In Collaboration with

Middle East Forum on Quality & Safety in Healthcare **2023**

16-19 March, Doha

C9: Oral QI Presentations on FLOW, SAFETY, VALUE IMPROVEMENT (Session 3)

Healthcare Resilience in Extraordinary Times

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Middle East Forum on Quality & Safety in Healthcare **2023**

16-19 March, Doha

Think Safe, Act Safe and Be Safe: Paves Way to Environmental Safety Improvement in Al Wakra Hospital Adult Emergency Department

Khaldoun Alfuqaha, RN, MHA
Director of Nursing, AED - AWH

Healthcare Resilience in Extraordinary Times

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Conflict of Interest

“Speakers’ disclosure - I do not have an affiliation (financial or otherwise) with any pharmaceutical and medical devices or communication with event planning company.”

Project Title

Think Safe, Act Safe and Be Safe: Paves Way to Environmental Safety Improvement in Al Wakra Hospital Adult Emergency Department

In Collaboration with
Hamad Medical Corporation
Institute for Healthcare Improvement

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Learning Objectives

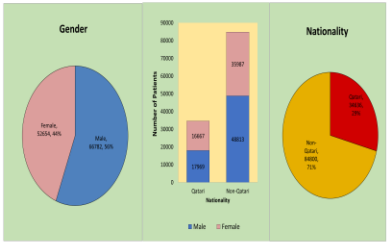
At the end of this session, participants will be able to identify:

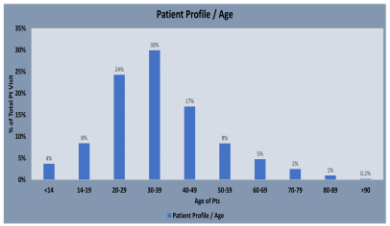
1. The importance of increasing staff compliance with Environmental Safety in the Emergency department.
2. The project methods used to test, pilot, implement, and accelerate the change.
3. The change ideas used to help improve Environmental Safety in Emergency Department.

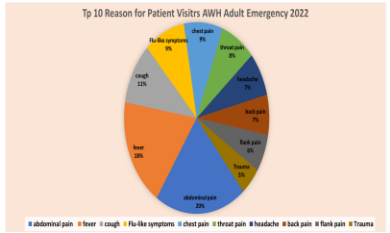
Al Wakra Hospital – Adult Emergency Department (5Ps)

Purpose:
1. To provide timely and appropriate services to all patients seeking emergency care, treatment through immediate triage system and to employ efficient transition for patients requiring admission on 24 hours basis.
2. To meet with the standard practice of care by complying with the policies and procedure set for the Al-Wakra Hospital.
3. To improve the quality of emergency care provided by reviewing practices and adopting performance improvement projects as a vehicle for change and excellence.
4. To maintain patients and family rights by observing confidentiality of information and privacy and maintaining high quality of care

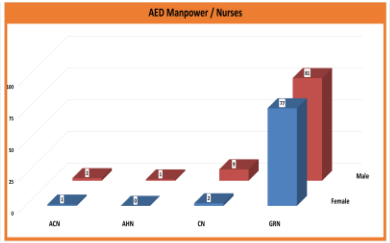
Know Your Patients

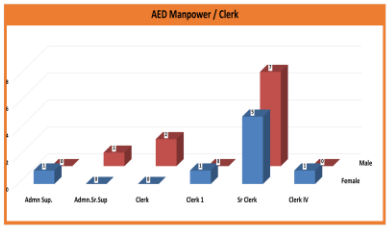


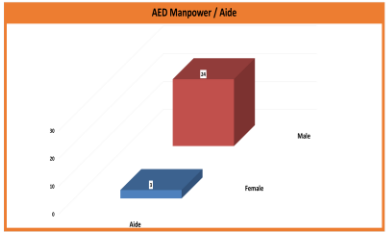




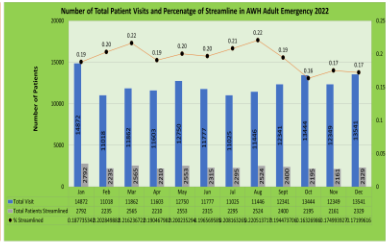
Know Your Professionals

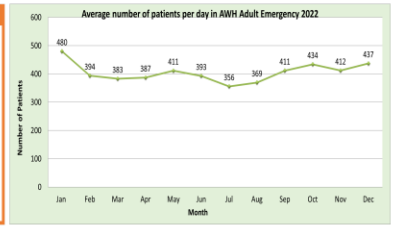


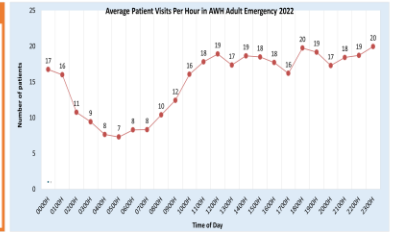




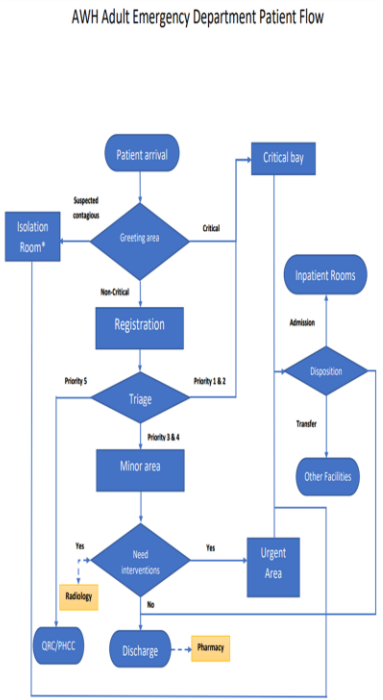
Know Your Patterns



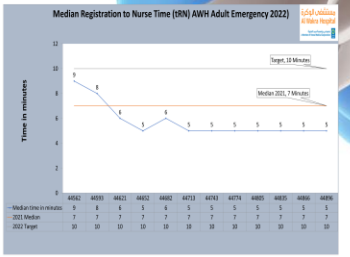


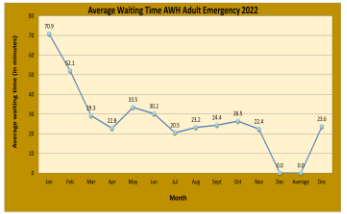


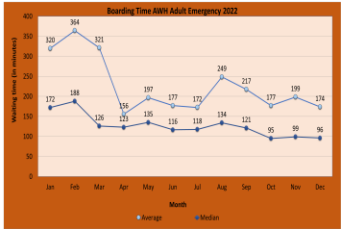
Process Mapping



Know Your Process







In Collaboration with

Hamad Medical Corporation – HEALTH · EDUCATION · RESEARCH

Institute for Healthcare Improvement

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Project Team:

- **Project Lead:** Khaldoun Alfuqaha, DON – AED Al Wakra Hospital
- **Facilitator Admin:** Ayman Tardi, Assistant Executive DON
- **Quality Lead:** Dr. Almunzer Zakaria, Assistant Executive Director QPS
- **Coach:** Muna Abdel Hakim R Atrash, A/Head of QPS
- **Team Members:**
  - Ms. Danna Khrizhia Zapanta, GRN
  - Mr. Rahees Hamza, GRN

Background:

- Hospitals are representative of the complex environment in which different aspects including patients, staff, equipment, services, and information are interfaced. Maintaining a safe environment reflects a level of competent healthcare that must be fulfilled for patient safety.

- Adult Emergency department's overall environmental safety compliance was found to be below 75% in 2021. The safety and well-being of everyone in the emergency department will be ensured by increasing the staff’s adherence to environmental safety, which will also improve the standard of care provided.

Defining the problem:

Problem Statement: In 2021 the overall Environmental Safety staff compliance of the Adult Emergency Department (AED), has been found to be low not exceeding 75%.

Expected Benefits: Increasing the staff compliance with Environmental Safety in the emergency department will result in the following:

1. Ensure the safety and well-being of everyone in the department.
2. Enhance the quality of care offered.
3. Ensuring that the environmental risks are managed appropriately.

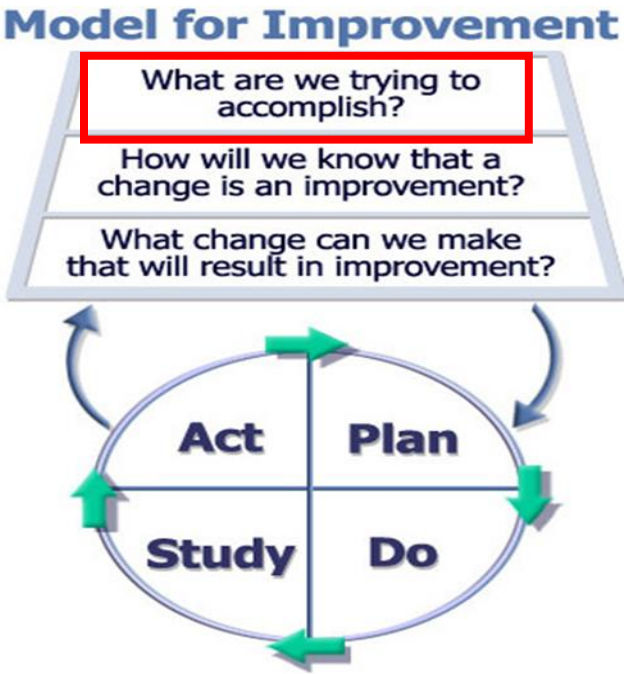
Project Scope: The project on Environmental Safety was implemented across Adult Emergency Department – Al Wakra Hospital regardless of the location.

Starting date: June 2021 **End date:** December 2022

Project Charter

معهد حمد لجودة الرعاية الصحية
Hamad Healthcare Quality Institute

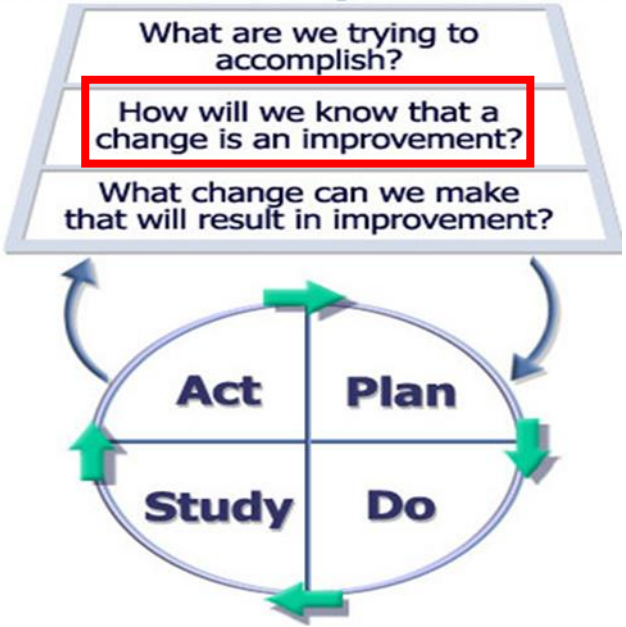
A) Project Title	Think Safe, Act Safe and Be safe: Paves way to Environmental Safety Improvement in AWH-Adult Emergency Department (AED)		
B)Problem Statement *What is the problem?*	In 2021 the overall Environmental Safety compliance of the Adult Emergency Department (AED), has been found to be low not exceeding 75%. The safety and well-being of everyone in the emergency department will be ensured by increasing the staff adherence to environmental safety, which will also improve the standard of care provided.		
C)AIM Statement *SMART: Specific Measurable Achievable Relevant Time-bound*	To Increase environmental safety compliance among AWH-Adult Emergency Staff from 75% to 95% by the end of December 2022.		
D)Business Case *What benefits from with BCA strategy? Why do it? Why now? Literature review.*	To improve the safety and quality of patient care. To have a safe environment for the patients and staff. Reducing the potential to sustain a sharps injury. It also reduces the risk of exposure to blood-borne pathogens and reduces hospital-acquired infections (HAIs).		
E)Project Team	**Name**	**Department**	**Title**
Facilitator Admin	Mr. Ayman Tardi	AWH	Assisstant Executive Director of Nursing
Project Leader(s):	Mr. Khaldoun Alfuqaha	AWH - AED	Director of Nursing
	Dr. Almunzer Zakaria	AWH - QPS	Assistant Executive Director QPS
	1. Ms. Muna Atrash	AWH - QPS	A/Head of QPS
	2. Danna Zapanta	AWH - AED	GRN
	3. Rahees Hamza	AWH - AED	GRN
F)Project Scope	Location: The project on Environmental Safety will be implemented across the Adult Emergency – AWH regardless of the location.		
	Expected **START** date: June 2021	Expected **END** date:	June 2022
G)Measure	**Outcome Measure**	**Process Measure**	**Balance Measure**
	% of Environmental safety compliance in Adult Emergency	• % of Compliance with Proper Waste Segregation • % of Compliance to Consumables Expiration Date • % of Compliance to Storeroom Par Stock Level – Monitoring	• Out Patient fall incident (With Injury) • Number of sharp injuries



Aim Statement

To increase Environmental Safety compliance among AWH – Adult Emergency staff from 75% to 95% by the end of December 2022.

Model for Improvement



Outcome Measure:

- ❑ % of Environmental safety compliance in Adult Emergency

Process Measure:

- ❑ % of Compliance with Proper Waste Segregation
- ❑ % of Compliance to Consumables Expiration Date
- ❑ % of Compliance to Storeroom Par Stock Level – Monitoring

Balancing Measure:

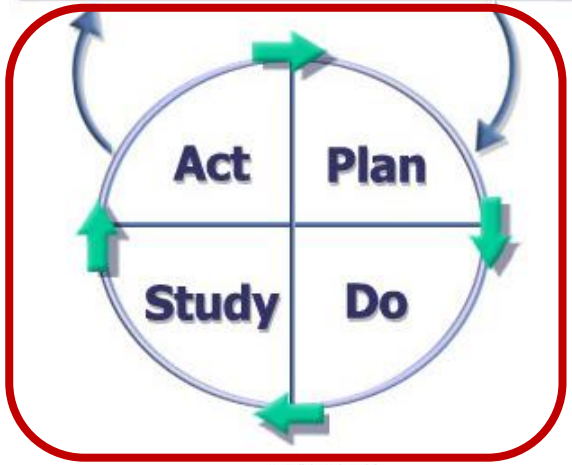
- ❑ Number of sharp injuries
- ❑ IPSGS KPIs

Model for Improvement

What are we trying to accomplish?

How will we know that a change is an improvement?

What change can we make that will result in improvement?



An invasion of armies can be resisted, but not an idea whose time has come

Victor Hugo

1. Environmental Safety audit tool creation
2. Daily Cleanliness and functionality checklist for all AED equipment.
3. Par stock labels with a consumable expiration date in all AED stores.
4. Medical consumables date of expiry updates.
5. Staff and Patient awareness regarding Proper waste segregation.
6. Staff Awareness regarding SPIL procedure protocol.

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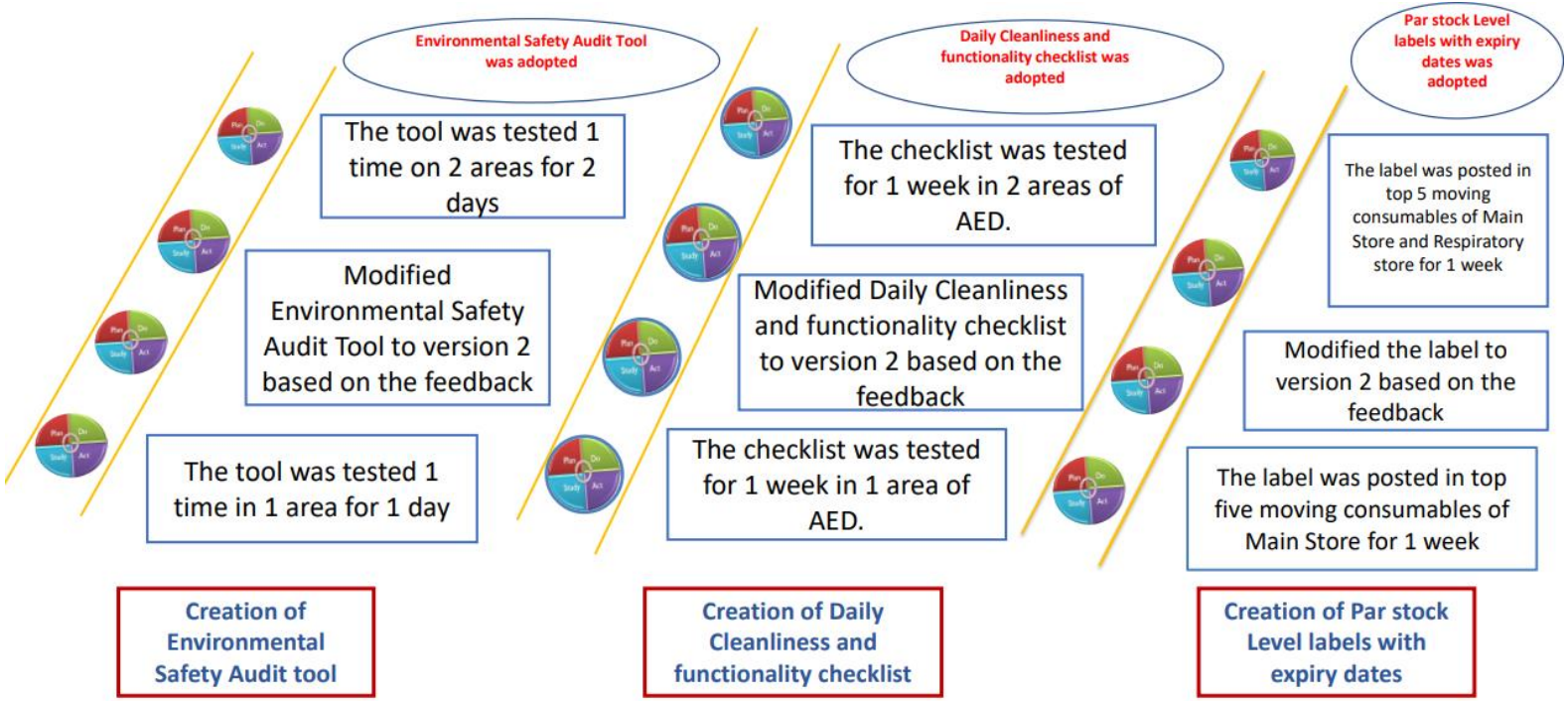
PDSA Ramp


Environmental Safety Audit Tool was adopted
The tool was tested 1 time on 2 areas for 2 days
Modified Environmental Safety Audit Tool to version 2 based on the feedback
The tool was tested 1 time in 1 area for 1 day
Creation of Environmental Safety Audit tool
Daily Cleanliness and functionality checklist was adopted
The checklist was tested for 1 week in 2 areas of AED.
Modified Daily Cleanliness and functionality checklist to version 2 based on the feedback
The checklist was tested for 1 week in 1 area of AED.
Creation of Daily Cleanliness and functionality checklist
Par stock Level labels with expiry dates was adopted
The label was posted in top 5 moving consumables of Main Store and Respiratory store for 1 week
Modified the label to version 2 based on the feedback
The label was posted in top five moving consumables of Main Store for 1 week
Creation of Par stock Level labels with expiry dates

CHANGE IDEA 1

Environmental Safety Audit Tool

Environmental Safety Rounds Audit Tool Components

- Personnel (Dress Code)
- Nurse Station
- Storeroom
- Linen Room
- Utility Room
- Medication Room
- Biomedical Equipments
- Crash Cart
- Staff Awareness to Assigned Patient
- Patient Surrounding Environment

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مستشفى الوكرة
Al Wakra Hospital
عضو في مؤسسة حمد الطبية
A Member of Hamad Medical Corporation

Environmental Safety Rounds

Date: **Location:**

	Evaluation Criteria	Fully Met	Not Met		NA	Observation/Remarks	Follow – up
	1. PERSONNEL (Dress Code)						
1.1	Uniform						
1.2	ID Badge						
1.3	No Jewelry						
1.4	White/Black/Blue "Shoes"						
	2. NURSE STATION						
2.1	Nursing assignment sheet						
2.3	Patient calling system / functioning					-	
2.4	Tidiness						
	Location of Manuals						
2.5	GPP / IPP						
2.6	Current nursing book						
2.7	Infection Control						
2.8	Safety Manuals:						
	2.8.1 Disaster and Fire						
	2.8.2 MSDS						
2.9	Operation manual(s)						
2.10	Drug Information						
2.11	Laboratory						
2.12	Pneumatic Tube System						
	3. STORE ROOM						
3.1	Cleanliness						
3.2	Labeling of itemized supplies with expiry date						
3.4	Hazardous Materials (Lower shelf)						
3.5	MSDS Sheet						
3.6	Monthly checklist for expiry dates						

CHANGE IDEA 2

Daily Cleanliness and Functionality Checklist for all AED equipment.

HAMAD MEDICAL CORPORATION
AL WAKRA HOSPITAL
ADULT EMERGENCY DEPARTMENT

مستشفى الوكرة
Al Wakra Hospital

FEMALE URGENT AREA 1 - DAILY EQUIPMENTS FUNCTIONALITY AND CLEANING CHECKLIST
NURSE 1 - (BED 1 - BED 3)

MONTH: _____ YEAR: _____

NO	EQUIPMENTS		1			2			3			4			5			6			7			8			9			10			11			12			13			14			15		
			D	E	N	D	E	N	D	E	N	D	E	N	D	E	N	D	E	N	D	E	N	D	E	N	D	E	N	D	E	N	D	E	N	D	E	N	D	E	N	D	E	N	D	E	N
1	WELCH ALLYN VITAL SIGNS HBE: 78689	A																																											
		C																																												
		F																																											
2	B.BRAUN INFUSION PUMP (HBE) WITH IP CHARGER (SN)																																													
	Bed 1 HBE: 47372 Serial No: 347515 (1 EACH)	A																																										
		C																																											
		F																																											
	Bed 2 HBE: 73523 Serial No: 483229 (1 EACH)	A																																										
		C																																											
		F																																											
	Bed 3 HBE: 47422 Serial No: 347788 (1 EACH)	A																																										
		C																																											
		F																																											
3	WOW MACHINE asset no. 411554	A																																											
		C																																											
		F																																											
4	BARCODE SCANNER asset no. 450149	A																																											
		C																																											
		F																																											
5	BARCODE SCANNER DOCK SN: 1431300501076	A																																											
		C																																											
		F																																											
6	PORTABLE MONITOR (93300) HBE: 49927	A																																											
		C																																											
		F																																											
7	PORTABLE CARDIAC MONITOR (PHILLIPS) HBE: 121506	A																																											
		C																																											
		F																																											
8	NOVA GLUCOMETER (53712 GLU/KET) HBE: 61227	A																																											
		C																																											
		F																																											
	SN Initial																																													

A - AVAILABILITY OF ALL EQUIPMENTS
C - CLEANING - WITH THE USE OF APPROVED CLEANING MATERIAL
F - FUNCTIONALITY (TEST THE MACHINE: ON/OFF)

CHANGE IDEA 3

Par Stock Label with consumable expiration date in all AED stores.

Item Name	SYRINGE WITH NEEDLE 22G (38mm) 5ml - 91104		
Expiry Date			
Min. Amount:	936	Max. Amount:	1168
Critical Amount:	749		

January - 2023

Item Name	SYRINGE WITH NEEDLE 20CC 91112		
Expiry Date			
Min. Amount:	203	Max. Amount:	254
Critical Amount:	163		

January - 2023

Item Name	SYRINGE WITH NEEDLE 10CC 21GX1.5 - 91120		
Expiry Date			
Min. Amount:	656	Max. Amount:	819
Critical Amount:	525		

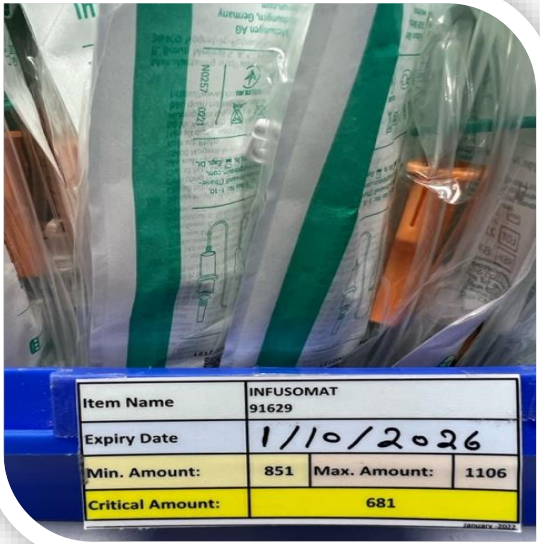
January - 2023

Item Name	SYRINGE 60CC LUER LOCK TIP WITHOUT NEEDLE - 91170		
Expiry Date			
Min. Amount:	24	Max. Amount:	30
Critical Amount:	19		

January - 2023

Item Name	SYRINGE CATHETER TIP 60CC WITHOUT NEEDLE - 91171		
Expiry Date			
Min. Amount:	14	Max. Amount:	17
Critical Amount:	11		

Item Name	SYRINGE INSULIN U100 1CC 30G X 8MM - 91186		
Expiry Date			
Min. Amount:	58	Max. Amount:	73
Critical Amount:	47		



OTHER CHANGE IDEAS

Staff Awareness regarding SPIL procedure protocol.

Staff and Patient awareness regarding Proper waste segregation.

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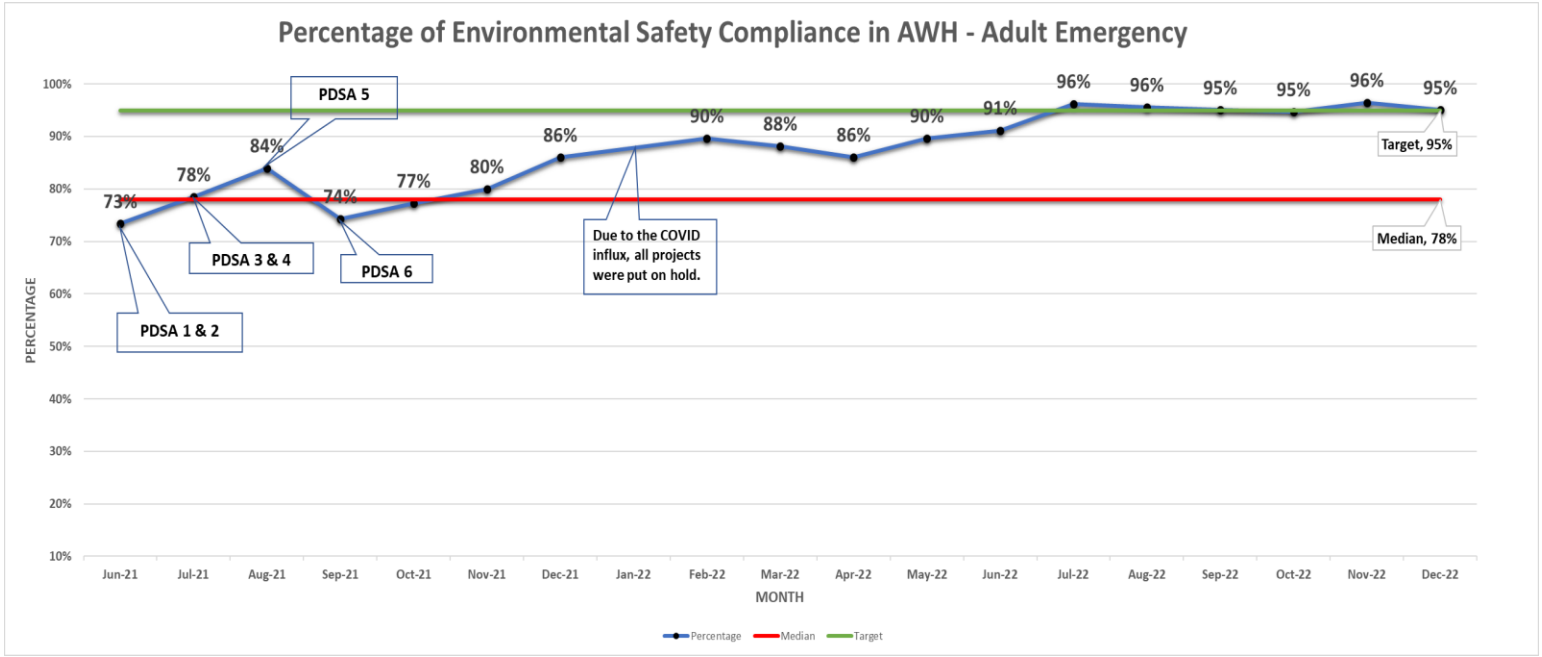
Results and Chart:

- The result has been sustained through the second half of 2022. Despite major challenges posed by the layout of the adult emergency department, the healthcare team was able to achieve 95% compliance with environmental safety criteria standards



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Conclusion:

- Developing the environmental safety surveillance audit tool assists the team in determining the areas that require improvement.
- Par stock Level labels with expiry dates were effective since inventory stock was manage efficiently.
- In order to ensure patient safety, a safe environment must represent a certain standard of competent healthcare.
- Controlling waste disposal by the patient and family members was one of the challenges that was discovered.

Sustainability Plan:

- Establishes a focal group in each area of Adult Emergency that would conduct rounds twice a month to ensure and monitor adherence to Environmental Safety.
- Environmental Safety audit reports are discussed each month during unit meetings to let the staff know about any deficiencies so that they will be aware and will be able to prevent it in the future.
- Conduct quarterly environmental safety awareness campaign to all the staff, patients and relatives.

Think Safe, Act Safe and Be Safe: Paves Way to Environmental Safety Improvement in Al Wakra Hospital Adult Emergency Department

BACKGROUND AND PROBLEM:

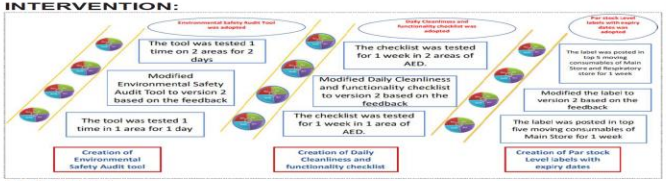
Hospitals are representative of the complex environment in which different aspects including patients, staff, equipment, services, and information are interfaced. Maintaining a safe environment reflects a level of competent healthcare that must be fulfilled for patient safety.

The Adult Emergency department's overall environmental safety compliance was found to be below 75% in 2021. The safety and well-being of everyone in the emergency department will be ensured by increasing the staff's adherence to environmental safety, which will also improve the standard of care provided.

AIM:

To increase Environmental Safety compliance among AWH – Adult Emergency staff from 75% to 95% by the end of December 2022.

INTERVENTION:



RESULTS:

Percentage of Environmental Safety Compliance in AWH – Adult Emergency

Al Wakra Hospital

Adult Emergency Department

TEAM:

Lead Author: Khaldoun Alfuqaha – DON, Adult Emergency

Co-Authors: Danna Khrizhia Zapanta – GRN, Adult Emergency

Rahees Hamza – GRN, Adult Emergency

PROJECT SPONSOR:

Ayman Tardi, Assistant Executive DON - AWH

COACH:

Muna Abdel Hakim R Atrash, A/Head of QPS - AWH

CONCLUSIONS:

- Developing the environmental safety surveillance audit tool helped the team in determining the areas that require improvement. Par stock Level labels with expiry dates were effective since inventory stock was managed efficiently. In order to ensure patient safety, a safe environment must represent a certain standard of competent healthcare.

NEXT STEPS:

- Establishes a focal group in each area of Adult Emergency that would conduct rounds twice a month to ensure and monitor adherence to Environmental Safety.
- Environmental Safety audit reports are discussed each month during unit meetings to let the staff know about any deficiencies so that they will be aware and will be able to prevent them in the future.
- Conduct quarterly environmental safety awareness campaigns for all the staff, patients, and relatives.

REFERENCES:

- Joint Commission International. JCI accreditation standards for hospitals 7th Edition. Illinois: Joint Commission Resources; 2020.
- Hamad Medical Corporation. SA 1070 Multidisciplinary Environmental Rounds. 2019 July.
- Hamad Medical Corporation. CL 7249 Management of Infectious Waste. 2019 January.

Middle East Forum on Quality & Safety in Healthcare **2023**

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Thank you!

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Middle East Forum on Quality & Safety in Healthcare **2023**

16-19 March, Doha

Order less, Save MORE (Improvement journey to reduce unnecessary laboratory test orders in NCCCR W2)

Nevine Rasheed

Healthcare Resilience in Extraordinary Times

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Conflict of Interest

The speaker(s) or presenter(s) in this session has/have no conflict of interest or disclosure in relation to this presentation.

Title

Order less, save MORE

(Improvement journey to reduce unnecessary lab test orders in NCCCR W2)

Nevine Rasheed

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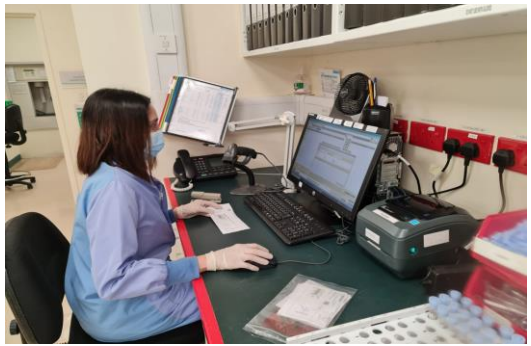
Learning Objectives

At the end of this session, participants will be able to:

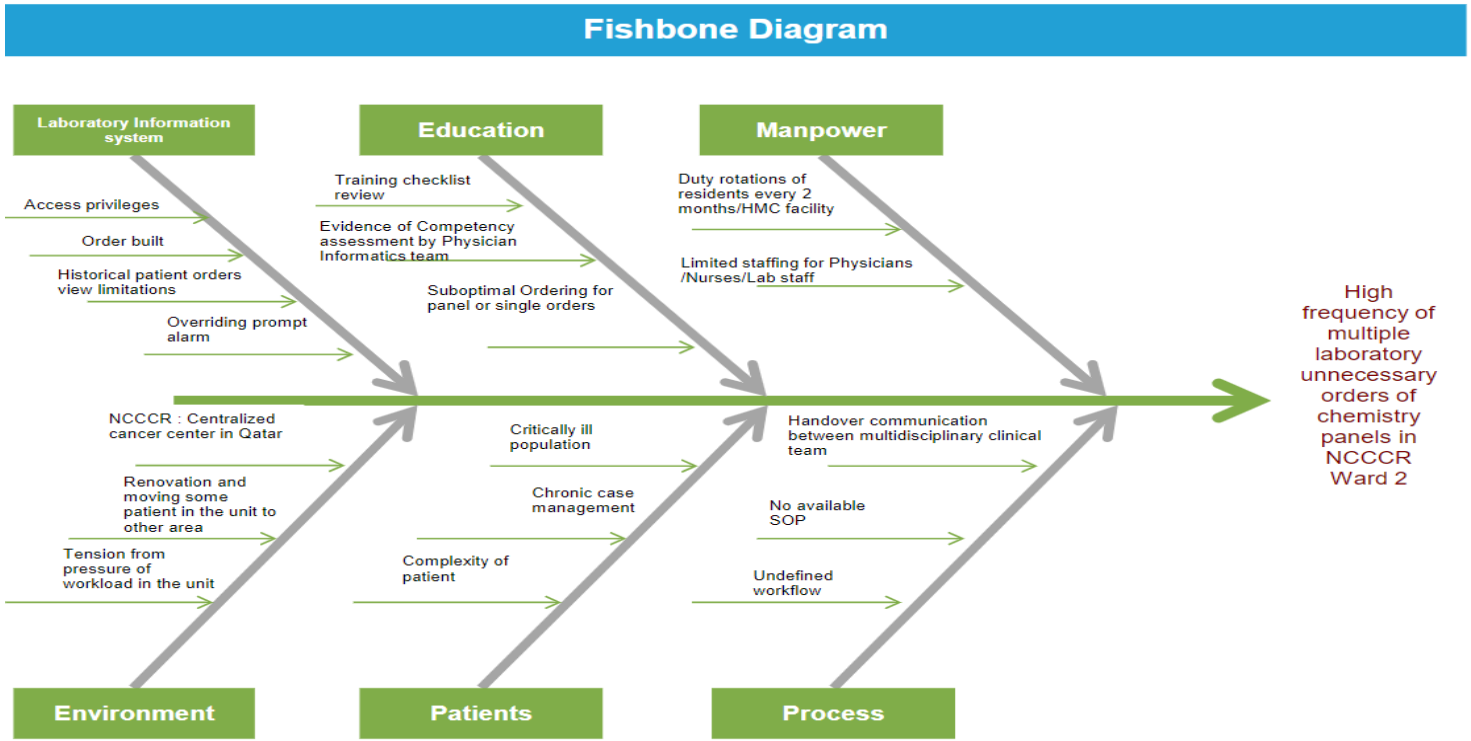
1. Healthcare providers will be thoroughly realized the quality versus quantity of ordering laboratory tests for admitted patients in hospitals specially for Oncology cases.
2. Efforts to reduce the frequency of laboratory orders can improve patient satisfaction and reduce cost without negatively affecting patients' outcomes

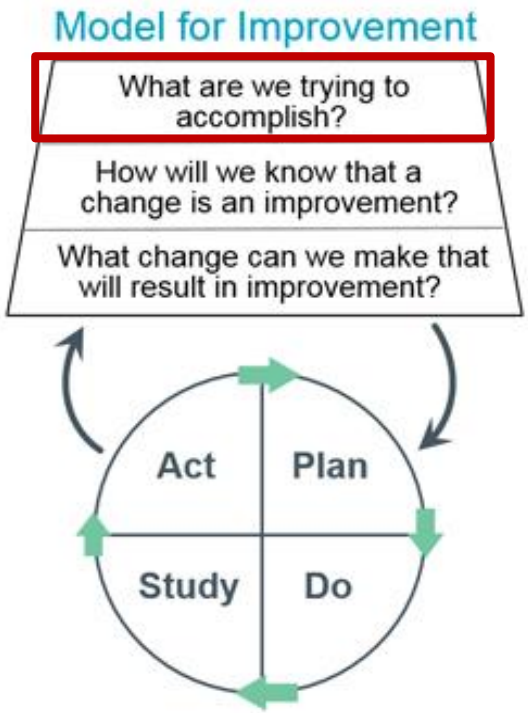
Background / Introduction:

- Lab orders in information system is considered a critical platform for efficiency and productivity among licensed caregivers in patient management.
- In Nov-2020, There were average of 900 unnecessary and repeated tests ordered were Cancelled in information system by NCCCR lab technical staff.
- After investigation , It was found that there was multiple unnecessary orders of Chemistry Panels which were ordered by residents in NCCCR W2 unit
- Which lead to increased number of collected unnecessary multiple specimens' containers, time consuming for physicians, nurses, and lab staff and eventually lead to increase cost burden.



Cause and Effect Diagram





To reduce the high frequency of multiple laboratory unnecessary orders of chemistry panels in NCCCR Ward 2 from 90% (Nov. 2020) to 50% by Sept. 2021 and then from 50% to 10% by the end of Feb. 2023

Model for Improvement

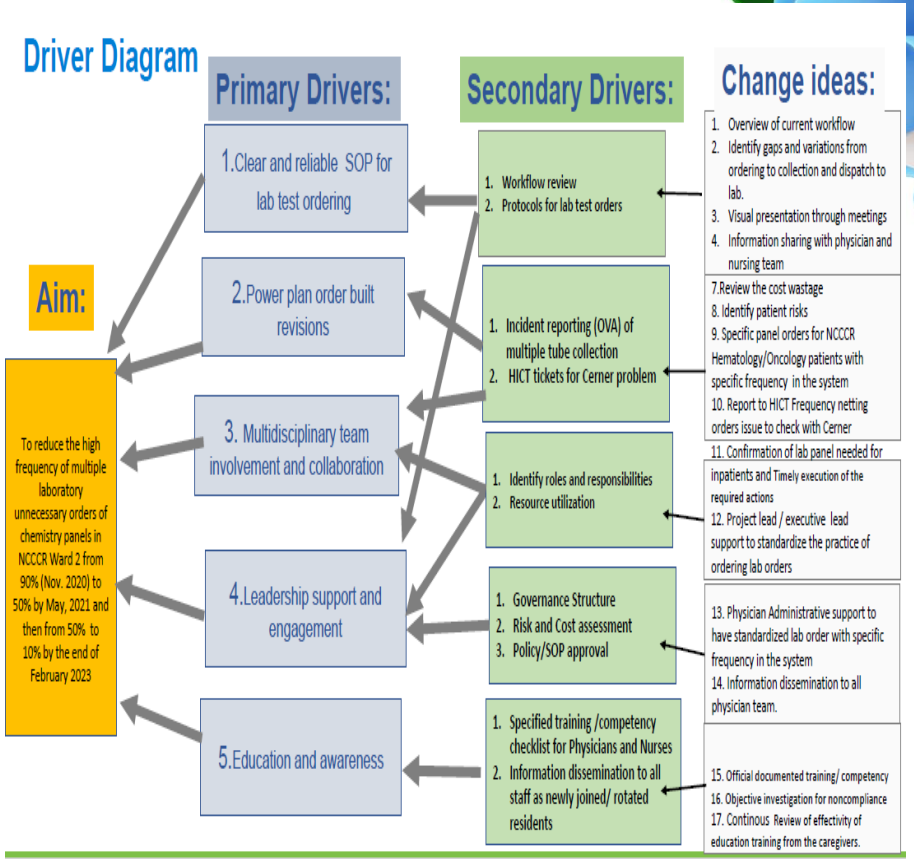
Outcome measure:
Percentage (%) change in multiple tests/orders for Chemistry / Hematology in a monthly basis

Process measures:
Number of Canceled tests and orders done by laboratory staff

Balancing measures:
Percentage (%) cost reduction in a month from the cancelled tests/orders

Model for Improvement

Driver Diagram



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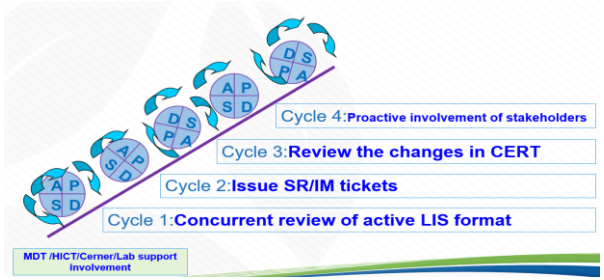
Model for Improvement

What are we trying to accomplish?

How will we know that a change is an improvement?

What change can we make that will result in improvement?



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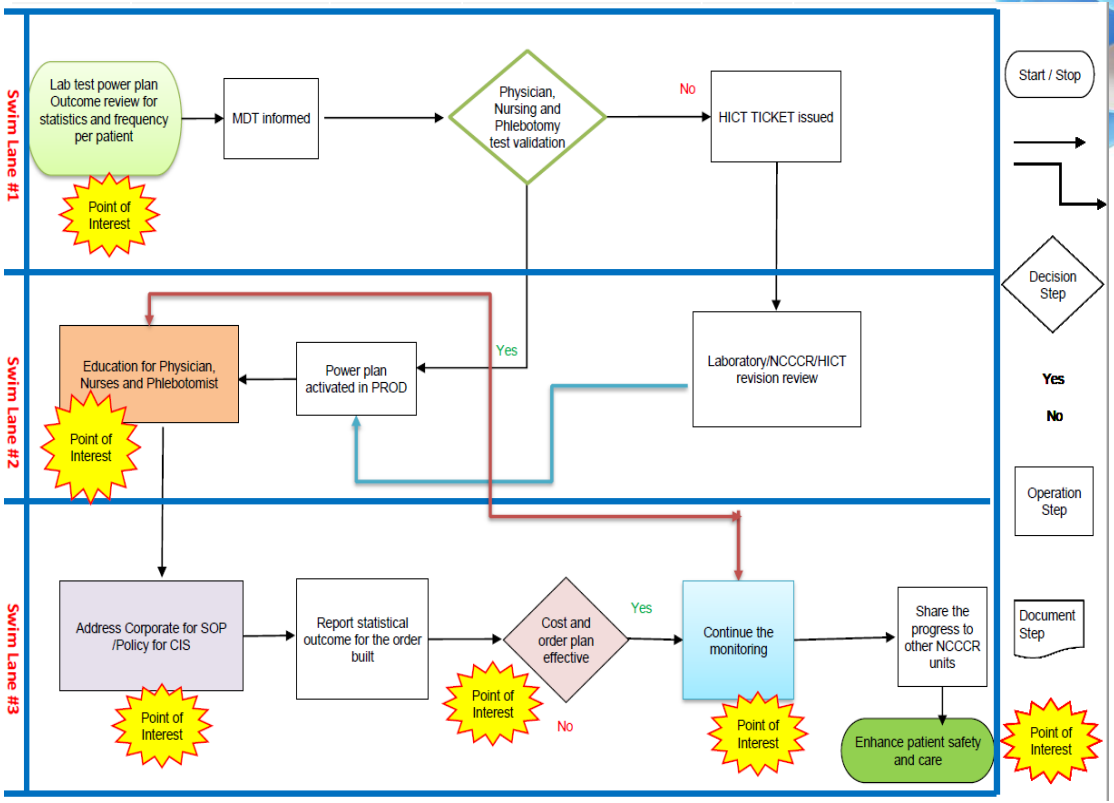
Changes Made to the Process

- Multidisciplinary team involvement and collaboration.
- Leadership support and engagement
- information System order-built revisions
- Continues Education and awareness program for physicians in lab tests ordering
- Clear and reliable written procedures for laboratory test ordering
- Regular Audit and feedback on provider ordering practice



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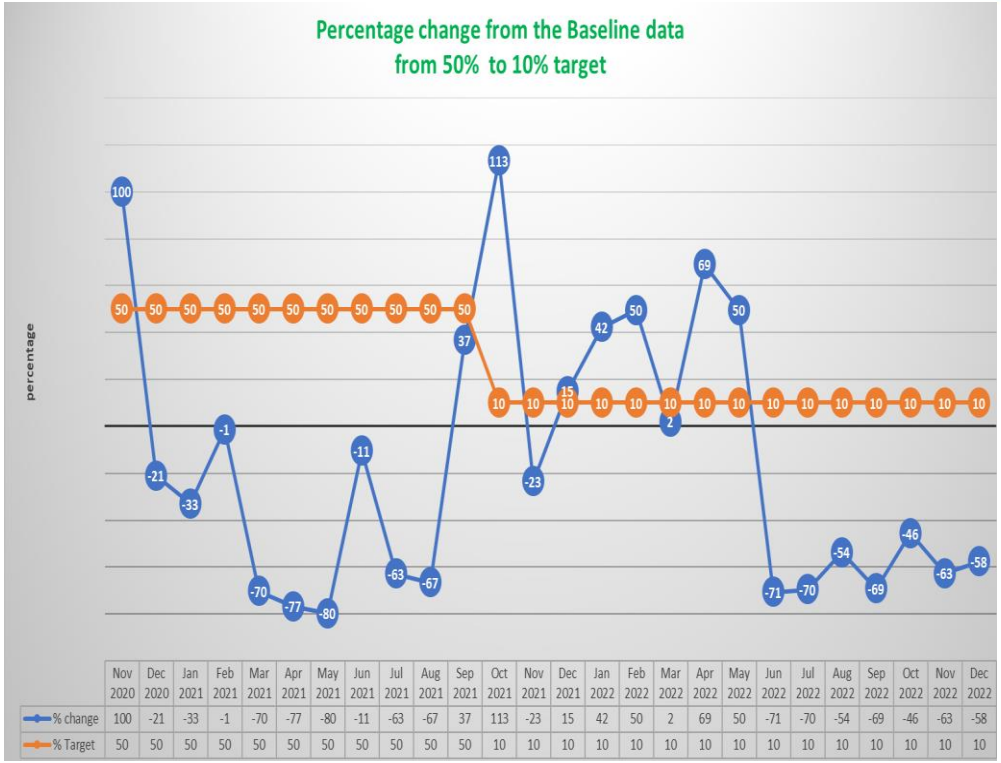
Results and Charts :

- The nursing and laboratory's immediate actions from Dec. 2020 onwards contributes a major reduction beyond the 50% from baseline data by 3rd Q (2021) and below 10% by the mid-year of 2022 - as for the extra tasks of cancellation and adding orders on single tube to eliminate blood wastage and over testing.
- Additionally, the order built created for NCCCR in (2021) and information system upgrade (mid of 2022) contributes to beyond the 10% expectations reduction compared to the baseline data last Nov. 2020.



	Nov 2020	Dec 2020	Jan 2021	Feb 2021	Mar 2021	Apr 2021	May 2021	Jun 2021	Jul 2021	Aug 2021	Sep 2021	Oct 2021	Nov 2021	Dec 2021	Jan 2022	Feb 2022	Mar 2022	Apr 2022	May 2022	Jun 2022	Jul 2022	Aug 2022	Sep 2022	Oct 2022	Nov 2022	Dec 2022
% change	100	-21	-33	-1	-70	-77	-80	-11	-63	-67	37	113	-23	15	42	50	2	69	50	-71	-70	-54	-69	-46	-63	-58
% Target	50	50	50	50	50	50	50	50	50	50	50	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

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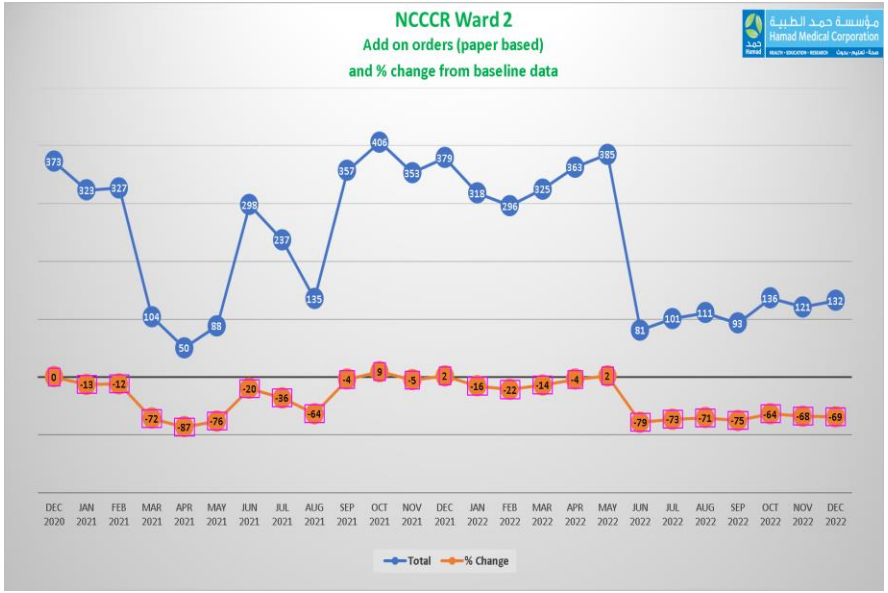
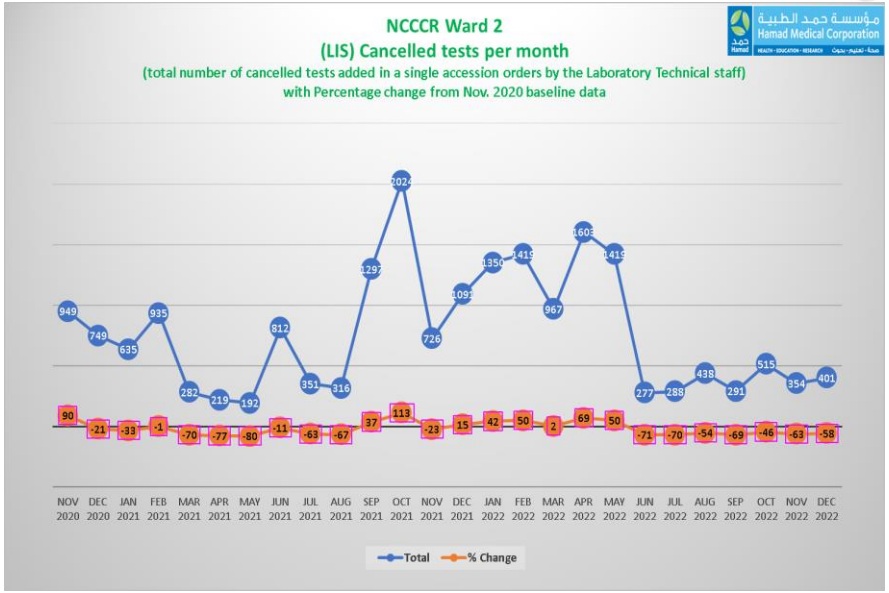
Results and Charts :





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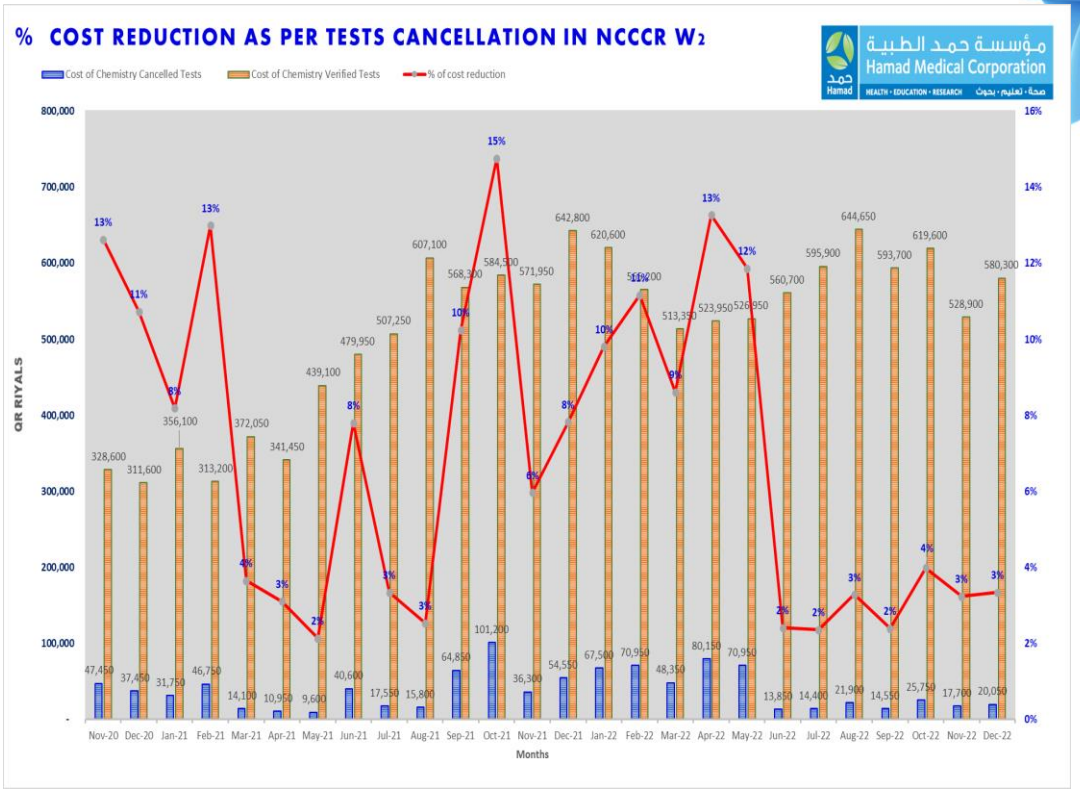
Results and Charts:

In terms of Cost:

There was an annual savings of half a million riyals as for the 2- 15% cost reduction for a period of 24 months which concludes an effective utilization of resources



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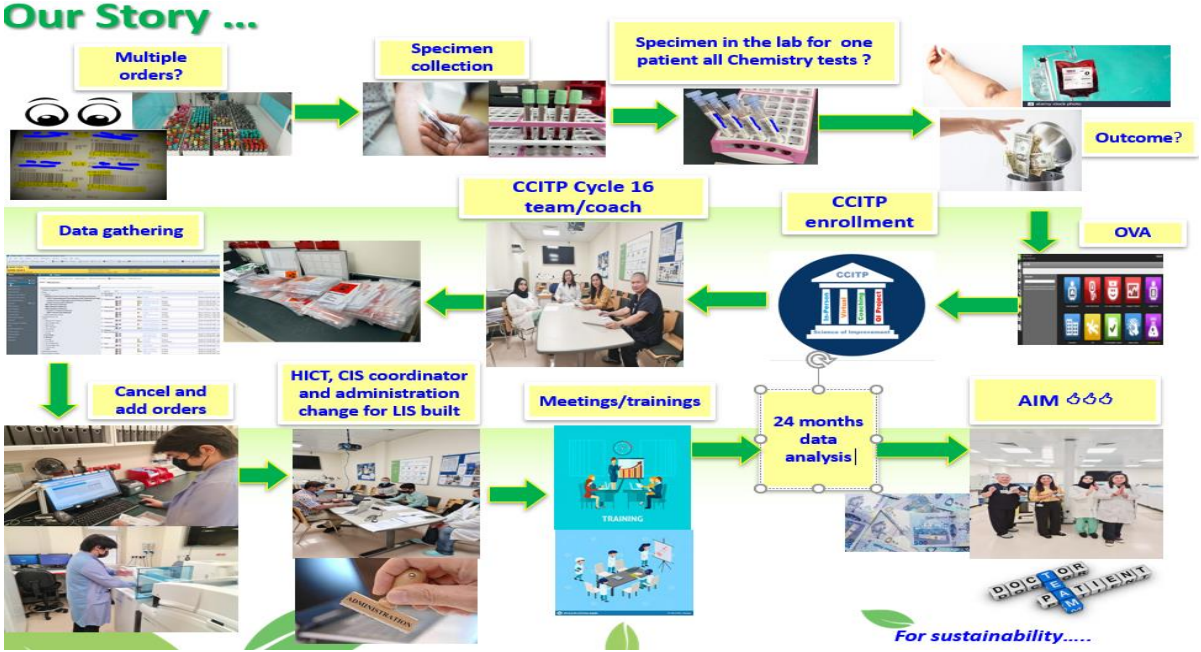
Next Steps & Sustainability Plan for 2023

Action Item (What)	Responsible Person (Who)	Deadline (When)
Hematology /Oncology tests review	NCCCR Hematology/Oncology Administration and Physician team	December 2021
NCCCR WARD 2 test/order frequencies /patient	NCCCR Hematology/Oncology Administration and Physician team. DLMP Administration (Chemistry/Hematology division)	December 2021
LIS Order built in Cerner	HICT, Cerner and Lab support and NCCCR DLMP	June 2022
Training and Competency for new residents	CIS Educators	ongoing
Physician CIS Policy and Procedure	HMC Corporate AOP, RACS team and NCCCR Administration	June 2023
Share with other NCCCR units (W1,W3,PCU, UCU,DCU)	NCCCR Hematology/Oncology Administration and Physician team; NCCCR Nursing team and Quality management team.	December 2023

The improvement Journey :

It’s an Inspirational and motivational experience, builds team value and elevated respect as for the variability in the team working environment.



Order less , Save MORE
(Improvement journey to reduce unnecessary laboratory test orders in NCCCR W2)

BACKGROUND AND PROBLEM:

Laboratory orders in Cerner is considered a critical platform for efficiency and productivity among licensed caregivers in patient management. Last Nov-2020, there were average of 900 unnecessary and repeated tests ordered and were cancelled in Cerner by NCCCR lab Technical staff.

It was found that overuse in Chemistry Panels were ordered by residents in NCCCR W2. Which lead to increased number of collected unnecessary specimens, time consuming for physicians, nurses, and lab staff and eventually lead to increase cost impact.

AIM:

To reduce the high frequency of multiple laboratory unnecessary orders of chemistry panels in NCCCR Ward 2 from 90% (Nov. 2020) to 50% by Sept. 2021 and then from 50% to 10% by the end of Feb. 2023

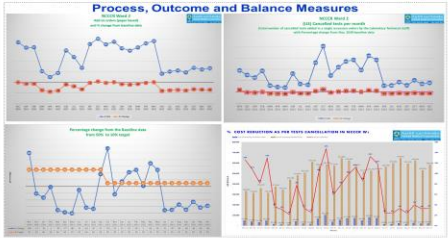
For the Patient: This initiative will have high impact in improving patient safety, satisfaction, and care as it will minimize the incidence of multiple patient prick; reducing patient discomfort, pain, and potential risk for infection. It aims to minimize in vivo effects of unnecessary blood for chronic case patients' collections thereby enhancing effectiveness of chronic case management.

For the organization: Through this collaborative approach the organization will benefits by enhancing the delivery of safe and efficient care to the patient with minimal cost. This will correct the system-built defects and will reduce the extra processing of printing labels and add on orders to merge the created multiple orders and eliminate the frequency netting orders which have huge impact in the future national insurance scheme.

INTERVENTION:

المركز الوطني لعلاج وأبحاث السرطان NCCCR
National Center for Cancer Care & Research
Department of Laboratory Medicine and Pathology

RESULTS:



TEAM:

- Nevine Rasheed (NCCCR Laboratory Supervisor)
- Gilrose B. Bautista (NCCCR Quality Officer/Sr. Technologist)
- Orland C. Marasigan (Clinical Imaging Technologist)
- Mohammad Fayiz Othman Atieh (NCCCR W2 Head Nurse)

PROJECT SPONSOR:

Dr. Mohd Salam (NCCCR Medical Director),
Dr. Javid Gazlev (Senior Consultant, Chief of Medical staff and NCCCR)
Dr. Firyal Ibrahim (NCCCR Laboratory Director)

COACH:

- Emelita J. Ison (NCCCR Manager, Quality Improvement)
- Lamiaa Mohd Refaat E. Saleh (NCCCR Senior, Quality Improvement)

CONCLUSIONS:

- **The nursing and laboratory's immediate actions from Dec. 2020 onwards contributes a major reduction beyond the 50% by 3rd Q (2021) and below 10% by the mid-year of 2022 - as for the extra tasks of cancellation and adding orders on single tube to eliminate blood wastage and over testing**
- **Additionally, the order built created for NCCCR in (2021) and the program upgrade (2022) contributes to beyond the 10% expectations reduction compared to the baseline data last Nov. 2020**
- **With an annual savings of half a million riyals as for the 2- 15% cost reduction for a period of 24 months which concludes an effective utilization of resources.**

NEXT STEPS:

REFERENCES:

- Why Doctors order too many tests, Harriet Hall, Science based Medicine, July 1, 2014
- Evidence based guidelines to eliminate repetitive laboratory testing, JAMA Internal Medicine, October 16, 2017
- Strategies for reducing the ordering of unnecessary Laboratory tests, John Soltys, CJMLS, 2016.

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Middle East Forum on Quality & Safety in Healthcare **2023**

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References:

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Thank you

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16-19 March, Doha

Order less, Save MORE (Improvement journey to reduce unnecessary laboratory test orders in NCCCR W2)

Shatha Alqam

A/Clinical Pharmacist – PharmD, CPHQ

Mental Health Hospital - HMC

Healthcare Resilience in Extraordinary Times

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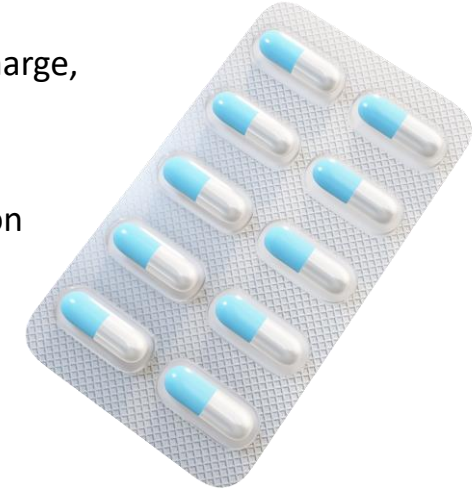
Conflict of Interest

I (we) do not have an affiliation (financial or otherwise) with any pharmaceutical and medical devices or communication with event planning company.

Learning Objectives

At the end of this session, participants will be able to:

1. Explain the background and challenges faced in medication reconciliation upon discharge in Mental Health Hospital (MHH).
2. Discuss the methods used to improve medication reconciliation upon discharge, including the creation of a discharge email group and a template-form for communication.
3. Present the results of the project, including the improvement of medication reconciliation , resolution of discrepancies, and the utilization of pharmacy medication resources.



Introduction :

Patients' prescriptions upon discharge is known to cause some discrepancies which might negatively affect the patients as well as the quality of care.

This is especially true in mental health hospitals where the number and timing of patient discharges can be unpredictable. As a result, pharmacists may have difficulty conducting proper medication reconciliation, and delays in providing necessary medications - including patient-owned, non-psychotropic, and specially-brought medications - may occur. Additionally, there may be challenges in providing adequate pharmaceutical services and counseling to discharged patients.

Aim :

To address this issue, a quality improvement project was initiated to improve medication reconciliation upon discharge from 40% (baseline) to 95% by the end of September 2022 at a Mental Health Hospital (MHH).

The secondary objectives were to secure a full supply of discharge medication for a complete dispensing process, assure that patients received their own medications, or any medications brought specifically for them upon discharge, and ensure that patients received proper counseling by clinical pharmacists.

Measures :

Process Measure :

•Percent of discharge patients who pharmacist completed the form for them (in relation with total number of discharge patient)

•Number of education sessions received by residence about medication reconciliation importance and process.

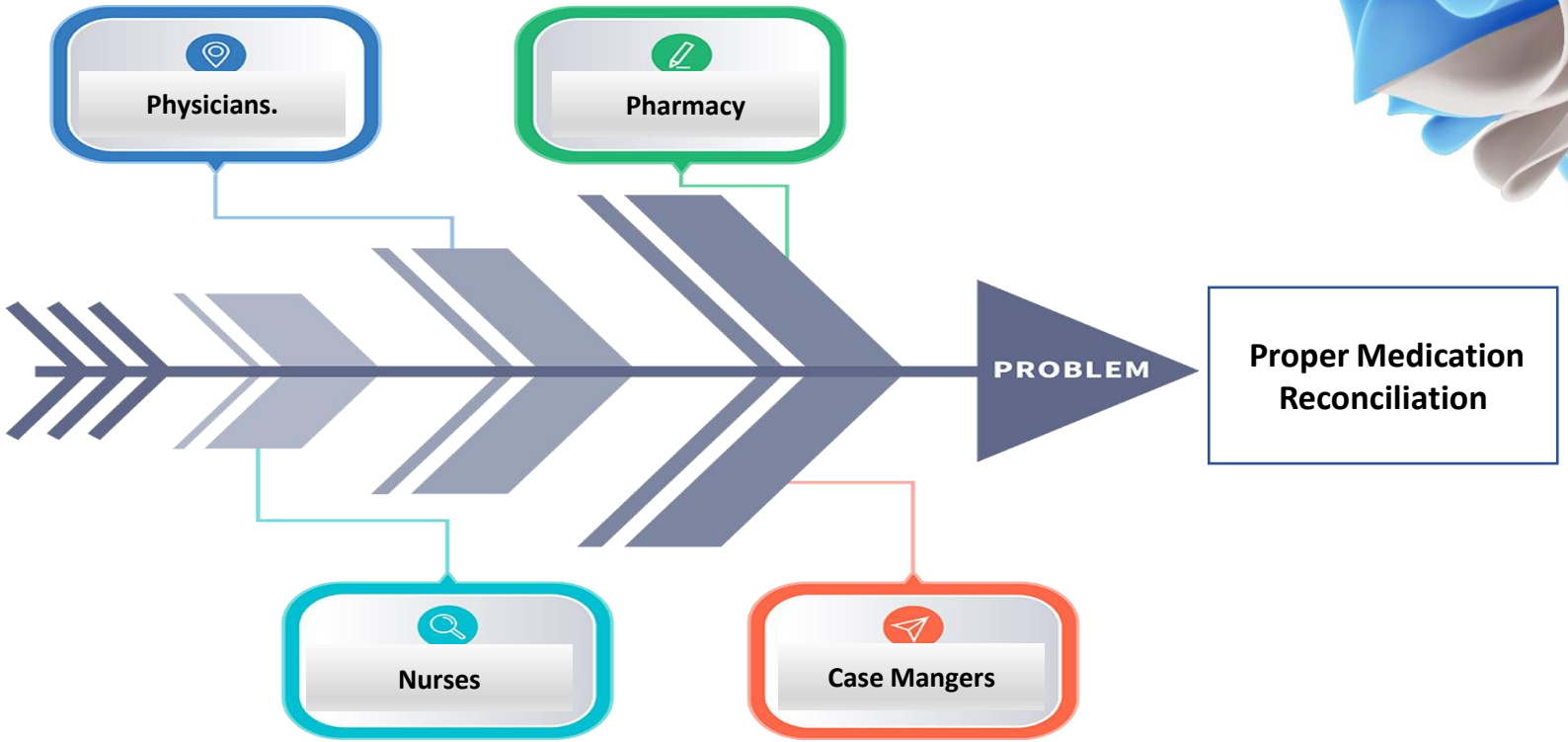
•Percentage of patients received counseling upon discharge

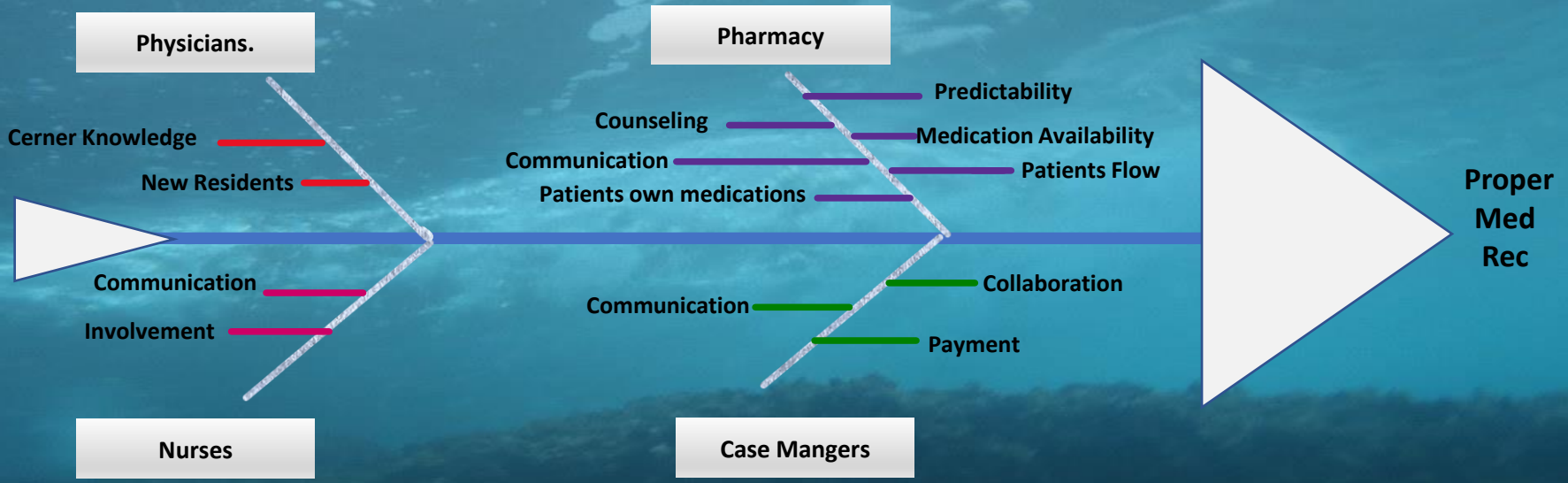
Outcomes Measure :

•Percentage of discharge patients who got medication reconciliation upon discharge

Balance Measure :

•Staff satisfaction to new workflow through a satisfaction survey after the completion of the project.


Physicians.
Pharmacy
PROBLEM
Proper Medication Reconciliation
Nurses
Case Mangers


Physicians.
Cerner Knowledge
New Residents
Communication
Involvement
Nurses
Pharmacy
Predictability
Counseling
Medication Availability
Communication
Patients Flow
Patients own medications
Communication
Collaboration
Payment
Case Mangers
Proper Med Rec

Step 1 : Plan
- Improve Med Rec upon discharge and improve discharge process in pharmacy

Step 2 : Do
- Start new workflow

Step 3 : Study
- Med rec. improved by 88%- Low satisfaction

Step 4 : Act
- Do PDSA again

Step 1 : Plan
- Increase staff satisfaction, enhance discharge predictability

Step 2 : Do
- Modify workflow-Discharge email Group & involve case managers

Step 3 : Study
- New Resident

Step 4 : Act
- Do PDSA again

Step 1 : Plan
- provide education to new residents

Step 2 : Do
- one-on-one education by a consultant

Step 3 : Study
- Med rec. improved by 99

Step 4 : Act
- Do PDSA again

Step 1 : Plan
- Maintain medication reconciliation at 95%

Step 2 : Do
- Implement project as daily activity

Step 3 : Study
- continue data collection

Step 4 : Act
- Monitor every three months.

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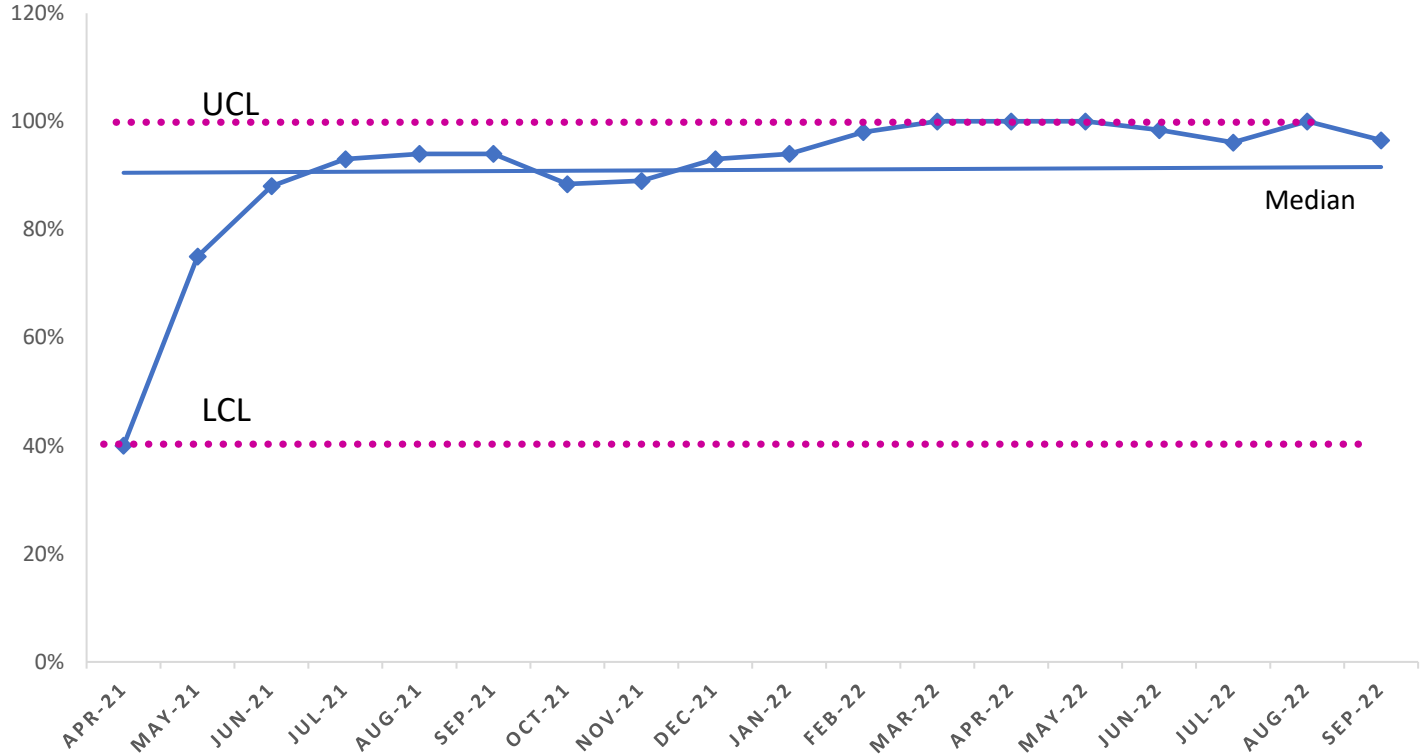
MEDICATION RECONCILIATION



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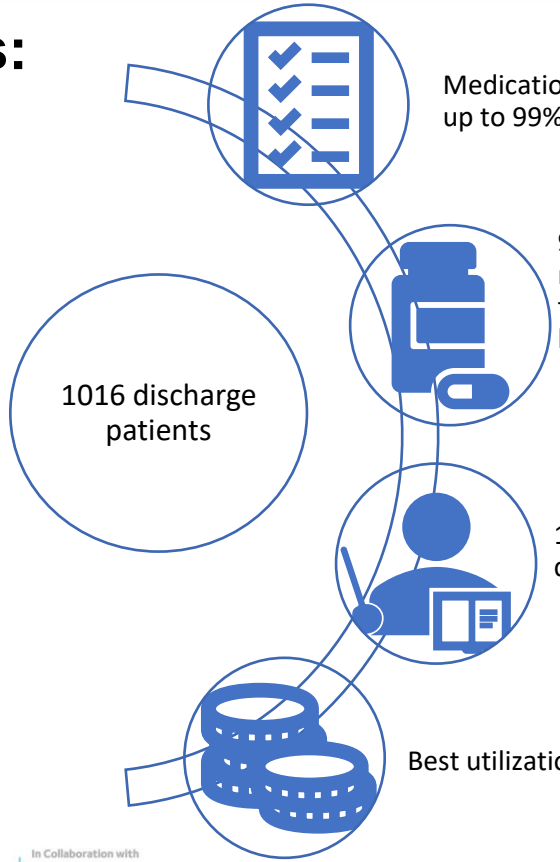
Results:



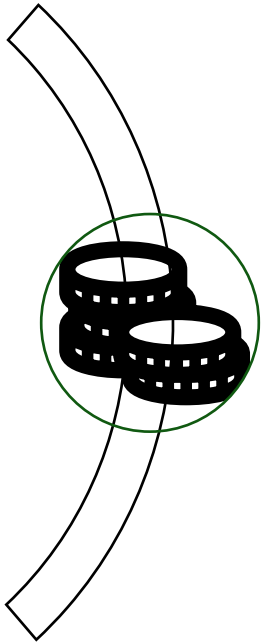
Medication Reconciliation was improved up to 99%

99.4% of patients were provided with all their medications at the time of discharge, including their own medications as well as any medications brought specifically for them.

100 % of the patients were counseled upon discharge

Best utilization of pharmacy medication resources

Results:



Best utilization of pharmacy medication resources

13% of patients had significant discrepancies in medication reconciliation process. All were resolved by pharmacists, including medication omission, duplication, and wrong medication

- 13 patients had their own medications received upon discharge
- 30 Patients received expensive medications that brought specifically for them
- 16 near expiry medications utilized
- 58 medications from patient-specific bins used instead of being wasted

Conclusion :

Notable progress has been made in the reconciliation rate, and we have successfully implemented and sustained the new workflow. Furthermore, we have achieved exceptional medication utilization, effective communication, and high levels of staff and patient satisfaction.

Next steps :

To ensure the ongoing sustainability of this improvement, it is recommended that monitoring and analysis of the progress be conducted every three months. This will enable the identification of any potential areas for further enhancement and ensure that the progress achieved thus far is maintained.

Thank you.