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### Call for Research and Solutions Poster

The IHI Patient Safety Congress takes place in-person at Gaylord National Resort and Convention Center, National Harbor, MD from May 22-24, 2023, which brings together people who are passionate about ensuring safe care equitably for all across the globe.

This annual meeting is the must-attend event for those who continue to shape smarter, safer care for patients wherever it's provided – from the hospital to outpatient settings to the home. It is a unique opportunity for practitioners, leaders, and experts around the world to come together and share their knowledge.

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### Poster Submission Deadline

The deadline to submit is Thursday, **March 30, 2023**.

Please note you will be prompted to create a new account in the submission portal, even if you had previously submitted an abstract or poster to present at prior IHI conferences.

### Research and Solutions Posters

These posters are intended to highlight cutting edge patient safety research or the utilization of patient safety approaches, methods and tools that result in demonstrated reductions in harm or improved patient safety.

Abstracts describing research or patient safety projects that have been implemented in a practical setting with a discussion of the challenges and barriers to implementation are encouraged. Abstracts must report on findings of implemented research or patient safety projects, *not* descriptions of planned projects.

**Posters should not advertise products or services.**

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### Submitting Your Final Poster

You are required to include the following information:

- Poster Title
- Poster Track
- Poster Summary (300 words or less)
  - Description of the Problem or Purpose
  - Actions Taken
  - Summary of Results
  - Lessons Learned
- Poster PDF (must be finalized as we will not accept edits/changes)
  - File size must be under 10MB
- Presenter & Co-Author Information

**Please only submit for yourself and not for colleagues**

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### Important Notes

- Posters submitted for the Online Gallery are on display in a virtual library and are not orally presented.
- Please ensure that all of the information you submit is complete and final as you will not have the opportunity to edit your information.
- IHI will upload all posters to our webpage prior to the Congress for electronic viewing.
- You will receive an automatic email from our system confirming that your information was uploaded successfully. If you do not receive an email from our webmaster account, please contact [posters@ihi.org](mailto:posters@ihi.org) to confirm that your poster was uploaded successfully.

**You will receive further information from Lindsay Charles-Pierre, IHI's Office Administrator & Executive Assistant, at a later date.**

### Conference Registration

All poster presenters are invited to register for the IHI Patient Safety Congress May 22-24, 2023. Attendance is not required for those whose poster is displayed in the online gallery but will be required for in-person. If you will be attending in-person you can either purchase the general conference registration or the exhibit hall pass (which excludes access to sessions).

#### In-person:

- **Register by February 15<sup>th</sup>:** \$1000 early bird
- **Register by March 31<sup>st</sup>:** \$1125
- **Register after March 31<sup>st</sup>:** \$1250
- **Exhibit Hall Only Price:** \$250

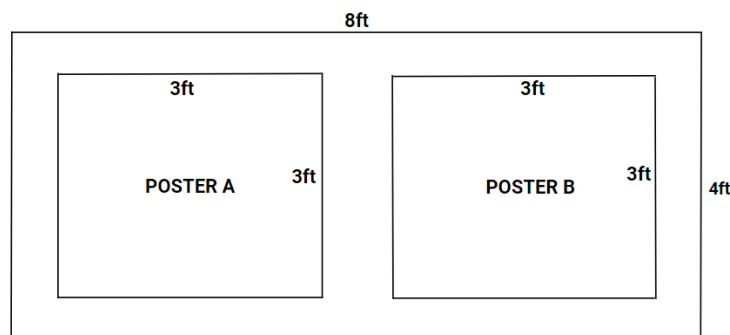
**Group Discounts:** Groups of 5 or more receive 15% off per person for In-Person General Conference days (note: the group discount for the general conference is off the regular rate of \$1,250 per person).

For more information regarding group discounts and scholarships, please [visit our fees page](#).

### Layout & Appearance

- Aim to create an attractive display that will draw Congress participants to your poster and clearly communicate the main points of your display. The following guidelines may be found helpful:
- Creative use of pictures, graphs, text blocks, color, headlines, etc., can attract others to your poster, prompt conversation, and enhance communication of your message.
- Avoid making your poster too “text heavy.”
- Focus on the highlights of your display. If it can be communicated with numbers, graphs, or other visuals, do so.
- For posters submitted to the online gallery, there is no specific layout or size needed.

### Poster Sizing



Please ensure all posters are 3ft x 3ft and no bigger. Each board is 4ft x 8ft and holds two posters on each side.

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### What to Include on your Poster

Improvement Advisors at the Institute for Healthcare Improvement developed the following recommendations for creating posters that demonstrate quality improvement projects in health care.

Your poster submission should include the following:

**Aim Statement** - Clearly defined (what measurable change was expected over what period of time)

**Change Explanation** - What was made to achieve improvement in the process/outcome

**Graphical Representation of Improvement** - The use of annotated run charts or Shewhart (control) charts is preferred to demonstrate the performance of data over time. Tables, bar and pie charts can supplement run charts but should not be used alone in describing improvement over time.

**Lessons Learned** - A short summary from the work and/or the message for readers

**Multiple Measures** – How they were used to understand and show improvement in the target process

**Multi-disciplinary Team** – Who was involved in achieving improvement (elements may include: content experts, patients, leadership, etc.)

**Outline** - Project design/strategy for change that explains how you planned to reach your Aim, and the team that was involved in achieving improvement

**Sustainability** – Evidence for sustainability in improvement, or a scale up or sustainability plan.

**Tested Changes** - An indication that changes were tested and/or adapted to the local environment/organization prior to implementation.

**Please note:** these are recommendations and not requirements for submission. Posters without one or more of these elements will also be considered.

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### Set-Up, Staffing and Breakdown – Coming Soon!

#### Handouts (In-Person Forum)

Due to space restrictions, distributing handouts at the poster display is not recommended. If you have brochures, documents, or other information you think would be helpful to those interested in your quality improvement project, we suggest that you collect business cards from those who want further information in order to send it to them after the conference. You may attach a manila envelope for attendees to drop their business cards in, or attach an envelope filled with a supply of your handouts to your board. Unfortunately, there is not sufficient space to supply tables for the posters.

Shipping – Coming Soon!

We strongly recommend that presenters hand-carry their printed posters to the conference to minimize the risk that a board could be lost or damaged during shipping. If you need to ship your poster, all cartons should be labeled with your name and return address. If you are not staying at the Gaylord National Resort, please ship your poster to the hotel you are staying at for the week. If you are staying at the Gaylord National Resort, you can pick up your board from the Shipping and Receiving area at the hotel. **IHI will not be responsible for receiving, delivering, or storing any posters.**

Shipping Information to be added later.

Poster Example


A few poster examples have been included below.

Example 1.

**What Are You Leaving Behind? Operation Swipe & Wipe in the CT OR**

Karen Richeal, BSN RN CNOR  
Nancy W. McMann, MS MT(ASCP)

Abington Hospital – Jefferson Health




**AIM**

To develop a systematic process to perform an "Information Sweep" between cases in our cardiothoracic operating rooms that would remove all sources of patient information.

**PROBLEM**

Intraoperative point of care testing results attributed to the wrong patient went undetected for several hours until we discovered that the patient label left behind from a prior case was used in identifying the patient's blood sample. Fortunately the patient was not harmed. This near miss situation prompted us to take a critical look at all of the possible sources of patient information that is left behind when a CT OR room is turned over between cases.



**INTEGRATION**

This improvement project is integrated with our Hospital's Strategic Goals and Core Value of Patient Safety (reducing errors), Patient Experience (improving the experience) and Employee Engagement and Safety Culture (empowering staff to make changes to processes and prevent errors).

**APPROACH and DEPLOYMENT**

**Step 1** Engaged all of the disciplines who are in the room during a case. The group was quickly on board; our CT Nurse Team Coordinator and our Chief Perfusionist agreed to lead the improvement process.

**Step 2** Developed an analogy for staff to grasp what we were trying to accomplish- we described the process as being similar to the cleaning in between cases - wanted to perform a sweep of all physical information (e.g. patient labels that seemed to be stuck on every available piece of equipment).

**Step 3** Made an inventory of the physical places that information was commonly found:

- Medication infusion pumps
- Perfusion equipment
- White boards in the room
- Computer documentation stations - patient labels/ID bands/OR schedule
- Any part of the patient chart left behind

**Step 4** Communicated to staff what the new process will be:


- All patient labels in the room need to be verified during timeout by nursing and perfusion
- Location of labels need to be standardized to help with wiping room at end of case
- No labels allowed on the bypass machine only on info card for surgeon
- ID wipes need to take place at end of case
- Add ID wipe to perfusion checklist
- Will discuss with lead PCA when cleaning room to also dispose of labels if left behind

**Step 5** Reported progress at the weekly CT operational meeting- interdisciplinary group of CT OR clinicians supported by representatives from Cardiovascular Service Line: Administration, Scheduling and Coordination, Pharmacy and Patient Safety.

**Step 6** Refined the process through several PDSA cycles. For example, it was "discovered" that there was prior case with patient information on a cardiac monitor. This led us to inventory other sources of patient information that needed to be "wiped" between cases:

- Cardiac Monitors with hemodynamic information
- Catheterization/ echocardiogram discs
- X-ray films

**Step 7** Continued monitoring and feedback to staff

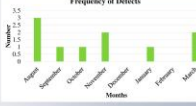


**RESULTS**


Progress is evaluated in several ways:

- Frequency of Defects are counted each month and discussed at meetings with staff
- Types of Defects are identified to learn and correct our processes

Progress is measured using a tool that has been successful in other Hospital areas: "The Number of Days Since...". This count allows staff to easily know when a defect has been found. Early efforts coincided with PDSA cycles, Day 1 was the project start, and multiple reports where "The Number of Days Since Patient Info Was Left Behind - 0" was posted. Currently, the measure reflects: "The Number of Days Since Patient Info Was Left Behind - 33". The longest interval of time between defects has been 56 days.



Month	Frequency
August	1
September	1
October	1
November	1
December	1
January	1
February	1
March	1



Defect Type	Percentage
Labels	50%
Whiteboards	25%
Monitors	15%
Documents	10%
Equipment	10%

**LEARNINGS**

- Complete, correct documentation coupled with crucial time management is a concern in the CT OR. Hurrying to turn over rooms between cases creates blind spots to potential sources of error that were in plain sight.
- It took several PDSA cycles, heightened awareness and vigilance to address this issue. Opportunities were identified to reinforce processes for correct lagging in and out of technology used in the OR.
- Partnering with our perfusion team was crucial. They took an active role in ensuring that patient info is removed from the pump after each case.

**It Takes a Team - Thanks To:**

Auricio Garrido MD, Cardiothoracic Surgery  
Charles Tomal, Perfusion Team  
CT OR Team: Nurses, Techs, PCA, Anesthesia Team  
Nancy McMann, Patient Safety & Quality

Example 2.

### Aligning ICD Shock Status with Patient Goals of Care in a Diverse Safety-Net Hospital Population

UTSouthwestern Medical Center | Parkland

Brendan Garrett, BS; Christine Chen, BA; Arlen Suarez, BA; Mark Berfacher, MD; Carol Abousaab, MD; Rohit Badia, BS; Patricia Griffin, MBA; Kelley Newcomer, MD; Simon Lee, PhD; Coby Ayers, MSS; Kristin Alvarez, PharmD; Melanie S. Sulistio, MD

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#### Introduction & Background

- Guidelines recommend implantable cardioverter defibrillators (ICDs) for prevention of sudden cardiac death,<sup>1</sup> with >700,000 ICDs placed annually
- Most patients still have poor understanding of ICD purpose and settings, which precludes informed decisions and goals of care<sup>2</sup>
- Informed decision-making is critical at the end-of-life, when up to 1/3 of patients receive ICD shocks<sup>3</sup>
- Vulnerable or diverse patient populations are not well represented in major ICD trials and analyses, even though race, gender, and ethnicity associate with different care preferences at end-of-life<sup>4</sup>

#### Aim

Ensure 100% of patients referred to Palliative Care with implantable cardioverter defibrillators (ICDs) have alignment between the shocking function of their device and their goals of care by Dec 30, 2021.

We are using the DMAIC methodology

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#### 1. Define

Setting: Dallas County's Parkland Hospital Health & Hospital System (PHHS), which serves as safety-net for county residents

Figure 1: demographics of surveyed patient population (n=26)

Figure 2: Patient recruitment strategy

Response	Count
Declined	46
Unable to contact	35
Enrolled	1
Other	3
Total Enrolled	49

#### 2. Measure

Percent of Patients Answering Correctly for ICD Knowledge Scores

Question	Thyer, et al (n = 108)	Current study (n = 26)
In order to turn off the defibrillating shocks in an ICD, the ICD must be removed by surgery	24%	31%
When an ICD's defibrillating shocks are turned off, the heart stops beating	88%	54%
The ICD's defibrillating shocks can be turned off using a device outside the body (a programmer function in programer)	58%	54%
When the ICD's defibrillating shocks are turned off, the ICD is also turned off	52%	19%

Figure 3: Percentage of respondents answering correctly is shown and compared to respondents from Thyer, et al. Interviews were conducted via phone calls.

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#### 3. Analyze

An expert committee with representatives from General Cardiology, Electrophysiology, Heart Failure Clinic, and Palliative care was convened to analyze our measurements.

#### Fishbone diagram

Figure 4: Fishbone Diagram including potential reasons for misalignment of ICD status and Goals of Care

#### 5 Whys

Problem: Patients want to keep ICD shocks on even if realigned with GOC

- Why? Cause the shock of ICD shocks all day long
- Why? Misaligns the ICD usage (shocks) with goals for patient well-being
- Why? Confusion about ICD usage (shocks) and how to turn off or deactivate function
- Why? Patients aren't educated in how to use their ICD and how to program
- Why? Inadequate patient education

Figure 5: 5 Whys exercise used to identify a root cause of the misalignment of ICD status and Goals of Care

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#### 4. Improve

The expert committee decided to focus on patient education by creating an informational video. We are conducting a pilot with 14 patients to see if the video is effective at increasing knowledge.

Figure 6: Process Map for initial pilot including 14 patients

#### 5. Control/Next Steps

- Meet with cardiology, palliative care to determine how the video fits into their workflow; train on how to share video
- Pilot implementation of video in cardiology, palliative care and collect data on video usage
- Define efficient process to manage when a patient desires to turn off ICD shocks
- Monitor video use in various departments, ICD status as it relates to patient goals of care

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#### Conclusions/Lessons Learned

- Majority of patients are unaware of critical information related to deactivating shocks
- Knowledge deficits were worse than those in previously described studies, suggesting inadequate education especially for under/insured and minority patient populations
- Empowering patients with knowledge about ICDs is critical and will require novel process implementation
- Involving key stakeholders early allowed for increased buy-in from all parties. This contributed greatly to the project's success thus far.

#### Acknowledgements:


Special thanks to Dr. Naveed Patel, Dr. Ajaykumar, Mrs. Megan Kelly, Dr. Elizabeth Pugh, Ms. Kristin Alvarez, Ms. Carmen Douglas, Dr. Gary Reed, Parkland Health and Hospital System, The Parkland Center for Clinical Innovation, and the UTSouthwestern Quality, Safety, and Outcomes Education department for their contributions to this project

#### References:

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Example 3:

## Dementia and Responsive Behaviours (D&RB) Capacity-Building in the Acute Care Setting



Jeanne LeBelter BSc PT, MEd, CIL, CMP (Hosp); Sheila Skorkatty RN, JScN, MScN; Victoria Jelicic RN, BScN, MN, FNLC; Geordy HILCO, JScN, MN-HP (Adult); Lanya Shabot RN, LIC, MSN; Ingrid Carr - RN, CNL; Rhonda Soane RSW - Gerontology; Tracy Wang, JScN

### Description

The Behaviour Supports Ontario – Dementia Observation System (BSO-DOS®) is a paper tool used by clinicians that provides objective and measurable data about persons living with dementia, facilitating the development of accurate behaviour support plans. In March 2021, through partnership with the BSO, Humber River Hospital became the first acute care hospital in Ontario to launch an electronic BSO-DOS® (eBSO-DOS®) into its Electronic Health Record. As seniors with dementia in Canada experience a 65% higher hospitalization rate, twice as long hospital stay, and higher incidence of hospital harm than seniors without dementia, initiatives to improve outcomes in this population are essential.

### Aim

The eBSO-DOS® was implemented to increase staff competence, reduce restraint use, and to facilitate home/community discharges.

### Actions Taken

Through collaboration with stakeholders, a 12-week D&RB capacity-building pilot took place on a geriatric inpatient unit. This consisted of weekly education sessions that focused on responsive/expressive behaviour assessment and management. As the eBSO-DOS® was introduced during week 3, staff became familiar with D&RB concepts prior to using the tool.

### Summary of Results

Survey results revealed 69% of staff felt the education sessions increased their knowledge related to assessing and managing responsive/expressive behaviours by a lot or a great deal. Next steps involve implementation of the D&RB capacity building initiative to other medicine units, training of nurses on the eBSO-DOS®, and monitoring compliance.

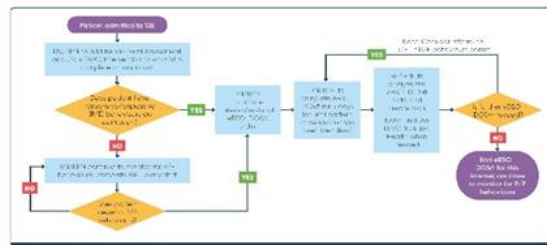


Figure 1. IZE Process Map




Figure 2. Stakeholder Figure

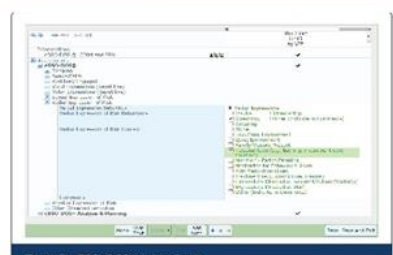


Figure 3. eBSO-DOS in Meditech

Survey Question	Answered: "A great deal" or "A lot" Pre-Pilot	Answered: "A great deal" or "A lot" Post-Pilot	% Change
I feel confident in my ability to assess and manage responsive/expressive behaviours.	54%	69%	15% increase
I feel confident in my ability to identify and document responsive/expressive behaviours.	25%	52%	27% increase
I feel confident in my ability to use the eBSO-DOS to document responsive/expressive behaviours.	24%	54%	30% increase
I feel confident in my ability to use the eBSO-DOS to identify and document responsive/expressive behaviours.	41%	54%	13% increase
I feel confident in my ability to use the eBSO-DOS to manage responsive/expressive behaviours.	29%	35%	6% increase

Table 1. Pre-Pilot and Post-Pilot Survey Results

Humber River Hospital, 1235 Wilson Avenue, Toronto, Ontario M3M 0B2

Example 4:

# Chasing Sepsis: Early Recognition and Treatment of Sepsis Outside of Critical Care

Andre Vovan, MD – Director of Critical Care Medicine  
 Deborah Lepman, RN, MPH, CEN – Director, CCU/CVICU/Sub-ICU  
 Robin Myran, RN, BSN, PCCN – Sepsis Coordinator

**Background**  
Hoag Hospital has had a sepsis team in place since the first treatment guidelines were published in 2004. The initial implementation efforts focused on early recognition in the emergency department, and prompt transfer of patients to the intensive care unit to receive early goal-directed therapy (EGDT) that was consistent with Surviving Sepsis Campaign (SSC) guidelines. By doing this Hoag was able to reduce the mortality rate from 40% to 28% over 3 years. After recognizing that the mortality rate had plateaued and bundle compliance had decreased, efforts were focused on earlier recognition and treatment in the non-ICU setting.

**Project Aim**  
Patients presenting to the emergency department (ED) with SIRS criteria rather than severe sepsis or septic shock and those with existing sepsis outside of critical care were not readily identified for protocol initiation. A revised sepsis team set forth to review the current sepsis orders and create a clear and concise protocol that could be implemented hospital-wide in order to improve quality and standardize the treatment for sepsis, severe sepsis, and septic shock.

**Project Design/Strategy**  
An interdisciplinary committee was formed consisting of executive leadership, emergency medicine physicians, intensivists, hospitalists, anesthesiologists, attending and consulting physicians, nursing leadership and nursing staff, and representatives from performance improvement, information technology, pharmacy, and the laboratory. This committee met biweekly for planning, protocol development, and outcomes evaluation.

**Changes Made**  
To increase recognition, a sepsis screening tool was developed. A revised protocol incorporating the bundle recommendations from the SSC set final challenges and delivery of antibiotics as top priorities. Specific markers, such as complete blood count with manual differential, lactate level, and procalcitonin level were incorporated to more accurately determine the presence of sepsis and prevent unnecessary tests and therapies. Criteria were established to better support designation of ongoing patient care into three levels of sepsis care: Critical Care, Sub-ICU, and Medical/Surgical/Intensive units with separate orders sets for each level. Expansion of the Rapid Response Team (RRT) to include a dedicated Sepsis RN available to respond to any "Code Sepsis" called throughout the hospital was integral for initial management and protocol implementation. A final component was the Sepsis Dashboard, which helped track data documentation and tracking of bundle elements.

**Outcomes**  
A line graph titled 'Mortality - All Sepsis Levels' shows a downward trend in mortality rates from 2013 to 2022. Key annotations include: 'Change in Mortality Rate - All Sepsis Levels', 'Change in Mortality Rate - Critical Care', 'Change in Mortality Rate - Sub-ICU', and 'Change in Mortality Rate - Medical/Surgical/Intensive Units'. A note states: 'Change in Mortality Rate - All Sepsis Levels: 2013-2022: 40% to 28%'. Another note states: 'Change in Mortality Rate - Critical Care: 2013-2022: 28% to 24%'. A third note states: 'Change in Mortality Rate - Sub-ICU: 2013-2022: 24% to 22%'. A fourth note states: 'Change in Mortality Rate - Medical/Surgical/Intensive Units: 2013-2022: 22% to 20%'.

**Next Steps**  
In 2013, senior leadership identified sepsis as a top organizational priority to address the significant increase in the volume of cases as well as the high cost per case. This, along with the recently published new guidelines from the SSC offered the perfect opportunity to re-educate and reinvigorate the sepsis program once again. Within this year by the interdisciplinary team there included development and implementation of a simplified Sepsis Early Detection Algorithm that we customized to our institution, updated order sets, and nearly real-time data extraction from the EMR regarding compliance with the SSC bundle elements. This electronic surveillance system provides a weekly dashboard to the sepsis coordinator and key stakeholders so that improvement opportunities can be addressed in a timely manner. Data gathered since the launch of the new algorithm in July has shown an increase in protocol utilization and bundle compliance as well as an additional decrease in mortality.

HOAG MEMORIAL HOSPITAL PRESBYTERIAN

[To Submit Your Poster, Click this Link!](#)