.

When compared to blocks 1 through 4, there was a slight overall upward trajectory of the timely completion rate during the study period though this does not appear to be statistically significant [Figure 3].

Discussion

Adding text message reminders on a 2-week basis did not significantly improve the overall percent completion rate, nor the timely completion rate when compared to blocks 1 through 4 or the same blocks during the previous academic year. The overall completion rate decreased during the study period, but was generally comparable to blocks 1 though 4 and similar blocks from the prior academic year.

There are a multitude of possible factors/barriers that may have contributed to this lack of efficacy including: time of day of the text, technical challenges, text fatigue, competing responsibilities, and pure procrastination.

There was a more consistent timely completion rate during the study period; however, such was the case during blocks 1 through 4 as well. This leads us to the conclusion that the consistency was unrelated to the study protocol. It is unclear what may have led to the more consistent rate for the current academic year.

Moving forward, more investigation as to the nature of physician's perceived barriers to evaluation completion as well as timeliness is warranted. A forthcoming questionnaire could help elucidate which barriers the physicians identify as having the largest impact on their inability to complete the evaluations. A new intervention specifically targeted at the most commonly identified barrier would be the next logical step in achieving our goals & objectives.

Conclusions

Despite being an in your hands reminder, text messages sent with links to online evaluations do not appear to be a viable short or long term solution to improve timely or overall evaluation completion rates.

Acknowledgements

I would like to thank both my internal and external mentors for their guidance on this project, our department's education coordinator, Patricia Williams, for her assistance in administrating these courses, as well as all the faculty and house staff who make these rotations possible.

Improving patient handoff between medical staff at Burke Rehabilitation Hospital

Erika L. Trovato, DO, MS, Raul Rodriguez-Ramos, MD, Stefanie Forest, MD, PhD

Additional contributing authors: Michael Lew, DO, Rohini Singh, DO, Mandy Berry, NP Internal Mentor: Stefanie Forest, MD, PhD; External Mentor: James Sliwa, DO

BACKGROUND

Patient handoff in the healthcare system is important to ensure patient safety. Communication breakdown is one of the main causes of adverse events in clinical routine, particularly in handover situations Structured patient handoff tools exist to standardize the information endorsed during patient handoff such as iPASS and SBAR ^{2,3}.



Medical staff with on-call responsibilities		
Title	Number	
Attending physician	12	
Resident physician	18	
Nurse Practitioner	8	

 150-bed freestanding inpatient rehabilitation facility • 5 units, 30 beds/unit

• GME: PM&R residency and 2 fellowship program

2021-2022 ACGME PM&R resident survey revealed residents were:

"not satisfied with the
current patient handoff
process, including
information lost during
shift changes, patient
transfers, or the handoff
process"

CHARTERING/DESIGN

<u>Team Matrix</u> Project Leader ecutive Steering <u>nmittee</u> Responsible for: Project proposal Modeling Implementatio 👸 🔹 Leads team meetings <u>hampion</u> V Ørganize team effort Prepares Agenda nior Management Schedules Meeting widing key administra <u>ubject Matter Expert</u> <u>Key Stakeholder</u> rson with clinical expertise in measure beir All key members or groups of providers who wi gauged. Assists in enlightening team lead and sponsors in best practices. Can contribute to the be essential to the implementation of the PI lirection of the team Ad-Hoc Members y team member who can Members of the team sistently access and tapped for participation isualize process and when necessary. Able to outcome metric data. Could contribute and assist i change from PDSA to PDSA, but moving project along. ust be identified PI Coach - Performance improvement subject expert who can provide guidance through projects by

facilitating the proper application of PI tools and methodologies Spread Ambassador - Responsible for identifying and education future units on successful PI initiatives and change concepts

SMART aim: Improve patient handoff documentation from an average of 2 elements to at least an average of 4 elements (graded out of 5) amongst medical staff at BRH by December 15, 2022.

METRICS

1	 Elements of handoff (graded out of 5) Status Summary Work-up Already Done Items to Follow-up Next Steps
2	Compliance with use of dot-phrase
3	Survey results (pre and post intervention)

DISCOVERY



EXECUTION



Patient handoff elements and percent compliance with the dot-phrase were measured:



from 2.2 at baseline to 4.9 by Cycle #5.













CONCLUSIONS & NEXT STEPS

REFERENCES

- and implementation of i-pass across multiple handoff settings. Pediatric Quality & Safety. 2020;5(4):e323.

Montefiore Einstein

STAFF SURVEY RESULTS

• SMART aim was met: the number of patient handoff elements increased from 2.2 to 4.9.

• Evaluate for areas of opportunity where there has been lower compliance in dot-phrase usage to address barriers. • Follow up 2022-2023 ACGME resident survey results.

Riesenberg LA, Leitzsch J, Massucci JL, et al. Residents' and attending physicians' handoffs: a systematic review of the literature: Academic Medicine. 2009;84(12):1775-1787.

Müller M, Jürgens J, Redaèlli M, Klingberg K, Hautz WE, Stock S. Impact of the communication and patient hand-off tool SBAR on patient safety: a systematic review. BMJ Open. 2018;8(8):e022202. Blazin LJ, Sitthi-Amorn J, Hoffman JM, Burlison JD. Improving patient handoffs and transitions through adaptation



The University of Texas at Austin Dell Medical School

Implementation of Holistic Principles in Selection to a Physical Medicine & Rehab Residency Program

Kristin Wong, MD¹ Internal mentor: Christopher Garrison, MD, MBA¹, External mentor: Monica Verduzco-Gutierrez, MD² ¹The University of Texas at Austin Dell Medical School; ²University of Texas Health San Antonio, Lozano Long School of Medicine

Background

Per the Association of American Medical Colleges (AAMC), the definition of holistic review is "a flexible, individualized way of assessing an applicant's capabilities, by which balanced consideration is given to experiences, attributes, competencies, and academic or scholarly metrics (EACM) and, when considered in combination, how the individual might contribute value to the institution's mission." The AAMC Holistic Review Framework[™] provides the operational guidance to implement a holistic selection process by emphasizing the importance of individualized consideration to every applicant and applying a balanced approach to assess EACMs. At the University of Texas Austin Dell Medical School PM&R Residency Program, three faculty members are involved in screening the candidate applications. Applications are divided amongst each faculty reviewer, and there is currently no standardized framework or structure by which applications are reviewed. General criteria includes passing USMLE scores and no criminal violations. The current screening process lacks consideration of a shared mental model of program priorities for recruitment, is susceptible to unconscious bias, and may threaten diversity. By applying the principles of AAMC's Holistic Review FrameworkTM, we aim to implement a holistic review process that widens the lens through which applicants are assessed, apply equitability across the entire candidate pool, create a diverse interview and selection pool, and ultimately diversify the PM&R specialty and workforce, which is critical to addressing racial and ethnic disparities in healthcare.

Opportunity Statement

During the 2021-2022 recruitment cycle, the UT Austin Dell Medical PM&R residency program's total percentage of underrepresented in medicine (URM) applicants invited to interview was lower than Dell Med's residency program data across all specialties (14.7% compared to 23.1%), and lower than the national PM&R URM applicant percentage per 2021 AAMC PM&R data (18.7%). Relative to the general population according to 2021 census data, Black/African Americans, Hispanic/Latinos, Native American/Alaska Natives, and Native Hawaiian/Pacific Islanders make up 43.8% of the local Travis County population, and 34.1% of the U.S. population. This highlights the challenge for URM applicants to be ranked to match if not given the opportunity to interview, and subsequently prolongs underrepresentation in medicine/physiatry.

Aim Statement

We aim to increase the total percentage of underrepresented in medicine (URM) applicants invited to interview at the University of Texas at Austin PM&R residency program during the 2022-2023 recruitment cycle to at least 19%.

Methods

Results

pass application reviews.



 Implicit bias training was completed by the three faculty members involved in screening/reviewing candidate applications, and mitigation bias strategies were reviewed prior to application screening.

• Faculty members involved in screening candidate applications formed a workgroup to identify experiences, attributes, competencies, and metrics (EACMs) that are grounded in our program's mission and promote diversity and inclusion. Upon determining applicant criterion, consideration was given to how the EACMs contribute to the outcomes desired by our program, and how they contribute to our decision to invite an applicant for an interview.

• Filters were applied in Electronic Residency Application Service® (ERAS®) to blind the reviewers during the initial "first pass" application review. Faculty members were blinded to applicants' gender, photo, race/ethnicity, and designated pronouns. However, applications could not be 100% blinded given the applicants' name and other identifiers in attached documents such as letters of recommendation could not be removed

 After completion of a "first pass" blinded review, the filters were removed in ERAS® to unblind the applications so that URM data could be collected. A "second pass" unblinded review of all URM applications was then completed by faculty with intentionality to ensure all URM applications were reviewed holistically and to ensure none were overlooked.

We compared the total percentage of URM applicants selected to interview (out of all applicants selected to interview) after the first pass and after the second

Results (continued)

































STANDARDIZED ONBOARDING PROGRAM FOR NEW FACULTY PHYSICIANS

DEPARTMENTAL BACKGROUND

- The department of PM&R does not have an official formal onboarding process for new physician faculty hires
- Although the academic institution has their own standardized onboarding process, it was felt by department leadership to have a department specific onboarding process
- The aim was to address any gaps or unique needs of the department faculty
- The current process involves the department administrative assistant sending a standardized checklist from the Office of Faculty Affairs that includes some of the following components: Letters of Reference, Background Check, Credentialing Packet, Compliance Training, and Orientation Information regarding EMR and Benefits
- There was NO formal process regarding building clinic templates, mentorship, academic responsibilities and opportunities, or familiarizing with the clinic setting

NEEDS ASSESSMENT

- An informal 3 question survey was distributed to faculty physicians who were hired over the past 2 years that focused on their own onboarding process
 - There was no formal department specific onboarding process
 - Faculty mentioned the following components that would have been helpful:
 - Building clinic templates
 - Opportunity to get to know clinic staff and area
 - Peer mentor meeting before and after starting
 - Opportunities to get involved with medical education and overview of teaching responsibilities

OBJECTIVE & DESIRED OUTCOMES

- Create a standardized onboarding process that includes department specific goals and objectives separate from the academic institution onboarding process
- Smoother transition to first few weeks of clinical practice by scheduling meetings that address concerns and needs that are external to direct patient care

AARON J. YANG, MD¹, DAVID J. KENNEDY, MD¹, CAROL VANDENAKKER ALBANESE MD² ¹Vanderbilt University Medical Center Department of PM&R; DK internal mentor. ²UC Davis Department of PM&R; CVA external mentor



Link to Comprehensive PM&R **New Faculty Checklist for an** Administrative Assistant

Expected Time	Vanderbilt PM&R Faculty Physician		
Frame	Clinical and Academic Orientation Checklist	Ľ	
Week 1 and Week 4 (optional)	Meet with Peer Mentor		
Week 1	Meet with Department Chair Purpose: Welcoming to the department		
Week 1 (Inpatient Stallworth only)	Inpatient orientation (for those providing inpatient care) Purpose: Orientation to floor staff, health resources, and meeting with inpatient medical director		
Week 1 or 2	Coding and Billing Session (<i>optional</i>) Purpose: Meet with department specialist about coding and billing, audit expectations xxx (E&M) and xxx (Procedures)		
Week 1	Template Review (<i>optional</i>) Purpose: Meet with xxx to discuss template setup		
Week 2-4	Meet with Program Director and APD Purpose: Trainee teaching, opportunities for research/teaching, involvement in medical education with the department and beyond		
Week 3-4	Meet with Chief Business Officer Purpose: Financial reporting, time distribution, vacation policies and call schedule, provider time away		
Week 2 and 6	Pre and Post Intervention Survey for checklist		

IMPORTANT CONTACTS: XXX

Department Specific Checklist Template



- department

- hires
- template review
- medicine and neurology
- be an ongoing process
- needed and helpful

VANDERBILT VUNIVERSITY

MEDICAL CENTER

IMPLEMENTATION

 Checklists for the institution and department were collected and analyzed for any areas of redundancy and opportunities for improvement

• Met with key department members to go over the department specific checklist: department chair, chief business officer, lead administrative assistant, senior project manager and template builder, billing and coding

• Contacted the 4 new onboarding faculty prior to beginning to implement the checklist and create room for customization

• Follow up with pre and post intervention survey at the 2 and 6 week mark

POST INTERVENTION ASSESSMENT

• At 2 and 6 weeks, a post intervention survey was sent to the 4 new faculty

• All faculty hires agreed the department specific checklist was helpful • All faculty hires chose to do the optional sessions of coding and billing and

 Positive changes: meetings were set up with key department members prior to starting their first week of work, felt the checklist was inclusive, helpful to meet with peer mentor and have it scheduled

• Areas of improvement: Billing and coding expectations could have been clearer and more specific to practices, making sure we connect the right people for those working in departments outside of PM&R such as pain

FUTURE DIRECTION

• As new faculty hires join the department, this transition can be refined by connecting specific key members with the new faculty hire, especially if they are working in an area outside of the PM&R department Incorporating feedback to make the transition as seamless as possible will

CONCLUSION

Faculty unanimously agreed that a department specific checklist was

• Making the transition to a new clinical practice can be daunting but having scheduled meetings and steps in place during the first couple weeks can reduce some of the external stress and burden

::: MetroHealth Rehabilitation Institute

Wellness and Engagement in the Inpatient Rehabilitation Admission Team Victoria C. Whitehair MD¹, Richard D. Wilson MD¹, Keneshia Kirksey, MD, MBA² ¹MetroHealth Rehabilitation Institute, Case Western Reserve University School of Medicine, Cleveland, Ohio

Background

- Concerns about high stress, low job satisfaction, burnout, and high turnover within our inpatient rehabilitation (rehab) admission team
- In hospital-wide employee engagement survey 53% reported • unmanageable work stress levels; 88% intend to stay at the institution for 12+ months
- 40% of our inpatient rehab admission team resigned within a 3-month period leading up to this Quality Improvement Project (QIP)

Objectives

- Identify factors contributing to turnover
- Measure rehab admission team wellness
- Identify opportunities to improve team wellness

Plan

1. Analysis of workload and team metrics:

- 71% increase in referrals Q1'19 to Q1'22
- Only 1 additional team member hired in this time
- Conversion rate reduced from 51.2% down to 34.8%
- 2. Identified tool to assess wellness of team members:

Princeton UMatter Wellness Self-Assessment

- 7 wellness dimensions
- 7 questions per dimension
- - Scale of 1-4 for each question Total score range per question = 7-28

Score 20-28: Outstanding! Taking positive steps in this wellness dimension Score 15-19: Behaviors are good but there is room for improvement Score 14 and below: Potential health and well-being risks

Do/Study/Act

Plan-Do-Study-Act (PDSA) Round 1: Jan – June 2022

D: Business plan presented and approved to increase team size to reduce workload/team member

S: Team morale remained low, reports of high stress continued, business metrics remained poor

A: Begin QIP, continue to hire

²Encompass Health Rehabilitation Hospital of Shelby County





CAROLINAS REHABILITATION



Atrium Health

Introduction

Background:

- Atrium Health Carolinas Rehabilitation has 192 acute inpatient rehabilitation beds across our 5 inpatient hospitals.
- Approximately 3,300 admissions annually.
- Certain challenges including insurance authorization/appeals, transportation delays and poor communication from referring providers can lead to delay in transition to our inpatient rehab facilities.
- Early rehab has been shown to improve outcomes in the TBI and stroke populations^{1,2}
- Our stroke, BI, SCI and oncology populations onset days are above the weighted national average.
- Our residents serve as moonlighters to expand access to our patients who arrive after normal business hours.

Intervention:

- Establish a monthly touch point meeting with the AVP of Business Development and the lead clinical liaison to identify barriers and gauge progress.
- Survey our resident moonlighters (admissions after 5 PM) about challenges with late admissions
- Implement processes that will minimize "day of" admission cancellations/delays.

Analysis:

- Identify areas of need from our residents and referral sources
- Onset Days for our sub-specialty populations (CVA, TBI, SCI, oncology)
- Examine peak transportation times for CMC to better coordinate our admission times

Results:

- Work with our referring providers and liaisons to provide the necessary documentation to the clinical rehab teams prior to patient transfer
- Explore alternative methods of transportation to improve efficiency of arrival times
- Track pre- and post- intervention data to determine the success of the process change
- Hope to decrease same day admission delays by 25%



Inpatient Admissions Efficiency PIP



Moonlighter Survey Results

Our resident moonlighters were surveyed to determine the biggest challenges they face during our after-hour admissions. 1 is least impactful. 5 is most impactful.

Transportation Delays

Answered: 10 Skipped: 0



Medical complexity/inappropriateness

Answered: 10 Skipped: 0



Poor communication from liaison

Answered: 10 Skipped: 0



Poor communication from referral source (i.e. documentation, med rec, etc) Answered: 10 Skipped: 0



Terrence Pugh, MD Internal Mentor – Vishwa Raj, MD External Mentor – Justin Hata, MD

Stretcher Demand

Peak stretcher demand time for Carolinas Medical Center.



Average Onset Days



First Pass Interventions

AM Flash Call:

- Daily call with the rehabilitation liaisons to discuss patients that are being followed
- If anticipated medical stability, COVID clearance and/or insurance authorization is anticipated, transportation is secured at least 24 hours prior to transfer

Liaison Communication

- Provide an e-mail summary, discharge summary and medicine reconciliation documentation via e-mail for every patient being admitted
- Allows admitting provider to place orders and discuss case prior to transfer

Our small group identified several areas of need to improve our admissions efficiency. Lacking the necessary documentation from referring hospitals outside of Atrium Health and transportation delays appeared to be the most impactful in delaying admission. Our initial intervention was centered around early transportation reservations with the AM flash call. To further bring our onset days closer to the mean, we plan to explore contracting private transportation services, arranging transportation times offpeak and minimizing family transport in an attempt provide more consistency.

Our liaisons also provide consistent communication with our facility medical directors and consultation teams to ensure medical appropriateness for transfer. Once the pre-admission screen is completed, the liaisons e-mail pertinent patient information to the admitting teams so that case review, orders and documentation can be initiated prior to patient arrival. This has led to an increase in efficiency. Monthly data remains under analysis since implementation. Author plans to re-survey the resident moonlighters in the future to determine if the interventions have been successful.

The next steps involve additional rounds of the PDSA cycle to determine the most successful interventions to decrease the onset days at our facilities. Education will be provided to our referral sources, transport teams and providers regarding the findings.

1. Roth EJ, Lovell L, Harvey RL, Bode RK. Delay in transfer to inpatient stroke rehabilitation: the role of acute hospital medical complications and stroke characteristics. Top Stroke Rehabil. 2007 Jan-Feb;14(1):57-64. doi: 10.1310/tsr1401-57. PMID: 17311791.

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Discussion

Resources

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UTHealth Improving Onset of Antibiotic Administration Time at TIRR-TMC Houston Mary E. Russell DO, MS^{1,2}, Christopher Murphey³, DeAnn Roberts², Nikola Dragoljovic DO^{1,2} McGovern ¹University of Texas McGovern Medical School, Houston, TX. ²TIRR Memorial Hermann, Houston, TX. ³Memorial Hermann Texas Medical Medical School Center, Houston, TX.



Background:

The Institute for Rehabilitation and Research (TIRR) is a 134bed free standing rehabilitation hospital in Texas Medical Center. When patients become acutely ill and unstable during the course of their rehabilitation stay and need a higher level of care, an unplanned acute care transfer (UACT) occurs after rapid response or codes and EMS transfers patients to local emergency centers.

Process Map – Current State



Intervention Round 1

- Implemented Sepsis Rapid Response team.



Sepsis and respiratory decompensation secondary to hospital acquired pneumonia is a leading cause of UACT at the TIRR-TMC location. Prolonged time to administration of antibiotics and IV fluid resuscitation can lead to medical decompensation requiring a higher level of care. Appropriate antibiotic and IV fluid resuscitation is a part of the Surviving Sepsis Campaign with a goal of 60 minutes per the Society of Critical Care Medicine.

For stat antibiotic orders, there is a MHHS goal of start time within 60 minutes. The average time to start of antibiotic administration at TIRR-TMC from 7/1/21 to 11/1/21 was over 160 minutes.

Project Charter

Overview / Problem Statement

Issue: Average first dose IV antibiotic administration time at TIRR-TMC is 100 minutes longer than goal of 60 minutes (Average is over 160 minutes)

Baseline Data

Date Range: July 2021 – April 6, 2022 Mean Verify to Admin Time: 128 Minutes 60% of observations above target

Fishbone diagram



Intervention Round 2

- GEMBA and Interviewed multiple staff and having available IV pumps and poles a barrier
 - Stored separately
 - Pumps are cleaned by Agiliti and not switched out 1:1
 - Different storage locations on different floors
- Utilizing Sepsis MPP

Impact: Delays can lead to patient morbidity and mortality and can burden acute care/emergency centers with patients who have been transferred for higher level of care needs. Patients with limited mobility may be in the Emergency Center awaiting admission beds for multiple hours which also leads to morbidity (pressure sores) and decreased patient and family satisfaction.

Customer(s):

Primary: Patient

Secondary: TIRR, Memorial Hermann Health System

Project Scope

Includes: TIRR TMC adult inpatients

Excluding : TIRR TMC pediatric inpatients, outpatients

Aim Statement

Conclusions

Complex process with multifactorial elements and reliant on several processes and multiple disciplines.

Future Directions:

- Revisit data, fishbone/root cause analysis and continue to refine process
- Identify the special variation that still exists
- Correlate with unplanned acute care transfer data

Lessons Learned:

•Learned other barriers from bedside nursing to add to fishbone

- Blood cultures could prolong start
- Insufficient supply of IV pumps and poles require call to Agility or search throughout hospital
- Night shift gap in Pharmacy
- -Gap in coverage of support when vital signs are entered into

To reduce onset of antibiotic administration from 160 to 60 minutes by Jan 2023.

Business Case

Meet quality metrics

Reduce UACT

Reduce cost of care

Improve patient satisfaction

Reduce burden on acute care hospital/emergency centers Prevention of potential of pressure related injuries from transfer.

Improved patient morbidity and mortality.

	Very Low (less good)		Moderate		Very High (best)		
Potential Solution (Reduction of time of ATB administration)	1 Potential to Meet Goal	2 Positive Customer Impact	3 Cost to Implement (1 = \$\$\$ & 5 = \$)	4 Stakeholder Buy-in	5 Time to Implement (1 = Long 5 = Quick)	Total Score	Implement? Yes/No
Weighted Criteria	10	9	8	7	5		
utomated Vital Sign entry from machine	3	5	1	5	1	123	
Aandatory Sepsis MPP usage	5	3	5	1	3	139	
apid Response- Sepsis team notification	5	4	4	3	1	144	Yes
CA inputs vitals after each patient	3	5	4	2	3	136	
iet PCAs a tablet	4	4	3	3	3	136	
ducation to nurses about removing Iv meds from pyxis	4	5	5	4	4	173	Yes
/ placement superuser	5	5	3	4	3	162	Yes
ntraosseus line access	5	2	3	3	2	123	
/ placement on admission	3	2	4	1	3	102	
raining for VS consistency (notifying RN right away)	4	5	5	3	3	161	Yes
/ placement management	4	5	5	2	2	149	
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CARE4 and SIRS/Sepsis alerts pop up.

•Complex process with many moving steps, involving many different departments and an emphasis on the need for communication despite electronic ordering.

•Process differs from acute care hospital given time patient is out of the room as well as lack of IV access, pharmacy integration with care4 and other issues.

Introduction

Clinician data is commonly used by administrators for multiple purposes. However, clinicians may equally utilize specific data in order to analyze their own clinic trends as well as analyze utilization of visits so they may optimize their slot utilization. It may sometimes be difficult for physicians to obtain access to their data as well as understand how to interpret that data once obtained.





Accessing Physician Clinic Data

Jeremy Stanek, MD FAAPMR, Evan Rivers, DO FAAPMR, Vivian Shih, MD

bds	
Clinic Manager	
Business Reporting Analyst	
Access to Dashboard Granted	
Interview clinic manager and director	

	Results
Executive Directo	r Clin
Census data Staffing decisions Phone metrics important	inic data
Day to day operations not important	

- Data "owned" and tracked by different entities & access must be granted by each entity tracking that data
- Most data updates daily but may have lag time of 1 month
- Most data available to administrators once access granted
- Nobody knew if clinicians could access their own data
- Nobody for providers to meet to review and analyze their data

Conclusion

There is a clear need for streamlining how providers may access their clinic data. There should also be a person with whom providers may meet to analyze that data in order to optimize their productivity. Perhaps an option would be to grant access to every provider at their start date.



ic Manager

Provider data nthly data review view with other managers Day to day operations important





PLAN:

The current ambulatory system at the Marc A. Asher Spine Center has an excess of unfilled ambulatory clinic visits. This is due to a variety of factors including "no show" appointments, last minute cancellations, and unscheduled visit slots due to different visit type. This has led to irregular ambulatory schedules with some days overbooked and running late and other days unfilled without appropriate productivity. Additionally, we have service lines with extended wait lists despite open clinic spots, which affects patient care. We have already implemented a notification system in which patients are notified of upcoming appointments 48 hours prior to their visit, but unfilled clinic spots remain high. The goal is to decrease unfilled slots by 10%.

DO:

We will utilize an electronic wait list for patients currently scheduled for appointments. We will use a system to confirm appointment 48 hours before scheduled visit time, and patients will be able to cancel or reschedule at that time. We will notify patients on waiting list of any open appointment times less than 48 hours ahead of unfilled slot.

STUDY:

	Spine	Rehab	Smith		Spine	Reh
Jan-21	1582	760	47	Jan-22	648	
Feb-21	1543	654	25	Feb-22	761	
Mar-21	1438	614	40	Mar-22	857	
Apr-21	1438	593	23	Apr-22	875	
May-21	1051	522	32	May-22	617	
Jun-21	1277	571	47	Jun-22	785	
Jul-21	1432	594	31	Jul-22	1215	
Aug-21	1691	653	54	Aug-22	1363	
Sep-21	1260	585	44	Sep-22	1037	
Oct-21	1327	676	19	Oct-22	790	
Nov-21	1211	597	35	Nov-22	693	
Dec-21	832	432	32	Dec-22	675	
Total	16082	7251	429	Total	10316	

FAST PASS: A Tool to Solve Unfilled Slots

McCasey Smith, MD MS Internal Mentor: Emnet Lemma MSN, RN, CMSRN External Mentor: Daniel Herman, MD, PhD

Conclusions

An automated system through EPIC utilizing patient notification, electronic wait list, and self scheduling decreased ambulatory clinic unfilled spots by over 35% throughout the Marc A Asher Spine Center.

Future considerations should include analysis of effect on template utilization, patient access, patient satisfaction, and provider satisfaction.



b	Smith
249	17
304	21
405	20
432	24
253	10
296	13
438	27
516	34
427	18
319	17
271	8
174	5
4084	214

STUDY:

- In 2022...



• FAST PASS decreased unfilled clinic spots and improved clinical productivity.

• The Marc A Asher Spine Center demonstrated 35.9% decrease in unfilled slots

PM&R demonstrated 43.7% decrease in unfilled slots • My clinic demonstrated 50.1% decrease in unfilled slots

