

Houston Methodist's Center for Nursing Research, Education and Practice

SECOND ANNUAL NURSING SCIENCE **NURSING REIGNITED** SYMPOSIUM

CONNECTING RESEARCH, EDUCATION AND PRACTICE

Nov. 22, 2024

7 a.m. – 4 p.m.

Hybrid Event

Houston Methodist Research Institute
John F. Bookout Auditorium (R2-306)

AGENDA

FRIDAY, NOVEMBER 22

TIME	PRESENTATION	SPEAKERS
7-8 a.m.	REGISTRATION / BREAKFAST	
8-8:10	Welcome Remarks	Joanne D. Muyco, DNP, RN, NE-BC, CNOR
8:15-9:15	KEYNOTE: The Future of Nursing is Now!	Katie Boston-Leary, PhD, MHA, MBA, RN, NEA-BC
9:15-9:30	BREAK / NETWORKING / VENDOR EXHIBIT	
9:35-10:35	Essentials and Implications of Artificial Intelligence in Nursing	Angela Ross, DNP, MPH, RN, PHCNS-BC, FHIMSS, PMP, DASM
10:40-10:55	Caregiver's Insights on Adult PEG Tube Placements	Deltra Muoki, PhD, APRN, AGNP-C, CMSRN, CNE, NE-BC
10:55-11:10	A Go Green ICU Initiative	Aswathy Nair, BSN, RN III, RN-BC, CVRN, CCRN
11:10-11:55	LUNCH / NETWORKING / VENDOR EXHIBIT	
Noon-1p.m.	Humanizing Patient Care Through the ABCDEF Bundle	Brenda T. Pun, DNP, RN, FCCM
1:05-2:05	Charting the Course: Navigating AACN Development of Knowledge Assessment Tools	Sara R. Grieshop, MHI, BSN, RN
2:05-2:30	BREAK / NETWORKING / VENDOR EXHIBIT	
2:35-2:50	Capturing the Voice of Our Nurses	Tamara DuBose, DNP, RN, NE-BC
2:50-3:05	Enhancing Emergency Room Throughput and Efficiency	Rita Richards, MSN, RN, CEN, NEA-BC Amanda Gerken, MBA, RN, CEN, NE-BC
3:05-3:15	Closing Remarks	Joanne D. Muyco, DNP, RN, NE-BC, CNOR
3:15-4	POSTER SESSION / NETWORKING	

WELCOME LETTER

Hello Everyone,

We would like to welcome you to our second annual Nursing Reignited Symposium. This year's theme is "Connecting Research, Education and Practice," highlighting the essential connections between all three components to improve and advance nursing practice and patient outcomes.

Our guest speakers today are a true reflection of how we can take the work of clinical inquiry and nursing research and translate it into our clinical practice to impact both nurses and patients. We hope you come away with a renewed sense of inquiry and that you are reinvigorated to explore and identify ways to improve your own nursing practice. We hope you leave excited and reignited for the future of nursing.

Thank you for your attendance and for your support of nursing clinical inquiry!

Respectfully,

Joanne D. Muyco, DNP, RN, NE-BC, CNOR



KEYNOTE SPEAKER



Katie Boston-Leary, PhD, MHA, MBA, RN, NEA-BC, FADLN

Senior Director of Nursing Programs
American Nurses Association

Katie Boston-Leary is the Senior Director of Nursing Programs at the American Nurses Association overseeing the Nursing Practice and Work Environment Division and Healthy Nurse Healthy Nation. She was also the Co-Lead for Project Firstline, a multi-million-dollar grant collaborative with the CDC for training on Infection Prevention and Control.

- Serves as an Adjunct Professor at the University of Maryland School of Nursing and the School of Nursing at Case Western Reserve University;
- Is a board member for St. John's University Health Programs, Hippocratic AI and Ingenovis Health and an editorial advisory board member with Nursing Management, Nursing 2023 and ACHE; and
- Serves as staff on the National Commission to Address Racism in Nursing and is also part of the National Academy of Science and Medicine's National Plan to Address Clinician Well-Being supported by the U.S. Surgeon General, Dr. Vivek Murthy.

SPEAKER



Angela Ross, DNP, MPH, RN, PHCNS-BC, FHIMSS, PMP, DASM

Assistant Professor of Biomedical Informatics
McWilliams School of Biomedical Informatics at UTHealth Houston

Angela Ross, DNP, MPH, PMP, DASM, PHCNS-BC, LTC (ret) U.S. Army Nurse Corps, joined McWilliams School of Biomedical Informatics at UTHealth Houston on August 1, 2015, as an assistant professor of Biomedical Informatics. She is an adjunct at the UT Rio Grande Valley School of Medicine Edinburg, TX and the UTHealth School of Public Health Regional Campus in Brownsville, TX. Her project interests include process improvement, project management, system implementation, program and project evaluation, policy development, workflow analysis, and workforce development.

Ross served over 25 years in the Army Medical Department. Ross has held positions as chief medical information officer, acting chief of system service and design, and project manager for the U.S. Army Medical Information Technology Center Defense Health Agency (DHA). Ross earned a BSN from Dillard University, an MPH from Tulane University, an M.S. in nursing informatics from the University of Maryland, a Master's Certificate in IS/IT project management from Villanova University, and a DNP with an emphasis on informatics and executive leadership from the University of Maryland. She is certified by the American Nurses Association (ANA) as a clinical nurse specialist in public health and by the Project Management Institute (PMI) as a Project Manager and a Disciplined Agile Scrum Master (DASM).

SPEAKER



Deltra Muoki, PhD, APRN, AGNP-C, CMSRN, CNE, NE-BC

Nurse Scientist
Houston Methodist Sugar Land

Deltra Muoki is a PhD-prepared nursing scholar and adult geriatric primary care nurse practitioner with over 15 years of nursing experience. She received her Bachelor of Science in Nursing from Prairie View A&M University. She received her Master of Science and PhD in Nursing Science from Texas Woman's University.

Dr. Muoki's nursing career started as a certified nursing assistant in a community-based facility in Webster, Texas. Her first job as a registered nurse was at Houston Methodist Hospital in Houston, Texas. She has since served as a registered nurse and nurse practitioner at the University of Texas MD Anderson Cancer Center in Houston, Texas. She also possesses academic experience as adjunct faculty at San Jacinto College South in Houston, Texas and faculty at Texas Woman's University. She has also served as Undergraduate Nursing Program Director at Texas Woman's University – Houston campus prior to her current role as nurse scientist at Houston Methodist Sugar Land Hospital in Sugar Land, Texas. Dr. Muoki's research interests include healthcare disparities, patient outcomes, and innovative pedagogies in nursing education.

SPEAKER



Aswathy Nair, BSN, RN III, RN-BC, CVRN, CCRN
RN III
Houston Methodist West

Aswathy Nair is a passionate nurse with over nine years of patient care experience, including the last five years at Houston Methodist West ICU. During this time, she has refined her critical care expertise by managing highly acute patients. She holds a bachelor's degree from Molloy College and has earned her RNIII, RN-BC, CCRN, CVRN certifications. At a unit level, Aswathy actively contributes as a Wound Treatment Associate and a promoter of creating a greener work environment. Aswathy has dedicated her time to not only patient care, but also process and quality improvement projects. She is currently leading a project aimed at reducing supply wastage and reprocessing patient care items.

SPEAKER



Brenda T. Pun, RN, DNP, FCCM

Director of Data Quality

Vanderbilt Critical Illness, Brain Dysfunction, and Survivorship (CIBS) Center

Brenda Pun, DNP, RN is an advanced practice nurse with a special interest in critical care, who serves as the Director of Data Quality at the Vanderbilt Critical Illness, Brain Dysfunction, and Survivorship (CIBS) Center. Brenda received a bachelor's degree in nursing from Wheeling Jesuit University, a master's degree from Vanderbilt University School of Nursing, and a Doctor of Nursing Practice degree from University of North Carolina – Chapel Hill. She is involved in a variety of research projects that focus on improving the care and outcomes of critically ill patients and their families. In addition, she is dedicated to helping advance the understanding on how to best translate and implement new evidence into bedside care practices.



Sara Grieshop, MHI, BSN, RN

Clinical Practice Supervisor

American Association of Critical Care Nurses (AACN)

Sara is a dedicated nurse innovator and leader with over 12 years of experience in critical care, nurse professional organizations, and academic medical centers. Her expertise spans digital competency development, where she co-created a pioneering competency framework, toolkit, and digital knowledge assessment tool. As a national and international leadership speaker, Sara is committed to advancing nursing excellence and empowering healthcare professionals.

Currently, Sara plays a pivotal role in supporting the acute, progressive critical care community, delivering essential resources to enhance nursing practice and patient care outcomes. She serves as a lead clinical expert for AACN's knowledge assessment tools and orientation pathway, contributing significantly to professional development in critical care nursing.

Passionate about leadership and healthcare transformation, Sara champions the role of nurses in enhancing patient care experiences and outcomes. She believes strongly in elevating voices to drive meaningful change within healthcare systems. Sara is poised to lead the healthcare field to new heights, advocating for a future where nurses play a central role in shaping a better healthcare landscape.

SPEAKER



Tamara DuBose, DNP, RN, NE-BC

Magnet Program Director
Houston Methodist Hospital

Tamara DuBose has over 20 years of nursing experience, including eight years as a nurse leader. She received her BSN from Baylor University, her MSN from the University of Texas at Arlington, and her DNP from the University of Texas Health and Science Center at Houston, Cizik School of Nursing. She is also NE-BC certified and is a member of the Texas Nurses Association, and Sigma Theta Tau. Her clinical background includes pediatric hematology/oncology, pediatric general med-surg, adult oncology, and the dialysis populations. She is passionate about nursing retention, workforce resilience, and advancing the profession of nursing. She loves building partnerships and is always seeking opportunities to promote innovation and evidenced based practice. Tamara is excited to join Houston Methodist Hospital and the Magnet Team and looks forward to all that is to come!

SPEAKER



Rita Richards, MSN, RN, CEN, NEA-BC

Director of Emergency Services
Houston Methodist Sugar Land

Rita Richards is currently the nursing director over Emergency Services at Houston Methodist Sugar Land. She has over 14 years of emergency nursing experience with nine years as a clinical nurse manager and three years as a nursing director. All her leadership experience has been completed through HMSL. She has led numerous patient care and throughput changes within this specialty. She holds a Master of Science of Nursing in Leadership and Administration from the University of Texas Health Science Center and certifications in Emergency Nursing and Nursing Executive Administration. She is a current transformational leader who encourages growth and development and ensures evidence-based practice is the driving force of change.

SPEAKER



Amanda Gerken, MBA, RN, CEN, NE-BC

Nurse Manager - Emergency Department
Houston Methodist Sugar Land

Amanda currently has a Master of Business Administration in Healthcare Administration from Walden University as well as a Bachelor of Science in Nursing and Biology from the University of Texas at Arlington. Amanda holds certifications in Emergency Nursing and as a Nurse Executive. She has over 14 years of experience in Emergency Nursing and has five years of experience as a Nursing Manager. She holds certifications in ACLS, PALS and NIH. She has been involved in multiple Kaizens that have resulted in increased efficiency and throughput in the Emergency Department.

CONTINUING EDUCATION

PROGRAM OVERVIEW

This hybrid symposium will provide a forum to explore how nursing inquiry is driving practice change, improving patient outcomes, addressing health disparities, transforming the environment of care and advancing translational and emerging research methodologies.

TARGET AUDIENCE

Registered Nurses

EDUCATIONAL OBJECTIVES

Upon completion of this activity, the participant should be able to:

- Understand the essentials of artificial intelligence and its impacts on nursing practice.
- Explore how nurses can use research to make impactful changes on diversity, equity and inclusion in nursing.
- Discuss how nurses can develop and use tools and resources to address identified practice gaps in the clinical setting.
- Demonstrate comprehensive understanding of the relationship between research, education and practice and how nurses can use all three to advance practice and improve patient outcomes.

EDUCATIONAL METHODS

Didactic lectures, Q&A, poster presentations

NURSING OUTCOMES STATEMENT

Upon completion of this activity, learners will gain new knowledge in integrating contemporary technologies, research and best practices in nursing to enhance patient care and outcomes.

ACCREDITATION AND CREDIT DESIGNATION STATEMENTS

Houston Methodist is accredited as a provider of nursing continuing professional development by the American Nurses Credentialing Center's Commission on Accreditation.

Houston Methodist will award 5.75 nursing continuing professional development contact hours for this activity. Participants must attend the activity in its entirety and complete the corresponding evaluation.

HOW TO RECEIVE YOUR CERTIFICATE



Upon concluding the activity, use the provided QR code to access the course website and proceed with the evaluation. After submitting your evaluation, return to the workflow on the course landing page to retrieve your certificate via download or printing. Reminder emails containing the evaluation link will be sent every seven days for a total of 28 days. It's important to complete the evaluation within 30 days to ensure credit is claimed.

CONTACT INFORMATION

HMHnurseplanners@houstonmethodist.org

[Click here for the course webpage](#)

DISCLAIMER AND DISCLOSURES

Houston Methodist makes every effort to develop continuing education activities that are scientifically based, accurate, current, and objectively presented. In accordance with the Accreditation Council for Continuing Medical Education (ACCME) Standards for Integrity and Independence in Accredited Continuing Education and American Nurse Credentialing Center (ANCC), Houston Methodist has implemented a mechanism requiring everyone in a position to control content of an educational activity (e.g., directors, planning committee members, contributors, peer reviewers, etc.) to disclose all financial relationships with ineligible companies (companies whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients) and mitigate any relevant financial relationships prior to the activity. Individuals must disclose to participants the existence of financial relationships at the time of the activity and 24 months prior.

Houston Methodist does not view the existence of interests or relationships with ineligible companies as implying bias or decreasing the value of a presentation. It is up to the participants to determine whether the interests or relationships influence the presenter with regard to exposition or conclusions.

In addition, if contributors will be discussing products (drugs/devices) they have been instructed to use generic names and to include various products within and across classes. If at any time during this activity you feel that there has been commercial or promotional bias, please notify the CE coordinator for the activity and note your comments by using the commercial bias comments box in the evaluation form. Please answer the question about balance in the CE activity evaluation candidly.

Some drugs/devices identified during this activity may have United States Food and Drug Administration (FDA) clearance for specific purposes only or for use in restricted research settings. The FDA has stated that it is the responsibility of the individual physician to determine the FDA status of each drug or device that he/she wishes to use in clinical practice and to use the products in compliance with applicable law.

Faculty members are also asked to disclose any unlabeled use or investigational use (not yet approved for any purpose) or pharmaceutical and medical device products and provide adequate scientific and clinical justification for such use. Physicians are urged to fully review all the available data on products or procedures before using them to treat patients.

All the relevant financial relationships listed for these individuals have been mitigated.

FACULTY DISCLOSURES

Name	Role	Relevant Financial Relationship
Brenda Pun, DNP, RN, FCCM	Speaker	Consultant - Sedana Inc. Advisory Panel - Carebell

All the relevant financial relationships listed for these individuals have been mitigated. All others who were in control of the content of this activity have disclosed that they have no relevant financial relationships.

EXHIBITORS

We gratefully acknowledge the following companies for participating as exhibitors for this activity:

Houston Christian University

Posey®

Post University - American Sentinel College of Nursing & Health Sciences

Stryker® Sage® Products

UTMB Health School of Nursing

MAGNET DESIGNATION

SEVEN HOUSTON METHODIST FACILITIES ARE ANCC MAGNET® RECOGNIZED



Houston Methodist is proud to have all seven of its hospitals as designees of the American Nurses Credentialing Center's (ANCC) Magnet Recognition Program®, which recognizes superior quality in nursing care as evidenced by performance outcomes. In addition, Houston Methodist Continuing Care Hospital has achieved Magnet Pathway to Excellence recognition as well.

Houston Methodist is one of only a few U.S. hospital systems — and the only one in the Houston area — to achieve national Magnet® recognition for nursing excellence at all of its acute care hospitals.

This Magnet® recognition of nursing excellence from the American Nurses Credentialing Center (ANCC) is the highest, most respected national honor, achieved through a rigorous review process and considered the gold standard for outstanding nursing care. Less than 10% of hospitals in the United States, just over 600 hospitals, have earned this designation.

HOUSTON METHODIST MAGNET® FACILITIES:

Houston Methodist Hospital
Houston Methodist Baytown Hospital
Houston Methodist Clear Lake Hospital
Houston Methodist Sugar Land Hospital

Houston Methodist The Woodlands Hospital
Houston Methodist West Hospital
Houston Methodist Willowbrook Hospital

U.S. NEWS & WORLD REPORT RECOGNITION

Houston Methodist Hospital is recognized by *U.S. News & World Report* as the #1 hospital in Texas for patient care and a top 20 hospital in the nation.



Houston Methodist Hospital is nationally recognized in 10 specialties:

Cancer
Cardiology & Heart Surgery
Diabetes & Endocrinology
Gastroenterology & GI Surgery
Geriatrics

Neurology & Neurosurgery
Obstetrics & Gynecology
Orthopedics
Pulmonology & Lung Surgery
Urology

POSTERS

Vanessa Amaya, BSN, RN; Sukhbir Kaur, BSN, RN; Yulena Morin, BSN, RN; DeeAnn Reeves, BSN, RN; Yeslin Rivas, BSN, RN; Sarah Santos, RN; Nhi Tran, BSN, RN

Nurse-driven Early Mobility Protocol

Maria Del Pino Castillo, MS, RN, CVRN-BC, CCRP

Step-by-Step Guide for Nurses to Conduct a Meta-Analysis of Dichotomous Data

Tana Elliott, MHA, BSN, RN, CEN, CA-SANE; Samantha McBroom, MSN, RN, CEN, NE-BC; Mona Cockerham, PhD, MSN, CPHQ, EBP-C; Margaret Woodruff, BISE, LSSGB

Precision Your Practice: Documentation Domination

Rebecca Geck, Minal Sonawane, Harsha Janagunda, Tiffany Cortes, Allison Stepanenko, Crisann Moon, Darpan Patel

Preliminary Analysis of Adaptations of Exercise + Creatine in Breast Cancer Survivors

Kimberly Hamley, RN, BSN, OCN

Benefits and Feasibility of the Implementation of a Mucositis Screening Tool at an Outpatient Infusion Center

Jolly Joseph, AGACNP-BC, RN; Joicy B. Thomas, PhD, RN; Wyona Freysteinson, PhD, FAAN; Elif Isik, PhD, RN; Joyce Ennis, PhD, RN, ANP, CNE

Empowering Women Veterans Through Peer Groups

Tammie McNeal-Ibikunle, MS, APRN, AGACNP-BC, FNP-C, Ambili John, MSN, APRN, ACNP-BC, Millicent Olang, MSN, APRN, AGACNP-BC

Restructuring Rapid Responses: A Collaborative Process for Improved Team Communication and Patient Safety

Tenische Perry, BSN, RN, CCM

Care Coordination Rounds: A Multidisciplinary Approach to Improve Patient Throughput

Rose Sullivan, BSN, RN, CCRN, SCRN; Mayette Rasco, BSN, RN, CCRN-CSC

Implementing a Comprehensive Open-Heart Program

Ashley Tolbert, DNP, RN, FNP-C

Decreasing Burnout & Turnover through Early Leadership Involvement in the Emergency Department

Savannah Wilson, MSN, RN, CEN, Samantha McBroom, MSN, RN, CEN, NE-BC

Navigating the Surge: Enhancing Patient Satisfaction and Efficiency in the Emergency Department Amidst Rising Volumes

Peyton Villarreal, MS, BSN, RN, RNC-MNN, C-ONQS; Shaeequa Dasnadi, MBBS

Sweet Solutions: Treating Asymptomatic Term and Late Preterm Hypoglycemic Babies with Glucose Gel to Promote Exclusive Breastfeeding and Decrease NICU Admissions

Scan or click
the QR code
to review posters



Vanessa Amaya, BSN, RN; Sukhbir Kaur, BSN, RN; Yulena Morin, BSN, RN; DeeAnn Reeves, BSN, RN; Yeslin Rivas, BSN, RN; Sarah Santos, RN; Nhi Tran, BSN, RN

Nurse-driven Early Mobility Protocol



Nurse-driven Early Mobility Protocol

Vanessa Amaya, BSN, RN; Sukhbir Kaur, BSN, RN; Yulena Morin, BSN, RN; DeeAnn Reeves, BSN, RN; Yeslin Rivas, BSN, RN; Sarah Santos, RN; Nhi Tran, BSN, RN

Houston Methodist Baytown



Background & Introduction

- Early mobility protocol was originally implemented in 2019 in the medical ICU, but SARS-CoV 2 pandemic was a barrier for successful implementation.
- Early mobility has many beneficial outcomes for patients within the ICU including reduction in muscle atrophy and delirium, shorter length of stay, and improvement in quality of life (Alaparthi et al., 2020).
- Utilizing an early mobility protocol can positively impact the functional mobility of a critically ill patient (Schallom et al., 2020).
- Algorithms are an efficient way for nurses to determine if a critically ill patient can be mobilized (Drolet et al., 2013).

Objectives

- Educate staff on benefits and importance of initiating early mobility in non-intubated, critical care patients.
- Implement nursing-driven protocol and exclusion criteria to guide nurses in mobilizing critically ill patients.
- Evaluate the effectiveness of an early mobility protocol by analyzing the Surgical ICU Optimal Mobilization Score (SOMS).

PICOT

Among critical care nurses, does education on a nurse-driven early mobility protocol impact the Surgical ICU Optimal Mobilization Score (SOMS) during a patient's length of stay within the intensive care unit (ICU)?

Methods & Implementation

- Early Mobility Exclusion criteria (Drolet, 2013) revised by the intensivist was evaluated before mobilizing patients.
- Nurse-driven Mobility Algorithm (Drolet, 2013) was utilized as a guideline for progressively mobilizing patients.
- SOMS-numerical scale was used to quantify mobility of the patient to guide goal-directed therapy.

Education

- Unit Based education during pre-shift huddle using Learning and Engagement board (LENS) for PowerPoint Presentation
- June 15, 2023 – June 21, 2023

Implementation

- Laminated nurse-driven mobility protocol and exclusion criteria at all nursing stations
- Protocol placed on LENS information board in break room and addressed during all huddles
- Incentivizing nursing staff with candy

Evaluation

- 204 patients assessed, 108 included in the data analysis
- ICU admission and discharge dates, initial and final SOMS, ICU length of stay, and disposition
- June 22, 2023 – August 4, 2023

SOMS Algorithm

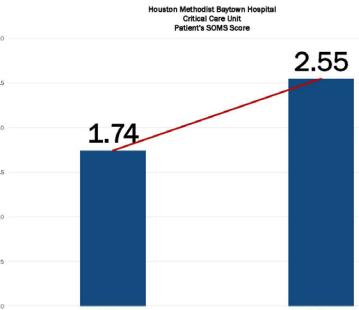
No mobilisation (0)	PROM (1)	Sitting (2)	Standing (3)	Ambulation (4)
1) Stable spine 2) No active predicted mortality in next 24 hours 3) G/F = 20 cm H2O				
1) Follows 1-step commands 2) Voluntary movement: a) SCo, open lumbar drains, open EVD, femoral ven access for CVVH				
1) 20/50 bilateral quadriceps strength 2) No pain reported 3) No W/B restriction				
1) Stands twice with minimal assist 2) 50/50 with minimal assist				

Attempt to maintain blood pressure and heart rate in clinically appropriate range during mobilization: consider vasopressors, fluid volume, vasoactive, pain medication and other interventions as indicated. If unsuccessful in achieving hemodynamics stabilization, do not advance.

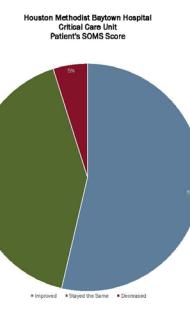
Meyer et al., 2013; Schaller et al., 2016

Results

Houston Methodist Baytown Hospital Critical Care Unit Patient's SOMS Score



Houston Methodist Baytown Hospital Critical Care Unit Patient's SOMS Score



The average initial SOMS was 1.74 at ICU admission, and the average final SOMS was 2.55 at ICU discharge. Also, 54% of critically ill patients had an improvement of at least 1 point in their SOMS during their length of stay in the ICU while 41% of patients had no change in the initial and final SOMS. Only 5% of patients had a decrease in their SOMS during their ICU length of stay. Educating critical care nurses on the protocol has led to improved patient outcomes and is impactful to a patient's overall clinical progression.

Future Action

Continuing nursing education on the nurse-driven mobility protocol and exclusion criteria could improve patient SOMS and effectively progress patients along the mobility continuum. The goal is to continue to promote early mobility within the unit by encouraging nursing personnel to collaborate in engaging patients in goal setting. More support will be provided to nurses seeking to mobilize their patients. The ICU will acquire more recliners for patient use to encourage progressive mobility by providing a more comfortable sitting option. Education on the nurse-driven progressive mobility algorithm and exclusion criteria will be included in onboarding of new staff members. We will continue engagement of nursing personnel to sustain early mobilization for better patient outcomes.

References

Alaparthi, G. K., Getty, A., Samuel, S. R., & Amaravadi, S. K. (2020). Effectiveness, safety, and barriers to early mobilization in the intensive care unit. *Critical Care Research and Practice*, 2020, 1-14. <https://doi.org/10.1155/2020/7840743>

Drolet, A., Delujo, P., Harkless, S., Hennicks, S., Karmin, E., Liddy, E. A., Lloyd, J. M., Water, C., & Williams, S. (2013). Move to improve: The feasibility of using an early mobility protocol to increase ambulation in the intensive and intermediate care settings. *Physical Therapy*, 93(3), 197-207. <https://doi.org/10.2522/pt.20110400>

Meyer, M. J., Stanislaus, A. B., Lee, J., Waak, K., Ryan, C., Saxena, R., Ball, S., Schmidt, U., Poon, T., Piva, S., Walz, M., Talmor, D., S., Blobner, M., Latronico, N., & Eikermann, M. (2013). Surgical intensive care unit optimal mobilisation score (SOMS) trial: A protocol for an international, multicentre, randomised controlled trial on goal-directed early mobilisation of surgical ICU patients. *BMJ Open*, 1-11. <https://doi.org/10.1136/bmponline-2013-003262>

Schaller, S. J., Anstey, M., Blobner, M., Edrich, T., Grabitz, S. D., Gradwohl-Matis, I., Hein, M., Houle, T., Kurth, T., Latronico, N., Lee, J., Meyer, M. J., Peponis, T., Talmor, D., Velmahos, G. C., Waak, K., Walz, J. M., Zafonte, R., & Eikermann, M. (2016). Early, goal-directed mobilisation in the surgical intensive care unit: A randomised controlled trial. *Lancet*, 388, 1377-1388.

Schallom, M., Tymkew, H., Vyers, K., Prentiss, D., Sona, C., Norris, T., & Arroyo, C. (2020). Implementation of an interdisciplinary AACU early mobility protocol. *Critical Care Nurse*, 40(4), 7-17. <https://doi.org/10.4037/ccn2020632>

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Step-by-Step Guide for Nurses to Conduct a Meta-Analysis of Dichotomous Data

Maria Del Pino MS, RN, CVRN-BC, CCRP

Houston Methodist Hospital

Center of Nursing Research, Education and Practice

1. Define the research question

- Clearly articulate the clinical question using PICO framework
- Example: Does depression (I) increase the risk of dementia (O) in patients with atrial fibrillation (P) compared with people without depression (C)?



2. Follow current standards

- Adhere to current guidelines such as the Cochrane Handbook for Systematic Reviews of Interventions and PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses).



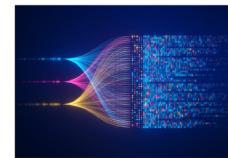
3. Search and select studies

- Conduct a comprehensive literature search using databases such as PubMed, Scopus, and Cochrane Library.
- Apply your inclusion-exclusion criteria to the results.

Example: Following duplicate removal, we assessed the title and abstract of 2340 publications. In this process, we excluded 1735 for not been related to the topic. After the initial screening, we scrutinized the remaining 367 studies. Among these, 352 were excluded due to failure to meet the predetermined inclusion and exclusion criteria. Consequently, 10 studies were left for the analysis.

4. Extract data

- Collect data on study characteristics such as sample size, intervention, control and dichotomous outcomes such as number of events vs. non-events.
- Use standardized forms or software to ensure consistency in data extraction.



5. Assess the quality of the studies

- Evaluate the quality and risk of bias in the selected studies using the appropriate tools, according to the type of study such as the ROBINS-I tool.



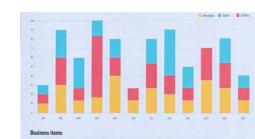
6. Perform statistical analysis

- Calculate effect sizes such as Odd Ratio (OR) or Risk Ratio (RR)
- Choose a fixed-effect or random-effects model depending on the heterogeneity of the studies.
- Assess heterogeneity using I^2 statistics.



7. Interpret the results

- Interpret the effect sizes and confident intervals to determine the overall effect.
- Discuss the clinical relevance of the findings and potential impact in nursing practice.
- Assess the homogeneity of the studies by analyzing the similarities in study design, population, interventions, and outcomes. If studies are homogeneous, they are more likely to yield a reliable pooled estimate.

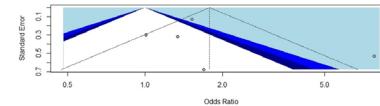
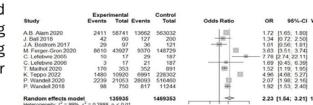


8. Compare results, address limitations and draw conclusions

- Compare your findings with those of other studies to identify consistencies or discrepancies.
- Discuss the limitations of your meta-analysis, such as study quality, potential biases, or sample size.
- Draw clear conclusions based on the evidence, highlighting implications for nursing practice and areas for future research.

9. Report and present findings

- Present your findings, in a clear and structured manner, including forest plots to visualize the meta-analysis. Highlight key conclusions, implications for nursing practice, and any limitations of the meta-analysis.



References

- Higgins J.P.T., Thomas J., Chandler J., Cumpston M., Li T., Page M.J., Welch VA (Eds.). Cochrane handbook for systematic reviews of interventions version 6.4 (updated August 2023). Cochrane, 2023.
- D. Moher, A. Liberati, J. Tetzlaff, D.G. Altman, PRISMA Group Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. International Journal of Surgery, 8 (5) (2010), pp. 336-341

Scan the QR code below to see an example of a Meta-analysis and my contact information:



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Precision Your Practice: Documentation Domination




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Background/Introduction

In the emergency department (ED), the electronic medical record (EMR) systematically documents the patient's journey from initial presentation at triage with progressive recording of assessments, interventions, and patient responses performed by the healthcare team until their departure.

A preliminary audit of data collected in the ED revealed documentation vulnerabilities on high acuity Emergency Severity Index (ESI) Level 1 patients in alignment with critical care interventions recorded in the EMR. The correlation rate was 42% among 150 of the 450 treated. The ESI is a five-level triage algorithm tool used in the ED developed in 1999 to rapidly identify and score each patient's cue of treatment with Level 1 being critical and Level 5 least acute.

This project highlights the significant advantages of thorough and precise documentation by the ED nursing staff ensuring efficient operations of the healthcare system.

Method

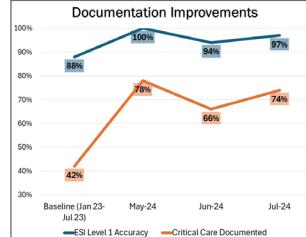
Data Collection Period:
 • January 1 to July 31, 2023, EMR audits for ESI Level 1 patients.

Statistical Analysis:
 • The percentage of patients for which audits were completed that fell into the desired patient care intervention categories (critical care, one-on-one care, cardiac monitor, oxygen, isolation, and transport by RN to ICU/IMU) of analysis.
 • Averages were taken to determine the adequacy of documentation training.

Findings from EMR Audit:
 • 450 ESI Level 1 patients reviewed with key issue being documentation of patient care interventions.

Survey and Observations:
 • Participants are registered nurses (RN) in a community ED. Survey purpose is to measure knowledge of documentation compliance and expectations with focus on current practices and barriers.

Analysis



Month	ESI Level 1 Accuracy (%)	Critical Care Documented (%)
Baseline (Jan 23 - Jul 23)	88%	42%
May-24	100%	78%
Jun-24	94%	66%
Jul-24	97%	74%

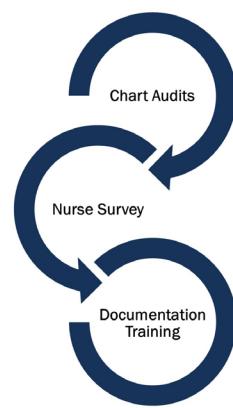
Results/Implications

Results:
 • Audits completed for assignment of ESI Level 1 patients in ED from May to July 2024 resulted in an improvement from a baseline of 88% to 97% and an improvement for critical care interventions documented from a baseline of 42% to 74%.
 • Surveys completed by nursing staff show a 33% improvement in perception of training *accuracy* and a 38% improvement in perception of their *completeness* of documentation.

Implications:
 • Inaccurate or missing documentation impacts patient safety, continuity of care, and revenue.
 • Survey results revealed gaps in RN understanding of documentation requirements, location in EMR to chart care interventions, and compliance expectations.
 • Barriers identified highlight time constraints, lack of training, and/or unclear guidelines that impact documentation quality.

Objectives of Process Improvement Project

- Improve patient care with continuity, seamless information transfer, and real-time updates.
- Enhance communication by shared knowledge and reduction in errors.
- Compliance in standards to meet regulatory requirements and adherence to best practices.
- Improvement in quality with data collection for analysis of care trends and benchmarking efforts.
- Development of training through education tools and continuous improvement.

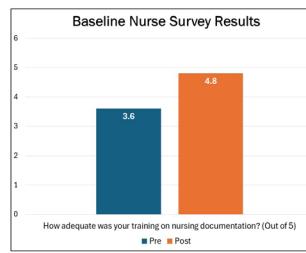


Future Actions

- Sustaining change includes targeted training and education with ongoing quarterly refreshers, along with prevalence audits.
- Clear documentation protocols with checklists and templates to enhance nursing documentation.
- Address barriers by evaluating resource allocation and streamline processes.
- Leveraging technology with EMR enhancements and data utilization from monthly chart audits.

Intervention – Documentation Training

- Education on location in the EMR for documentation of patient care interventions. Specific location is essential to flow and continuity for all providers and to capture revenue.
- Education tool created included hospital policies, expectations, and key documentation points.
- Nurse Champions selected and trained with roll-out date of April 2024 for 100% of staff nurses.
- Audits completed May through July 2024 for compliance.



Response	Pre (%)	Post (%)
How adequate was your training on nursing documentation? (Out of 5)	3.6	4.8

Acknowledgments

Mary McNutt, BSN, RN, CEN
 ED Documentation Nurse Champions
 ED Registered Nurses
 Raquel Ochoa, Administrative Assistant

References

References provided upon request

Preliminary analysis of adaptations of exercise ± creatine in breast cancer survivors

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Introduction

Breast cancer and its cytotoxic treatment increases patients' risk for skeletal muscle atrophy, reducing strength, physical function, increasing fatigue, and impairing quality of life. Exercise can improve recurrence rates and survivability in nearly all cancers.¹ Creatine is a widely studied supplement with research showing augmented training adaptations in healthy and clinical populations, but it's never been studied in cancer survivors.²

Aim: Study the effects of resistance training with or without creatine supplementation in breast cancer survivors post chemotherapy on outcomes of strength, function and fatigue.

Hypothesis: Breast cancer survivors (BCS) will see increased muscle strength, physical function, and reduced fatigue following a 12-week resistance exercise program and these effects will be greater in those taking creatine.

Methods

Design: Pilot randomized control trial.

Patients: BCS (n=10) who completed chemotherapy within the previous 6 months were recruited to complete 12 weeks of a progressive, home-based resistance exercise program (3 supervised sessions/week). BCS participants were randomized to either receive creatine supplement + exercise (n=5) or exercise alone (n=5).

Age-Matched Controls (AMC): Women who have never had cancer were recruited to complete baseline testing only.

Assessments: Strength was assessed using 1-Repetition Maximum (RM), 10-RM testing, and isometric dynamometry. Physical function was assessed with 6-minute walk test. Fatigue was self-reported using EORTC QLQ BR23 and C30 surveys.

Analysis: Within and between group comparisons were performed using either a paired t-test or two-way ANOVA.

Results

Table 1		Participant Demographics	
	BCa Survivors	Age Matched Controls	
Age	46.4 ± 12.5	50.3 ± 13.3	
Weight (kg)	73.4 ± 16.2	77.6 ± 14.3	
BMI	28.1 ± 5.3	30.8 ± 5.8	
Participant Ethnicity/Race			
	BCa Survivors	Age Matched Controls	
Hispanic/Latina	3	10	
Non-Hispanic	7	0	
White	6	10	
Black	3	0	
Asian	1	0	

Figure 1

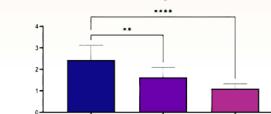


Figure 1. Self-reported fatigue was significantly lower in BCa survivors after the 12-week resistance training intervention ($p < 0.01$). Of greater significance, resistant training was able to bring fatigue in BCa survivors to similar levels as age-matched controls (AMC).

Table 2. Strength outcomes for 10-RM estimates (kg)					
	Overhead press	Row	Triceps Extension	Biceps Curl	Leg Extension
Baseline	38.4 ± 25.2	60.5 ± 17.5	65.7 ± 31.1	24.0 ± 15.0	180.4 ± 99.1
End of Study	47.8 ± 21.0	82.7 ± 34.3	72.5 ± 48.5	29.1 ± 12.3*	158.4 ± 28.0

* $p < 0.05$

Figure 2

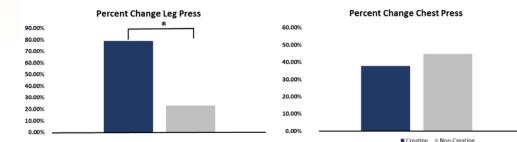


Figure 2. A. The change in 1-RM leg press was significantly more in those who took creatine compared to those who did not. Creatine group had an 80% change, Non-Creatine group had a 25% change. B. No statistically significant change was found in chest press between the two groups.

Figure 3

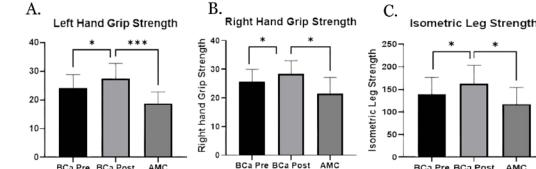


Figure 3. After 12 weeks of intervention, left hand grip strength, right hand grip strength, and isometric leg strength were significantly increased in all BCS. After 12 weeks of intervention, Left hand grip strength, right hand grip strength, and isometric leg strength were significantly higher in all BCS than age-matched controls.

Discussion

- 1-RM Leg Press was the only assessment thus far to show a significant difference between BCS who took creatine and those who did not.
- 12 weeks of a supervised, home-based resistance exercise program significantly improved strength in all assessments for all BCS.
- The study is ongoing. More research needs to be done to validate results.

Breast cancer survivors taking creatine during 12 weeks of resistance exercise training increased 1-RM leg press by 80%.

Scan the QR code to read the study's published protocol



References

- Barreto R, Mandili G, Witzmann FA, Novelli F, Zimmers TA, Bonetto A. Cancer and chemotherapy contribute to muscle loss by activating common signaling pathways. *Frontiers in physiology* 2016;7:472.
- Kreider RB, Kalman DS, Antonio J, Ziegelnuss TN, Wildman R, Collins R, Candow DG, Kleiner SM, Almada AL, Lopez HL. International Society of Sports Nutrition position stand: safety and efficacy of creatine supplementation in exercise, sport, and medicine. *Journal of the International Society of Sports Nutrition* 2017;14(1):18.

Kimberly Hamley, RN, BSN, OCN

Benefits and Feasibility of the Implementation of a Mucositis Screening Tool at an Outpatient Infusion Center



Benefits and Feasibility of the Implementation of a Mucositis Screening Tool at an Outpatient Infusion Center

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Background

- Oral mucositis (OM) is a frequent and highly symptomatic adverse effect of cancer treatment, especially prevalent in patients receiving cytotoxic drugs and head and neck radiation treatment. OM results in very painful ulcerations, infections, a decrease or discontinuation of oral intake leading to treatment delay and is potentially life threatening.
- While oral hygiene has been a part of nurse teaching at this outpatient infusion center, there was no formal toxicity screen performed addressing mucositis.

Aim & Objectives

The aim of the project was to implement a systematic screening process for oral mucositis in an outpatient infusion center.

Objectives:

- Identify a validated mucositis toxicity screen that is feasible for integration into the infusion center flowsheet.
- Develop a systematic screening process of oral mucositis.
- Increase awareness of the importance of oral status of chemotherapy patients.
- Increase nurse confidence of assessing for mucositis.
- Identify opportunities for intervention prior to serious infection by observing a toxicity grade each visit.

Methods

The PDCA model was used for this project.

- The infusion nurses were given a pre and post survey about the Oral Assessment Guide (OAG).
- Education provided to RNs on how to use the OAG tool and laminated pocket cards and pen lights provided to all nurses.
- Worked with analyst to integrate the OAG into the electronic health record.
- Reviewed patient records (N=10) for OAG screening over a 2-month timeframe with an average scoring.

Results

Sample of Drop-Down Grading Tool in Epic		
Category	Grade 1	Grade 2
Voice	Normal	Deeper or raspy
Swallow	Normal swallow	Pain with swallowing
Lips	Smooth, pink, and moist	Dry or cracked
Tongue	Pink and moist	Coated or shiny appearance
Saliva	Watery	Thick orropy
Mucous Membranes	Pink and moist	Reddened or coated (white) without ulcerations
Gingiva	Pink and firm	Edematous
Teeth	Clean and no debris	Plaque or debris between teeth or in localized areas
		Plaque or debris generalized on teeth
Grade 1 (1-8):	Normal oral assessment	
Grade 2 (9-12):	Mild functional disturbance	
Grade 3 (>13):	Moderate or severe functional disturbance	

Figure 1: There are three grades for oral mucositis using the OAG assessment tool: grade 1 being a normal assessment, grade 2 being a mild functional disturbance, and a grade of 3 having a moderate to severe functional disturbance.

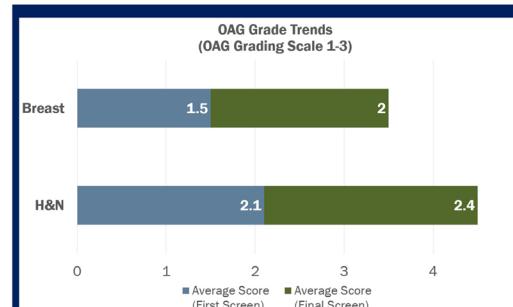


Figure 2: A review of Oral Assessment G assessments completed over two months in two high-risk mucositis cancer populations reported average scores of 2 on the initial OAG assessment, with an increase in the average score to 2.3 as the patient progressed in the chemotherapy treatment course.

Results

- The Oral Assessment Guide is now integrated into the electronic health record system for assessments for the infusion center nurses documentation.
- A review of OAG assessments completed over two months in two high-risk mucositis cancer populations reported **100% OAG assessment and documentation compliance**.
- An increase in the toxicity grade among the majority of the patients surveyed provided insight on the magnitude of this complication at the infusion center.
- The significance of this project is that the infusion center now has a systematic process for assessing and grading oral mucositis.
- After assessing at risk patients at the infusion center, the patients are experiencing moderate to severe mucositis.
- The comparison of the pre and post surveys collected show infusion center nurses have an increase in knowledge regarding the OAG and oral mucositis following education and implementation of the tool.

Future Actions

- Implementing a mucositis grading scale for all patients receiving cytotoxic medications is feasible and essential to assess patients receiving cytotoxic medication adequately.
- Future process improvement and quality improvement projects are warranted for all patients receiving cytotoxic medications with interdisciplinary collaboration for treatment plans when patients have an OAG assessment in grades 2 to 3.

Acknowledgments

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References

ANDERSSON, P., PERSSON, L., HALLBERG, B., & BERNHARD, S. (1999). Testing of oral assessment guide during chemotherapy treatment in a Swedish care setting: a pilot study. *Journal of Clinical Nursing*, 8(2), 150-156. doi:10.1046/j.1365-2702.1999.00237.x
Ekers, June and Berger, Ann. *Oral Assessment Guide (1998): Guides and Handbooks*. College of Nursing.

DIAZ, M. A., & HALL, J. C. (2003). The prevalence of oral mucositis in cancer patients receiving chemotherapy. *Cancer*, 97(10), 2693-2700. doi:10.1002/cncr.10193. PMID:14600000

KHOOSI, M., & ESTMAN, M. (2010). Oral Assessment Guide: A tool for assessing oral mucositis and pain for patients receiving radiotherapy to the head and Neck Region. *European Journal of Cancer Care*, 19(1), 57-77. doi:10.1111/j.1365-2388.2009.01099.x

LI, J., ZHOU, Y., ZHANG, Y., GUAN, C., WANG, Q., DENG, Y., & HU, X. (2002). Incidence and Risk Factors for Radiotherapy-Induced Oral Mucositis Among Patients With Nasopharyngeal Carcinoma: A Meta-Analysis. *Journal of Clinical Oncology*, 20(1), 70-82. doi:10.1200/JCO.2001.04.002

LIU, J., ZHOU, Y., ZHANG, Y., GUAN, C., WANG, Q., DENG, Y., & HU, X. (2002). Incidence and Risk Factors for Radiotherapy-Induced Oral Mucositis Among Patients With Nasopharyngeal Carcinoma: A Meta-Analysis. *Journal of Clinical Oncology*, 20(1), 70-82. doi:10.1200/JCO.2001.04.002

LI, J., ZHOU, Y., ZHANG, Y., GUAN, C., WANG, Q., DENG, Y., & HU, X. (2002). Incidence and Risk Factors for Radiotherapy-Induced Oral Mucositis Among Patients With Nasopharyngeal Carcinoma: A Meta-Analysis. *Journal of Clinical Oncology*, 20(1), 70-82. doi:10.1200/JCO.2001.04.002

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LI, J., ZHOU, Y., ZHANG, Y., GUAN, C., WANG, Q., DENG, Y., & HU, X. (2002). Incidence and Risk Factors for Radiotherapy-Induced Oral Mucositis Among Patients With Nasopharyngeal Carcinoma: A Meta-Analysis. *Journal of Clinical Oncology*, 20(1), 70-82. doi:10.1200/JCO.2001.04.002

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LI, J., ZHOU, Y., ZHANG, Y., GUAN, C., WANG, Q., DENG, Y., & HU, X. (2002). Incidence and Risk Factors for Radiotherapy-Induced Oral Mucositis Among Patients With Nasopharyngeal Carcinoma: A Meta-Analysis. *Journal of Clinical Oncology*, 20(1), 70-82. doi:10.1200/JCO.2001.04.002

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LI, J., ZHOU, Y., ZHANG, Y., GUAN, C., WANG, Q., DENG, Y., & HU, X. (2002). Incidence and Risk Factors for Radiotherapy-Induced Oral Mucositis Among Patients With Nasopharyngeal Carcinoma: A Meta-Analysis. *Journal of Clinical Oncology*, 20(1), 70-82. doi:10.1200/JCO.2001.04.002

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LI, J., ZHOU, Y., ZHANG, Y., GUAN, C., WANG, Q., DENG, Y., & HU, X. (2002). Incidence and Risk Factors for Radiotherapy-Induced Oral Mucositis Among Patients With Nasopharyngeal Carcinoma: A Meta-Analysis. *Journal of Clinical Oncology*, 20(1), 70-82. doi:10.1200/JCO.2001.04.002

LI, J., ZHOU, Y., ZHANG, Y., GUAN, C., WANG, Q., DENG, Y., & HU, X. (2002). Incidence and Risk Factors for Radiotherapy-Induced Oral Mucositis Among Patients With Nasopharyngeal Carcinoma: A Meta-Analysis. *Journal of Clinical Oncology*, 20(1), 70-82. doi:10.1200/JCO.2001.04.002

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LI, J., ZHOU, Y., ZHANG, Y., GUAN, C., WANG, Q., DENG, Y., & HU, X. (2002). Incidence and Risk Factors for Radiotherapy-Induced Oral Mucositis Among Patients With Nasopharyngeal Carcinoma: A Meta-Analysis. *Journal of Clinical Oncology*, 20(1), 70-82. doi:10.1200/JCO.2001.04.002

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Jolly Joseph, AGACNP-BC, RN; Joicy B. Thomas, PhD, RN; Wyona Freysteinon, PhD, FAAN; Elif Isik, PhD, RN; Joyce Ennis, PhD, RN, ANP, CNE

Empowering Women Veterans Through Peer Groups

Empowering Women Veterans Through Peer Groups

Jolly Joseph, AGACNP-BC, RN; Joicy B. Thomas, PhD, RN; Wyona Freysteinon, PhD, FAAN; Elif Isik, PhD, RN; Joyce Ennis, PhD, RN, ANP, CNE

Poster Presenter (In-person): Jolly Joseph

Virtual Presenter: Joicy B. Thomas

BACKGROUND

Women Veterans are the largest growing group in the veteran community in the United States. The journey of women veterans is unique in that these women lived and worked in the military. Veteran women join the military with a 'Can-do spirit.' They have the pride of being strong. They work with dignity and respect and put service before their life but the military life and the transition to civilian life involve struggles. Grace After Fire veteran support group invited researchers to learn about their experiences. Peer-to-peer support groups were effective and meaningful in helping veterans transition to civilian life and address their unique healthcare needs.

METHODS

- 17 women veterans
- Community-based action research
- Ricoeur's Hermeneutic Phenomenology
- Semi-structured interviews with audio-taped Focus groups

ANALYSIS

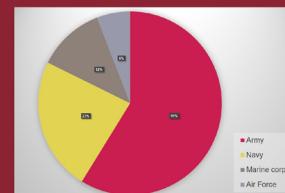
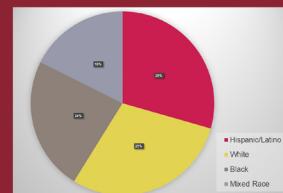
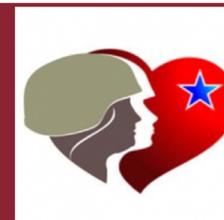
- Naïve Reading
- Structural Environmental Analysis
- Phenomenological Interpretation

Disclosures: There are no any disclosures to be made.

Acknowledgement: Grace After Fire community partners- Tana Plesher, (Interim Director), and Amelia Peacock (Coordinator).

Demographics

Mean age: 42.24 ± 10.33 years
Race: Black (23.5%); Hispanic/Latino: 29.4%;
Mixed race (17.6%); White (29.4%).
Military service: Air Force (5.9%); Army (58.8%);
Marine Corps (11.8%); Navy (23.5%).



Themes With Relevant Quotes

- **Service to Confusion:** "You're left to figure it out yourself."
- **Pride to Embodied Shame:** "I got raped repeatedly through basic training."
- **Screaming in Silence:** "It will be nice to say that the military sexual trauma years later I've healed from that, but I have not."
- **Harsh Reality:** "I no longer had an Identity."
- **Creating a Village:** "We were able to let go of these burdens."
- **Taking the High Road:** "You're going to have to put in the intent to be happy."



RESULTS/ FINDINGS

Environment: Service to confusion; Pride to embodied shame.

Phenomenology: Screaming in silence; Harsh reality; Creating a village; Taking the high road.

DISCUSSION

The study is ongoing. The next step involve validation of the results with 3-4 veterans. The experiences and stories shared by the veteran women will enhance the peer-to-peer support groups.

REFERENCES

Freysteinon, W. M. (2019). A synopsis of Ricoeur's phenomenology of the will: Implications for nursing practice, research, and education. *Journal of Holistic Nursing, 37*(1), 87-93. <https://doi.org/10.1177/0898010118778904>

Freysteinon, W. M., Mellott, S., Celia, T., Du, J., Goff, M., Plescher, T., & Allam, Z. (2018). Body image perceptions of women veterans with military sexual trauma. *Issues in Mental Health Nursing, 39*(8), 623-632. <https://doi.org/10.1080/01612840.2018.1445327>

Resnick, E. M., Mallampalli, M., & Carter, C. L. (2012). Current challenges in female veterans' health. *Journal of women's health, 21*(9), 895-900. <https://doi.org/10.1089/jwh.2012.3644>

Stron, J.D., Crow, B.M. Lawson, S. (2018). Female veterans: Navigating two identities. *Clinical Social Work, 46*, 92-99. <https://doi.org/10.1007/s10615-017-0636-3>

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Restructuring Rapid Responses: A Collaborative Process for Improved Team Communication and Patient Safety



Restructuring Rapid Responses: A Collaborative Process for improved team communication and patient safety

Tammie McNeal-Ibikunle, MS, APRN, AGACNP-BC, FNP-C, Ambili John, MSN, APRN, ACNP-BC, Millicent Olang, MSN, APRN, AGACNP-BC

Background/Introduction

- Joint Commission National Patient Safety requirements for a Rapid Response Team (RRT) was developed to assess and treat patients' worsening conditions prior to cardiac or respiratory arrest, reduce unplanned ICU transfers, and increase clinical nurse support
- Although implementation of rapid response systems (RRS) has improved patient safety in hospitals, standard work varies across hospitals, and collaborative communication process is limited
- Studies have indicated unit nurses fear being criticized for unnecessary RRT calls, are concerned about conflict between RRT and nursing staff with no resolution of patient symptoms
- In this 358-bed community hospital, rapid responses were called, but appeared silent upon RRT arrival due to limited staff availability, support, and visibility
- There was limited communication to the RRT when patients were deteriorating, limited knowledge of patient condition due to lack of communication during hand-off reports, lack of feeling psychologically safe with reporting concerns of possible deteriorating conditions

Method

- Initial Education included TEAMSTEPPS class for Nurse Practitioner (NP). Time was allowed to thoroughly review the imperative concerns, and brainstorm to determine an appropriate avenue for improved communication and patient safety.
- Workgroup meeting with RRT-NP, IMU, Med-Surg, and Observation charge nurses
- Interprofessional rounds with a special focus on EPIC Deterioration Index (EDI), Sepsis, and previous RRT calls were initially specific to IMU and night shift
- Debriefings were held in all Med-Surg units, after RRT completion
- Collaboration training held for nurse residents, new employees, and shared governance committee
- Survey provided to staff on each unit for random survey, provided to new employees, and nurse residents, at the end of the collaborative lecture

Rapid Response Kits



Purpose/Objectives/Hypothesis

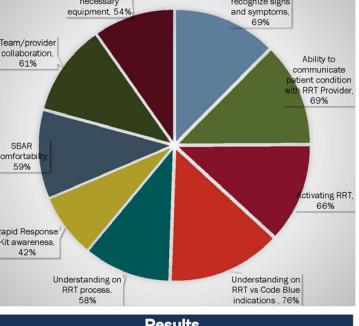
- Communication and cooperation play a significant role during RRT member-user interactions
- The clinical stressors and time stressors of RRT calls can threaten the working relationship between users and members, which may hinder successful resolution of RRT calls
- It was hypothesized that improving RRT member-Nurse Practitioner/staff RN collaboration would improve communication, psychological safety, and ultimately improve patient safety by preventing in-hospital cardiac arrest.

Rapid Response Standard Work

```

graph TD
    A[Primary RN to call RRT and Notify Charge Nurse (CN)] --> B[CN to broadcast Rapid Response room # over Vocera to unit]
    B --> C[Patient Care Assistant to stay as a runner]
    C --> D[Clinical Resource Nurse/Manager]
    D --> E[Debrief after RRT/patient stabilized]
    
```

Rapid Response Assessment Survey (N=163)



Component	Percentage
Anticipation of necessary equipment	54%
Ability to recognize signs and symptoms	69%
Ability to communicate patient condition with RRT Provider	69%
Activating RRT	66%
SBAR Comfortability	59%
Rapid Response Kit Awareness	42%
Understanding on RRT process	58%
Understanding on RRT vs Code Blue indications	76%

Phase I November 2022-April 2023

- Identification of problem
- Strategic planning
- Rounding
- Debriefings, nightshift
- Education

Phase 2 May 2023-August 2023

- Survey
- Team gathering/collaboration
- Workgroups
- Standard work
- Education

Phase 3 September 2023-February 2024

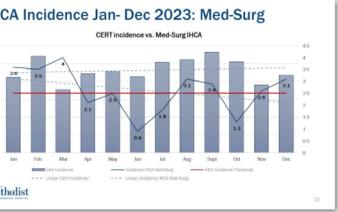
- Debriefings, dayshift and nightshift
- Continued Hospital Education
- Additional workgroups

Rapid Response Kits



Results

IHCA Incidence Jan- Dec 2023: Med-Surg



Future Actions

- While IHCA has decreased and communication has improved, we will need to continue to teach all current staff, new employees, increase dayshift rounding on all units, and consistently provide debriefings with tangible data sheets
- Additionally, providing reminders of standard work, such as badge buddies will be valuable tool in the future
- TEAMSTEPPS planned for all staff members
- Post Survey will need to be completed, as well as new surveys for new hires post-orientation

Results

Real-time debriefings have allowed improved psychological safety, critical thinking, communication, mutual respect, trust between team members, and decreased frustration. Additionally, it allowed suggestions for:

- Standard work
- Rapid response bag/kit with appropriate items for RRT, including items necessary tailored to the facility for the most common RRT calls
- Ordering STAT meds for improved timeliness
- RRT call awareness

While communication with the team on the unit has increased team collaboration and improved patient safety, we continue to strive for higher psychological safety among all members

Acknowledgments

- Acute Care Managers and Charge Nurses
- Night-shift shared governance committee members
- Hospital Educators

References

- Austin CA, Choudhury S, Lincoln T, Chang LH, Cox CE, Weaver MA, Hansen LC, Nelson JE, Carson SS. Rapid Response Events in Hospitalized Patients: Patient Symptom and Clinician Communication. *J Pain Symptom Manage*. 2018 Mar;65(3):946-952. doi: 10.1016/j.jpainsymman.2017.11.096
- Chawin, R., Giles, L., Salter, A., Kapitola, K., & Karon, J. (2020). Re-designing a rapid response system: effect on staff experiences and perceptions of rapid response team calls. *BMC Health Services Research*, 20, 489. <https://doi.org/10.1186/s12913-020-05260-z>
- Lo L, Rotteau L, Shojania K. Can SBAR be implemented with high fidelity and does it improve communication between healthcare workers? A systematic review. *BMJ Open*. 2021 Dec 17;11(12):e055247. doi: 10.1136/bmjjopen-2021-055247. PMID: 34921087. PMCID: PMC8685965
- Loisa E, Hoppu S, Hyönen SM, Tirkkonen J. Rapid response team members' attitudes and barriers to the rapid response system: A multicentre survey. *Acta Anaesthesiol Scand*. 2021 May;65(5):695-701. doi: 10.1111/aa.13779. Epub 2021 Jan 19. PMID: 33400259
- Winterbottom FA, Webley H. Rapid Response System Restructure: Focus on Prevention and Early Intervention. *Crit Care Nurs Q*. 2021 Oct-Dec;01:44(4):424-430. doi: 10.1097/CNQ.0000000000000379. PMID: 34437321

Tenische Perry, BSN, RN, CCM

Care Coordination Rounds: A Multidisciplinary Approach to Improve Patient Throughput



Care Coordination Rounds: A Multidisciplinary Approach to Improve Patient Throughput

Tenische Perry BSN, RN, CCM
Houston Methodist Hospital

Introduction

Managing patient throughput is a vital hospital initiative. Hospitals that invest in improving throughput have improved quality outcomes and experience significant financial cost savings. Care Coordination Rounds (CCR) is a care delivery structure that improves patient throughput. This study aims to explore the effectiveness of CCR improving two key patient progression metrics: length of stay (LOS) and discharge by 2pm.

Problem

Examine the effective implementation of CCRs impact on patient throughput.

Background

Hospital throughput is the process of moving patients through the hospital system from admission to discharge (digitalhealth, 2021). Evidence supports the implementation of hospital-wide patient throughput initiatives. Hospitals who prioritized patient throughput realized improvements in quality patient care, patient satisfaction, and a positive fiscal impact (Walker et al, 2016). Effective capacity management is a critical component to maintain and improve healthcare quality, patient safety and improve patient satisfaction and outcomes (Topp et al, 2017). Hospital discharges occurring late in the day results in an imbalance for hospital beds; delayed discharges affect hospital throughput resulting in delays in care, increased mortality, increased LOS, and higher costs (Burden et al, 2023). Research indicates that having multiple healthcare disciplines simultaneously at the patient's bedside improves interprofessional communication, collaboration, coordination of care, and patient-centered shared decision-making; studies have shown implementing interdisciplinary bedside rounding reduces LOS (Heip et al, 2022). Case Managers collaboration with nursing play a key role in these rounds as either leaders or participants in the process (Cesta, 2021).

Objective

- Define patient throughput.
- Examine care coordination rounds as an emerging care delivery structure improving patient throughput.
- Identify care outcomes improved by care coordination rounds.
- Recognize further implications impacting case management in completing this research.

Method

STUDY DESIGN

The study was a FOCUS-PDCA quality improvement initiative that demonstrates the practice of interprofessional collaboration to examine the effective implementation of CCR impact on patient throughput.

STUDY SETTING and PARTICIPANTS

Setting

The setting for this project was a 900-bed acute care, Magnet designated, academic teaching hospital. The unit designated to conduct the study is a 29-bed medical surgical, Prism Award recipient unit.

Participants

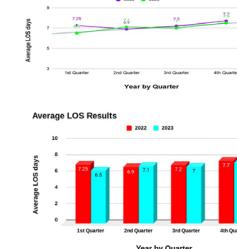
The CCR team included the nurse CM, SW, unit manager or charge nurse and bedside nurse.

INTERVENTION

In January 2023, the case management and the unit nursing leadership team collaborated to reignite CCR. The case management team and unit nursing staff focused on implementing CCR as a key strategy for improving patient throughput. Team members were given one month of training in their roles and their contribution to the patient CCR discussion. Rounds were made mandatory. CCR were held daily, beginning at 8:30 am Monday through Friday and held in each patient's room bedside. The average time to complete walking CCR was approximately 45 minutes to an hour. The project took place over a 12- month intervention period (January 2023 to January 2024). The data measured was the LOS quality metric and discharge before 2pm. LOS and discharge before 2pm were trended over 12 months.

Results

Average LOS



Average LOS Results

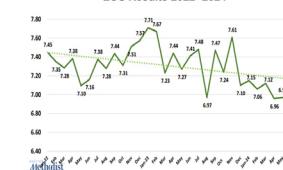


Results

January 2023 LOS Cost Savings

ADMISSIONS	LOS	INPATIENT DAYS	MEDISURG BED COST
# of patients	average LOS	# of days	-\$2,624/day
3,519	7.1-unit project	24,985	\$65,560,640
3,519	7.2-budgettarget	25,337	\$66,262,288
3,519	7.71-hospital average	27,131	\$71,191,744
ESTIMATED COST SAVINGS			
Jan 2023 project vs target	Jan 2023 project vs hospital	2023 1st Quarter (8.5 LOS)	12 month period
\$721,648	\$5,631,104	\$19,391,098	\$8,659,776

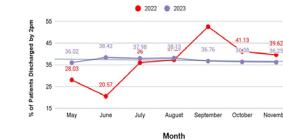
LOS Results 2022- 2024



2024 LOS Cost Savings

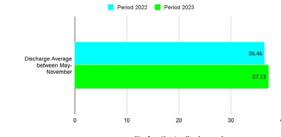
June 2024	Full Year 2024				
Actual Admissions	Actual/Budget	Inpatient Days	Projected 2024	Actual/Budget	Inpatient Days
3,734	6.98	26,056	44,850	7.11	318,884
3,734	7.25	27,072	44,850	7.25	325,163
Saved Days	1,016	Potential 2024 Saved Days	6,279		
Estimated Cost Savings	\$2,654,672	Potential 2024 Cost Savings	\$16,475,096		

DISCHARGE by 2pm



Results

DISCHARGE by 2pm



Conclusion

The results of the study indicated CCR has a significant impact on the measured metrics. The average LOS markedly decreased by 0.9 in the first quarter of the project. In 2023, three of four quarters (Q1, Q3, Q4) average LOS performed better than 2022. In 2023, three of four quarters (Q1, Q2, Q3) were below the target LOS. In January 2023, the project unit average LOS was 7.20, with a reduction of 1,784 days and hospital cost savings of \$3,962,264. Between May 2023 and November 2023, discharge before 2pm monthly average was 37.13% increasing bed availability, reducing hospital capacity and improving throughput. Between May 2023 and November 2023, discharge before 2pm monthly average was 37.13%. Discharge before 2pm increase bed availability, reducing hospital capacity. Prioritizing CCR resulted in decreased LOS, more discharges before 2pm and millions of dollars in cost savings. The role of CCR is vital to the success of hospital throughput.

References

Barrone, M., Miller, J., Long, M., Burden, J., Hain, P., Dubovskiy, A., High, H., De La Cruz, P., Williams, M. & Coleman, B. (2022). Implementing a Departure Lounge. *JONA's Healthcare Law, Ethics and Regulation*, 23(2), 129-131. doi: 10.1097/NNA.0000000000000118

Burden, M., Keniston, A., Gundareddy, V. P., Kauffman, R., Keach, J. W., McBeth, L., Raffel, K., Erice, J. D., Washburn, C., & Kisule, F. (2023). Discharge in the a.m.: A randomized controlled trial. *Journal of Hospital Medicine*, 18(4), 302-315. https://doi.org/10.1002/jhm.13050

Cesta, T. (2021). Interdisciplinary Bedside Rounds: State of the Art. *CCMC 2021 Virtual Symposium*, October 12-14, 2021. Interdisciplinary Bedside Rounds: State of the Art | CCMC 2021

Heip, T., Van Hecke, A., Maffet, S., Van Biesen, W., Eekloo, K. (2022). The Effects of Interdisciplinary Bedside Rounds on Patient Centeredness, Quality of Care, and Team Collaboration: A Systematic Review. doi: 10.1097/PT.0000000000000693 PMID: 32398575 PMID: 35170000

Helping Patients Flow Best Practices. *Polis Digital Health*. (2021). Retrieved April 17, 2024. https://digitalhealth.polis3.com/blog/hospital-patient-flow-best-practices/

Topp, K. (2020). Improving Hospital-Wide Patient Flow Throughput. Microsoft PowerPoint - 52_Topp (amia.org)

Walker, C., Kappur, K., Hall, N. (2006). Strategies for Improving Patient Throughput in an Acute Care Setting: Resulting in Improved Outcomes: A Systematic Review. *Nurs Econ*, 34(6):77-88. PMID: 2097549

Rose Sullivan, BSN, RN, CCRN, SCRN; Mayette Rasco, BSN, RN, CCRN-CSC

Implementing a Comprehensive Open-Heart Program



Implementing a Comprehensive Open-Heart Program

Rose Sullivan, BSN, RN, CCRN, SCRN & Mayette Rasco, BSN, RN, CCRN-CSC

Houston Methodist Sugar Land Hospital
Sugar Land, Texas

Background/Introduction

Houston Methodist Sugar Land Hospital is a 350-bed not-for-profit, faith based, twice designated Magnet hospital. The Surgical Intensive Care Unit (SICU) is a 20-bed unit Beacon designated by the American Association of Critical Care Nurses (AACN) since 2014. Critical care is challenging with various levels of knowledge, skills, and abilities of the critical care nurses in a general SICU that care for patients after open-heart surgeries, neurosurgery, neurovascular, breast flaps, and abdominal surgeries. General SICUs can be more challenging than specialized units due to the variability of the patient population. This variability along with staff turnover and an increase in CV volumes led to the development of the CV Bootcamp (CVBC).

Purpose

The purpose of the comprehensive Cardiovascular (CV) Bootcamp is to provide the didactic, skills, and experiential learning to prepare critical care nurses to have competence and confidence in caring for CV patients.

Methods

The CV Bootcamp is a 3-month training program for SICU nurses with collaboration from the multidisciplinary team members. Four CV Bootcamps have been offered since October 2022 which include:

- ❖ Pre-assessment exam to gauge baseline CV knowledge
- ❖ 2-day program to provide didactic and hands-on simulation
- ❖ Three follow-up exams to determine knowledge retention and progression of critical thinking
- ❖ Open-heart surgery observation in the OR
- ❖ Five orientation shifts with a preceptor (& more if needed)
- ❖ Monthly mini-CV series featuring topics such as: open chest mock drill, mobilizing the CV patient, chest x-ray interpretation
- ❖ ECMO, IABP, and Impella classes
- ❖ Four-hour skills lab

Acknowledgments

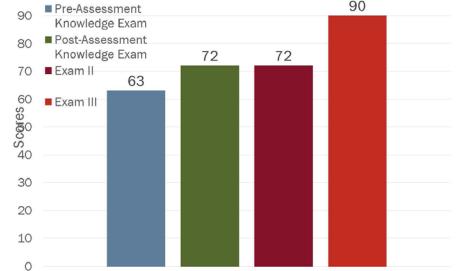
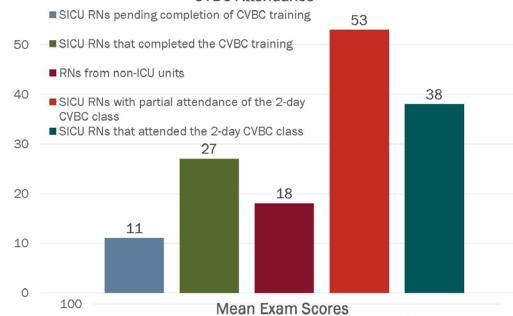
- ❖ Special thanks to the multidisciplinary team
- ❖ Thanks to the Intensivists and the Acute Care Nurse Practitioners
- ❖ Thanks to the ICU staff and leadership
- ❖ Thanks to the Department of Clinical Education
- ❖ Thanks to our colleagues in the OR, cath lab, pharmacy, & CV surgeons

Results

RN vs. CV RN Staffing

	Pre-implementation phase	Post-implementation phase
CV RNs on days / Total RNs on days	14/19=74%	19/23=83%
CV RNs on nights / Total RNs on nights	11/22=50%	21/25=84%

CVBC Attendance



Results/Implications

Prior to the CV Bootcamp, 61% of the SICU nurses were CV trained with 74% on days and 50% on nights. After implementation of the CV Bootcamp, the number of CV trained nurses increased by more than 20% with a significant increase on nights by more than 30%. The average exam scores improved reflecting an increase in Knowledge retention. Feedback from the CV surgeons, Intensivists, and experienced CV nurses has been overwhelmingly positive.

Future Actions

This model is currently being applied to the Neurosurgical/Neurovascular patient population with similar success and sustainability.

Celebrating the Team

We celebrate the achievements of the facilitators and graduates.



References

Santana-Padilla, Y.G., Bernat-Adell, M.D., & Santana-Cabrera, L. (2022). Nurses' perception on competency requirement and training demand for intensive care nurses. *International Journal of Nursing Sciences*, 9 (3), 350-356. <https://doi.org/10.1016/j.ijns.2022.06.015>.

Paul, P. (2021). An evaluative study to assess nurses' competencies related to cardiovascular assessment with a view to plan inservice education in critical care areas of a selected hospital, Ludhiana, Punjab. *International Journal of Multidisciplinary Educational Research*, 10 (1(5)), 10-16. [http://ijmer.s3.amazonaws.com/pdf/volume10/volume10-issue1\(5\)2.pdf](http://ijmer.s3.amazonaws.com/pdf/volume10/volume10-issue1(5)2.pdf)

Savannah Wilson, MSN, RN, CEN, Samantha McBroom, MSN, RN, CEN, NE-BC

Navigating the Surge: Enhancing Patient Satisfaction and Efficiency in the Emergency Department Amidst Rising Volumes

HOUSTON Methodist
THE WOODLANDS HOSPITAL

MAGNET® RECOGNIZED
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Navigating the Surge: Enhancing Patient Satisfaction and Efficiency in the Emergency Department Amidst Rising Volumes

Savannah Wilson, MSN, RN, CEN
Samantha McBroom, MSN, RN, CEN, NE-BC
Houston Methodist The Woodlands Hospital



Introduction

In the face of prolonged waits and overcrowding, hospitals nationwide grapple with the perennial challenge of achieving satisfactory patient experiences in their emergency departments (EDs).

These factors invariably impact the overall efficiency of patient throughput. Faced with this reality, a 45-bed ED was tasked with the formidable objective of elevating satisfaction scores by nearly 20% while simultaneously reducing the duration from patient arrival to discharge.

Objectives

At the onset of 2023, the ED set out with a target patient satisfaction score of 59.7%, starting the year at 41.7%. Concurrently, the median arrival to discharge time stood at 280 minutes, with an objective of reducing it to 210 minutes. The ED grappled with an average daily volume of 112 patients at the year's commencement. To achieve these ambitious goals, three key objectives were identified:

1. Recognize the factors that contribute to prolonged duration from patient arrival to discharge within the ED.
2. Develop tactics to enhance patient satisfaction.
3. Elucidate the impact of throughput on the efficiency of an ED.

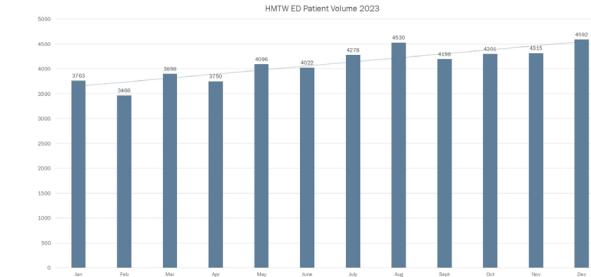
Methods

In January 2023, the ED Director created the ED Throughput Committee comprised of an interdisciplinary team focused on patient satisfaction and ED efficiency. The team met monthly to review data, discuss best practices, and develop processes for improvement. Key tactics throughout 2023 included:

- Key Leadership Roles – Charge Nurse Assignments
- Strategic Operational Improvements – Flex Zone
- Additional dedicated patient liaisons during peak hours
- Targeted focus on employee retention and staffing
- Staff engagement with throughput competitions
- Collaborative ventures with imaging to expedite studies

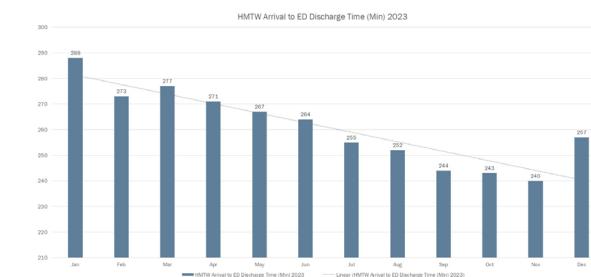
Result

HMTW ED Patient Volume 2023



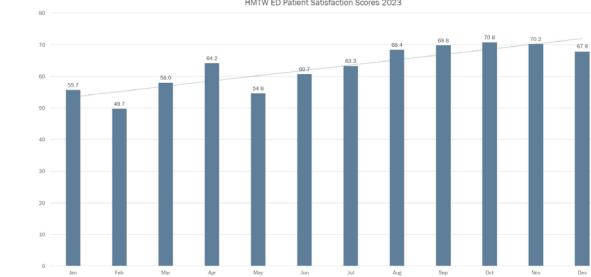
Month	Volume
Jan	3763
Feb	3466
Mar	3676
Apr	3750
May	4046
Jun	4022
Jul	4278
Aug	4330
Sep	4189
Oct	4304
Nov	4115
Dec	4332

HMTW Arrival to ED Discharge Time (Min) 2023



Month	Time (Min)
Jan	288
Feb	273
Mar	271
Apr	267
May	264
Jun	259
Jul	255
Aug	253
Sep	244
Oct	241
Nov	240
Dec	257

HMTW ED Patient Satisfaction Scores 2023



Month	Score
Jan	52.3
Feb	53.7
Mar	58.0
Apr	54.1
May	54.6
Jun	60.7
Jul	61.3
Aug	66.4
Sep	69.8
Oct	70.8
Nov	70.2
Dec	67.9

Results

After concerted efforts and process enhancements, the department not only surpassed the targeted patient satisfaction score but also saw notable improvements in throughput times, despite a surge in daily patient volume. By the year's end, patient satisfaction had risen to 65.2%, and the median arrival to discharge time had reduced to 261 minutes, despite an increased average daily volume of 134 patients. According to Mostafa and El-Atawi (2024), prolonged ED stays can lead to adverse outcomes, emphasizing the urgency of efficiency. The improvements implemented in this ED not only promoted better outcomes and quality of care but also enhanced efficiency, reflecting a commitment to patient-centric care and operational excellence.

Conclusion

In conclusion, the successful enhancement of patient satisfaction and efficiency in the Emergency Department amid increased patient volumes underscores the effectiveness of targeted, multifaceted strategies. The ED's significant highlight the impact of focused interventions and process improvements. These advancements demonstrate that with the right approaches, it is possible to manage increased patient demand effectively while maintaining high standards of care. This offers valuable insights into the dynamics of ED operations but also provides a practical framework for other departments aiming to achieve similar improvements in patient satisfaction and operational efficiency.

Acknowledgments

- ED Throughput Committee Members for 2023
- ED Staff Members
- ED Physicians and Advance Practice Providers (APPs)

References

Mostafa, R., & El-Atawi. (2024). Strategies to measure and improve emergency department performance: A review. *Cureus*, 16(1), e52879. 10.7759/cureus.52879

Sangal, R. B., Orloski, C. J., Shofer, F. S., & Mills, A. M. (2020). Improving emergency department patient experience through implementation of an informational pamphlet. *Journal of Patient Experience*, 7(2), 225-231. 10.1177/2374373519826246

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Peyton Villarreal, MS, BSN, RN, RNC-MNN, C-ONQS; Shaeequa Dasnadi, MBBS

Sweet Solutions: Treating Asymptomatic Term and Late Preterm Hypoglycemic Babies with Glucose Gel to Promote Exclusive Breastfeeding and Decrease NICU Admissions

Sweet Solutions:
Treating asymptomatic term and late preterm hypoglycemic babies
with glucose gel to promote exclusive breastfeeding and decrease NICU admissions

Peyton Villarreal MS, BSN, RN, RNC-MNN, C-ONQS and Shaeequa Dasnadi MBBS

Background

The "Sugar Babies" study by Harris et al. (2013) was groundbreaking in its investigation of using 40% oral glucose gel via buccal administration to manage neonatal hypoglycemia. Harris and colleagues proposed that glucose gel, already utilized in diabetic adults, could offer neonates a safe alternative to traditional formula feeding, improved exclusive breastfeeding rates and reduced NICU admissions for hypoglycemia (Desai et al., 2022; Hammer et al., 2019; Hubbard & Hay, 2021). By decreasing NICU admissions, glucose gel also lessened mother-infant separation, further promoting breastfeeding (Harris et al., 2013; Hubbard & Hay, 2021). Infants receiving glucose gel alongside breastfeeding were less likely to require additional doses of the gel (Hubbard & Hay, 2021) and were less likely to give formula at two weeks (Harris et al., 2013).

NICU admissions pose significant challenges, including increased costs, parental anxiety, and lower rates of exclusive breastfeeding (Washer et al., 2021). Research shows that glucose gel significantly reduces NICU admissions for hypoglycemia (Desai et al., 2022; Hammer et al., 2019; Harris et al., 2013; Hubbard & Hay, 2021; Washer et al., 2021). For example, Gregory et al. (2019) found a 50% decrease in admissions from 8.6% to 5.6%. Hammer et al. (2018) also demonstrated that their Toolkit, which included glucose gel, led to a 5% reduction in NICU admissions and a 6.5% increase in exclusive breastfeeding rates.

Image courtesy of Dandie Lion Medical

Algorithm

GLUCOSE SCREENING ALGORITHM FOR INFANTS < 24 hrs of Age

Signs and symptoms of hypoglycemia are non-specific but may include:

- Tachypnea
- Lethargy
- Reactive distress
- Tremors/Seizures
- Irritability
- Diaphoresis
- Feeding difficulty
- Apnea
- Bradycardia
- Temperature instability
- Hypotonia
- Cyanosis

Check Glucose - Notify Provider

Perform POC glucose test if the infant is asymptomatic and has any of the following:

- Infant of diabetic mother (ODM)
- Large for gestational age (LGA) infant (Olsen Growth Chart)
- Small for gestational age (SGA) infant (Olsen Growth Chart)
- Infant <37 weeks gestation (Premature)
- Infant born in mode of delivery has not had documented prenatal care or has no Glucose Tolerance Test (GTT) on file.
- Infant greater than 41 weeks

****40% gel provides 400 mg/kg glucose**
Recommended dose: 400 mg/kg x 0.5 mg/kg
-2 kg: 1 mL
-2.5 kg: 1.25 mL
-3 kg: 1.5 mL
-3.5 kg: 1.8 mL

****Administer each dose of glucose gel alternating between the infant's mouth and rectal cavity, massaging the infant's cheek gently to stimulate absorption.**

Follow the algorithm based on hours of life:
If less than 1 hour of life and >41 mg/dL, initiate feed. Do not administer glucose gel.

The infant should NOT receive more than 2 TOTAL doses in a 24-hour period or any doses after 24 hours of life.

Methodist

ASYMPTOMATIC INFANTS (Birth to 24 hrs of age) FOR HYPOGLYCEMIA

Appendix A

Algorithm Flowchart:

- Step 1:** Skin-to-skin (STS) and initiate a feed within 1 hour of birth. Glucose screen 30 minutes after a feed. If <40 mg/dL, notify provider immediately for glucose >34 mg/dL. If >41 mg/dL, obtain glucose screen 1 hr after glucose gel.
- Step 2:** If <24 mg/dL, notify provider immediately for glucose >34 mg/dL. If >40 mg/dL, administer glucose gel >34 mg/dL. If >41 mg/dL, notify provider for confirmatory serum glucose. Consider NICU admission.
- Step 3:** Obtain glucose screen 1 hr after glucose gel administration. If <40 mg/dL, notify provider immediately for glucose >34 mg/dL. If >41 mg/dL, administer glucose gel >34 mg/dL. If >44 mg/dL, notify provider for confirmatory serum glucose. Consider NICU admission.
- Step 4:** Obtain glucose screen 1 hr after feeding (POFED) no later than 2 hours after the previous screen. If <40 mg/dL and >41 mg/dL, initiate a feed. Do not administer glucose gel.
- Step 5:** If <34 mg/dL, notify provider immediately for glucose >34 mg/dL. If >41 mg/dL, administer glucose gel >34 mg/dL. If >44 mg/dL, notify provider for confirmatory serum glucose. Consider NICU admission.
- Step 6:** Notify the provider if the infant has already received 2 doses of glucose gel. Administer glucose gel >34 mg/dL doses have been given. If >41 mg/dL, obtain glucose screen 1 hr after gel administration. If >44 mg/dL, notify provider for confirmatory serum glucose. Consider NICU admission.
- Step 7:** **NOTICE:** Infant may receive a TOTAL of 2 doses of glucose gel in 24 hrs. AFTER 24 HOURS OF LIFE, THE GEL WILL NO LONGER BE USED. If 2 doses of glucose gel have already been administered and/or for any subsequent glucose screening, contact the provider.

Infants on Hypoglycemia Protocol

SGA (<10%) and/or <37 weeks		LGA (100%), ODM, Limited/no PNC, >37 wks (and 104/104 on WHO growth chart)	
Time	Result	Time	Result
30mins after feed		30mins after feed	
2hrs prefeed		2hrs prefeed	
4hrs prefeed		4hrs prefeed	
8hrs prefeed		8hrs prefeed	
Sweet Checks		1 st dose 2 nd dose	
Time		Result	
Follow up result			

***Helpful tip:** You can use a reminder on your Voicemail by saying "set a reminder" to remember the due time for the next blood sugar.

Continued Improvement

Infants on Hypoglycemia Protocol

SGA (<10%) and/or <37 weeks		LGA (100%), ODM, Limited/no PNC, >37 wks (and 104/104 on WHO growth chart)	
Time	Result	Time	Result
30mins after feed		30mins after feed	
2hrs prefeed		2hrs prefeed	
4hrs prefeed		4hrs prefeed	
8hrs prefeed		8hrs prefeed	
Sweet Checks		1 st dose 2 nd dose	
Time		Result	
Follow up result			

Compliance

2021: 66%
2022: 76%
2023: 80%
2024: TBD

Results

NICU Admissions

Year	Number of Infants
2022	17
2023	3
YTD 2024	3

Exclusive Breastfeeding Rate

Year	Exclusive Breastfeeding Rate (%)
2022	21%
2023	26%
YTD 2024	27%

The number of NICU admissions in 2022 was 17 infants after at least one dose of Sweet Checks. In 2023, the number of NICU admissions decreased to only 5 infants. This year, 2024, there have been 3 infants admitted to the NICU for hypoglycemia after the use of glucose gel.

The exclusive breastfeeding rate increased from 21% to 26% from 2022 to 2023. This year, there is an exclusive breastfeeding rate of 27%.

References

Desai, P., Verma, S., Bhargava, S., Rice, M., Tracy, J., & Bradshaw, C. (2022). Implementation and outcome of a standard dose dextrose gel protocol for management of transient neonatal hypoglycemia. *Journal of Perinatology*, 42(8), 1097-1102. <https://doi.org/10.1038/s41372-021-01284-3>

Gregory, K., Turner, D., Benjamin, C. N., Monthe-Dreze, C., Johnson, L., Hurwitz, S., Weller, J., & Sette, S. (2020). Incorporating dextrose gel and feeding in the treatment of neonatal hypoglycemia. *Archives of Disease in Childhood - Fetal and Neonatal Edition* 2020; 105(1): F43-F49. [doi:10.1136/Archdischild-2018-316430](https://doi.org/10.1136/Archdischild-2018-316430)

Hammer, D., Pohl, C., Jacobs, P., Kaufman, S., & Drury, B. (2018). Innovations and Challenges of Implementing a Glucose Gel Toolkit for Neonatal Hypoglycemia. *Advances in Neonatal Care*, 18(5), 378-385. doi: 10.1097/ANC.0000000000000527

Harris, D., Weston, P., Signal, M., Chase, J., & Harding, J. (2013). Dextrose gel for neonatal hypoglycemia (the Sugar Babies Study): a randomised, double-blind, placebo-controlled trial. *Lancet*, 382(9910), 2077-2083. [http://dx.doi.org/10.1016/S0140-6736\(13\)61645-1](http://dx.doi.org/10.1016/S0140-6736(13)61645-1)

Hubbard, E., & Hay, W. (2021). The Term Newborn: Hypoglycemia. *Clinics in Perinatology*, 48(3), 665-679. doi: 10.1016/j.clp.2021.05.013

Washer, A., Di Fiore, T., & Siegmund, L. A. (2021). A Project to Implement Use of 40% Dextrose Gel for Treatment of Neonatal Hypoglycemia. *Nursing for Women's Health*, 25(2), 122-128. doi: 10.1016/j.nwh.2021.02.001



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