GME QUALITY IMPROVEMENT AND PATIENT SAFETY NEWSLETTER

MESSAGE FROM THE GME ASSOCIATE DEANS FOR QI & PS

Dear MSHS Residents, Fellows and Faculty,

For our last issue of the academic year, we want to congratulate all of the graduating residents and fellows! A special thank you to all of the residents, fellows, faculty and staff for their dedication and commitment to patient care, quality improvement, and safety! This issue of our newsletter highlights many exciting developments in the realm of Quality Improvement and Patient Safety including an overview about the Clinical Command Center (CCC), research highlights, information about the Root Cause Analysis (RCA) Committee, and more.

We have included the first installment of a series about the Mount Sinai Health System CCC. Additionally, we have provided an update about the Committee of Professionalism in Healthcare (COPHE), as well as a highlight from the 2024 IME Education Research Day about the impact of peer-to-peer teaching on sepsis pathway utilization and outcomes, and the value of QI as a resident.

For those who are advancing to the next year, in this issue you can read about a new opportunity to be involved with the RCA Committee. This is great opportunity for those who wish to learn how adverse events and patient safety events are investigated at the Mount Sinai Health System Hospitals.

Lastly, we have included the latest in QI/PS literature (courtesy of the Agency for Healthcare Research and Quality), as well as MSHS SafetyNet reporting data for the last 12 months. As a reminder: SafetyNet 2.0 is available! Learn more about the new features on page 8. Thank you for all of your hard work in promoting a culture of safety!

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GME Associate Dean for QI and PS

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Clinical Command Center Overview

Icahn School of Medicine at Mount Sinai
Courtesy of the *Clinical Command Center*
Barbara Barnett, MD, MS, FACEP, FACP, System Vice President, CMO
Helen Brannon, MBA, MS-Nsg, Ed RN, Senior Vice President, COO
Carleigh Gustafson, RN, MBA, Senior Vice President, Deputy COO
May 2024

The build of the Mount Sinai Health System Clinical Command Center has truly been an evolution. In 2018, we started to review critical service gaps at our community hospitals to better understand our patients' needs and, in turn, the care model necessary to sustainably support our community sites.

The very first service line we reviewed was psychiatry. We found that patients who were coming into the MSQ ED for psychiatric care were spending 6 hours or more in the ED only to be transferred to MSH for psychiatric consult. After roughly an hour of transport time, the patient would then spend another three (3) hours at the MSH ED for a total of 10+ hours total experience time. After all this time, the patient was then discharged home.

We knew this called for a total redesign of the care management model in order to deliver **the right care to the right patient at the right time with the right resources. EVERY TIME.** We began designing a clinical command center that would house both clinical services and the necessary operators and systems to deliver those services across the Mount Sinai Health System.

Today, the Clinical Command Center is the central operating backbone or mission control for the Mount Sinai Health System in both normal and emergency operations. Since 2018 we developed into the system's clinical and operational backbone by centralizing the resources of throughput, transfer, discharge transportation, admitting, tele consult design and dispatch logistics along with 911 EMS services and the development of key central clinical roles. In this clinical operations center, we bring together data analytics and human input to support patient safety and better health outcomes across the MSHS. The centralization and development of system resources allowed us to approach the development of the Clinical Command Center in three generations:

Generation 1: Improving patient flow and throughput across the organization
Generation 2: Improve clinical safety and quality through early warning detection
Generation 3: Extend services to the home and community

Our goal of the Clinical Command Center is to:

Improve speed to treatment, **decrease** LOS, **reduce** mortality rates, **treat in place** where possible, in order to **create capacity** back into the system, while **improving** patient and employee satisfaction and at the same time **advance equity in our care** across the MSHS.

To accomplish these goals, we developed an operating model where one call to the Clinical Command Center will organize and dispatch any clinical service that crosses campuses. If a patient requires a service not available at a campus, we will dispatch tele-consult. If a patient can't be treated in place, the Clinical Command Center engages our central hospitalist or central intensivist along with our logistics team to ensure that the patient is transported quickly and safely to the right physician at the right hospital in the right bed for ongoing management. Patients who are at risk for falls can be enrolled in our virtual patient observation program where a dedicated team of experts monitor the patient and escalate concerns to the front line for immediate intervention.

While developing these programs, our focus on quality has never waned. Scorecards and metrics have been developed for each program. Transfers are reviewed and investigated when requested and results shared with the health system.

The MSHS Clinical Command Center Operating Divisions

The Mount Sinai Health System Clinical Command Center: Clinical Operations Hub for the Health System

Patient Logistics
- System wide transfers
- Capacity management & throughput
- Teleconsult dispatch

System On Call Scheduling

Clinical Operations
- System coverage models and community on call plans
- Virtual Patient Observation
- Central clinical roles

Real Time Decision Tools & Predictive Analytics

Emergency Management

911 EMS Operations & Discharge Transportation

Mount Sinai Clinical Command Center

Delivering the **RIGHT care** to the **RIGHT patient** at the **RIGHT time** with the **RIGHT resources**.

Our Service Model: One call to dispatch any services that crosses campuses

Clinical Command Center Logistics Overview

1

MSHS Patient Needs Consult, Admission and/or Transfer

2

Frontline Care Team

Provider places order for consult, admission or transfer to initiate request with Clinical Command Center

3

Central Logistics Team performs multiple functions

- Connects providers forprovider to provider discussion
- Facilitatesteleconsult
- Connection to Central Hospitalist/Intensivist for transfer acceptance
- Dispatches ambulance for transfer
- Assigns beds for admission
- Interact with community
- Use Palantirtool to assist with bed planning

4 **Telemedicine Evaluation**

5 **Transfer and Admit Patient to Alternative Destination**

6 **Admit and Treat in Place**

Committee of Professionalism in Healthcare (COPHE) Data Overview

Courtesy of the *Office of the Chief Medical Officer, Mount Sinai Health System*
Melissa Peralta, MPH, Project Manager

The Committee on Professionalism in Healthcare (COPHE), launched in the summer of 2021, focuses on fostering a culture of safety, respect and professionalism across the Mount Sinai Health System, including the Icahn School of Medicine at Mount Sinai. COPHE aims to address and reduce instances of unprofessional behavior from students, trainees, faculty members, advanced practice professionals, and physicians.

The program consists of delivering feedback to providers and learners who have been reported as having unprofessional behavior using a trained messenger. The messenger provides peer-to-peer feedback, aka a “cup of coffee”, about the event. This process identifies unprofessional behaviors and allows individuals to self-regulate without invoking a formal discipline process. For more concerning or ongoing patterns of behavior, a huddle is convened to see if further action or investigation is needed.

COPHE Data Overview: The Coworker Observation Reporting System (CORS)

As of May 8, 2024:

- 135 Trained Peer Messengers
- 843Total CORS Reports To Date
- 578 Cups of Coffee Delivered
- 258 Huddles Convened
- 25% of reports are about Residents/Fellows
- 52% of reports are from SafetyNet, with Student Mistreatment Portal accounting for 24%
- Top 5 specialties involved include OBGYN, Cardiology, Anesthesiology, Emergency Medicine, and General Surgery

QI Med Ed Abstract from 2024 IME Education Research Day Impact of Peer-to-Peer Teaching on Sepsis Pathway Utilization and Outcomes

Galit Balayla Rosemberg[1], Sara Luby[1], Hammad Sheikh[1], Venus Sharma[1], Connor Smith[1], Rachael Schneider[1], Andrea Wood[1], Alvin Yang[1], Christiana Choi[1], Yoni Balboul[2], James Salonia[1], Raymonde Jean[1]

[1]Mount Sinai Morningside-West Hospitals, Icahn School of Medicine at Mount Sinai, New York, NY, United States;

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BACKGROUND/INTRODUCTION: The 2021 Surviving Sepsis Guidelines provide a strong recommendation that hospitals utilize screening tools to identify high risk patients and bundled programs to promote early treatment of sepsis.1 The recommendations hinge on the fact that timely intervention in early sepsis has resulted in reduced mortality.2 Some studies have shown that the use of EHR bundled sets promote guideline-directed interventions and reduce rates of mortality in all types of sepsis.3 We found that within our system (Mount Sinai Morningside/West) the sepsis pathway and order set were being underutilized.

METHODS: An educational lecture series was developed and presented to both Internal Medicine residents and hospitalists from November 2022 through July 2023. The lecture series was provided to the resident floor service teams in groups of 3-5 residents and reinforced at resident academic half-day and hospitalists meetings. A standard chi-squared analysis was used to assess the significance of increased pathway use pre- and post-intervention as well as outcomes improvement (mortality and routine discharges home) in patients placed on the pathway.

RESULTS: The pathway utilization before intervention was 11.2% compared to 19.1% after intervention (chi-squared p-value of <0.01) with a decreased overall mortality in patients diagnosed with sepsis from 18.2% pre-intervention to 12.7% post-intervention (chi-squared p<0.002). Before intervention the mortality on pathway patients was 21.2% compared to 16.9% post-intervention (chi-squared p=0.272) and routine discharges home on pathway patients, increased from 27.4% to 34.1% after intervention (chi-squared p=0.171).

CONCLUSION: The Mount Sinai Health System has created multiple bundle systems to improve overall patient outcomes. As seen in several studies, including this one, the use of the Sepsis Order set to provide early treatment of sepsis has shown overall benefits for patients. We saw a significant increase in pathway utilization with an overall decrease in mortality in septic patients after the intervention. Even though mortality and routine discharges were not statistically significant on pathway patients, the overall outcome improved. This can suggest that our innovative approach of teaching the house staff, in a more engaging environment, led to an overall increased awareness and better understanding of how to treat sepsis. Next steps for the project would be assessing if this intervention promotes long term consistency and to find ways of educating on how to use the Order Set in a more sustainable way.

QI IN RESIDENCY: When residency starts it can be very overwhelming to find good research projects to promote your future career, help the scientific community, and at the same time try to adapt to the changes intern year brings. This is why mentorship is so important. To help guide the best way to find a project you feel passionate about and can benefit the community. It is also important to find a mentor with whom you develop a rapport and shared passion. In QI we find both: research that has immediate impact on patient care. The group of people that worked on this project are from diverse backgrounds that came together through our mentors Dr. Salonia and Dr. Jean to find a way to increase sepsis order set usage since we knew it helps patient's outcomes. It has been a wonderful experience to brainstorm and being able to collaborate with everyone and actually see an improvement. One of the greatest barriers is that, while education is important, until there is a culture change and becomes a system-wide change, it is more difficult to continue to implement the QI and see the results we saw while we were actively teaching.

Root Cause Analysis Committee
2024-2025 Academic Year
Open Application

To: Residents and Fellows
Mount Sinai Hospital
Mount Sinai Morningside and West

From: Bonnie Portnoy, MJ, BSN, CPHRM, CPSO
Vice President, Risk Management & Patient Safety
Mount Sinai Health System

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Associate Dean for Quality Improvement & Patient Safety in Graduate Medical Education
Mount Sinai Health System

Daniel Steinberg, MD, SFHM, FACP
Associate Dean for Quality Improvement & Patient Safety in Graduate Medical Education
Mount Sinai Health System

Purpose: Root Cause Analysis Committee Application

We are soliciting applications for MSHS residents and fellows who are interested in participating in our weekly Root Cause Analysis meetings, which is part of our Serious Adverse Event process for Patient Safety. The purpose of the RCA Committee is to identify underlying causes of adverse events and develop safety solutions. The RCA process is non-punitive. The focus is on identifying ways the health care system can be improved in order to reduce patient harm. For the last few years, we have trained a group of interested house staff to provide input during these case discussions and safety solution meetings.

For those selected we will provide patient safety and RCA training (see below). Participating residents and fellows will be expected to participate in at least eight (8) RCA meetings over the course of the year.

RCA Meetings:

- MSM: Tuesdays 4:00-5:00 PM
- MSW: Thursdays 4:00-5:00 PM
- MSH: Tuesdays 11:00 AM-12:00 PM

A few important notes:

- PGY-2 and higher are invited to apply by completing the application below. Please note the application deadline is **Monday, July 8, 2024.**
- If you participated in the RCA committee for the 23-24 academic year and want to participate again, you must email Mica Muir (mica.muir@mssm.edu). Please note: to remain on the committee you must have attended at least 8 meetings throughout the 24-25 academic year. Please disregard if you have done so already.
- Training Sessions for participants will be held via Zoom on **Thursday, August 29, 2024 (5:30 – 6:30 PM)** and **Thursday, September 5, 2024 (5:30 – 6:30 PM)** with expectation that participating residents and fellows would attend one of these sessions. You will be asked to indicate a training session preference as part of the application.

We look forward to having you as part of our Patient Safety team!

Application Link HERE

Co-worker unprofessional behaviour and patient safety risks: an analysis of co-worker reports across eight Australian hospitals.
McMullan RD, Churruca K, Hibbert P, et al. Int J Qual Health Care. 2024;36(2).
Unprofessional behavior negatively impacts teamwork, safety culture, and patient safety. This study analyzed 1,310 reports of unprofessional behavior across eight Australian hospitals between 2017-2020. The researchers found that three in ten reports indicated a risk to patient safety, such as interruptions, poor handover communication, and a lack of adherence to hospital policy or protocol.

Implicit bias and patient care: mitigating bias, preventing harm.
Barber Doucet H, Wilson T, Vrablik L, et al. MedEdPORTAL. 2023;19:11343.
Addressing racism and implicit biases in healthcare is a patient safety priority. This article describes the evaluation of a simulation training designed to help emergency medicine and pediatric learners identify implicit bias and develop bias mitigation skills. Using standardized participants, trainees were presented with a case involving an 18-month-old African American child with a spiral fracture of the left lower leg (a common 'toddler fracture'). As part of the simulation, an orthopedic resident on the care team was pushing for involving child welfare and displaying non-specific and biased concerns about the child's family and welfare. The simulation objectives were for the learners to (1) identify that the case was not concerning for non-accidental trauma, (2) identify that the resident was displaying bias, and (3) communicate with both the resident and family to diffuse the situation and prevent any potential harm. After the simulation, the simulation instructions led a debrief to discuss and reflect on the case.

"Black Women Should Not Die Giving Life": The lived experiences of Black women diagnosed with severe maternal morbidity in the United States.
Post W, Thomas AD, Sutton KM. Birth. 2024;Epub Apr 2.
Structural racism and discrimination can impede safe maternal care. This qualitative study among Black women highlighted how their severe maternal morbidity (SMM) experiences relate to manifestations of racism through communication failures and stereotyping, differential treatment, and medical errors/near misses.

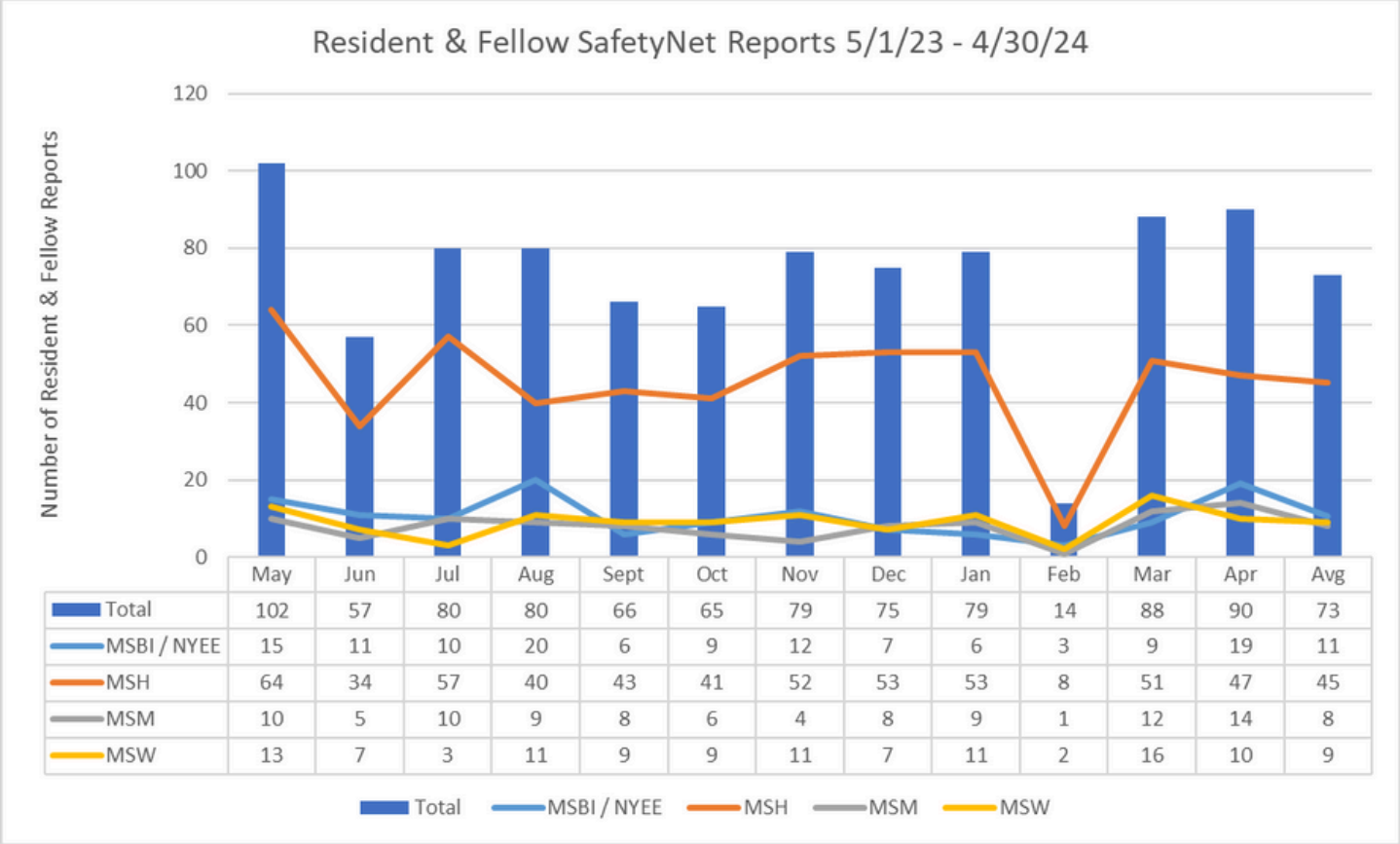
The role for policy in AI-assisted medical diagnosis.
Newman-Toker DE, Sharfstein JM. *JAMA Health Forum.* 2024;5(4):e241339.
Artificial intelligence (AI) is seen as a primary innovation that will improve the safety and quality of health care, yet it has its detractors. This commentary explores the importance of effective policy to guide the development, training, and use of chatbots, large language models, and other elements of AI to improve its accuracy as a diagnostic tool.

Teamwork matters: team situation awareness to build high-performing healthcare teams, a narrative review.
Weller JM, Mahajan R, Fahey-Williams K, et al. *Br J Anaesth.* 2024;132(4):771-778.
Situational awareness refers to the ability to perceive, understand, and respond to a situation. This article discusses how components of effective teamwork (e.g., communication, psychological safety) foster team situation awareness, which can improve team functioning and promote patient safety.

SafetyNet

Below you will find SafetyNet resident and fellow reporting statistics for the 12-month period May 1, 2023 - April 30, 2024. Since the last issue of this newsletter, the average number of total reports across sites decreased to 73. May 2023 totals exceeded the average for the year, June 2023 and February 2024 are outliers with only 57 and 14 total reports, respectively. The significant decrease in reports in February 2024 could be attributed to the updated SafetyNet platform. Since 2020, the percentage of SafetyNet reports entered by residents and fellows has been steadily increasing, however we have a system-wide goal of seeing at least 5% of all SafetyNet reports as being entered from residents and fellows. Please keep on that same trajectory and continue to report in SafetyNet!

SafetyNet 2.0 is available! Click here to learn more about new features and training. We hope that you will engage with the system and help us in our efforts to continue to develop a culture of patient safety reporting.



	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Avg
Total	102	57	80	80	66	65	79	75	79	14	88	90	73
MSBI / NYEE	15	11	10	20	6	9	12	7	6	3	9	19	11
MSH	64	34	57	40	43	41	52	53	53	8	51	47	45
MSM	10	5	10	9	8	6	4	8	9	1	12	14	8
MSW	13	7	3	11	9	9	11	7	11	2	16	10	9

I entered a report and want to know what happened

A spreadsheet of all residents and fellow entered reports has been posted on New Innovations. You can find your report and the name of the contact(s) for who is handling the case. If the case went to a root cause analysis, the results of the root cause analysis can be found in the spreadsheet as well.

Residents, fellows and faculty are always encouraged to reach out to Daniel Steinberg (MSBI/NYEEI/MSMW) or Brijen Shah (MSH) with any questions.