مستشفى الملك فيصل التخصصي ومركز الأبحاث
King Faisal Specialist Hospital & Research Centre

Safety Reporting System (SRS) Annual Report 2021

Quality Management Department - Jeddah
Patient Safety and Clinical Risk Management

Report Outline

Report Outline

Executive Summary

KFSH&RC is Continuing the ZERO Harm - High Reliability Organization (HRO) Journey

The Zero Harm - High Reliability Organization initiative started in 2018. KFSH&RC is currently continuing the journey. A significant aspect of sustaining the implementation is having a healthy safety reporting culture.

The Safety Reporting System is a module to solidify the defense mechanism against errors that can be prevented and ensure a culture free of harm and blame. The system focuses on sharing lessons learned, preventing the reoccurrence of mistakes, and shedding light on improvement opportunities. This annual report focuses on the primary activities, accomplishments, and achievements in 2021. The aggregated data of 9,858 reported incidents will be shown with an analysis of those reports.

Definitions

Incident: Shall mean an event, or circumstance occurring within the Organization, which has the potential to have or did lead to unintended harm to a person, loss or damage of property and/or a complaint.

Reportable Incidents: Shall mean any incident of omission or commission of care that may be caused by a breach of the Hospital's standards of care, code of conduct and/or its policies and procedures involving the facility, patient, visitor, contingent worker, and staff.

Non-Reportable Incidents: Shall mean events that are NOT reportable in the SRS.

Near Miss: Shall mean an event or situation that could have resulted in an adverse event but did not reach the patient, either by chance or through timely intervention.

Adverse Event: Shall mean an event that results in unintended harm to the patient by an act of commission or omission of care rather than by the underlying disease or condition of the patient.

Sentinel Event: Shall mean an unanticipated occurrence involving death or serious physical or psychological injury, which requires an immediate Root Cause Analysis and action plan.

Root Cause Analysis (RCA): Shall mean the process for identifying the basic or causal factors that cause variation in performance, including the occurrence or possible occurrence of a Sentinel Event or Serious Safety Events. RCA is a structured problem-solving technique that results in one or more corrective actions to prevent recurrence of an event.

Definitions

Definitions Cont.:

Apparent Cause Analysis (ACA): Shall mean a limited investigation of an event that is performed instead of RCA for less-significant (e.g. Precursor or Near Miss) events.

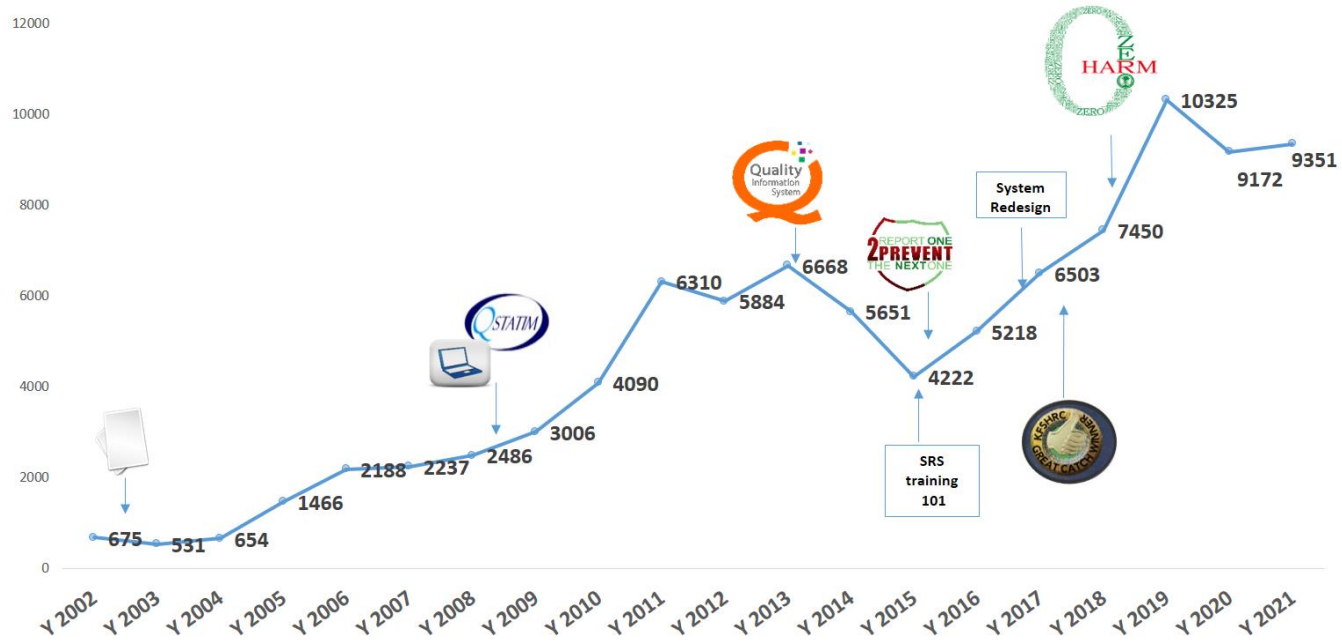
Quality Information System (QIS): Shall mean an integrated Safety Software that has multiple modules, including the Safety Reporting System Module.

Safety Reporting System (SRS): Shall mean an electronic web-based incident reporting system available to all staff to report hazards, near misses and adverse events that cause or may potentially cause harm. It is a module that is available in the Quality Information System (QIS).

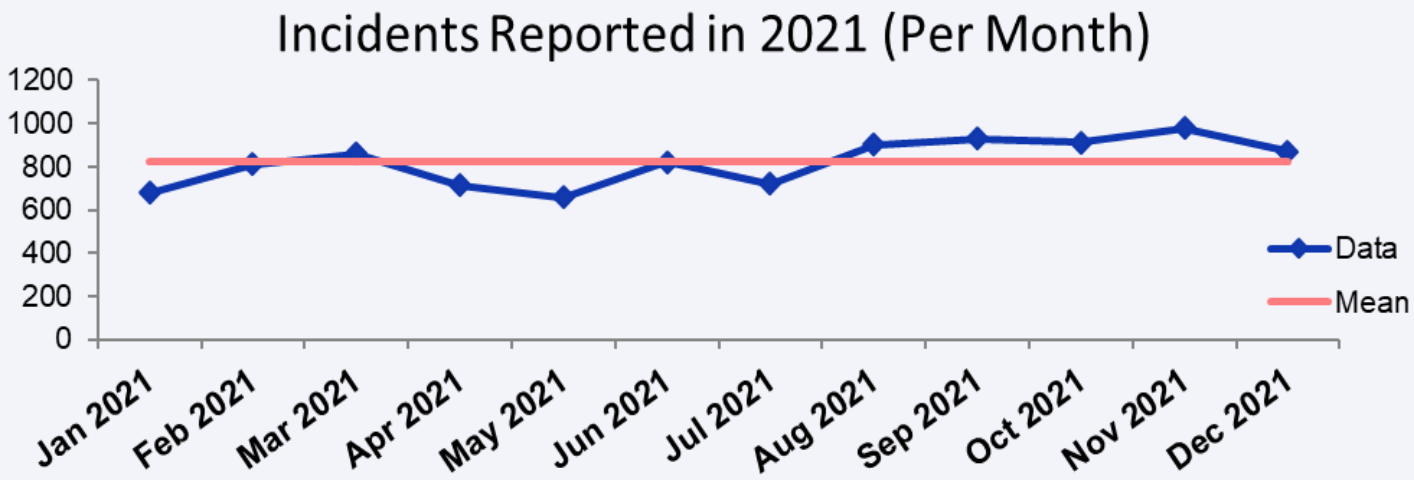
Level of Harm: Shall mean Harm scores that are assigned to each reported incident by the reporter, handler and/or the assigned Quality Management staff. Harm levels range from No Harm, Temporary Harm, Permanent Cosmetic Harm, Permanent Functional Harm to Death (Refer to Appendix E for Level of Harm definitions).

Report Aim:
This report aims to highlight the current status of the Safety Reporting Culture and provide a clear vision for 2022 improvement plans.

SRS Over the Years

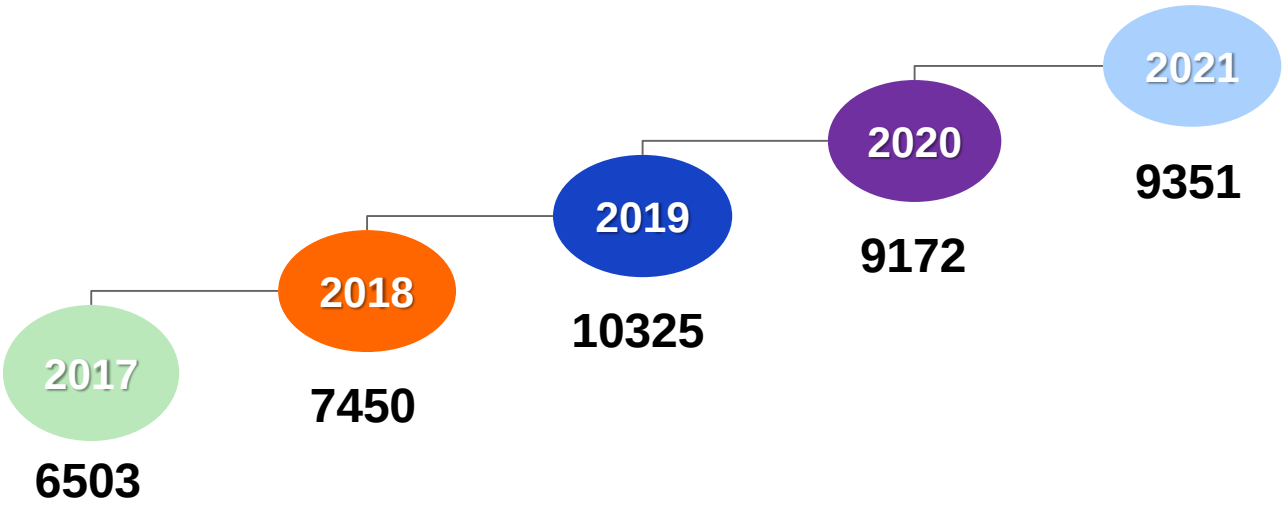


2021 Reported Incidents

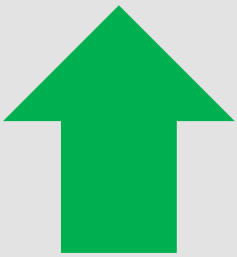


A total of **9,858** incidents were reported in 2021, exceeding a target of **9,750** with average of **821.5** SRS per month.

Number of Reported Incidents Through the Years



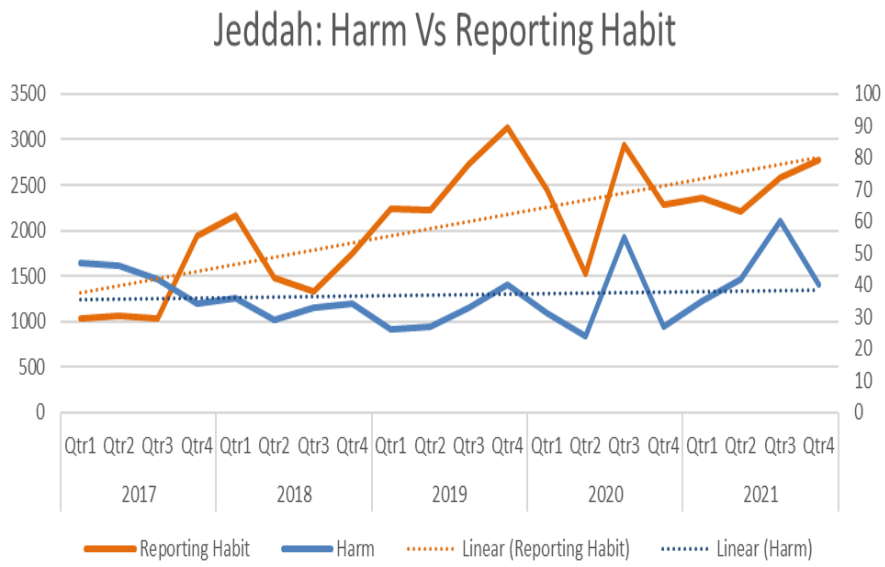
2021



+ 1.95%

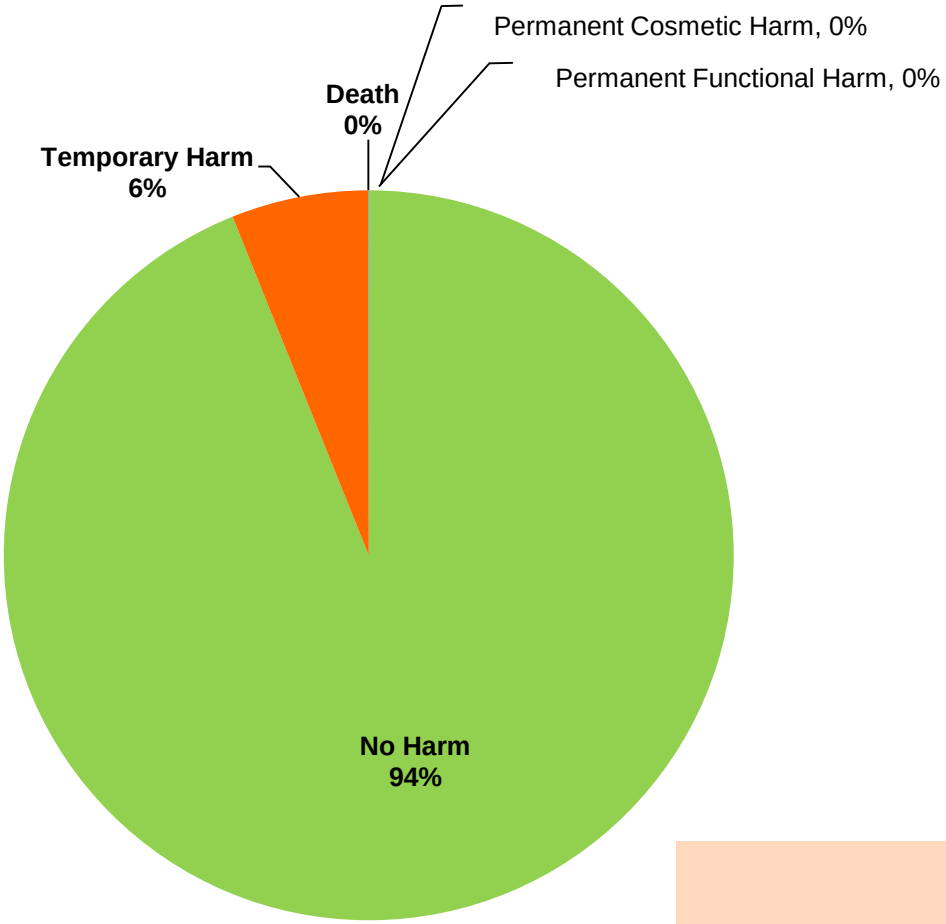
Increase in reported incidents from 2020

Reporting Habits Through the Years



There is a continued positive impact on the culture of safety reporting, as highlighted in the chart on the left. The blue line represents the number of total harm events from January 2017 to December 2021, while the orange line represents the total number of Safety Reports (SRS) in the same period. These graphs highlight the culture change in KFSH&RC-J due to the Zero Harm - HRO journey and the work done throughout the last several years. As a result, there has been a sustained improvement in reporting habits where staff are comfortable and feel empowered to report safety events while the number of harm events continues to go down.

Level of Harm

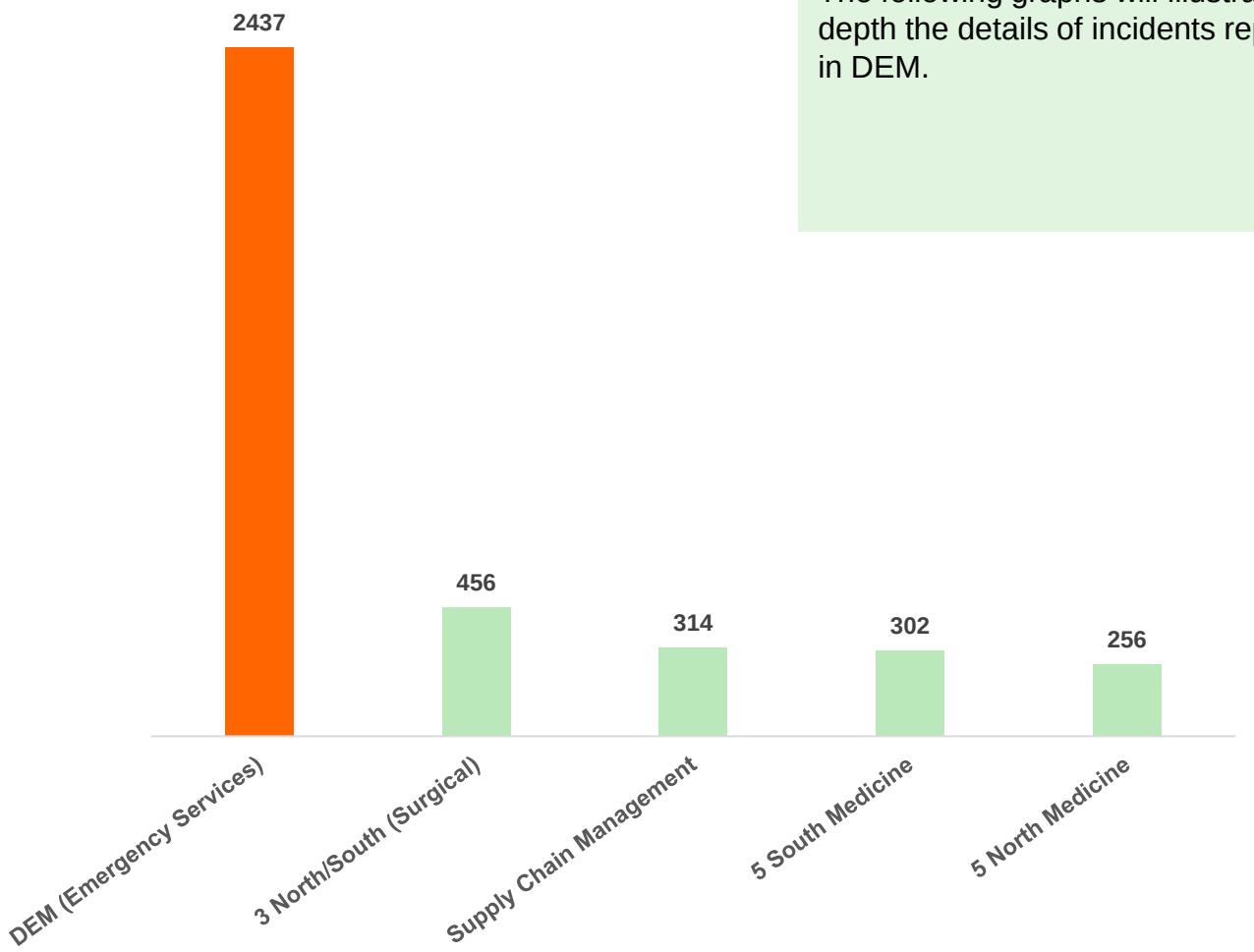


During 2021, 94% of reported incidents were No Harm incidents and only 6% reached Temporary Harm. Two (2) cases were discussed in the Sentinel Event Committee as Temporary Harm and will be displayed later in the report.

Top Reported Location

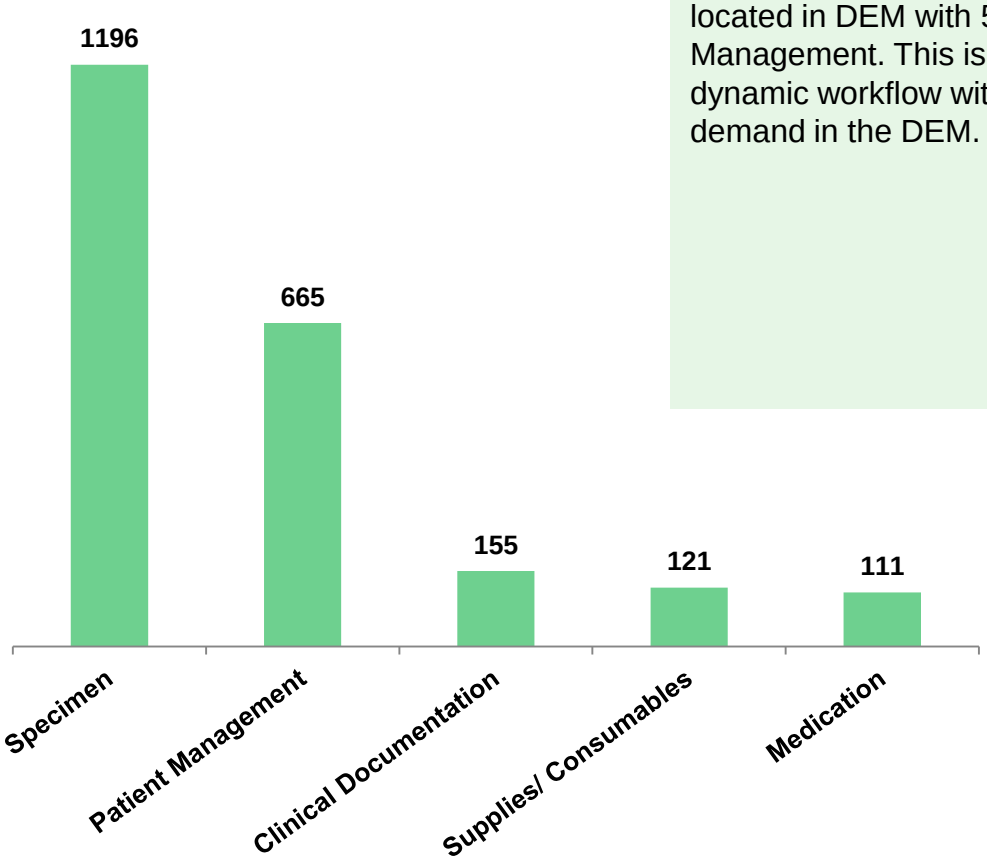
26% of overall reported incidents in 2021 were located in the Department of Emergency Medicine (DEM) with a total of 2,437 Safety Reports, which makes it the top reported location followed by the Surgical Floor, Supply Chain, and the Medical Floor.

The following graphs will illustrate in-depth the details of incidents reported in DEM.

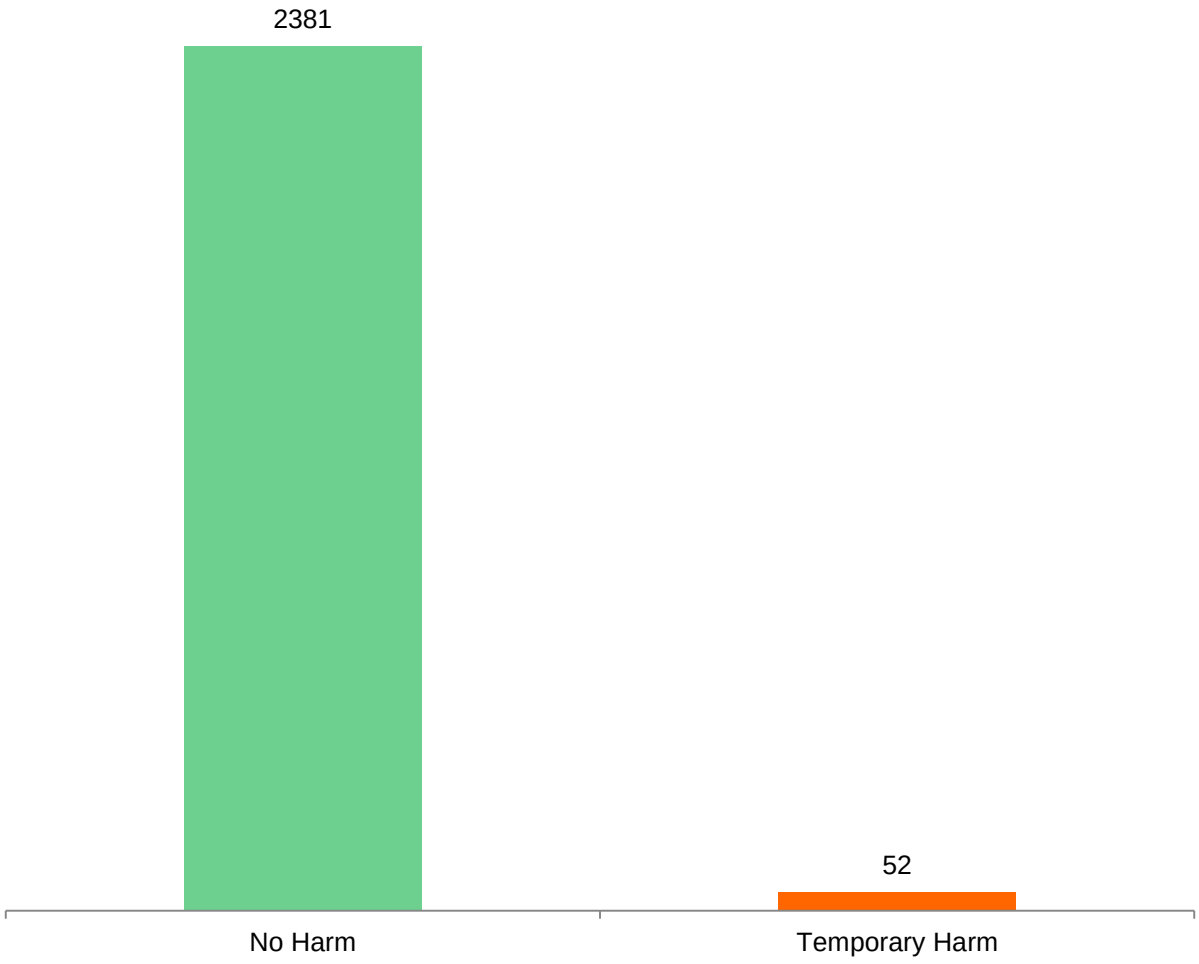


Incident Types Reported in Department of Emergency Medicine (DEM)

As shown in the graph below, Specimen Incidents are the dominating type of reports located in DEM with 53%, followed by Patient Management. This is due to the nature of the dynamic workflow with fast-paced and high-demand in the DEM.



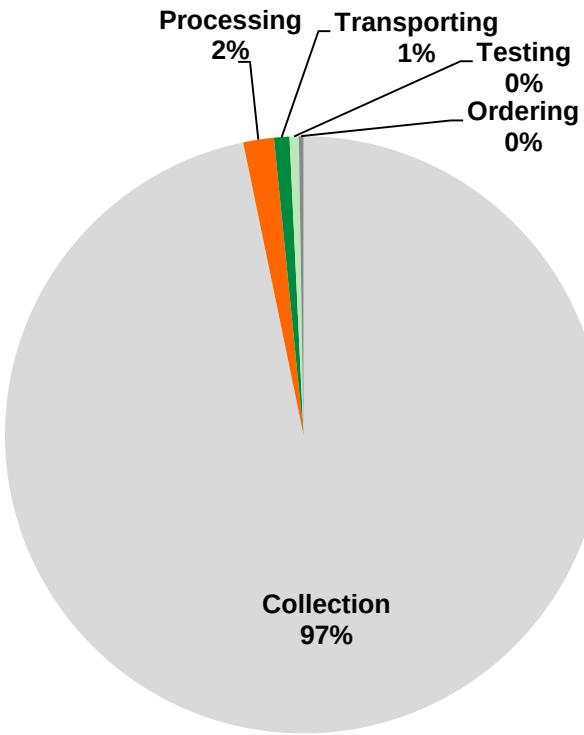
DEM Incidents



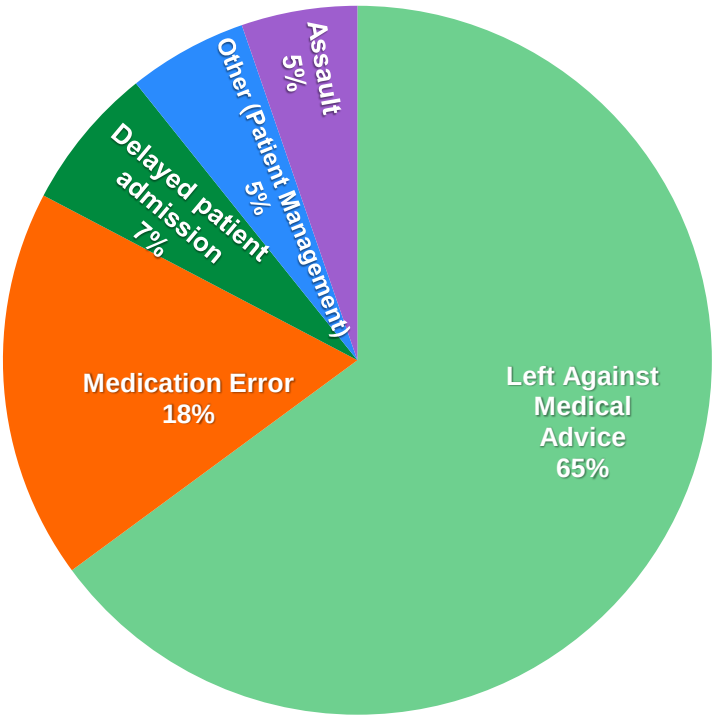
In a total of 2,433 reported incidents in the DEM, only 2% of them had temporary harm.

Specimen Stages in DEM

The collection stage has the most challenges in the Specimen process inside the DEM, due to hemolyzed or contaminated specimens.

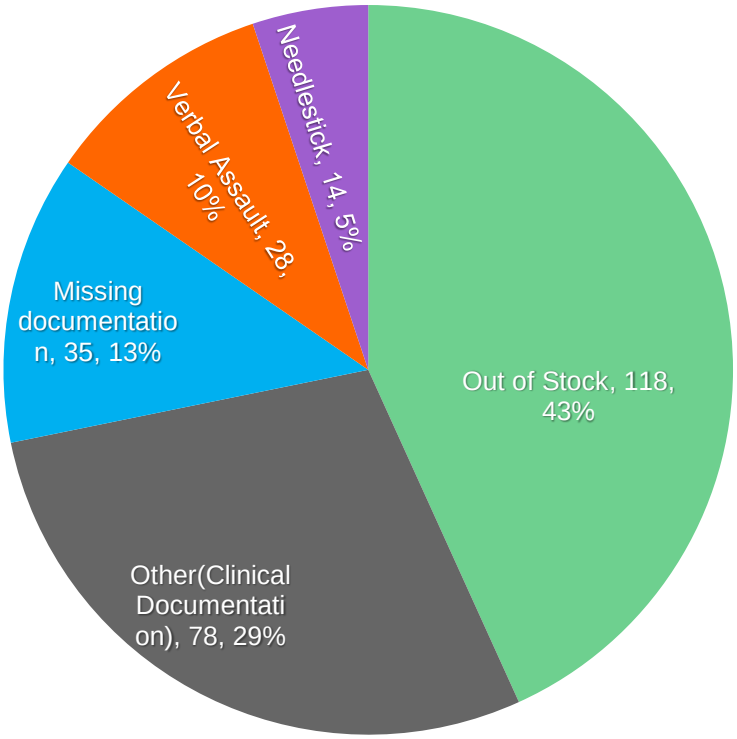


Incident Sub-category Reported in DEM



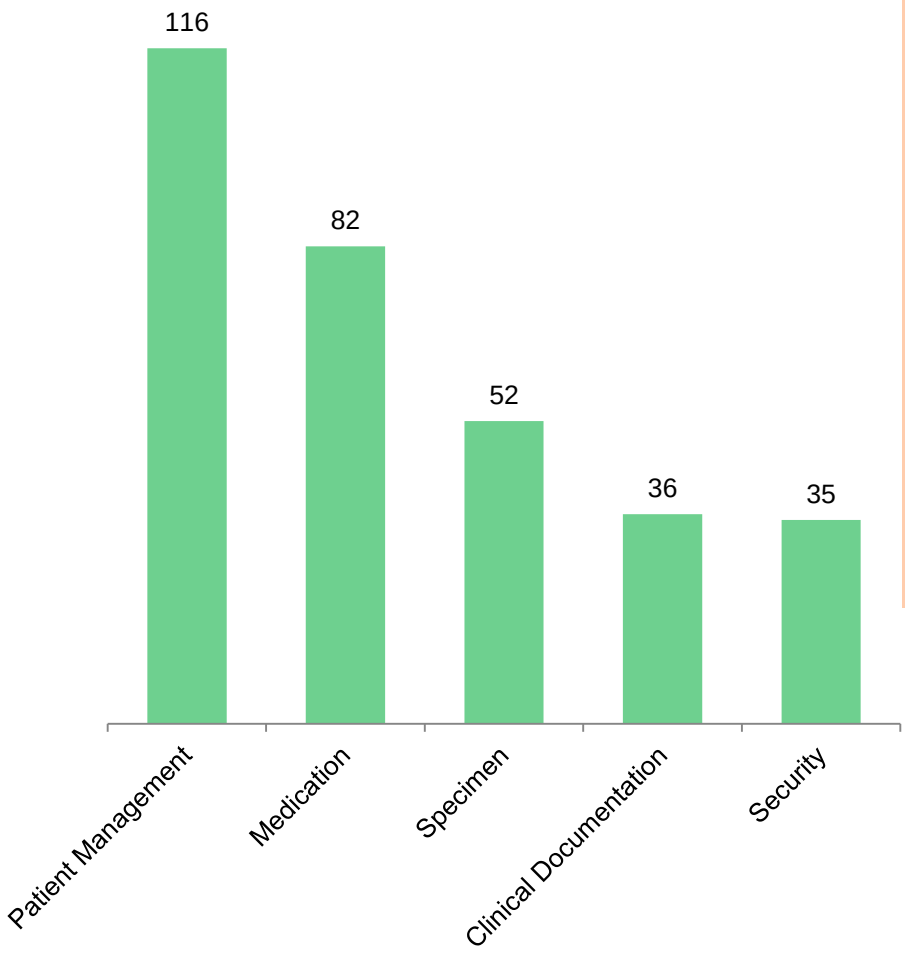
Most common incidents related to Patient Management are “Patient Left Against Medical Advice”, which is reported for data collection purposes. The second reported incidents are “Medication Errors”, which are mostly Near Misses.

Incident Variances Reported in DEM



The high demand in the DEM is apparent in the use of medical supplies and the need for the agile support to obtain what's needed to keep the flow of patient care optimum. The second half of most reported variances under Clinical Documentation is mostly related to receiving patient's file from Medical Records and completing all documents in their files.

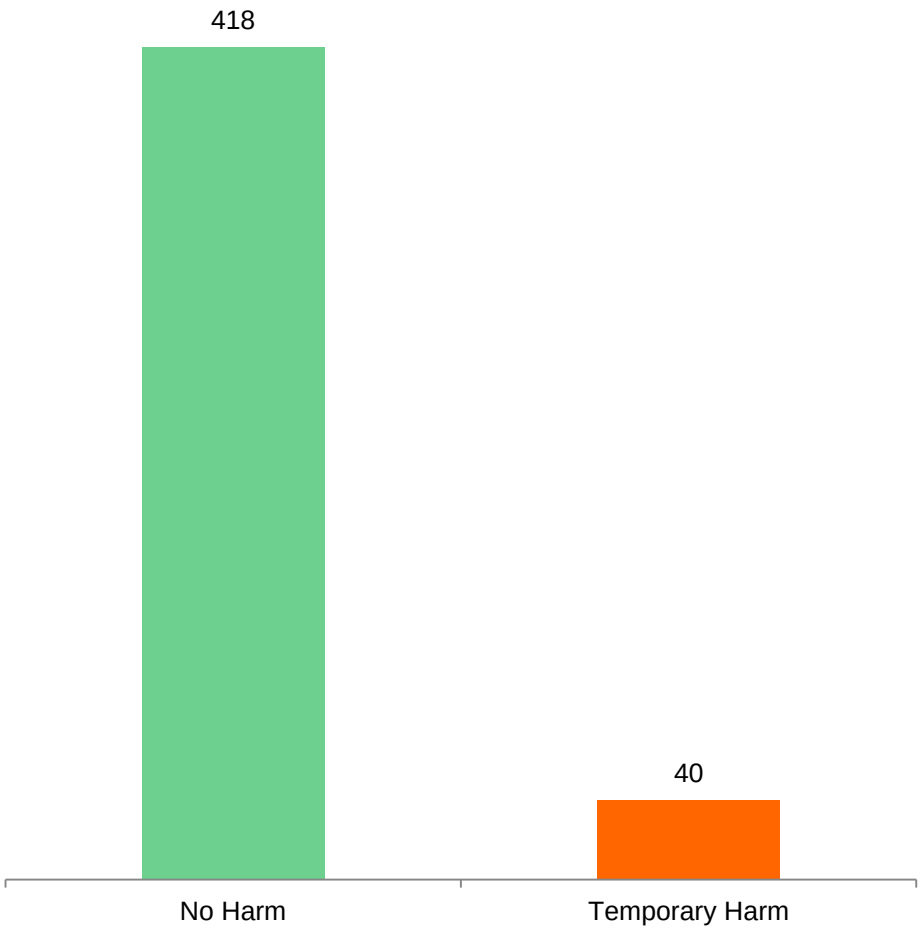
Incident Types Reported on the Surgical Floor



The second highest reported location is the Surgical floor (3 North & 3 South).

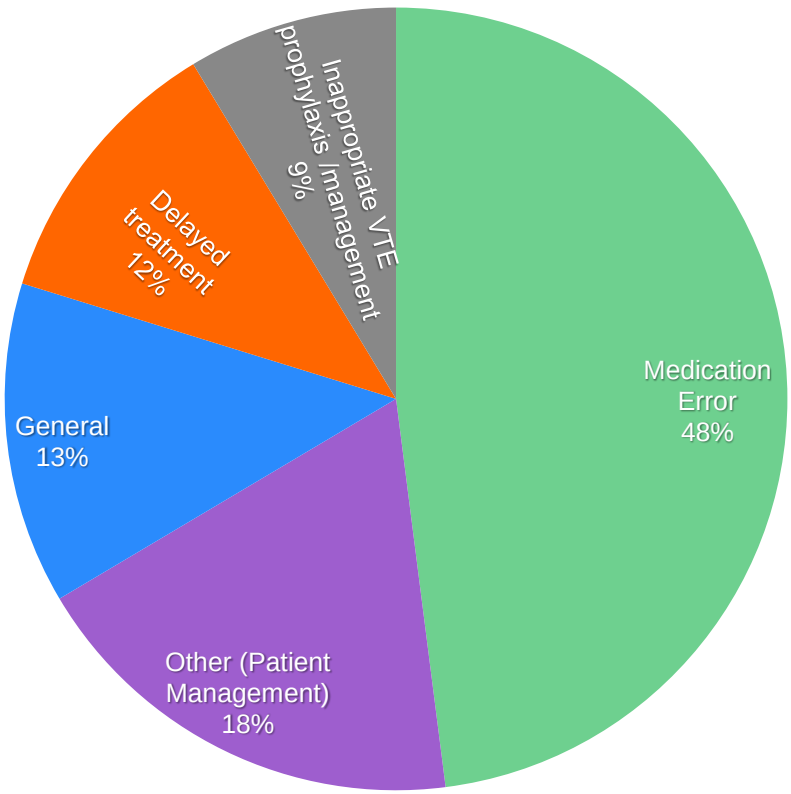
From a total of 456 reported incidents on the Surgical Floor, 25% are related to Patient Management. The Surgical Floor is an excellent example of a high bed turnover unit servicing various patient conditions.

Surgical Floor Incidents



91% of the reported incidents are no harm events, as the next graph will show the incidents sub-categories with the most events under “Patient Management”.

Incident Sub-category Reported on the Surgical Floor



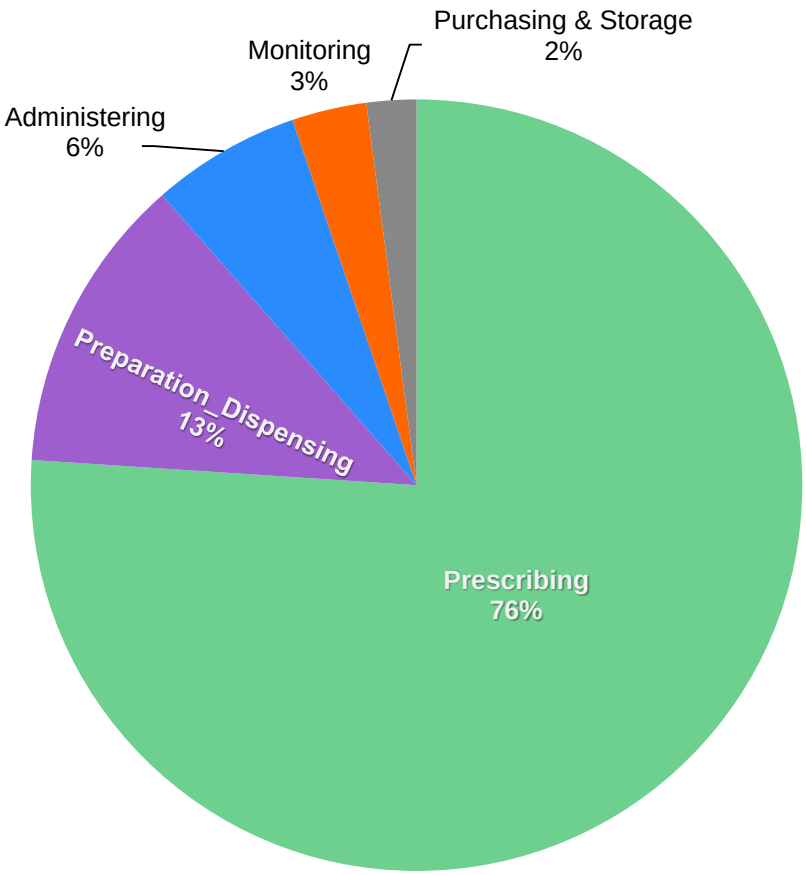
Unlike the DEM, almost half of the reported incidents are Medication Errors, followed by other sub-categories under Patient Management.

Medication Error is the highest reported incident at 48%, with most of them near misses. One of the causes for such incidents are the need for dose calculations for a variety of patients and the nature of the cases.

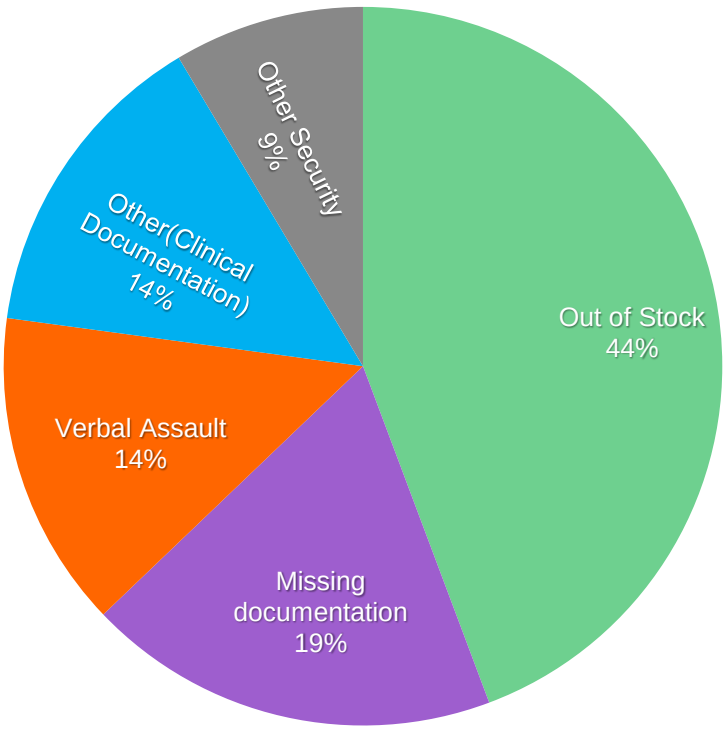
13% of “General” events were under “Security” sub-category , as pain treatment and Narcotic medications are highly used post operatively.

Medication Error Stage on Surgical Floor

76% of Medication Errors occur during prescribing, followed by preparation and dispensing, with 13% on the Surgical Floor.



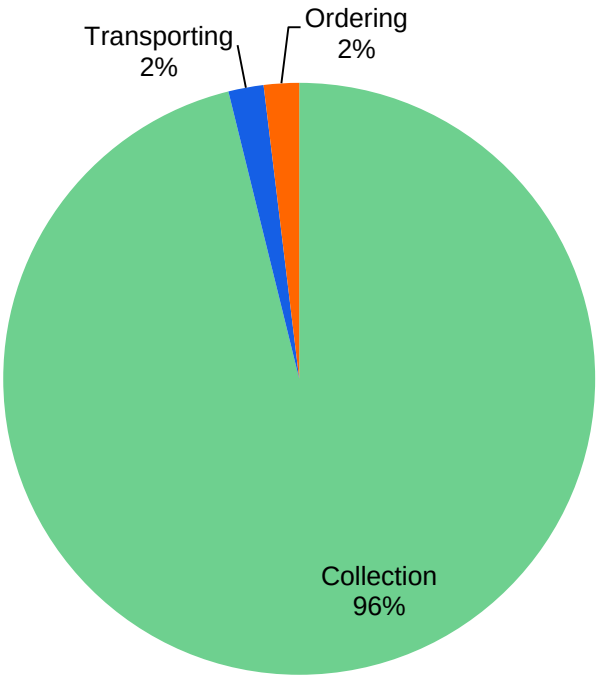
Incident Variances Reported on the Surgical Floor



Supplies are also a major reported incident on the Surgical Floor, as a high flow unit requiring specialized medical supplies and wound dressing items. 44% of supply related issues are due to out-of-stock supplies.

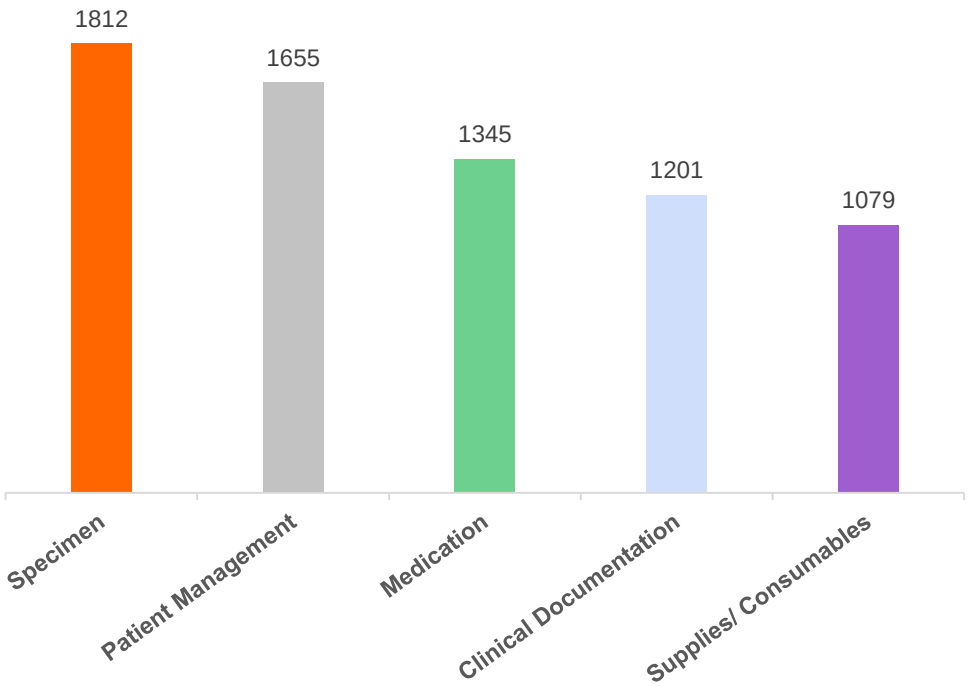
Specimen Stage Incidents on the Surgical Floor

As shown in the Specimen Stage graph, collecting the samples is still the leading cause of Specimen related issues.



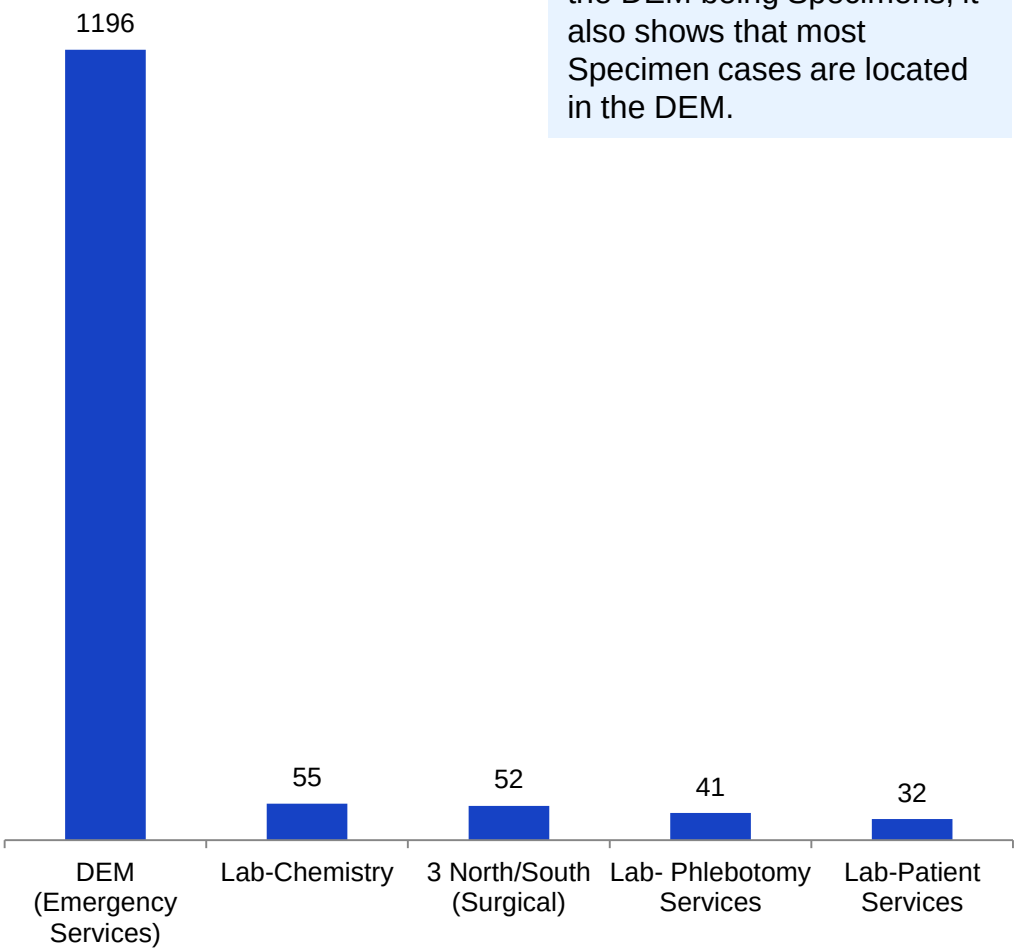
Incident Types

In 2021, generally Specimen and Patient Management were the top reported incidents throughout the Hospital, with 18.4% Specimen and 16.7% incidents related to Patient Management.



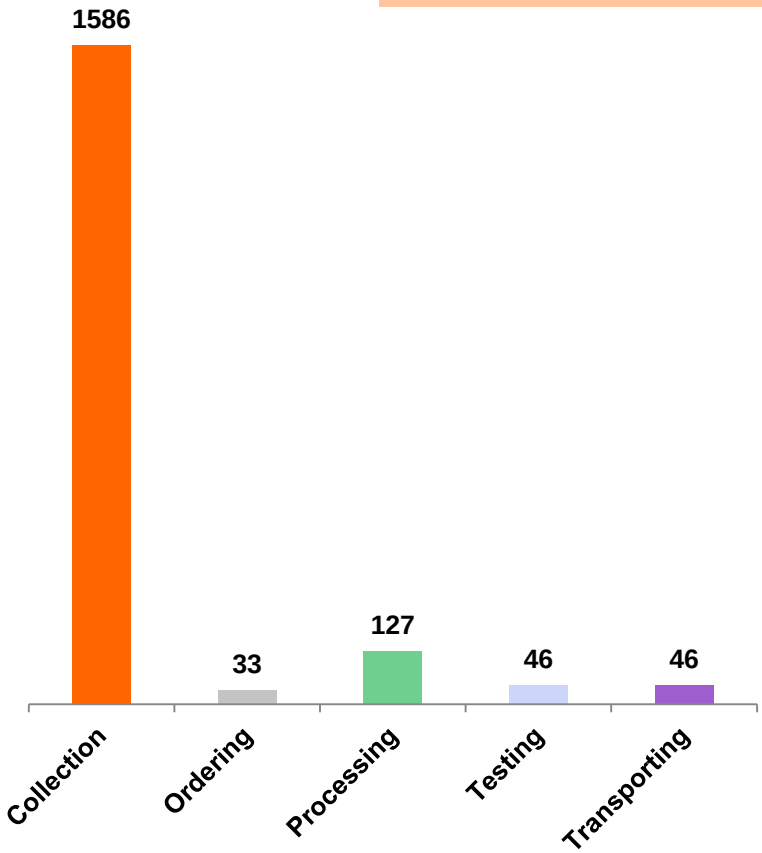
Specimen Location

As mentioned previously with regards to the top incidents in the DEM being Specimens, it also shows that most Specimen cases are located in the DEM.



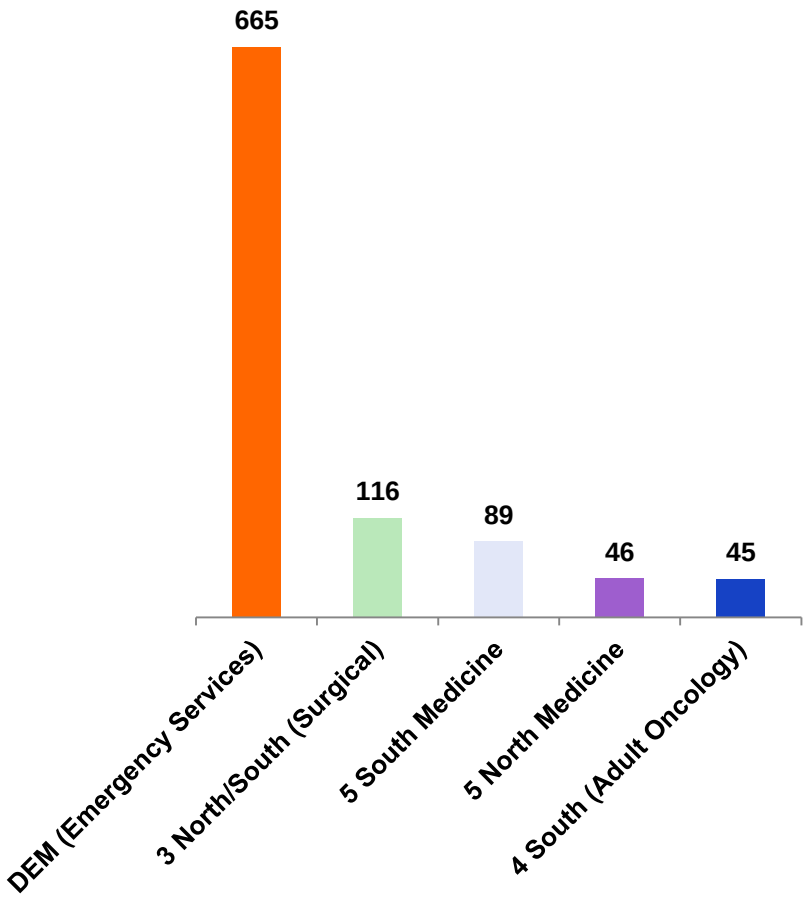
Incidents by Specimen Stage

The Department of Pathology and Laboratory Medicine is planning to collaborate with Quality Management and several units to identify the root causes and look for improvement opportunities.



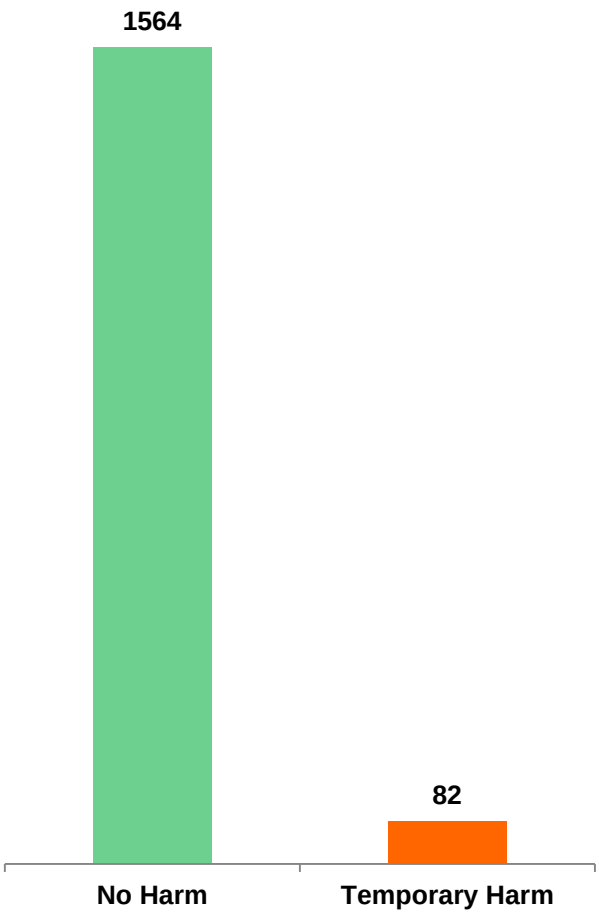
Incidents by Patient Management Location

DEM is also the highest location for Patient Management related incidents with almost 40% from the top reporting units.



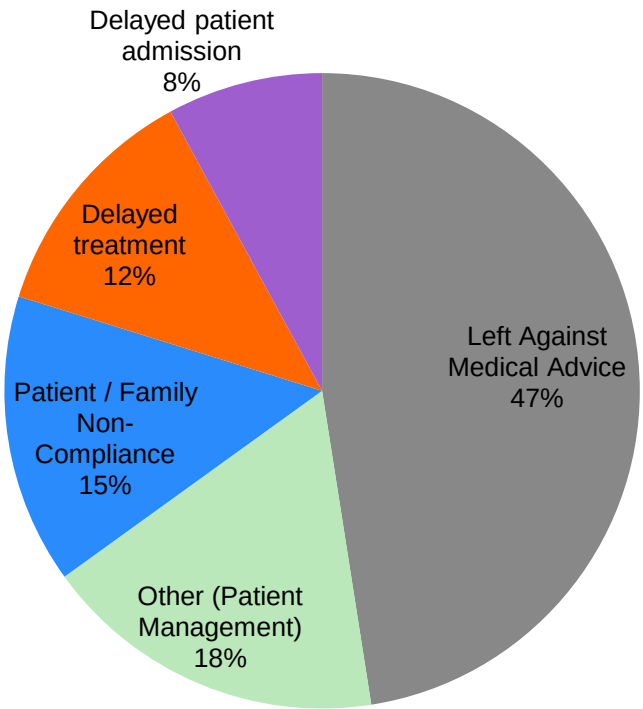
Patient Management Incidents by Harm Level

95% of the incidents reported under the category Patient Management are with No Harm. As for the incidents with Temporary Harm, Apparent Cause Analysis (ACA) has been conducted and more information will follow to display ACA data.



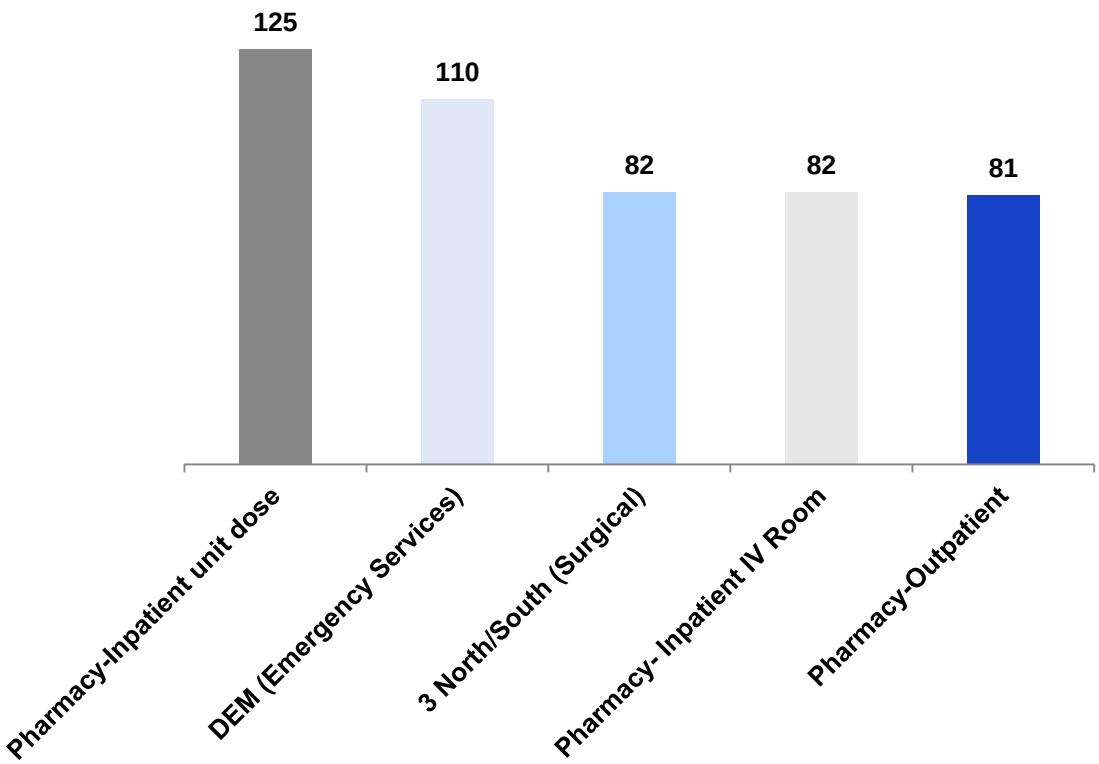
Patient Management Sub-category Incidents

47% of Patient Management incidents were reported to document patients who left Against Medical Advice (AMA). Incidents related to delayed patient admission and delayed treatment are good areas for improvement that can enhance patient experience and efficiency.



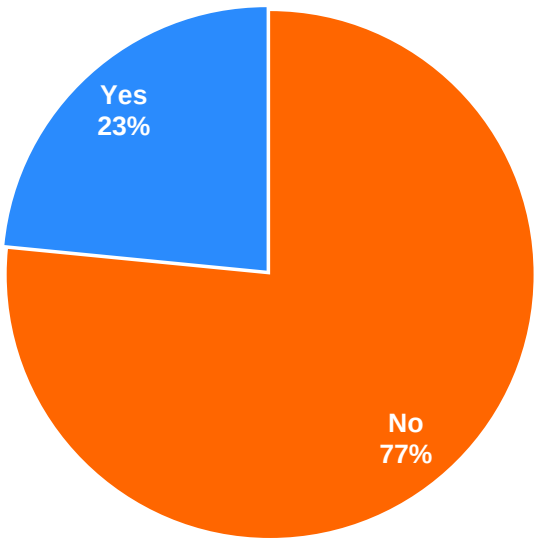
Incidents by Medication Error Location

Inpatient Pharmacy and DEM are the most common areas to report medication errors, followed by the Surgical Floor, Inpatient IV Room, Pharmacy, and the Outpatient Pharmacy.

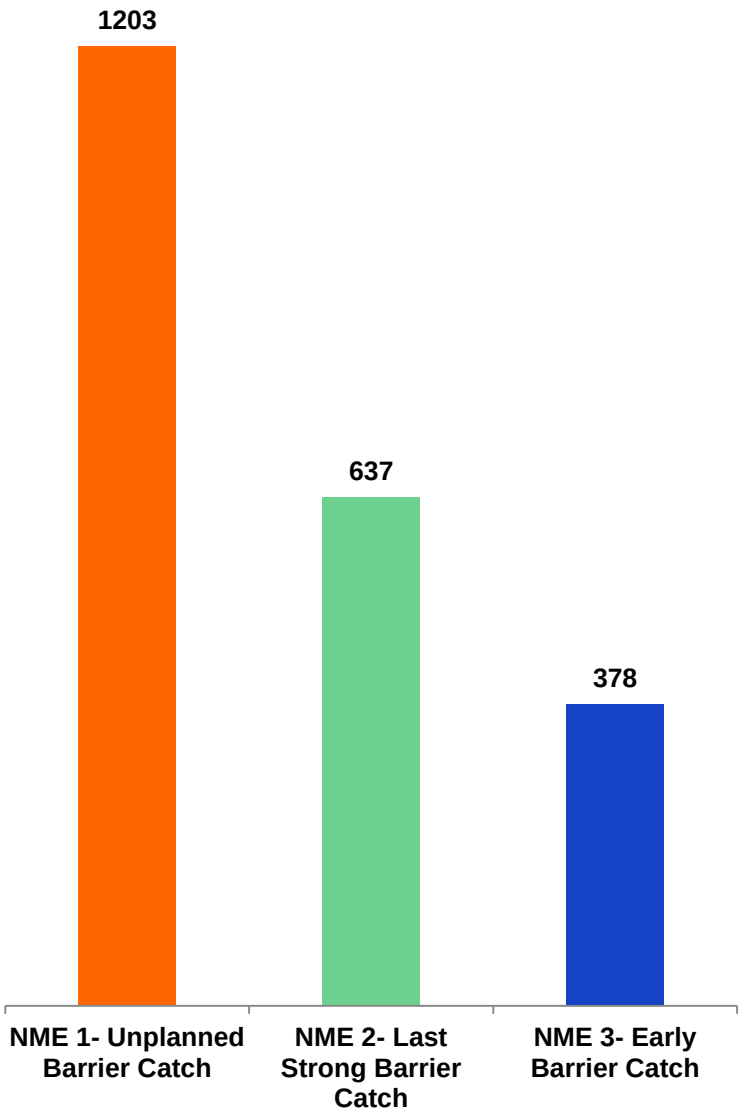


Incidents by Near Miss

23% of reported incidents were considered as Near Misses with a monthly average of 22%. An action plan was put in place in mid-2021 to correct and increase the awareness of Near Miss reporting. Several educational sessions were delivered to fellows, residents, and new physicians. Near Miss reporting was also included as a theme in the Leadership Rounding to Influence.



Incidents by Near Miss Event



In a system with multiple barriers including: People, Technology, Policy and Procedures, and so forth, the earlier the barrier catches an error to prevent harm reaching the patient, the stronger the system is.

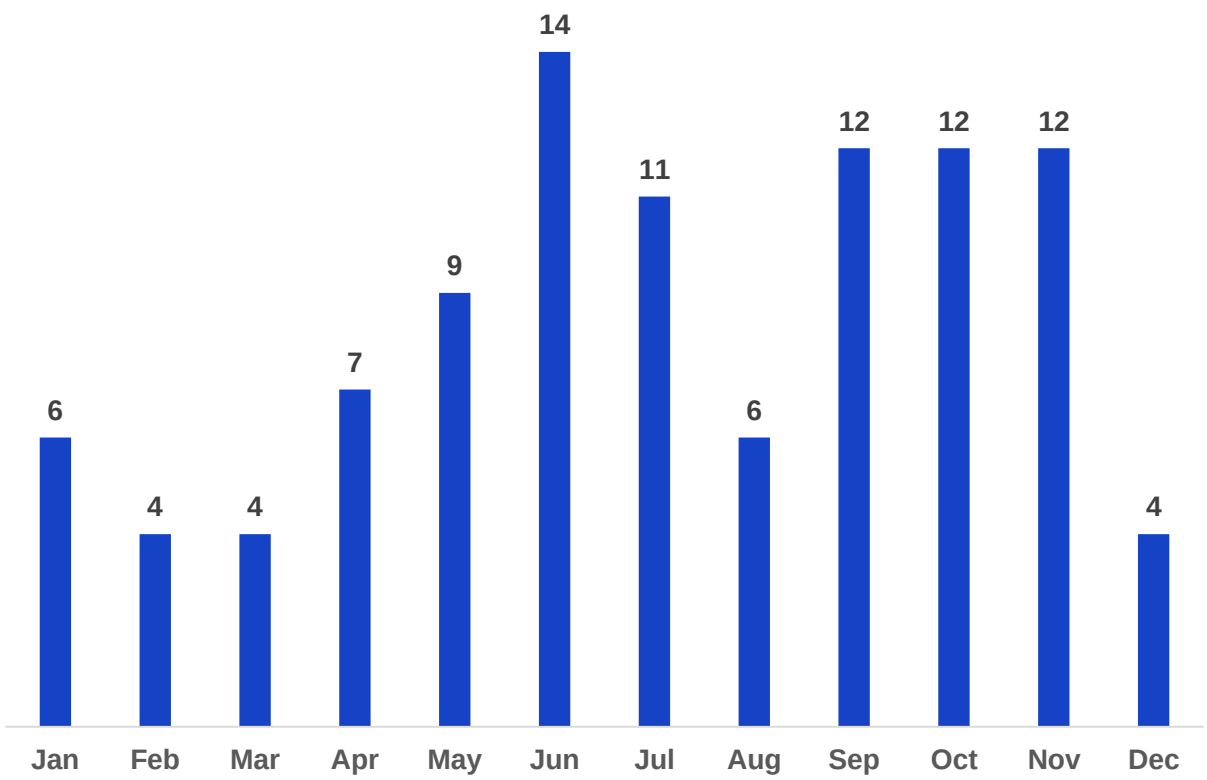
It is crucial to identify system gaps in each part of a process in order to fix the system and close the “Holes in the Swiss Cheese” – based on the Swiss Cheese model by James Reason.

By analyzing 2021’s Near Miss incidents, we found the most common Near Misses were caught by sheer luck.

This indicates a need to identify and fix system gaps, as well as continue educating staff on the importance of reporting Near Misses, as early as they are caught.

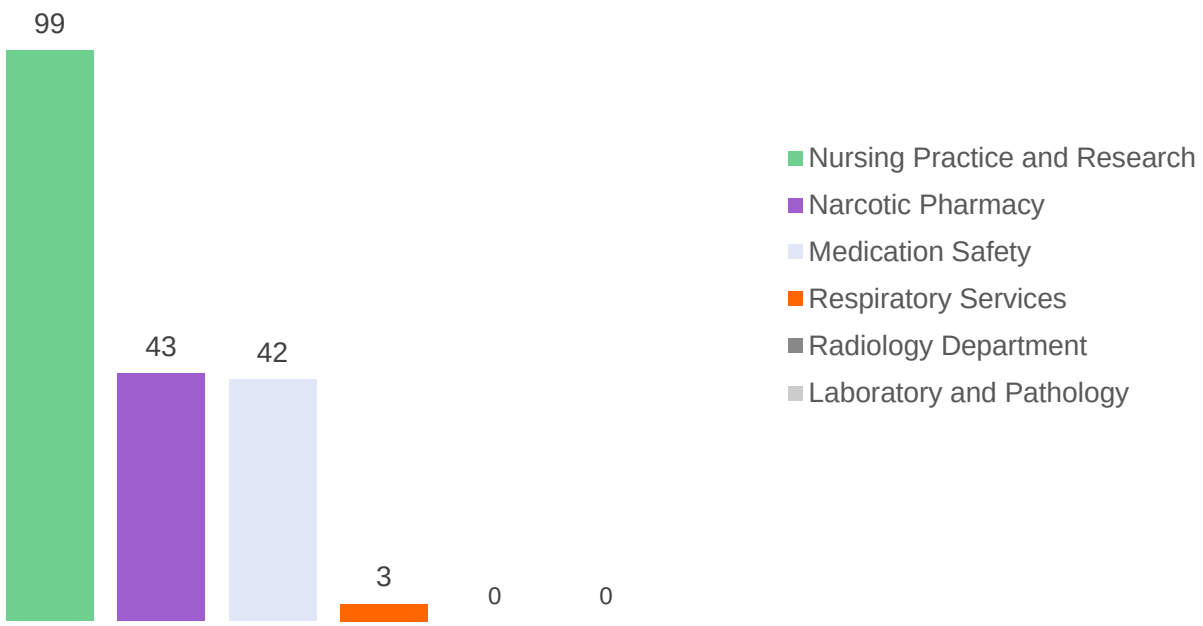
Apparent Cause Analysis

A total of 101 Apparent Cause Analysis (ACA) have been completed by Quality Management Department during 2021, in addition to 5 Root Cause Analyses, not related to Sentinel Events. These ACAs contribute to the effectiveness of identifying cases from the “SRS”, finding causes, implementing recommendations, and sharing lessons learned. Also, several incidents identified by ACA have been referred to the Patient Safety & Risk Management Committee for further actions, as required.



Department Quality Improvement Apparent Cause Analysis

Nursing Practice and Research also worked on 99 “ACAs” in 2021, mostly identifying causes of Hospital Acquired Pressure Injuries and secondly is Pharmaceutical Care Services.

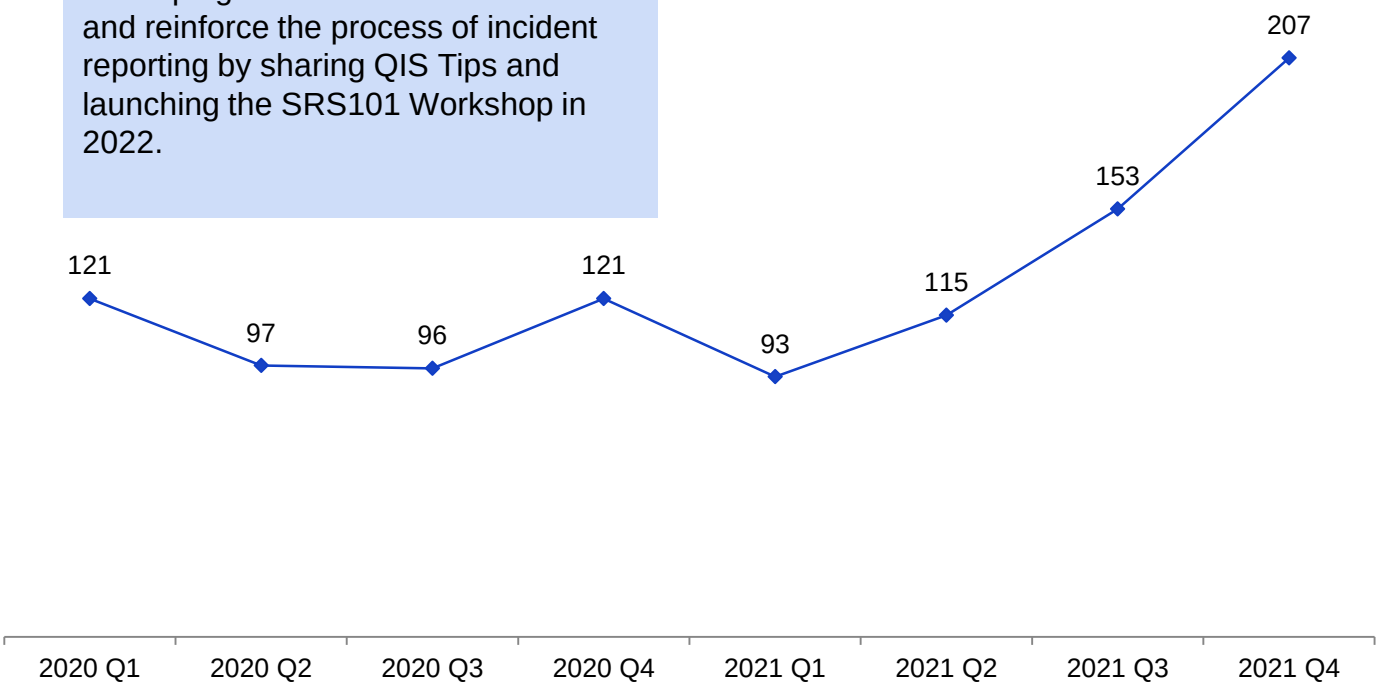


Rejected Incidents

In efforts to enhance the utilization of the QIS, and after monitoring the types of reported incidents, it has been noted that more non-reportable incidents were detected. Proper communication channels are always preferred to be utilized for better outcomes. Examples of those non-reportable incidents rejected by QMD are; Maintenance and HITA requests.

The decision to reject those incidents was to better understand the specific incident types by proper definitions, more reliable KPIs and improved detection of system errors.

A campaign was started to re-educate and reinforce the process of incident reporting by sharing QIS Tips and launching the SRS101 Workshop in 2022.



Quality Information System (QIS) Tips Example

QIS Tips

"Sharing Best Practices"

Choosing the Correct Level of Harm

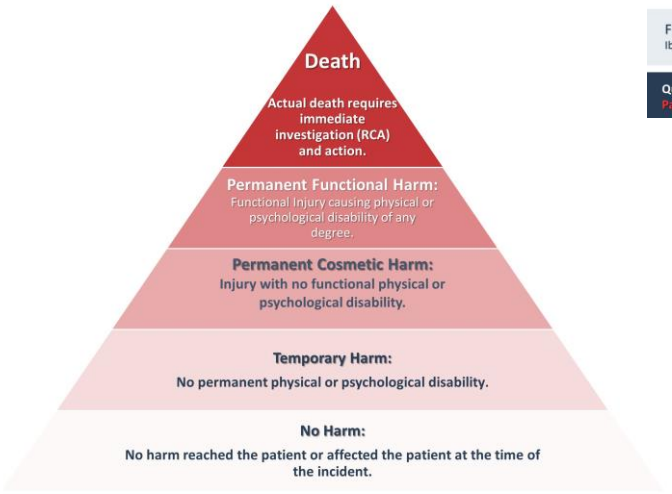
Several incidents have been reported with a level of harm that does not reflect the actual effect that reached the Patient/Staff/Organization. Choosing the incorrect level of harm can affect the quality of the reported incident, required action, and eventually the outcome.

Harm:

Any physical or psychological injury or damage to a person's health, including both temporar and permanent injuries.

How to choose the correct Level of Harm?

*All incident definitions are for an actual result of deviation from the generally accepted standards of care and are not potential.



For more information or QIS support, please contact the Patient Safety and Risk Management Team.
Alanood Abdulfattah (MCD: 41682), Ibrahim Qoulaghasi (MCD: 41276), Lojain Khalid (MCD: 41366), or Amany Moustafa (MCD: 43951).

QIS Tips

"Sharing Best Practices"

It was noted that some incidents are reported in the Safety Reporting System (SRS) that are not related to patient, staff, or visitor safety. Some issues have proper communication and requesting channels such as Service Hub for HITA or Maintenance issues.

The Safety Reporting System (SRS) is for reporting hazards, near misses and adverse events that may cause harm or potential harm to patient, staff, or visitors caused by a deviation from the standards of care and policies of KFSH&RC.

Reportable Incidents	Non-reportable Incidents
Incident of omission or commission of care that may be caused by a breach of the Hospital's standards of care, code of conduct and/or its policies and procedures involving the facility, patient, visitor, contingent worker, and staff.	Incidents are not reported, because they are events that are not a result of commission or omission of care.
Ex: Medication Errors, Delayed Treatment, Pressure Injuries developed in KFSH&RC, and Patient Care equipment failure.	**Ex:** HITA Requests, Maintenance Deficit, Pressure Injuries developed at home, ilearn Activation, and Oracle.

For more information or QIS support, please contact the Patient Safety and Risk Management Team.
Ibrahim Qoulaghasi (MCD: 41276), Lojain Khalid (MCD: 41366), Rola Elkhattib (MCD: 40537)

Near Miss Reporting & Great Catch Awards

Reporting Near Misses indicates that we have a strong culture of safety. In 2021 the Near Miss reporting Rate was 23.3%.

One of the initiatives to promote Near Miss reporting is the Great Catch Awards, which is celebrated on a quarterly basis to appreciate and recognize staff who caught an error, prevented it from reaching the patient and reported it confidentially in the QIS.

Another benefit of the Great Catch Awards is sharing lessons learned through presenting each case and sharing dedicated Safety Alerts. The Great Catch winners increased from 51 in 2020 to 55 in 2021 (7.8% increase).

Safety Alert

Great Catch Winners Q2 - 2021

"Sharing Lessons Learned"

Nursing Affairs

Ms. Azhar Kamal

Prevented a Medication Error

The Staff Nurse assigned as a Patient Educator in the Cardiology Inpatient Unit, prepared the educational material for a patient's discharge. When she checked the medication prescription, she noticed a prescription of Empagliflozin, a medication with a primary use to lower blood glucose levels through the kidneys and reduce the risk of heart failure progression. The nurse first checked the patient's latest blood results and found the kidney function test has an abnormal rate (e-GFR less than 50) and realized that according to the guidelines, it's a contraindication that can cause acute kidney injury.

She confirmed this information with Endocrinology and the Clinical Pharmacist, to discuss the Cardiology Team's decision and potentially adverse effects of prescribing this medication.

Take Home Message:

Be vigilant with your own internal validation, and verify any uncertainty by "Stopping the Line" for clarity.

Ms. Anna Kristen San Luis

Prevented a Patient Identification Error

A patient was admitted to the Endoscopy Unit for a procedure under conscious sedation. While the Nurse checked the patient's file, she asked the patient for their information to double check and asked for the full name and MRN. The Nurse found an interdisciplinary note from another procedure area with an almost identical MRN (the only difference is the last digit) that was incorrectly added to the file.

Take Home Message:

Be attentive to details, stop auto-pilot brain mode by self-checking using STAR (Stop, Think, Act, Review), and cross-check for 200% accountability.

Quality Management Department - Jeddah
Patient Safety and Risk Management

Issue # 15 / September 2021

مستشفى الملك فيصل التخصصي ومركز الأبحاث
King Faisal Specialist Hospital & Research Centre
Gen. Org. مؤسسة عامة
Jeddah Branch فرع جدة

Quality Management Department
Patient Safety & Risk Management

Great Catch Winners Q1 - 2020

Pharmaceutical Care Services

Amr Mahmoud

Maha Bahamdain

Nada Saferuddin

Morooj Almuwallad

All Hospital staff can be nominated to be a Great Catch Winner. Become the next Great Catcher by:

- Reporting a Near Miss* event using Safety Reporting System
- Using your Hospital ID to be identified as a reporter
- Provide a clear description of the event, immediate action to correct it
- Stopping a potential harm from reaching the patients

Root Cause Analysis (RCA)

- A total of 10 RCA were conducted in 2021, 5 of which were related to reported Sentinel Events and 5 were identified and analyzed by the Patient Safety Team.
- Serious Safety Events (SSE) decreased by 60% from 10 in 2020 to 4 in 2021.

RCA Team Structure

RCA Executive Sponsor

Senior leader owns the overall quality of the RCA, assures correct root causes and corrective actions, communicates the progress, outcome, project urgency, and priorities.

RCA Team Leader

Comes from Operations and responsible for managing and facilitating the RCA process, utilizing the three (3) meeting model.

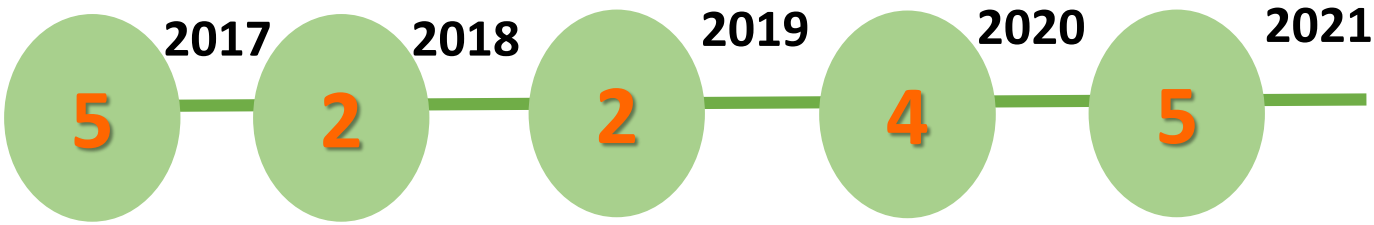
Qualified RCA Analyst

Supports the team leader, ensuring and updating RCA reports and progress updates using learned techniques e.g. cause and effect, 5 whys, and systems failures model.

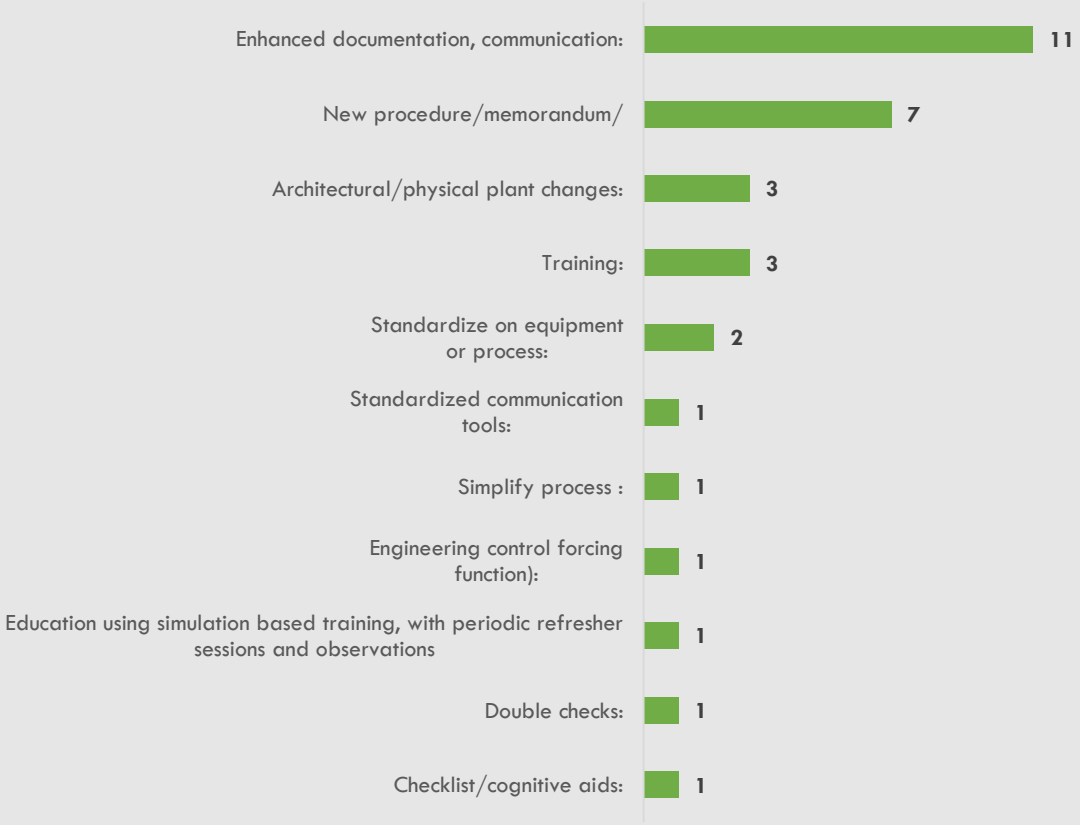
RCA Team Members Stakeholders & Subject Matters Experts

Knowledgeable in the process, activities or technology and can offer expertise in determining the root causes and corrective actions.

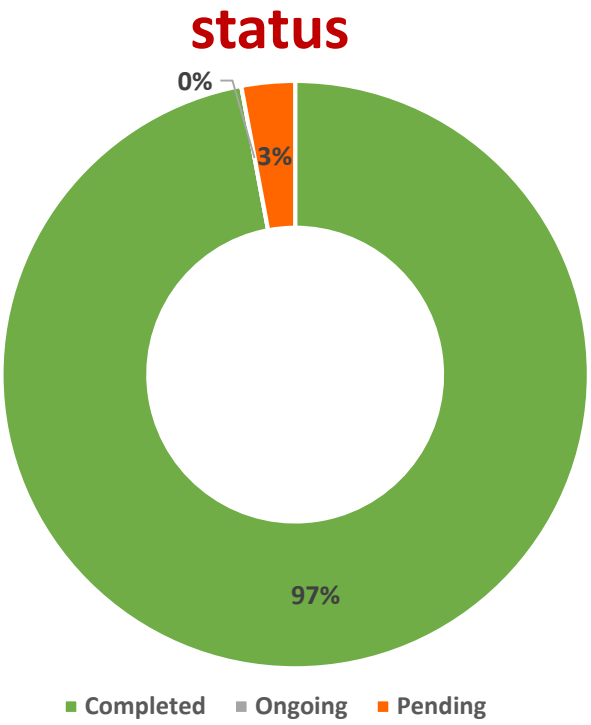
Sentinel Events Overview

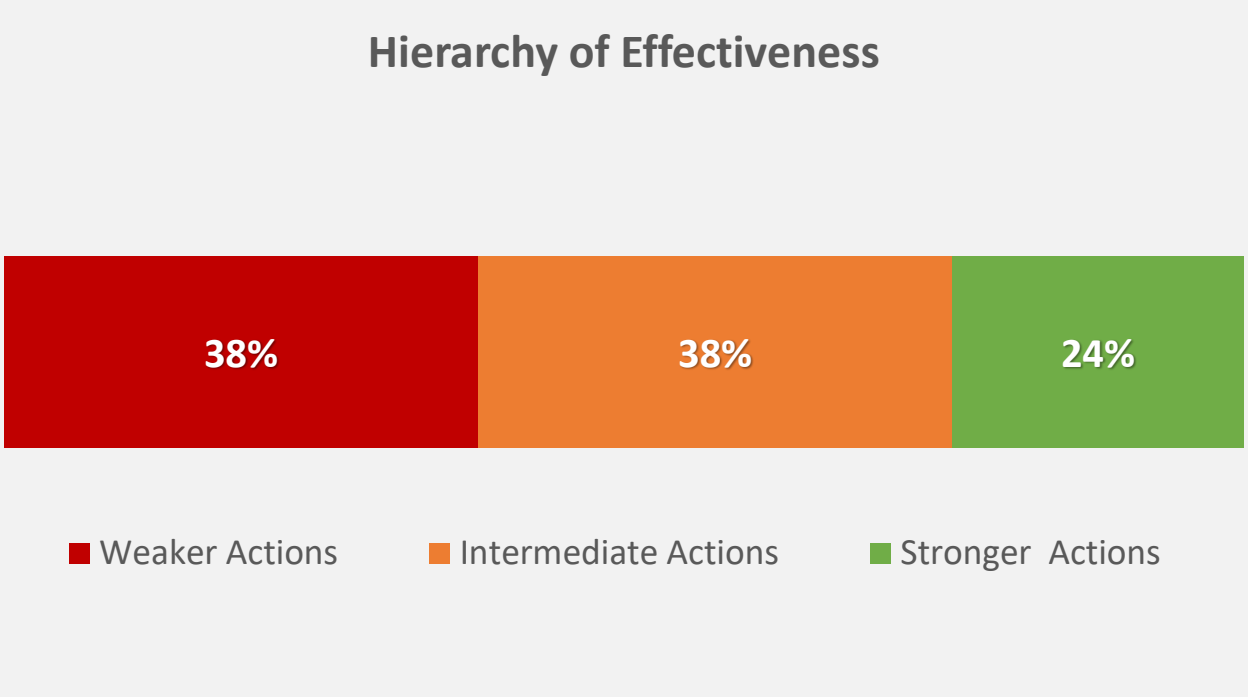


Corrective Action Categories 2021



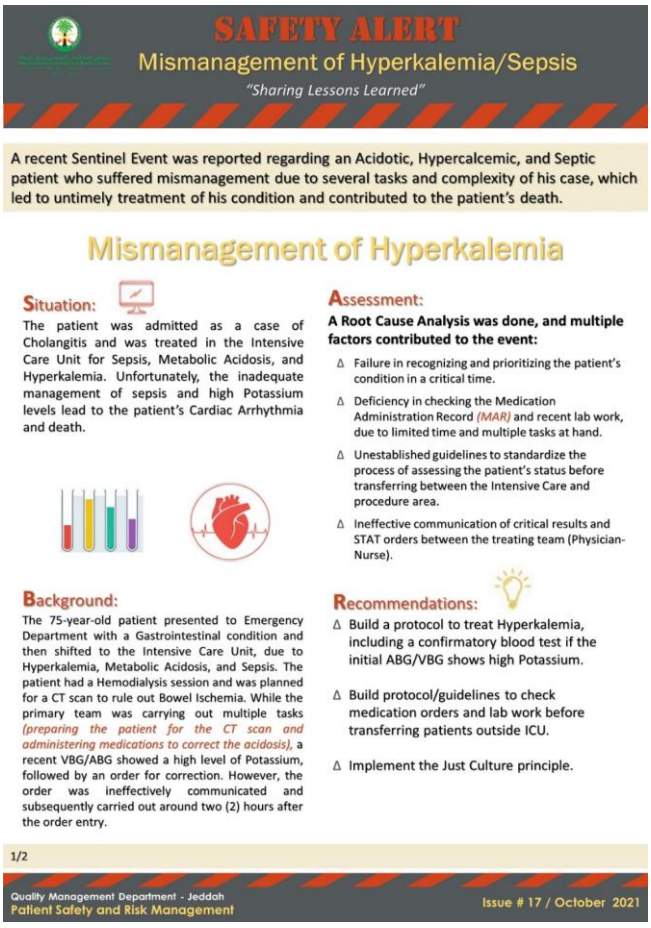
Sentinel Events Overview





Sharing Lessons Learned

Sharing lessons learned is an integral aspect to increasing the awareness of a safety culture, collecting information from Sentinel Events and identified issues or trends from reported incidents, or sharing new guidelines and critical reminders from all clinical divisions. Twenty (20) Safety Alerts have been shared with Hospital staff in 2021.



SAFETY ALERT

Mismanagement of Hyperkalemia/Sepsis

"Sharing Lessons Learned"

A recent Sentinel Event was reported regarding an Acidotic, Hypercalcemic, and Septic patient who suffered mismanagement due to several tasks and complexity of his case, which led to untimely treatment of his condition and contributed to the patient's death.

Mismanagement of Hyperkalemia

Situation:

The patient was admitted as a case of Cholangitis and was treated in the Intensive Care Unit for Sepsis, Metabolic Acidosis, and Hyperkalemia. Unfortunately, the inadequate management of sepsis and high Potassium levels lead to the patient's Cardiac Arrhythmia and death.

Assessment:

A Root Cause Analysis was done, and multiple factors contributed to the event:

- Failure in recognizing and prioritizing the patient's condition in a critical time.
- Deficiency in checking the Medication Administration Record *(MAR)* and recent lab work, due to limited time and multiple tasks at hand.
- Unestablished guidelines to standardize the process of assessing the patient's status before transferring between the Intensive Care and procedure area.
- Ineffective communication of critical results and STAT orders between the treating team (Physician-Nurse).

Background:

The 75-year-old patient presented to Emergency Department with a Gastrointestinal condition and then shifted to the Intensive Care Unit, due to Hyperkalemia, Metabolic Acidosis, and Sepsis. The patient had a Hemodialysis session and was planned for a CT scan to rule out Bowel Ischemia. While the primary team was carrying out multiple tasks *(preparing the patient for the CT scan and administering medications to correct the acidosis)*, a recent VBG/ABG showed a high level of Potassium, followed by an order for correction. However, the order was ineffectively communicated and subsequently carried out around two (2) hours after the order entry.

Recommendations:

- Build a protocol to treat Hyperkalemia, including a confirmatory blood test if the initial ABG/VBG shows high Potassium.
- Build protocol/guidelines to check medication orders and lab work before transferring patients outside ICU.
- Implement the Just Culture principle.

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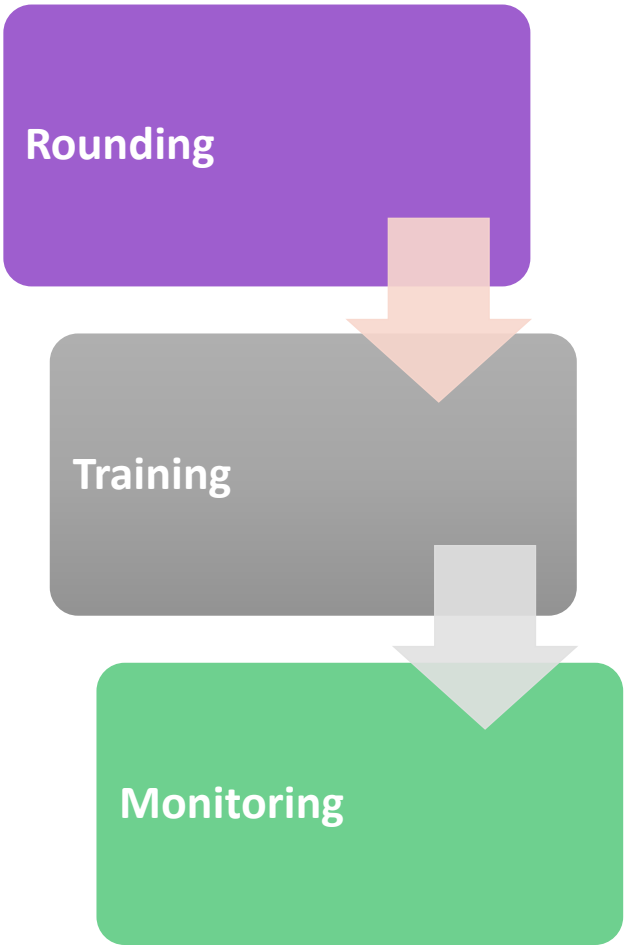
Quality Management Department - Jeddah
Patient Safety and Risk Management

Issue # 17 / October 2021

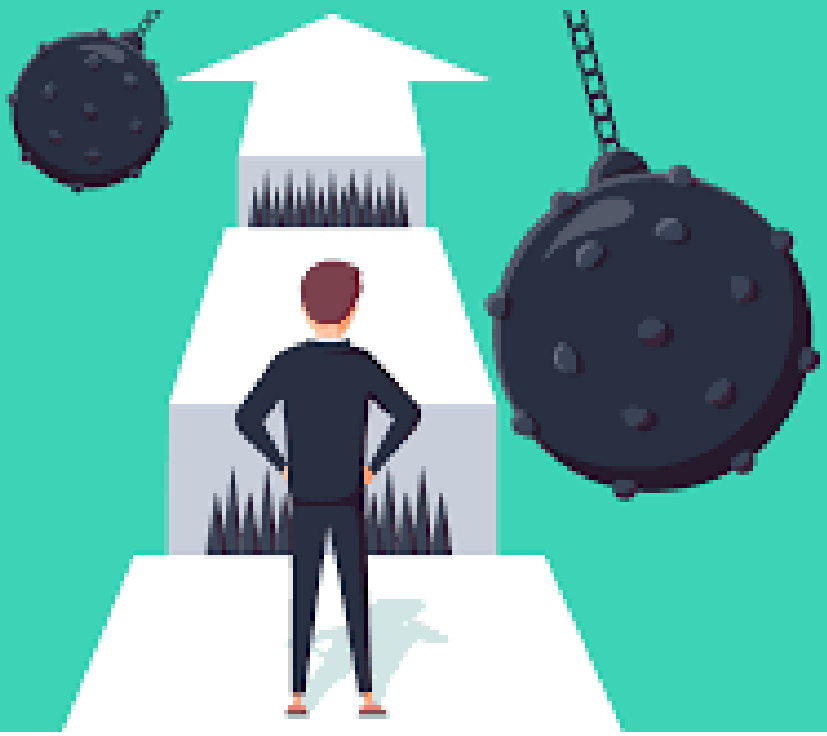
Actions Taken to Improve Near Miss Reporting

- Validate and monitor Near Misses monthly.
- Include “Near Miss Reporting” as a theme in the Leadership Rounding to Influence.
- Residents and Fellows targeted training sessions.
- Send QIS Tips to increase awareness.
- Incorporate the Great Catch Program in QMD events to recognize more winners and share lessons learned using the Universal Skills for Error Prevention Tools.



Challenges

- Handlers accountability and ownership.
- Completing the investigation within the timeframe, as per APP (APP-15), incident accumulation leads to flagging incidents as overdue, under-review.
- Increased number of non-reportable incidents.
- Difficulty for the handlers in tracking feedback from the investigators. (Delayed or no response).
- Insufficient information from the reporters, especially if they are anonymous.
- Not fully utilizing QIS Features by handlers and QI's, such as timely communication feedback or assigning actions and developing dashboards to monitor the operations.
- Choosing the wrong Level of Harm (LOH).
- Anonymous reporters frustrated, as they do not receive feedback.
- Managers / Handlers need to share incidents and relative QIS data in their departmental meetings and committees as a standing item "Sharing lessons learned".



Next Step 2022

- Include Patient Safety workshops in Quality Management Department's Educational Calendar.
- Redesign the Safety Reporting System (SRS) 101 Workshop to cover concepts of healthy reporting culture.
- Start a Near Miss Reporting Campaign to increase and sustain improvement.
- Include trends and hot topics identified from QIS in the Leadership Rounding to Influence.
- Use a variety of incidents, Near Miss and Sentinel Events as Safety stories.
- Rolling-out the Just Culture Process, use the QIS features to identify applicable cases and track implementation.
- Daily Screening of reported incidents within 24 hours before the Leadership Huddle to share insights and concerns.
- Collaborate with handlers to enhance the process of closing the overdue incidents.
- Continue conducting regular QIS Huddles with Hospital QI designees to monitor the Safety Reporting System operations and tackle handlers' challenges, trending incidents and critical issues.