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

Quality and Safety Report

First Quarter 2025

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Executive Summary

Executive Summary

Sentinel Events & Corrective Actions Backlog

Corrective Actions (Effectiveness/Status)	
Riyadh	49% of the actions are strong
Jeddah	17% of the actions are strong
Madinah	40% of the actions are strong

Sentinel Events	
Riyadh	3
Jeddah	1
Madinah	1

Complete

In Process

Overdue

Executive Summary

Mortality		
Site	Category	
	Category (4) Unexpected preventable death)	**Category (2)** (Expected death, with omission or commission)
Riyadh	3	1
Jeddah	1	0
Madinah	1	0

Morbidity		
Site	Category	
	Major	Serious
Riyadh	4	0
Jeddah	0	0
Madinah	1	1

Medicolegal	
Riyadh	5
Jeddah	3
Madinah	0

New process developed for the medicolegal cases with Ministry of Justice

Accreditation	
Riyadh	1
Jeddah	3
Madinah	1

Executive Summary

Domain: Safety

KPI	R	J	M
Serious Safety Event Rate (SSER) per Adjusted Patient Days			
A Percent of surveyed patients with Hospital Acquired pressure injury (stage 2 and above)			
Pressure Injury Rate			
Falls with Injury			
Central Line (CLABSI) Rate			
Catheter-Associated Urinary Tract Infection (CAUTI) Rates			
Surgical Site Infection (SSI) Rate			
Multi-Drug-Resistant Organism (MDRO) Rate			
Hand Hygiene			
% Near Miss Events			
Number of Safety Reports			
# HA-VTE Preventable Events			
% Medication Override from the Automated Dispensing Cabinets (ADC)			
% Admission Medication Reconciliation			
% Discharge Medication Reconciliation			
Rate Reported Medication Errors per 1000 adjusted patients days			
%Medication Errors Reaching the patient			

Area of strength

Area for Improvement

No Data Provided

Not Active/discontinued

Not strength nor Improvement

Executive Summary

Domain: Access

KPI	R	J	M
Outside referral to decision waiting time "hr"			
Emergency Room (ER) waiting time to be seen "min".			
Emergency Room (ER) Boarding Time "hr."			
New Patient (NP) first encounter < 2 weeks			
Emergency Room (ER) Left without seen			
All Radiology studies average waiting time for Priority 1			
Fluoroscopy average waiting time for Priority 1			
CT average waiting time for Priority 1			
NM average waiting time for Priority 1			
MRI average waiting time for Priority 1			
US average waiting time for Priority 1			
PET/CT average waiting time for Priority 1			
Mammography average waiting time for Priority 1			

- **Area of strength**
- **Area for Improvement**
- **No Data Provided**
- **Not Active/discontinued**
- **Not strength nor Improvement**

Executive Summary

Domain: Efficiency

KPI	R	J	M
% Operating Room (OR) utilization rate			
Average Length of Stay (ALOS)			
Bed Occupancy Rate			
Operating Room (OR) Cancellation			

- Area of strength
- Area for Improvement
- No Data Provided
- Not Active/discontinued
- Not strength nor Improvement

Executive Summary

Domain: Effectiveness

KPI	R	J	M
Readmission Rate < 7 days			
Door To Balloon Time			
100-day patient mortality rate for allogenic stem cell transplants for pediatrics			
100-day patient mortality rate for autologous stem cell transplants for pediatrics			
100-day patient mortality rate for allogeneic stem cell adult patients			
100-day patient mortality rate for autologous stem cell transplant adult patients			

- Area of strength
- Area for Improvement
- No Data Provided
- Not Active/discontinued
- Not strength nor Improvement

Executive Summary

Domain: Appropriateness

KPI	R	J	M
Active Clinical Pathways			
Crossmatch : Blood Transfusion Ratio (C:T ratio) New			
Pediatric Pain Cycle Indicator (Assessment / Intervention / Reassessment (AIR))			
% Blood Transfusions outside the Guidelines			

- **Area of strength**
- **Area for Improvement**
- **No Data Provided**
- **Not Active/discontinued**
- **Not strength nor Improvement**

Executive Summary

Domain: Experience

KPI	R	J	M
Overall-Adult Inpatient (Press Ganey)			
Inpatient Pediatrics Experience			
Outpatients Experience			
Emergency Room Experience			
Ambulatory Care Experience			
Oncology Outpatient Experience			
Dental Services Experience			
Patient Complaints			
Inpatient (PG) – Likelihood to Recommend Top Box			
Medical Practice – Likelihood to Recommend (LTR) Top Box			

- **Area of strength**
- **Area for Improvement**
- **No Data Provided**
- **Not Active/discontinued**
- **Not strength nor Improvement**

Executive Summary

Achievement and Activities To Highlight

1. Internal Events and Activities:

a. Performance Improvement

- Completed Robust Process Improvement projects for Window # 1: Riyadh (182), Jeddah (86), and Madinah (108)
- Number of Active Clinical Pathway in Riyadh (86), and Jeddah (12), and Madinah (13)
- Launching Quality Academy for medical trainee (SAGE) including Completing 4 out of 16 sessions,

b. Patient Safety

- Just Culture Implementation for Riyadh (149), Jeddah (51) and Madinah (51)
- A successful Great Catch Ceremony was held in Riyadh recognizing 40 employees for Q3 & Q4 of 2024, along with 15 employees in Jeddah and 10 in Madinah for Q1 of 2025
- Provided Leadership RCA training for Medical Chairmen-Jeddah

c. Clinical Risk Management

- Completed risk registers for Riyadh, Jeddah and Madinah
- Number of Focused Clinical Risk Assessment: Riyadh (4), Jeddah (1), and Madinah (30).

2. Accreditation Section (ACC):

Developed 80-90% of Corrective Action plans post CBAHI survey (Riyadh).

This report has been reviewed by executive leaders, members of the Quality Committees, and distributed to all hospital staff. We ensure full transparency and encourage collaboration across all levels of our organization to continuously improve our standards of care and patient safety.

Hisham Alomran, MD, MPH, MBA, CPHQ, FACEP

Chief Quality Officer

Quality Management Group

02

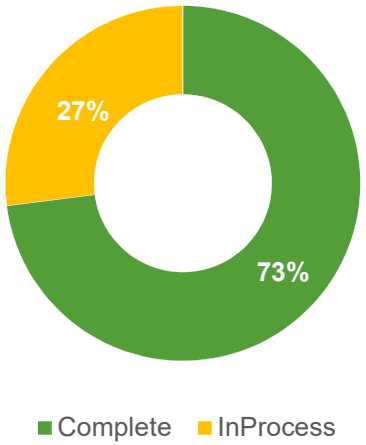
Sentinel Events and Root Cause Analysis

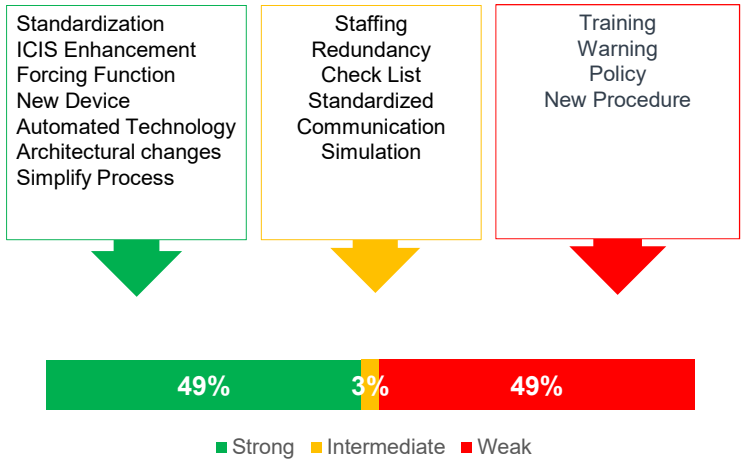
Executive Summary
Riyadh Sentinel Events

07 Sentinel Event were reported in KFSH&RC-Riyadh.

A total of **42** Corrective Actions were established. The Actions are classified using the Classifications of VA - NPS Hierarchy of actions as below.

Action status:





Riyadh Sentinel Events

Procedural: Retained Foreign Object

Retained Object 6 Days post Delivery

A pregnant female had a vaginal delivery with use of vacuum. Six days later she reported foul-smelling discharge and refused initial evaluation due to the lack of a female physician. The next day the physician found and removed a 45x45 surgical towel.

Root Causes		Corrective Actions	Effectiveness Measurement	Status
Culture: Lack of proper communication between the team members regarding the additional item used in the procedure		**Communication tool:** Reinforce proper communication when an additional item is required during the procedure. **Responsibility:** OB/Gyn Service and Nursing	Auditing	Completed
Process: Inadequate follow-up on the surgical count process.		**Standardize on equipment or process:** Standardize the surgical counting process across all procedural areas. **Responsibility:** Perioperative services and Nursing	Auditing	Completed
		Utilize the plastic pouch tool in the Labor and Delivery/OR to enhance the accuracy of counting **Responsibility**: Perioperative services and Nursing	Auditing	Completed
		Training: Develop a structured training program to ensure compliance with the counting process during delivery **Responsibility**: Perioperative services and Nursing	Auditing	Completed
		Establish an auditing system to assess the effectiveness of the above training program r **Responsibility:** Perioperative services and Nursing	Auditing	In process

Retained Object 6 Days post Delivery

A pregnant female had a vaginal delivery with use of vacuum. Six days later she reported foul-smelling discharge and refused initial evaluation due to the lack of a female physician. The next day the physician found and removed a 45x45 surgical towel.

Root Causes		Corrective Actions	Effectiveness Measurement	Status
Policy & protocol: Failure to conduct a post-delivery examination by medical team.		**Compliance:** Emphasize compliance of the physicians to the Assessment and Re-assessment of Women in Labor, Immediate Postpartum Care and Criteria for Discharge from Delivery Room) policy **Responsibility:** For OB/Gyn Service	Auditing	Completed
		Include the final vaginal examination as a mandatory field in the OB delivery note. **Responsibility:** For OB/Gyn Service	Auditing	Completed
Lack of post L&D nursing vaginal assessment		Revise the policy of Assessment and Re-assessment of Women in Labor, Immediate Postpartum Care and Criteria for Discharge from Delivery Room to include : • Performing post-vaginal visual assessments. • Ensuring proper escalation of abnormal clinical symptoms to physicians. **Responsibility:** Nursing	Auditing	In process
Process: Failure to remove the packing after completing the suturing due to patient refusal for the examination and lack of proper explanation from medical team.		Emphasize the importance of physicians educating patients declining the standard of care (refused post vaginal examination). **Responsibility**: OB/GYN Service &ATA	Auditing	In process
Culture: Delay reporting safety incident through Quality Information System.		Ensure compliance to the Reporting and Management of Incident APP **Responsibility**: OB/Gyn Service and Nursing	Auditing	Completed

Unwitnessed Fall with Injury

A 38-year-old female, presented for her routine dialysis session and was found to be hypotensive. Subsequently, she was admitted and while on the ward there was a water supply shut down. Followed by a restarting of water while the faucets were open. The patient she slipped and fell on the wet floor. imaging revealed a neck of femur fracture and orthopedics proposed surgical intervention.

Root Causes		Corrective Actions	Effectiveness Measurement	Status
Inconsistent documentation practices among nursing staff with the new falls assessment tool		**Training:** Implement a structured training program for all nursing staff to ensure proper and consistent documentation using the new tool. **Responsibility**: Nursing	Auditing	Completed
		Perform an effective auditing system pre and post implementing the above structured training program. **Responsibility:** Nursing	Auditing	Completed
Insufficient communication and guidance regarding water shutdown procedures.		Evaluate and improve bathroom designs to ensure proper drainage in all hospital rooms **Responsibility:** Nursing	Auditing	Completed

Medication Prescribing Error

A patient with constrictive pericarditis was hospitalized during which he developed acute kidney injury, requiring continuous renal replacement therapy and intermittent hemodialysis. Upon discharge Metformin was prescribed. Six days later he presented t with abdominal pain and high lactic acidosis and hypoglycemia. After a CT scan to rule out bowel ischemia, the patient coded then, transferred to CSICU with lactic acidosis secondary to metformin.

Root Causes		Corrective Actions	Effectiveness Measurement	Status
Lack of Supervision: A resident prescribed a contraindicated discharge medication without senior physician		Assign a clinical pharmacist to the Cardiovascular Step-Down Unit **Responsibility:** Pharmacy service	Auditing	Completed
		Emphasize the importance of physician's compliance with the Discharge Planning policy. **Responsibility:** Heart Center	Auditing	Completed
System failure: Potential error of the laboratory result upon the day of discharge.		Improve the integration between ICIS and the Pharmacy Management System (PMS) to generate an Alert for patients with renal impairment undergoing Hemodialysis **Responsibility:** Pharmacy Service and HITA	Auditing	Completed
Policy and Procedure: Failure to recognize the contraindicated medication prescribed at the time of discharge		Review the policy related to critical results reporting (one parameter vs. multiple parameter) for any area of improvement. **Responsibility:** DPLM	Auditing	Completed
		Integrate the last three patient's lab results to the prescription order in ICIS **Responsibility:** Pharmacy & HITA	Auditing	In process
		Mandate a co signature of a senior physician of the patient's discharge note **Responsibility:** Heart Center & HITA	Auditing	Completed

Missed Pancreatic Lesion on CT Report in a Patient in Disease Remission

A 61-year-old male with a history of urothelial carcinoma and prior left nephroureterectomy presented with jaundice, fatigue, and a 10 kg unintentional weight loss. Despite routine surveillance showing no recurrence, a re-evaluation of a CT scan from 4 months prior revealed a previously missed lesion in the pancreatic head. Repeat imaging showed significant disease progression, and potential new liver metastases.

Root Causes		Corrective Actions	Effectiveness Measurement	Status
The radiology physician's primary focus was on follow-up for the urothelial tumor, with reduced attention to the pancreatic lesion.		As Improve the peer-review process by increasing the random auditing volume to achieve the target goal of 5% of reviewed radiology reports Responsibility: Radiology Service sign a clinical pharmacist to the Cardiovascular Step-Down Unit **Responsibility:** Pharmacy service	Auditing	In process
Failure to detect and report the pancreatic lesion during the initial imaging review where the lesion was visible		Explore the possibility of AI solutions to facilitate auditing **Responsibility:** Radiology Service	Auditing	In process
The CT scan images was interpreted by Tele- radiology physician		Share the case within the radiology department as a lesson learned. Explore reducing dependency on the tele-radiologists.	Auditing	Completed
		Explore with HITA adding (Critical/Red Flags) field on the radiology requests.	Auditing	In process
		Emphasize physicians the importance of properly documenting indications (Included the Red Flags) on radiology order requests. Responsibility: For All centers date a co signature of a senior physician of the patient's discharge note **Responsibility:** Heart Center & HITA	Auditing	Completed

Two (2) Unwitnessed Fall Incidents with Injury

A male with advanced Parkinson's disease, dementia, and diabetes was admitted for evaluation of normal pressure hydrocephalus and potential adjustments to his deep brain stimulation (DBS) settings. The patient was assessed as having a moderate fall risk on admission, which escalated to high-risk post two (2) unwitnessed falls during the admission. A CT scan of the abdomen and pelvis was performed the same day showed mildly fractures of the posterior ribs and none displaced fracture of L1 and L2 transverse process

Root Causes		Corrective Actions	Effectiveness Measurement	Status
Staffing levels in nursing units.		Ensure adequate staffing levels to optimize adequate care for high risk- fall patients including but not limited to: Post procedural patients, Patients with neuro disorders, Patients with mental disorders. **Responsibility:** Nursing Affaires	Auditing	Completed
Fall Prevention education responsibility and efficiency		Increase awareness regarding fall preventions education for health care providers, patients and sitters by exploring and applying new education methods such as but not limited to educational videos. **Responsibility: Nursing Affaires**	Auditing	Completed
		Implement a structured training program for all nursing staff to ensure proper and consistent documentation using the new tool. **Responsibility:** Nursing Affaires	Auditing	Completed
		Perform an effective auditing system pre and post implementing the above structured training program. **Responsibility:** Nursing Affaires	Auditing	Completed
Bathroom environment where patient falls occurred.		Evaluate and optimize patient bathroom environments, including flooring drainage, and accessibility, as most patient fall incident occurred in the bathrooms. **Responsibility**: Nursing Affaires	Auditing	In process
John Hopkins Fall Assessment tool.		Review and automate the current existing Johns Hopkins Fall Assessments tool to capture history of fall within the last 6 months. **Responsibility:** Nursing Affaires	Auditing	Completed

Unwitnessed Patient Fall With Major Injury.

A 53-year-old male with a history of a Giant Cell Tumor in the right distal femur, underwent right distal femur resection and replacement on the same day. On the 7th day the patient was planned for discharge and while patient washing inside the bathroom, slipped resulting in rotation of the distal femur implant. X-ray revealed there is a proximately 90-degree rotation of the femoral component. Patient is scheduled for revision of the distal femur stem.

Root Causes		Corrective Actions	Effectiveness Measurement	Status
Staffing levels in nursing units.		Ensure adequate staffing levels to optimize adequate care for high risk- fall patients including but not limited to: Post procedural patients. Patients with neuro disorders. Patients with mental disorders **Responsibility:** Nursing Affaires	Auditing	Completed
Fall Prevention education responsibility and efficiency		Increase awareness regarding fall preventions education for health care providers, patients and sitters by exploring and applying new education methods such as but not limited to educational videos. **Responsibility:** Nursing Affaires	Auditing	Completed
		Explore implementing a structured training program for all nursing staff to ensure proper and consistent documentation using the new tool. **Responsibility:** Nursing Affaires	Auditing	Completed
		Perform an effective auditing system pre and post implementing the above structured training program. **Responsibility:** Nursing Affaires	Auditing	Completed
Bathroom environment where patient falls occurred.		Evaluate and optimize patient bathroom environments, including flooring drainage, and accessibility, as most patient fall incident occurred in the bathrooms. **Responsibility:** Nursing Affaires	Auditing	In process
John Hopkins Fall Assessment tool.		Review and automate the current existing Johns Hopkins Fall Assessments tool to capture history of fall within the last 6 months. **Responsibility:** Nursing Affaires	Auditing	Completed

Delayed Escalation and Resuscitation in a Post-Heart Transplant Patient on VV-ECMO: A Case of Respiratory Failure and Cardiac Arrest

A 35-year-old female post-heart transplant patient was on VV-ECMO for mixed respiratory failure. After multiple weaning attempts, ECMO settings were adjusted and the sweep gas turned off. Following patient repositioning during the night shift, SpO_2 dropped without timely intervention. A flat arterial line and no pulse were noted during rounds; CPR was initiated, and the patient was revived after two cycles.

Root Causes		Corrective Actions	Effectiveness Measurement	Status
Uncertainty regarding responsibility and ownership for post-sweep gas monitoring.		Revise the ECMO protocol to clearly outline accountability and responsibility in the protocol. **Responsibility:** Heart Center	Auditing	In process
		Develop a workflow for ECMO weaning, outlining clear rules and responsibilities of the weaning process. **Responsibility:** Critical Care Medicine Department	Auditing	In process
Failure to adhere to ECMO guidelines for post-weaning.		Create a care set order on ICIS for the ECMO weaning. **Responsibility:** Critical Care Medicine Department	Auditing	Open
Failure of nurse to respond to early signs of desaturation.		Reinforce the proper communication and escalation of patient's critical findings between the teams **Responsibility:** Intensive Care Nursing Department.	Auditing	In process
		Ensure 24/7 on-call coverage availability in the CSICU by either an assistant consultant or a consultant. **Responsibility:** Critical Care Medicine	Auditing	Open
Inadequate assessment of the patient when the arterial line was flat, leading to a delay in activating the code.		Apply the just culture algorithm with the involved staff as per the hospital APP-8161 "Just Culture Response to Safety Incidents" Just Culture Application to be done through the Quality Information System. **Responsibility:** Intensive Care Nursing Department.	Auditing	Completed

Executive Summary
Jeddah Sentinel Events

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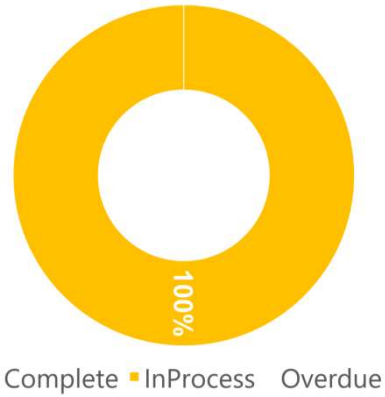
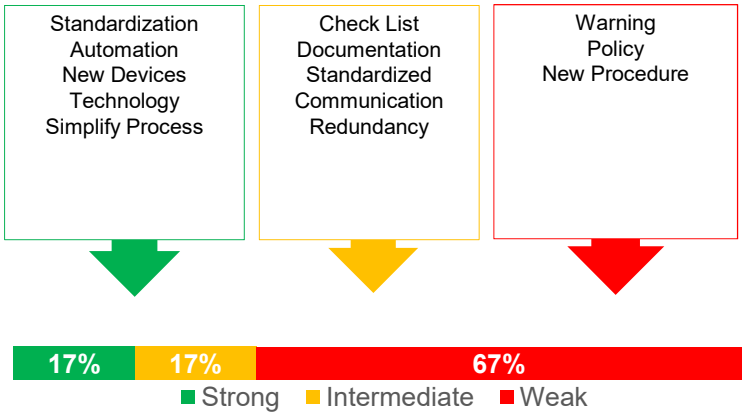
01 Sentinel Event were reported in KFSH&RC-Jeddah.

A total of **06** Corrective Actions were established. The Actions are classified using the Classifications of VA - NPS Hierarchy of actions as below.

Action status:





Jeddah Sentinel Events
Pressure Injury

A 73-year-old patient with multiple co-morbidities developed a pressure injury after a trans catheter aortic valve implantation.

Root Causes		Corrective Actions	Effectiveness Measurement	Status
1- Lack of knowledge in wound assessment. 2- Inaccurate documentation of staging and progression of the wound. 3- Inconsistent Braden Scale assessments.		**New procedure/memorandum/policy** Reinforce compliance to the policy. **Responsibility:** Nursing Affairs	Implementation	In-process
		Training Provide education by the wound care team. **Responsibility:** Nursing Affairs	Implementation	In-process
		Checklist/cognitive aids dentify additional clinical indicators or risk factors that may increase the likelihood of pressure injury.	Audit	In-process
		New procedure/memorandum/policy Reinforce the accuracy in detailing skin condition, staging, and risk assessment documentation. **Responsibility:** Nursing Affairs	Implementation	In-process
Failure to communicate with the wound care specialist.		**Standardize on equipment or process** Explore developing an automated referral system to wound care specialist whenever a new pressure injury is documented. **Responsibility:** Nursing Affairs	Implementation	In-process
		New procedure/memorandum policy Update the policy to trigger earlier referral to the Wound Care Specialist based on the Braden Scale assessment. **Responsibility:** Nursing Affairs	Implementation	In-process

Executive Summary
Madinah Sentinel Events

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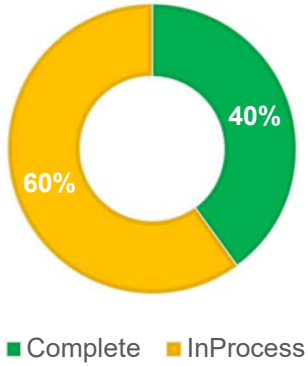
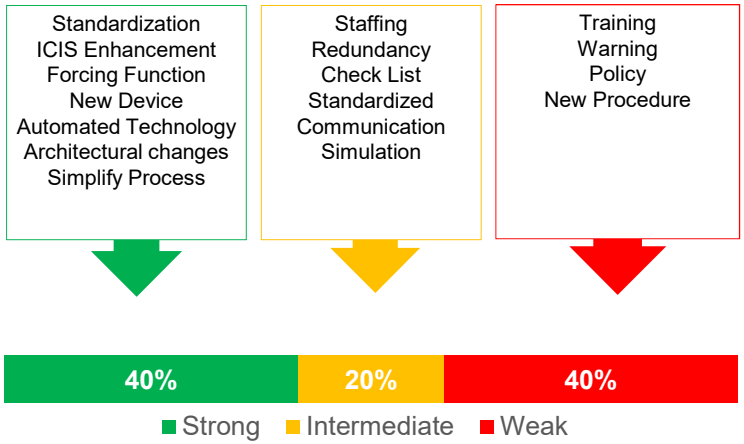
01 Sentinel Event were reported in KFSH&RC-Madinah.

A total of **05** Corrective Actions were established. The Actions are classified using the Classifications of VA - NPS Hierarchy of actions as below.

Action status:





Retained needle

During surgery suture needle was detached from its thread. Upon discovering this, the team immediately communicated this and acted and located the needle within the body. After thorough consultation, the decision was made to intentionally retain the needle in situ. This decision was driven by the critical condition of the patient. The situation was fully disclosed to the patient.

Root Causes		Corrective Actions	Effectiveness Measurement	Status
The surgeon located the needle using the C-Arm fluoroscopy and saved one view only for confirmation		New process: to standardize two views when checking for a foreign object. **Responsibility:** Perioperative Service	Implementation	Completed
		Training: Conduct hands-on training sessions on proper C-arm fluoroscopy use, followed by a competency check for 90% of surgeons **Responsibility:** Radiation Safety Committee	Implementation	In process
		Education: The primary physician will educate the patient on the risks of a retained needle and the importance of informing healthcare providers before any future MRI. **Responsibility:** MCA	Implementation	In process
The surgeon consulted a surgeon with same specialty		New process: to standardize intra-operative subspecialty consultation. **Responsibility:** Perioperative Service	Implementation	Completed
		Update policy: To review and update the policy to contain the following: 1- Ensure that an intraoperative sub-specialty consultation is conducted when need. 2- Require two radiographic vies when assessing for foreign objects. **Responsibility:** MCA and Nursing Affairs	Implementation	In process

03

Mortality and Morbidity

Mortality

Riyadh

Category 4: Unexpected preventable death

Case:

12-year-old female, arrested at induction due to failed intubation resulting in hypoxemia, and irreversible anoxic brain injury.

Issues:

- Failure to document potential procedural complications in the consent form given the high-risk for anesthesia.
- Failure to anticipate difficult airway by the involved locum non-pediatric anesthesiologist.
- Failure to initially secure the airway after induction of anesthesia.

Recommendations:

- Concur with the findings and corrective actions proposed by the Sentinel Events Executive Notification & Management Committee.
- Agree with recommendations by the Department of Anesthesiology.
- Establish an advanced difficult airway anesthesia team to be accessible immediately in the operating room.
- Upon difficult airway identification, two anesthesiologist should be present for adult intubation, and a pediatric anesthesiologist should be present for pediatric intubation.
- ENT team to be present at the time of induction for anticipated difficult airways.
- Provide awareness to staff of such challenging airway cases and educational workshops.

Mortality

Riyadh

Category 4: Unexpected preventable death

Case:

54-year-old female with SLE, developed Myocardial infarction following dialysis access procedure.

Issues:

- Delay in timely recognition of acute coronary syndrome.
- No pre or post procedure consultation to the thrombosis team for bridging of anticoagulation.
- Delay in delivering the STAT order.
- Delay in antiplatelet and antithrombotic medication administration and initiation of anticoagulation.
- No echocardiogram evaluation by the Cardiology team.

Recommendations:

- Medical Centre of Excellence.
- Share as the lesson learned with the medical staff.
- To obtain specialties' consultation whenever indicated.
- Highlight the importance of timely medication administration with nursing.
- Pharmacy provides actions to prevent delayed delivery of important medications for acute conditions.
- Patient Safety Section to review the case and determine whether it meets the criteria for a potential sentinel event.

Mortality

Riyadh

Category 4: Unexpected preventable death

Case:

60-year-old, investigated for right adnexal mass. Delayed diagnosis and management of ovarian cancer that progressed to metastatic disease.

Issues:

- Based on the patient's presentation, the gynecology team should have managed the patient as a confirmed case of cancer and performed surgery earlier.
- She progressed more rapidly than expected for such a tumor, and most likely she had metastatic disease from the beginning.

Recommendations:

- Obstetrics & Gynecology Department to review the guidelines of ovarian cancer management and consider the possibility of reduced timeframe for patients with high suspicion of ovarian cancer.
- Patient Safety Section to review the case and determine whether it meets the criteria for a potential sentinel event.

Mortality

Riyadh

Category 2: Expected death, with omission or commission

Case:

21-year-old male underwent chest drain insertion using open technique though ultrasound guidance was recommended. The procedure was complicated by persistent bleeding. On surgical exploration, the chest tube had inadvertently entered the lung.

Issues:

- Deviation from the standard of care due to inserting a chest tube using an open technique despite the recommendation for an ultrasound-guided technique.

Recommendations:

- Centre of Excellence to create a taskforce to establish strict guideline/policy for pleural procedures to standardize the practice.

Morbidity
Riyadh
Major

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Case:

35-year-old with locally advanced perforated rectal cancer who had surgical resection complicated by iatrogenic bladder and ureteric injury.

Issues:

- Risk of bladder, ureteric, prostate or seminal vesicles injury were neither included in the preoperative discussion nor in the informed consent.
- Failure to anticipate such injury despite very high risk.
- Failure to place ureteral catheters to identify the ureter and avoid injury intraoperatively.
- Failure to involve urology beforehand to minimize the damage and manage the complication in a timely fashion.
- Suboptimal surgical planning.

Recommendations:

- Surgical Oncology Department:
  - Ensure such cases are discussed in a Multidisciplinary Team setting for optimal surgical planning.
  - Ensure early involvement of concerned specialty in complex locally advanced tumors.

Morbidity
Riyadh
Major

Case:

35-year-old developed left parieto-occipital astrocytoma recurrence with a missed opportunity for earlier detection.

Issues:

- 21 May 2023: Patient seen in oncology; scan from 7 Feb done after visit, reported on 28 May.
- Clinic note: No new symptoms; follow-up planned in 5 months with MRI before visit.
- Issue: Scan type not specified, causing confusion; follow-up booked after MRI instead of before.
- This confusion apparently led to no chart review of the MRI which was done immediately after the clinic.
- The failure in reviewing the results of the MRI scan by both oncology and neurosurgery led to a missed opportunity to detect recurrence earlier.
- It was agreed that if the consultant reviewed the outpatient most likely, such miss would not have happened.

Recommendations:

- Agree with the Neurosciences Center of Excellence and the Cancer Center of Excellence.
  - Neuro-oncology should be the primary service for brain tumor patients from initial diagnosis to completion of the treatment plan.
  - Establishing a pathway for the neuro-oncology patient to streamline the management and prevent the duplications of investigations.
- Stress that a consultant should review and sign all notes as per the hospital policy.
- Emphasize the importance of high-quality communication between services.

Morbidity
Riyadh
Major

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Case:

53-year-old female with left breast mass, developed disease recurrence 8 months after discharge from medical service.

Issues:

- Missed breast cancer diagnosis as recommended MRI study was not carried out on multiple occasions despite radiologist's repeated recommendations.
- The new breast cancer (estrogen receptor positive) has a better prognosis than the previous triple negative breast cancer.

Recommendations:

- Radiology Department.
  - Emphasize better communication between primary physician and the radiology in case of disagreement on the recommendations.
  - Review the breast cancer clinical pathway and include when MRI/further imaging are warranted.
- Cancer Center of Excellence.
  - Counsel the physicians for not obtaining further MRI imaging when recommended.

Morbidity
Riyadh
Major

Case:

75-year-old with multiple comorbidities, developed sepsis following difficult procedure of IVC filter removal.

Issues:

- IVC filter retrieval was challenging and needed support from two consultants to assist in the filter removal.
- Patient was monitored in DMU for three hours post-procedure.
- Lack of vital signs documentation post-procedure by nursing.
- During follow up , the patient was noted to have right renal artery thrombosis and a fistula between the IVC and the renal artery.

Recommendations:

- Radiology to involve the primary service to consider admission when faced with technically difficult procedure or if procedure took longer than expected.

Mortality

Jeddah

Category 4: Unexpected preventable death

Case:

A 6-year-old girl with a history of Kawasaki disease and coronary aneurysm, presented to the ER with worsening abdominal pain and vomiting for a month. The visit led to discharge without proper evaluation by the ER team or the cardiologist on call. She later returned in unresponsive and passed away.

Issues:

- Failure to admit and monitor a high-risk cardiac patient despite red flags.
- Deferral of care by the on-call pediatric cardiology assistant without direct evaluation.

Recommendations:

- Ensure on-call specialists physically assess patients rather than providing on the phone advice.
- Implement strict protocols for the immediate admission of critical cases needing admission for work up.
- Apply just culture as applicable.

Mortality

Madinah

Category 4: Unexpected preventable death

Case:

A 60-year-old male with a history of ischemic heart disease, heart failure underwent total thyroidectomy with neck dissection for papillary thyroid carcinoma. Postoperatively, he developed progressive respiratory failure due to pulmonary edema and NSTEMI, leading to his death within eight hours of surgery.

Issues:

- Patient stopped aspirin against cardiology advice, and it wasn't restarted before surgery, possibly contributing to complications.
- Cardiology assessment lacked detail on surgical risk and urgency, affecting risk planning.
- ICU lacked access to E-Anesthesia records; unclear epinephrine use, unlabeled norepinephrine, no central line, and inadequate airway documentation led to care gaps.
- Poor hypotension management worsened pulmonary edema; delayed response and multiple failed intubation attempts before successful intervention by the primary team.
- ICU doctor's privileges were expired; conducted emergency procedures without prior consultant approval, only informed post-mortem.
- Family Communication: Family not updated about the surgery extending from 2 to 8 hours, causing confusion and dissatisfaction.

Recommendations:

- Create a standardized approach for assessing and managing cardiac risk, with clear communication to patients/families and multidisciplinary reviews for high-risk cases.
- Enforce proper bedside handovers using standardized verbal and written formats with full team involvement.
- Ensure ICU staff have valid privileges and follow protocols for involving consultants and appropriately delegating procedures.
- Use bedside ECHO and structured cardiac evaluations before fluid administration to avoid complications.
- Form a dedicated Difficult Airway Response Team per Riyadh guidelines to handle complex airway situations.

Morbidity
Madinah
Major

Case:

A 6-month-old with a stage 4 sacral tumor, she underwent sedation but experienced cardiac arrest during the procedure. She was successfully resuscitated and fully recovered without long-term sequelae.

Issues:

- Current policy does not address the process or team composition for silent codes in critical areas like the ICU, ER, and OR, leading to ambiguity in response protocols during emergencies.
- The informed consent for anesthesia and sedation does not fully outline potential side effects, such as those observed in this case.
- There is a lack of clarity among staff regarding who to contact and what the chain of responsibility is during a code event in MRI settings.
- The CPR sheet was not completed as the anesthetist was unaware of the procedure and did not have access to the necessary forms.
- Failure in Escalation Process: In a separate incident, there was a failure to escalate concerns when the primary team did not respond to the first on-call notification.

Recommendations:

- Update Policy to clearly define roles and responsibilities during silent codes, including team composition, staff education and regular drills.
- Revise Anesthesia/Sedation Consent forms to include potential side effects, such as bradycardia and cardiac arrest.
- Clear guidelines and protocols should be established to define who is responsible for initiating and managing code responses in the MRI setting.
- CPR documentation protocols should be reviewed and enforced.
- The escalation policy should be fully implemented to ensure junior staff know when and how to escalate issues.

Morbidity
Madinah
Serious

Case:

A 71-year-old female was difficult to intubate which lead to cardiac arrest. A CT revealed an enlarged right thyroid lobe with retrosternal extension, and a tracheostomy was performed. The patient was discharged with residual neurological deficits.

Issues:

- No structured airway assessment was performed before intubation, and the ICU lacked a protocol for identifying difficult airways. The family provided a CT scan showing an enlarged thyroid, but it was not documented.
- The patient's deteriorating condition was not promptly escalated to the ICU consultant after two days in the ICU.
- No established protocol for managing difficult airways, leading to uncoordinated and suboptimal management.
- Limited readiness and familiarity with intubation equipment contributed to difficulties during the procedure.
- The airway management policy, published after the incident, applies only to ICU settings and does not provide comprehensive airway management guidelines across departments.

Recommendations:

- Standardize documentation for airway assessments and interventions, marking difficult airway cases at the bedside across ICU, ER, and Anesthesia departments.
- Implement a dedicated DART with a clear activation policy based on Riyadh's reference policy.
- Ensure a backup system is in place for all ICU intubations, considering limited physiological reserves of ICU patients.
- Define and implement a structured escalation protocol to senior ICU staff, using a (Just Culture) approach to ensure accountability and learning.
- Conduct regular training and simulations for ICU staff on difficult airway recognition and management.
- Improve staff familiarity with intubation equipment through regular hands-on training, equipment checks, and drills.

04

Medicolegal

Medicolegal Report

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

This report consists of cases with the following criteria:

I. Cases that were referred to an external legal authority during the quarter.
II. Cases that were closed/settled by the external legal authority during the quarter.

Medicolegal Report
Riyadh

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

Complaint Date	Case Description	Corrective Actions
19 Mar 2019	A patient with spinal cord injury with paraplegia required spinal fusion	Standard of care met
22 Jan 2020	The patient decompensated heart failure with acute kidney injury. Lasix did not contribute to her death.	Standard of care met
28 May 2024	A patient on hemodialysis was admitted for a lung biopsy. The primary physician and radiology consultant were aware of a high potassium level. However, she became unconscious and pulseless. The patient developed hypoxic-ischemic encephalopathy.	• To develop a checklist for renal failure patients, particularly those who are on dialysis and are going for any radiological intervention. • To apply the just culture process for the involved interventional radiologist • To stress that the primary team is ultimately responsible for following all requested investigations.
06 Jun 2021	Patient with Delayed recognition and management of subarachnoid hemorrhage (SAH).	• Establish a protocol/ guideline for SAH and anticoagulation reversal • Mandatory consultation to Thromboembolic team for all inpatients on anticoagulation therapy. • Improve education and awareness
02 Mar 2024	Patient with Myelodysplastic syndrome developed bleeding post endoscopy.	• Standard of care met. • MDT discussion.
16 Dec 2021	Delayed recognition of non-functioning left kidney due to ureteric injury during surgery.	Consult Urology postoperatively in similar cases.

* This is based on a new governmental process for patient complaints or legal action in the Saudi Courts.

05

Accreditation / Certifications

Accreditation/Certification Report

Site	Accreditation/Certification Name	Report Received	Remarks (Score, if any)
Riyadh	Re-accreditation survey visit for Adult Stem Cell Transplant program by The Joint Accreditation Committee of the International Society for Cellular Therapy and the European Group for Blood and Marrow Transplantation.(Clinical Adult).	Yes	Accredited until February 2029
Jeddah	Council Of Health Insurance (CHI)	Yes	Overall Score: 96%
	CBAHI Saudi Central Board for Accreditation of Health Care institutions (CBAHI)	Yes	Overall Score: 98.9% and valid until 2028
	International Organization for Standardization (ISO) 45001-Occupational Health & Management System, and 14001-Environmental Management System.	Yes	Valid until Feb. 2026
Madinah	Council of Health Insurance (CHI)	Pending	

06

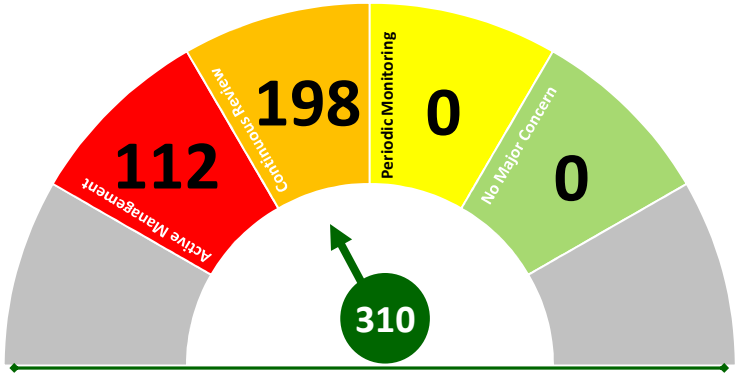
Clinical Risk Management

Clinical Risk Management
Corporate Clinical Divisions Risk Profile

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

OVERALL STATUS			
Q1 2025 Quarter	**12** Groups / Divisions	**310** Total number of risks	**11** New/ Emerging risks

Based on the risk assessment performed in **Q1 2025**,
the current risk profile of KFSH&RC-R is at **Continuous Review**



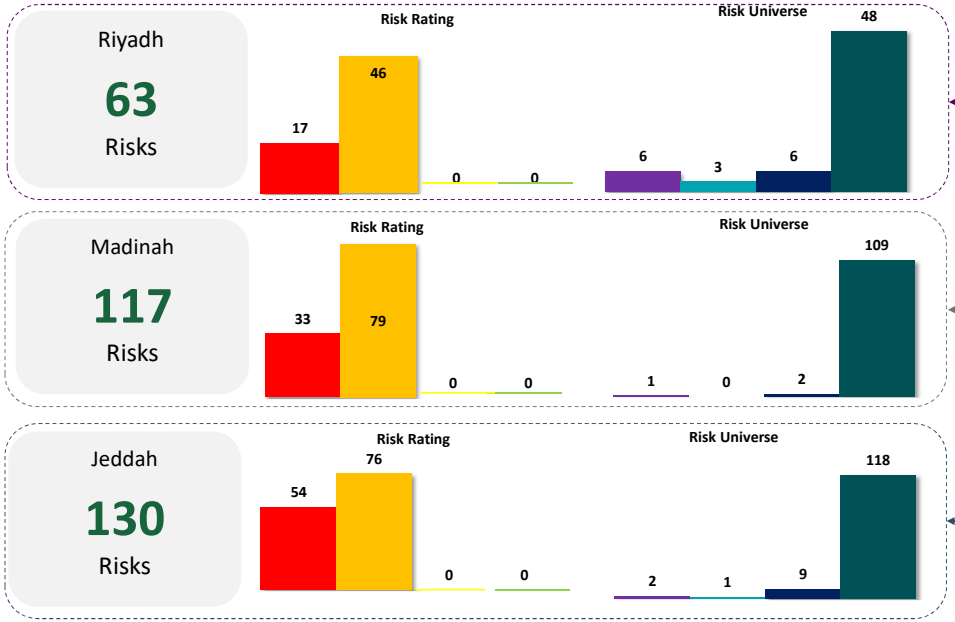
The numerical values depict the No. of risks
(Q1 2025: Active Management 112 , Continuous Review 198)

Clinical Risk Management

Corporate Clinical Divisions Overview

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

Total Risks
311



Risk Rating Active Management | Continuous Review | Periodic Monitoring | No Major Concern

Risk Universe Strategic | Financial | Compliance | Operational

Clinical Risk Management

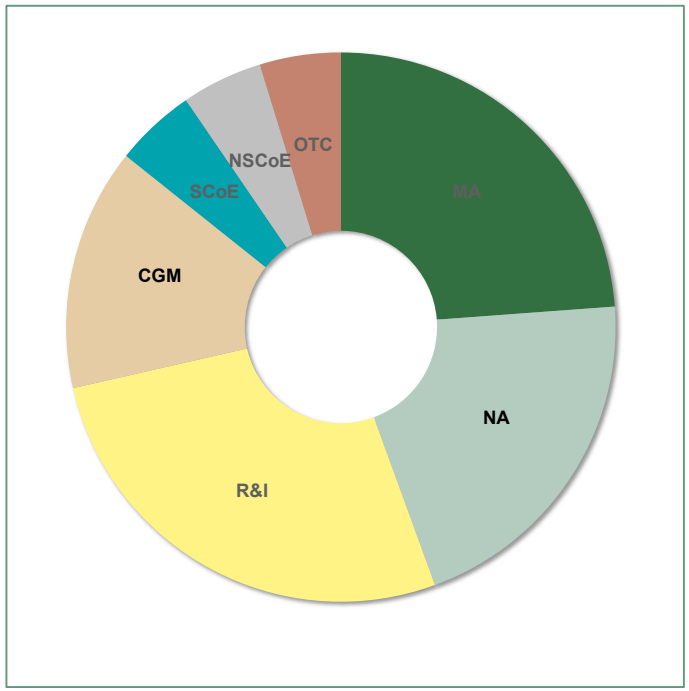
Enterprise Risk Management (Clinical Divisions)

Clinical Divisions Risk Profile

Riyadh

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

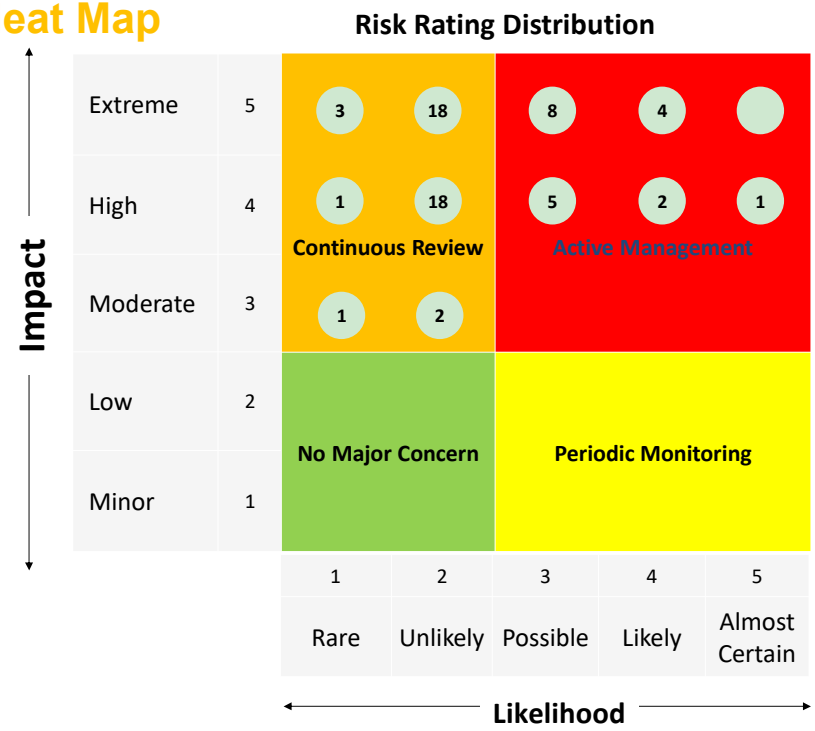
Group / Division wise distribution



Clinical Risk Management

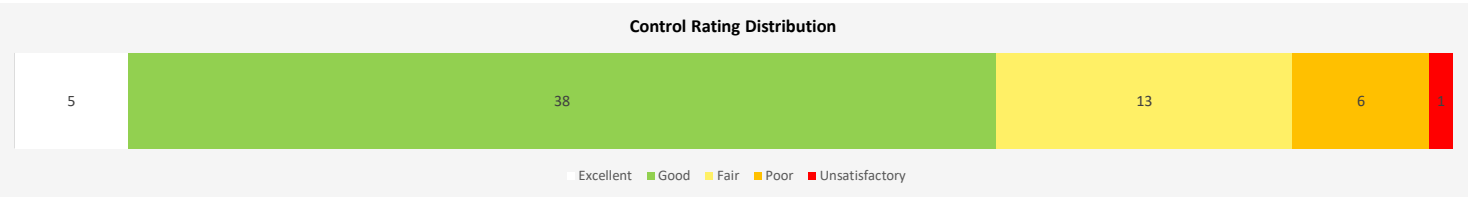
Corporate Clinical Divisions Risk Profile

Riyadh Heat Map



Risk is rated based on two main factors that describe the severity of the risk impact and likelihood of risk occurrence. The Heat Map displays the number of risks and explains how should the risk be dealt with as follows:

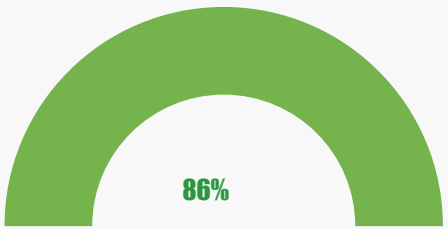
Risk Rating	Description
Active Management	Risk where current treatment options require active review and management.
Continuous Review	Control is adequate, continued monitoring of controls over time (e.g. at least quarterly) is required to confirm this.
Periodic Monitoring	Control is not strong but risk impact is not high. Options to improve control or monitor risk impact to ensure it does not increase over time.
No Major Concern	Risk where systems and processes managing the risks are adequate and subject to minimal monitoring.



Clinical Risk Management

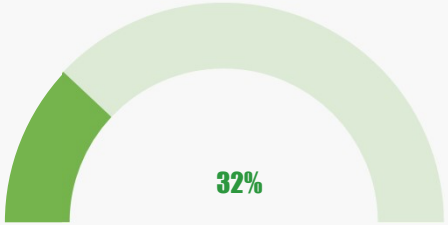
Key Performance Indicators Q1, 2025

Riyadh



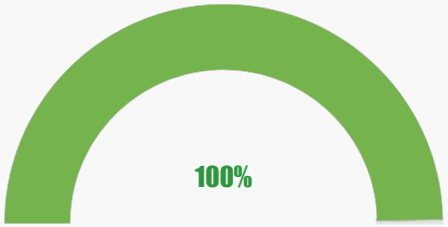
Divisions with updated risk registers

Target = 100%



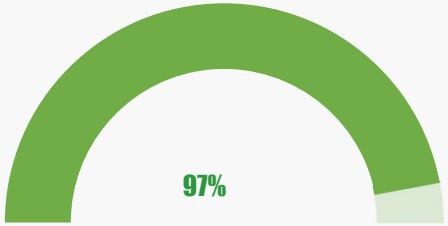
Risks in Active Management

Target ≤ 45%



Risks with defined Mitigation plan

Target = 100%



Mitigation plans completed on time

Target ≥ 75%

30 out of 31 mitigation plans completed within predefined deadlines by Risk Owners

Clinical Risk Management
Priority Risks
Riyadh

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

Adverse test turnaround times (TAT) / suspension or delay of services in CGM

Inability to bring cutting edge instruments and devices (NSCoE)

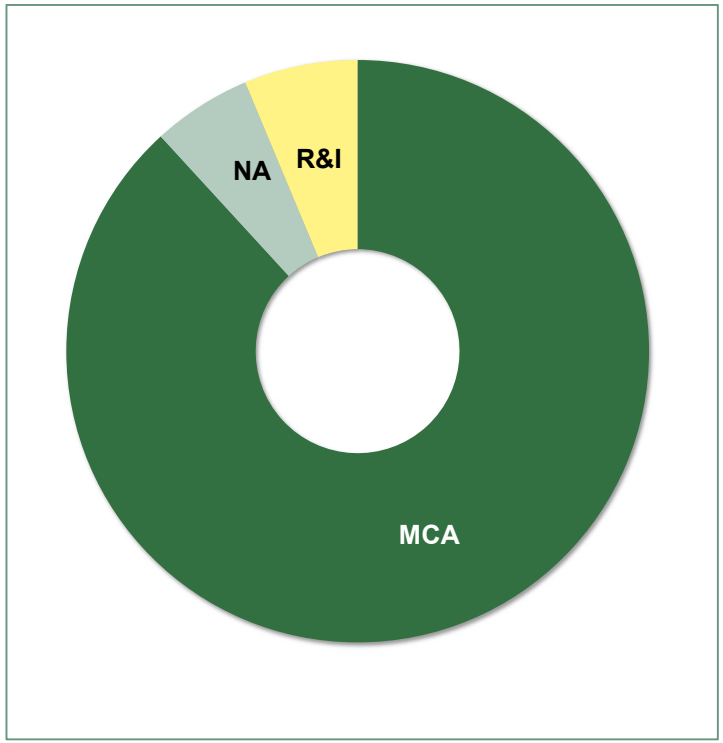
Clinical Risk Management

Enterprise Risk Management (Clinical Divisions)

Clinical Divisions Risk Profile

Jeddah

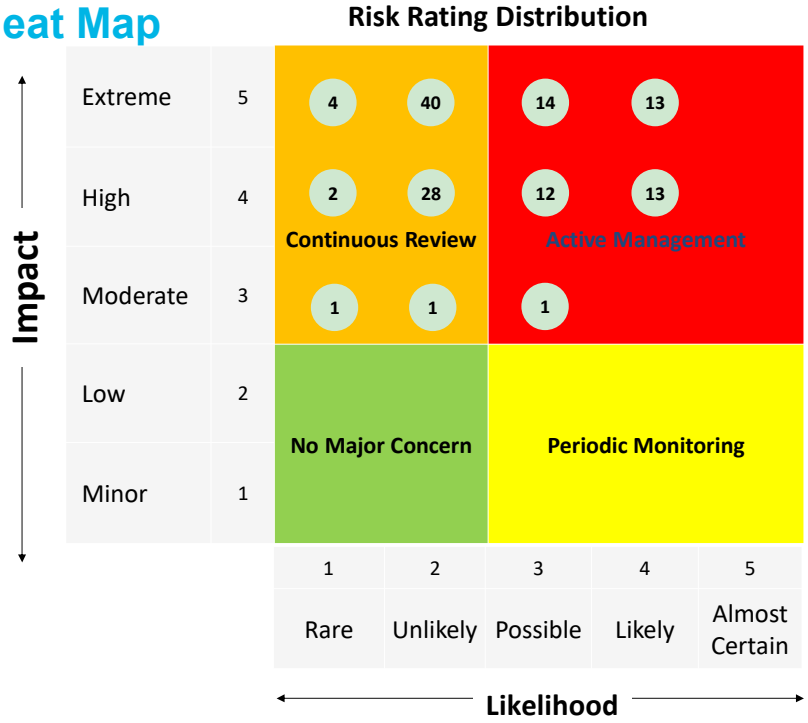
Group / Division wise distribution



Clinical Risk Management

Corporate Clinical Divisions Risk Profile

Jeddah Heat Map



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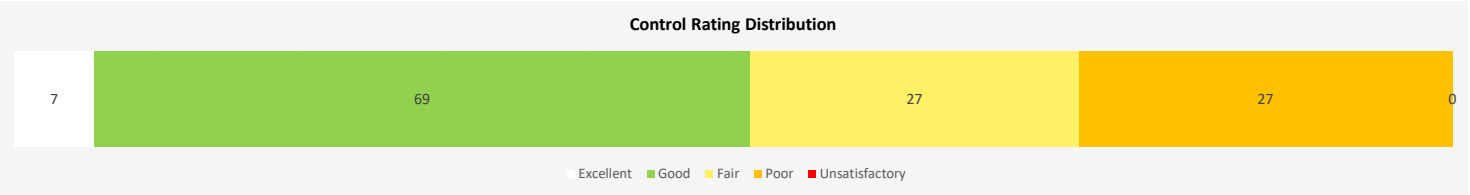
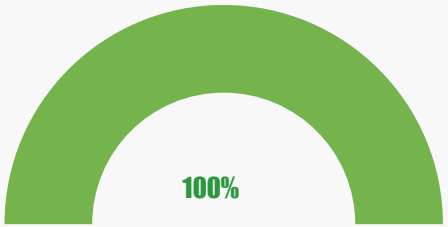
No Major Concern	Risk where systems and processes managing the risks are adequate and subject to minimal monitoring.



Clinical Risk Management

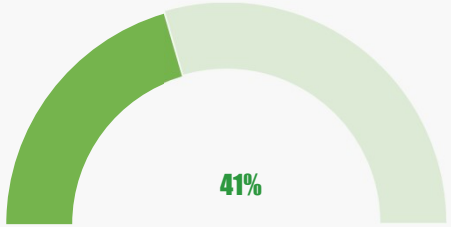
Key Performance Indicators Q1, 2025

Jeddah



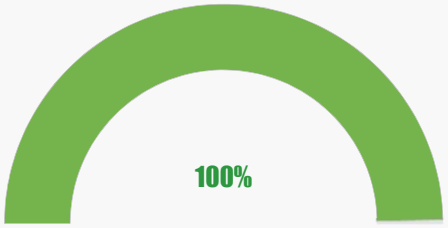
Divisions with updated risk registers

Target = 100%



Risks in Active Management

Target ≤ 45%



Risks with defined Mitigation plan

Target = 100%

Mitigation plans completed on time

Target ≥ 75%

79 out of 79 mitigation plans completed within predefined deadlines by Risk Owners

Clinical Risk Management
Priority Risks
Jeddah

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

- Reduced Capacity of Core Service and Delayed Treatment Due to Radiation Therapy Center Constraints
- Reduced Acceptance and Delayed Surgical Operations Due to Limited Operating Rooms Capacity
- Long Admission Waiting Lists Due to Limited Bed Capacity
- Revenue Loss Due to Coding Delays and Inaccuracies

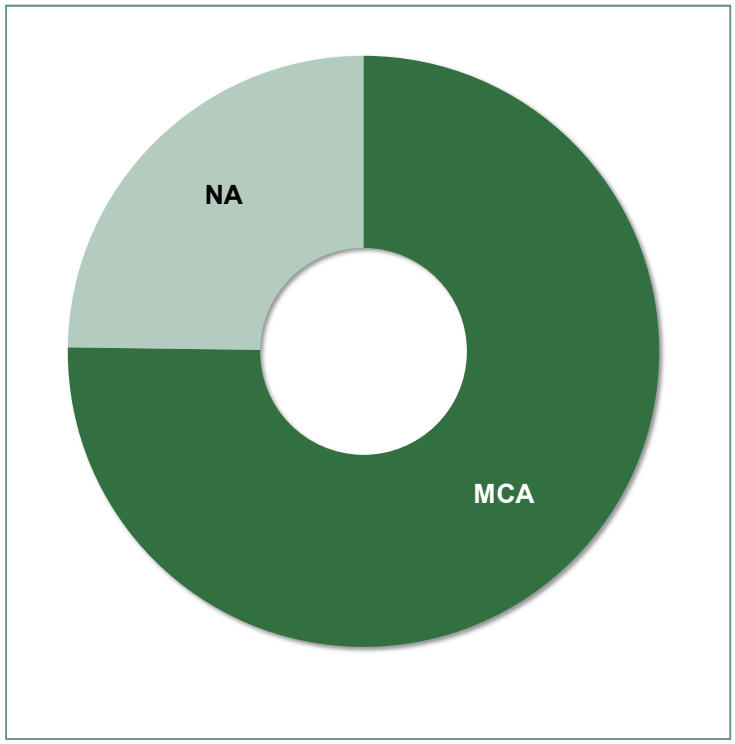
Clinical Risk Management

Enterprise Risk Management (Clinical Divisions)

Clinical Divisions Risk Profile

Madinah

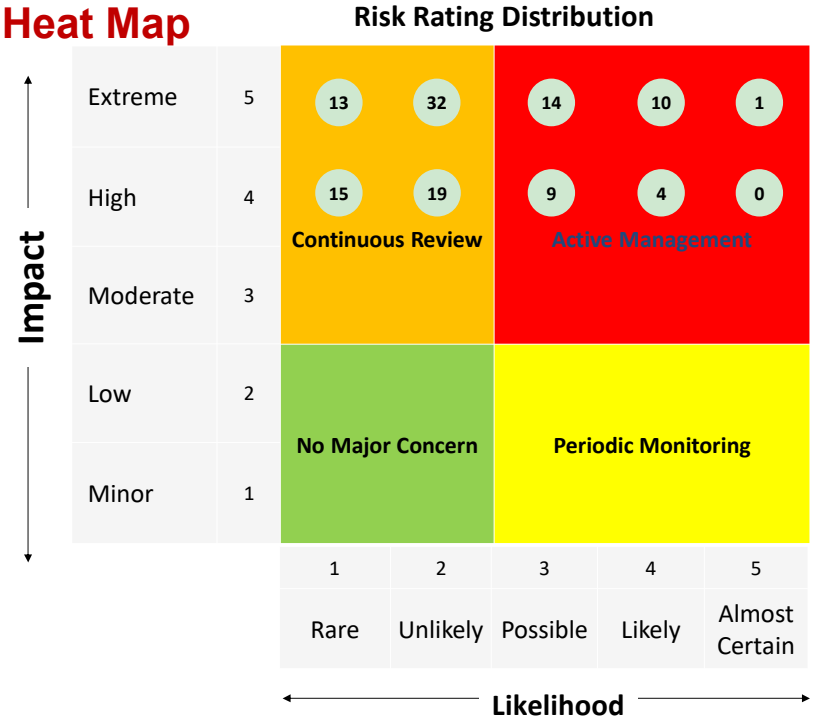
Group / Division wise distribution



Clinical Risk Management

Corporate Clinical Divisions Risk Profile

Madinah Heat Map



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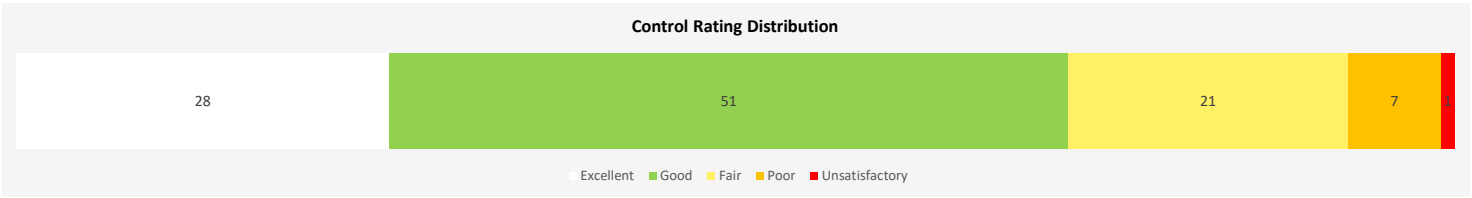
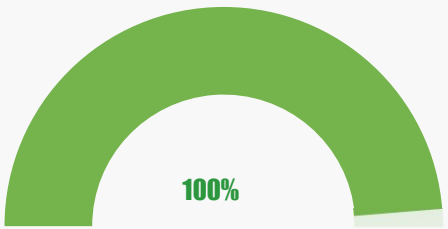
No Major Concern	Risk where systems and processes managing the risks are adequate and subject to minimal monitoring.



Clinical Risk Management

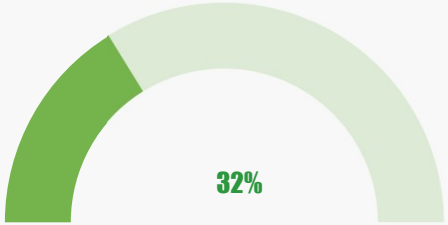
Key Performance Indicators Q1, 2025

Madinah



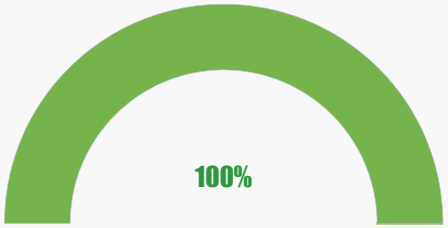
Divisions with updated risk registers

Target = 100%



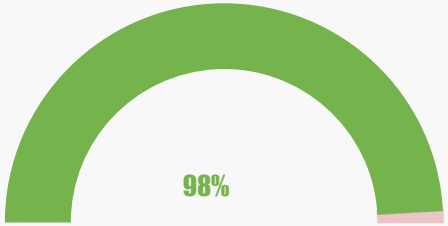
Risks in Active Management

Target ≤ 45%



Risks with defined Mitigation plan

Target = 100%



Mitigation plans completed on time

Target ≥ 75%

65 out of 67 mitigation plans completed within predefined deadlines by Risk Owners

Clinical Risk Management
Priority Risks
Madinah

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

- Unavailability of Cardiac Catheterization Laboratory facilities
- No positive pressure Isolation rooms available
- Delay treatment of oncology patient due to unavailability of Radiation Therapy

07

Key Performance Indicators

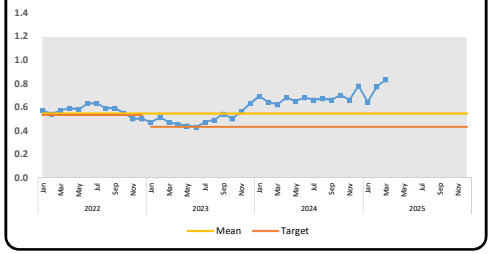
Key Performance Indicators

Safety

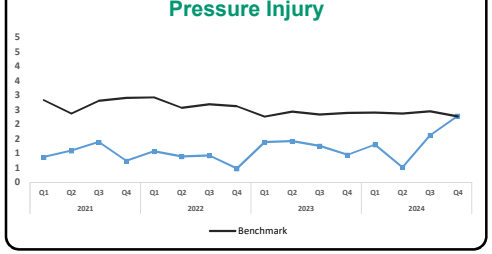
Riyadh

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

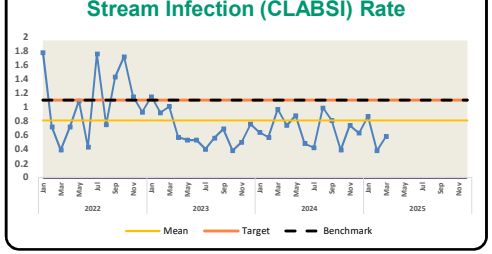
Serious Safety Event Rate (SSER)



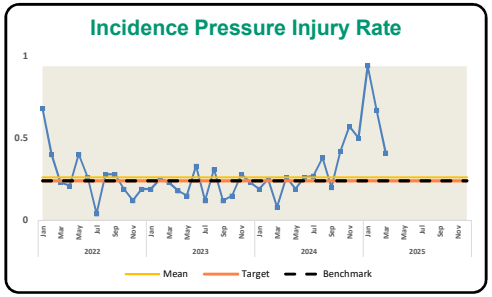
Prevalence Hospital Acquired Pressure Injury



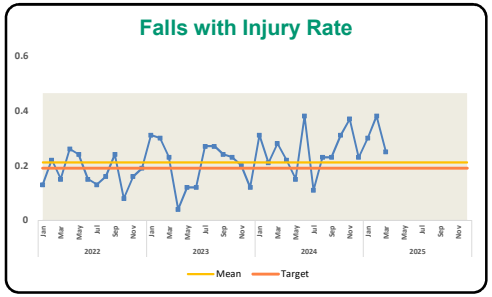
Central Line Associated Blood Stream Infection (CLABSI) Rate



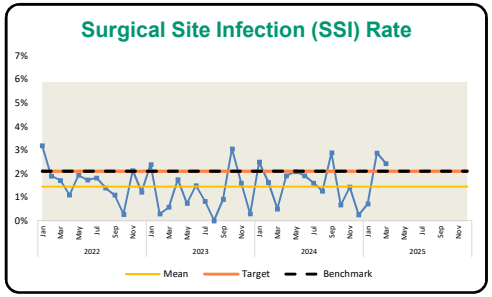
Incidence Pressure Injury Rate



Falls with Injury Rate



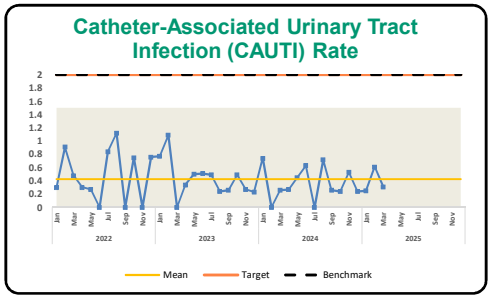
Surgical Site Infection (SSI) Rate

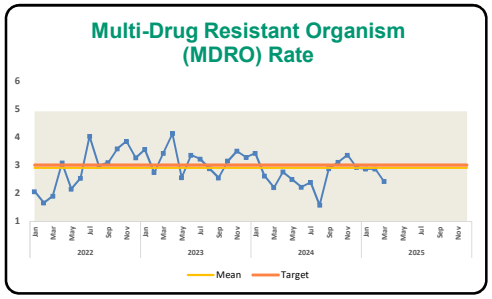


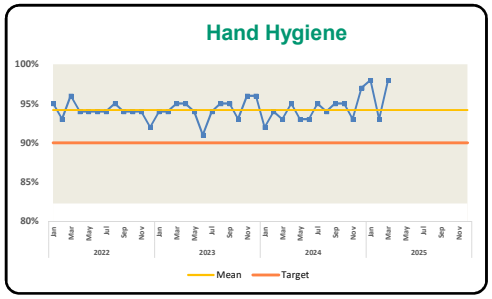
Key Performance Indicators

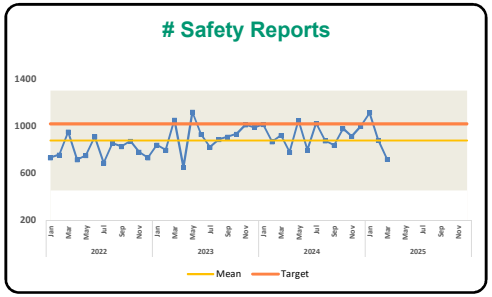
Safety

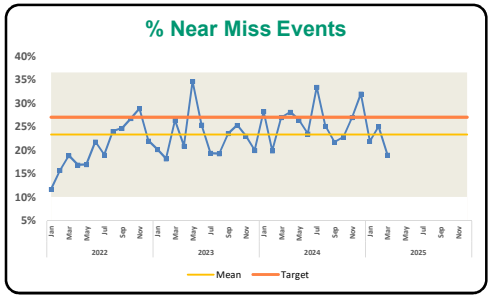
Riyadh

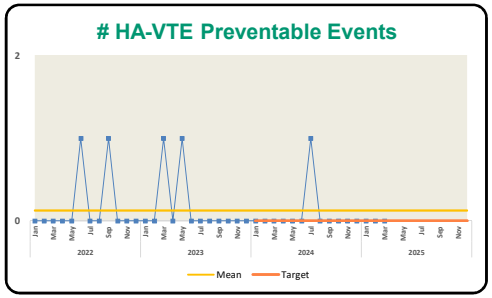








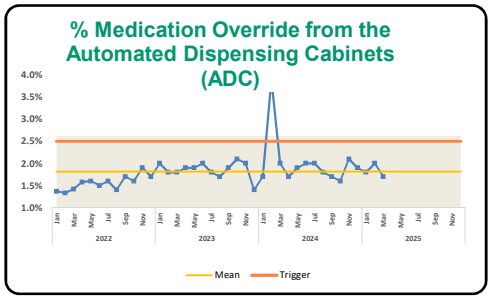


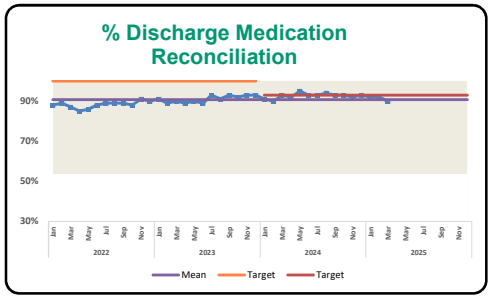


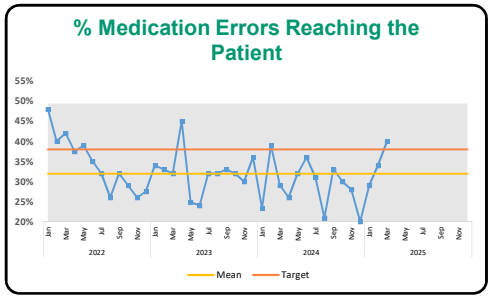
Key Performance Indicators

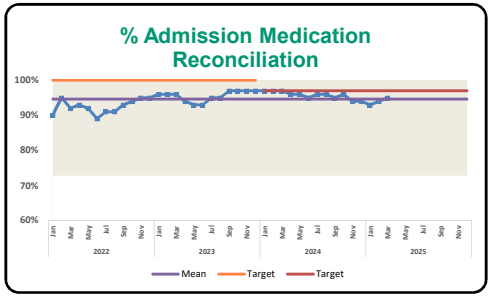
Safety

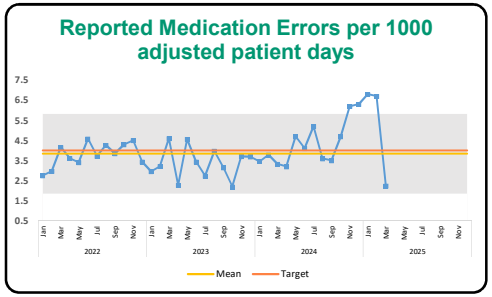
Riyadh







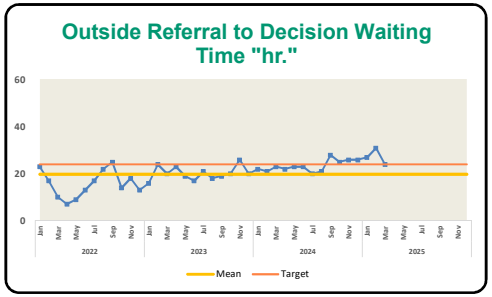


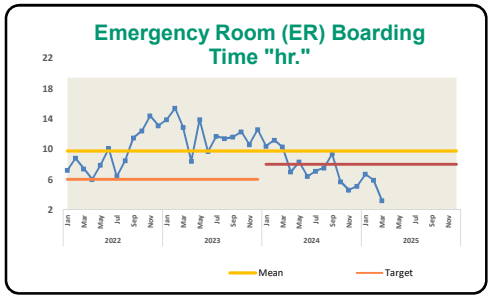


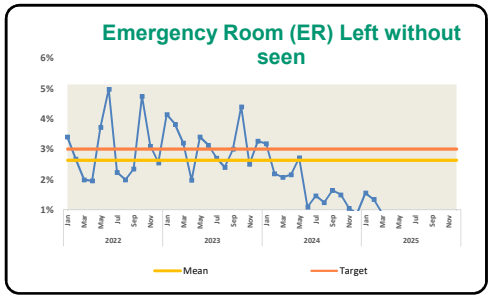
Key Performance Indicators

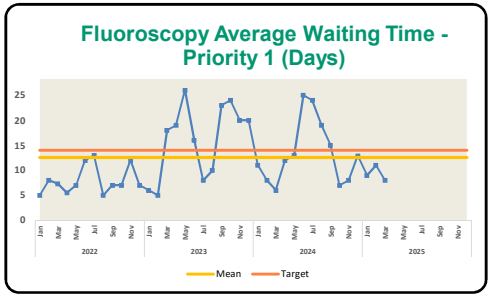
Access

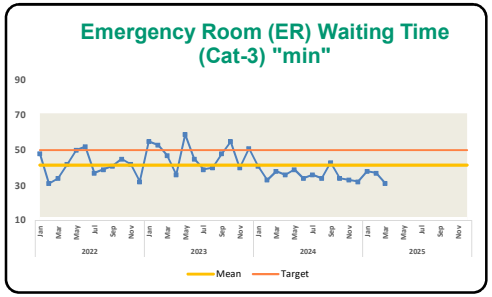
Riyadh

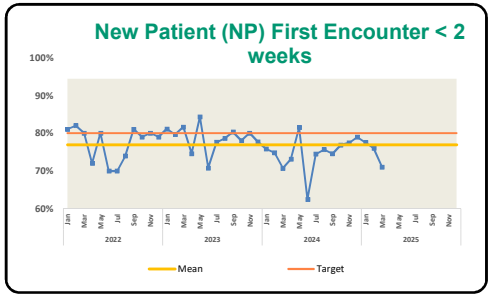








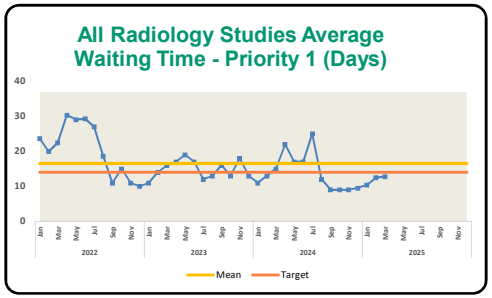


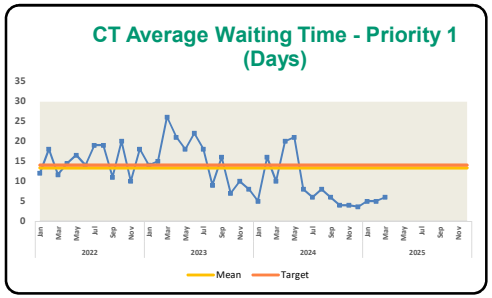


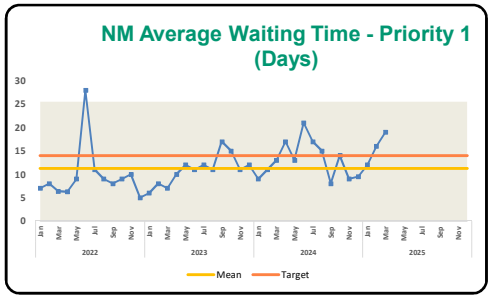
Key Performance Indicators

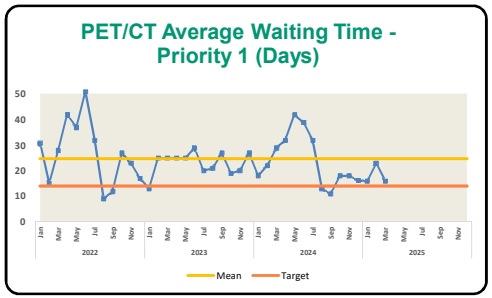
Access

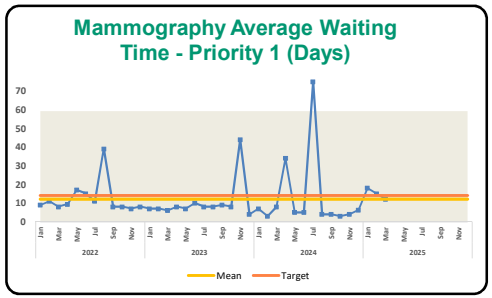
Riyadh

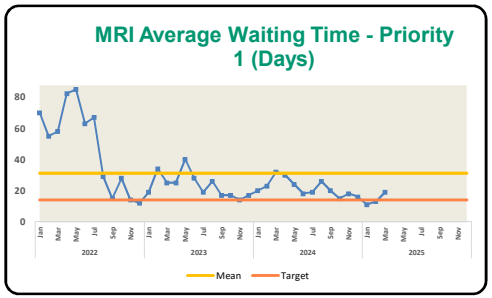


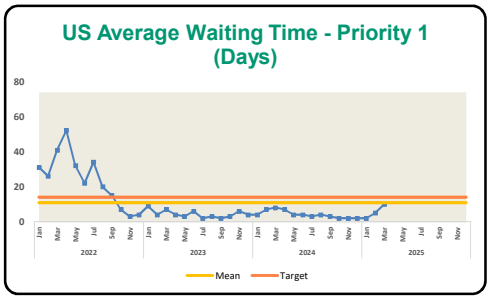








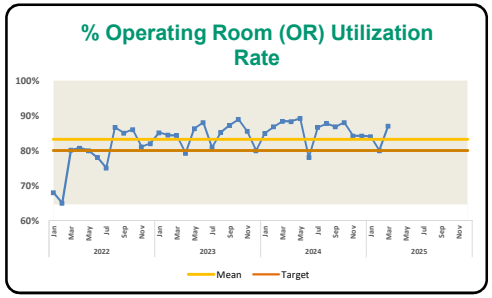


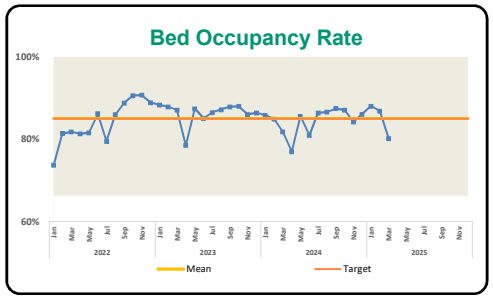


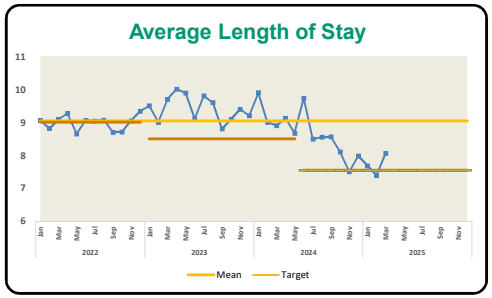
Key Performance Indicators

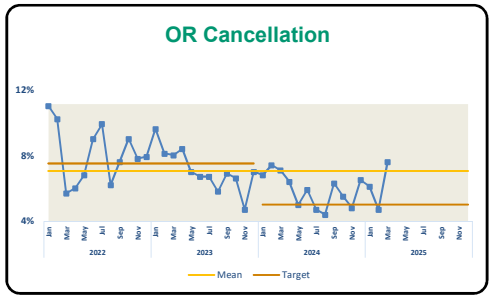
Efficiency

Riyadh





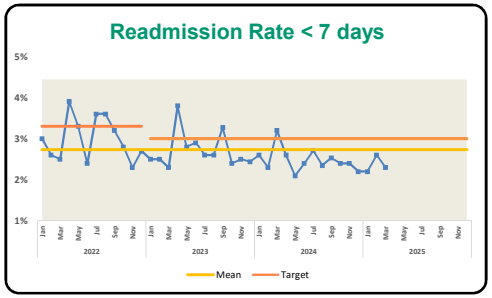


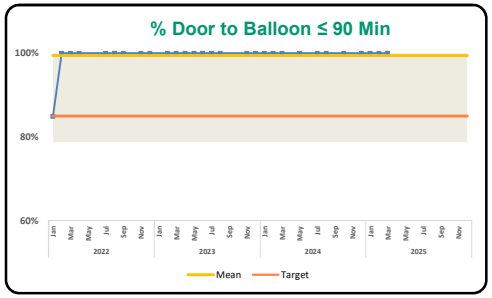


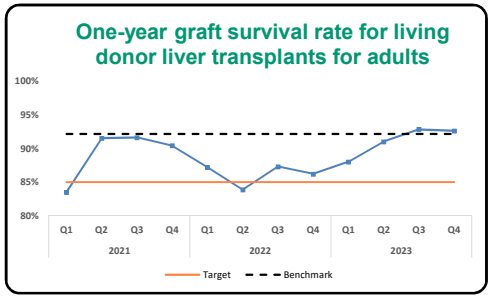
Key Performance Indicators

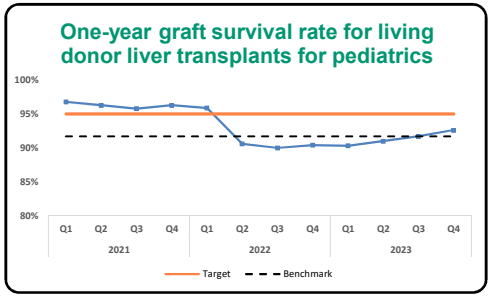
Effectiveness

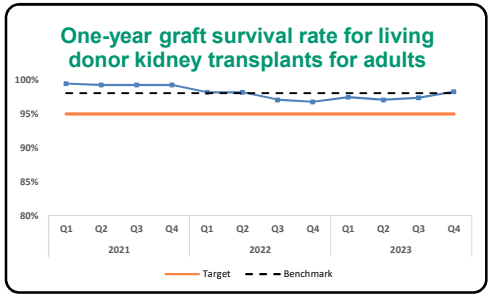
Riyadh

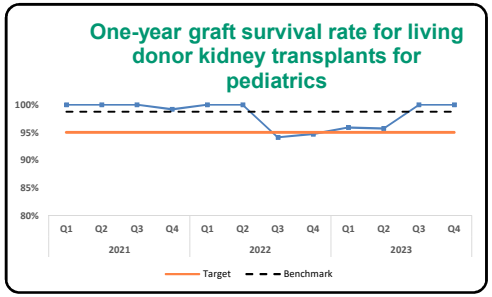








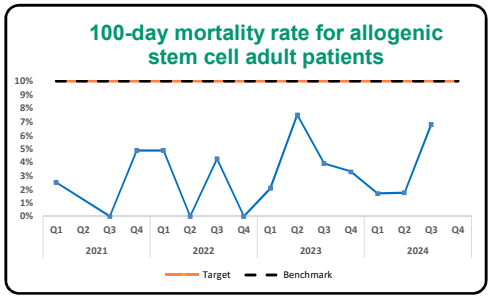


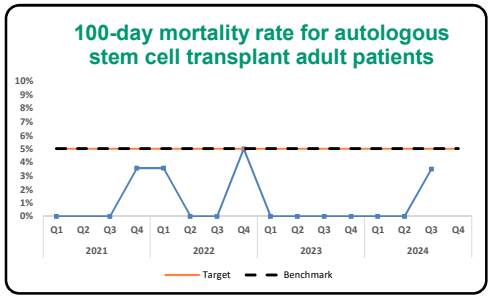


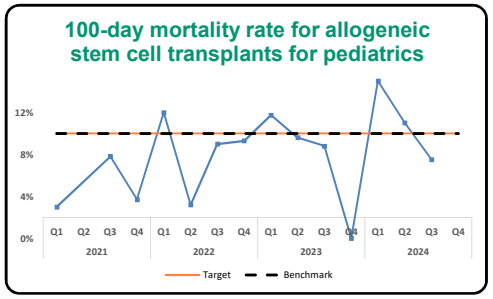
Key Performance Indicators

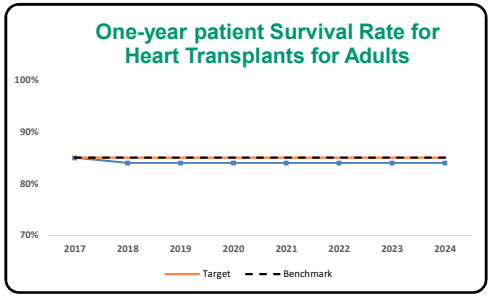
Effectiveness

Riyadh

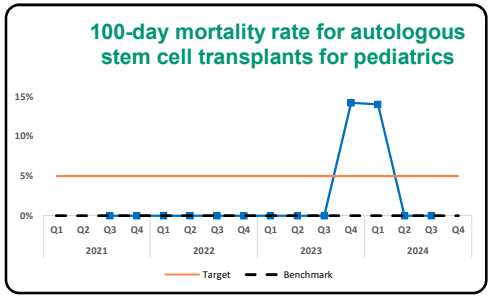


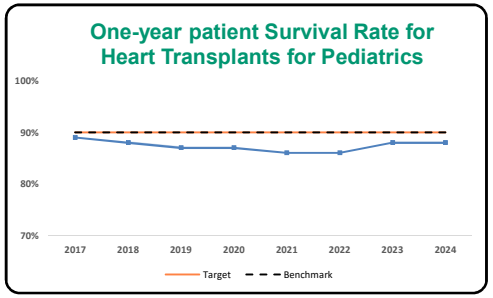






P.S. Cumulative data from 2005 till the mentioned years above.



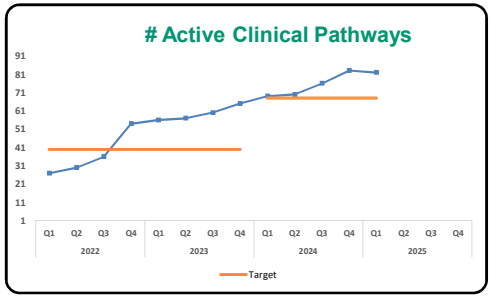


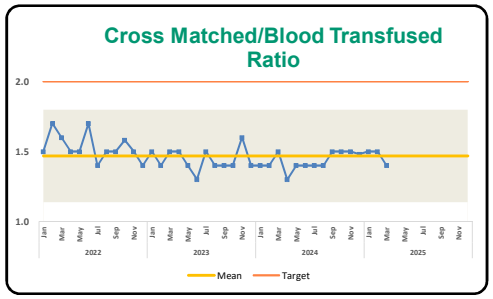
P.S. Cumulative data from 2005 till the mentioned years above.

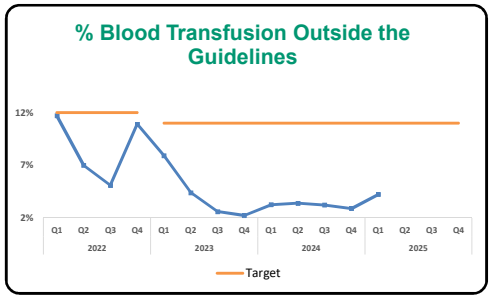
Key Performance Indicators

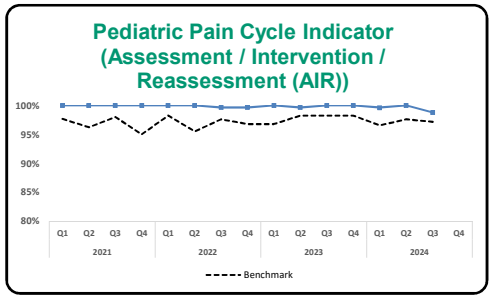
Appropriateness

Riyadh





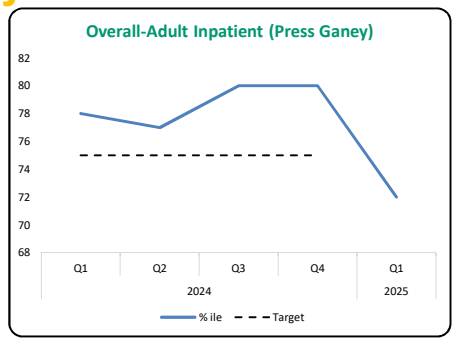


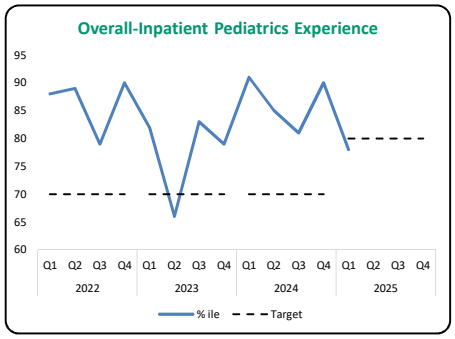


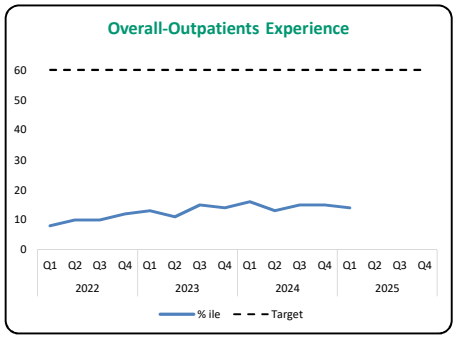
Key Performance Indicators

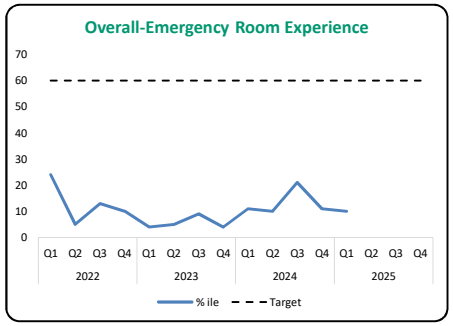
Experience

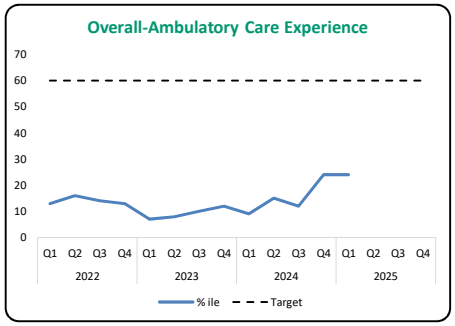
Riyadh

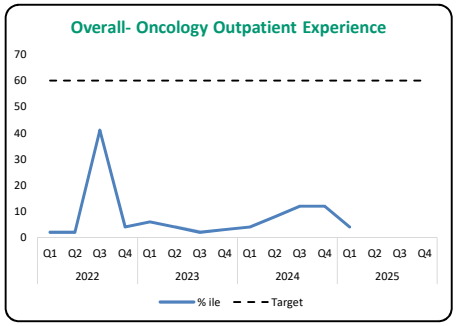








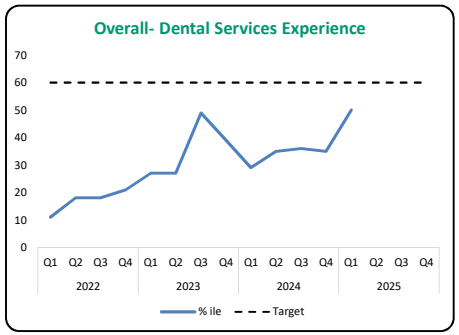


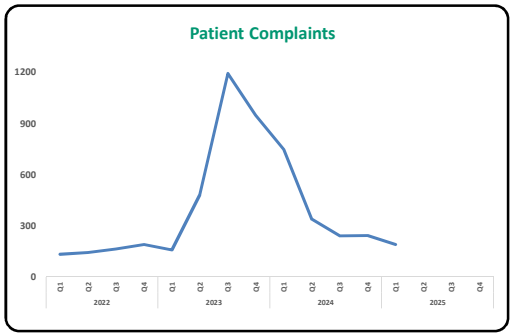


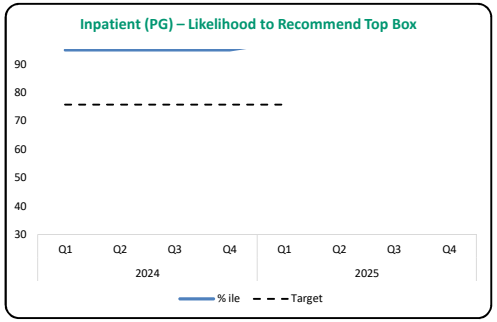
Key Performance Indicators

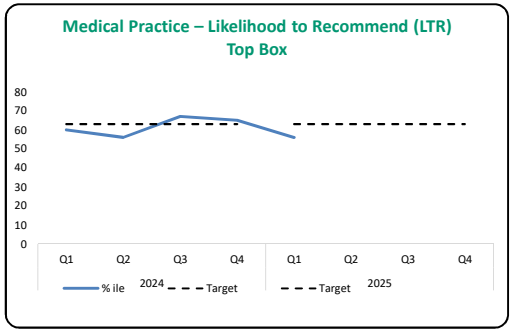
Experience

Riyadh





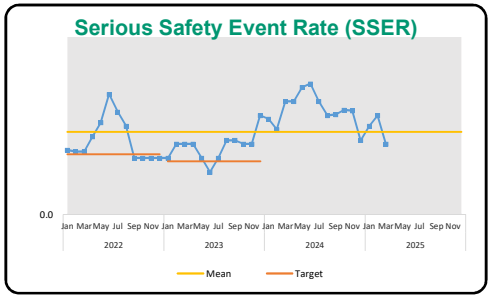


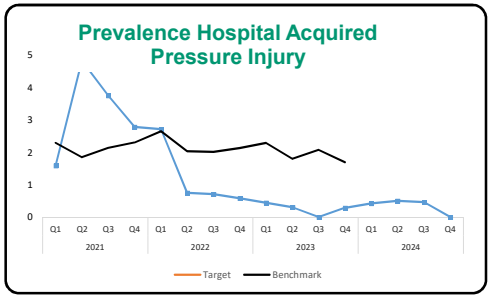


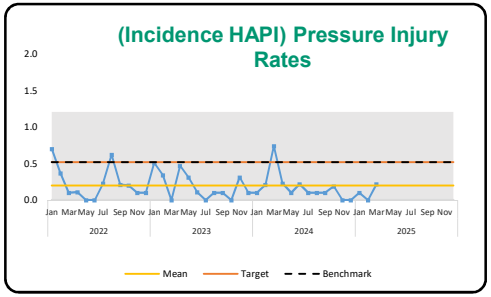
Key Performance Indicators

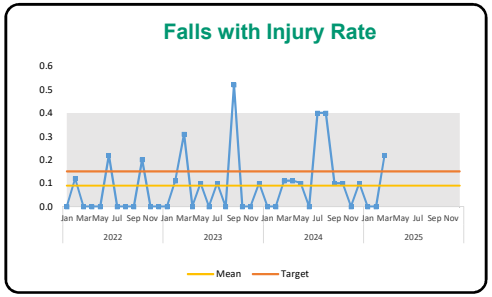
Safety

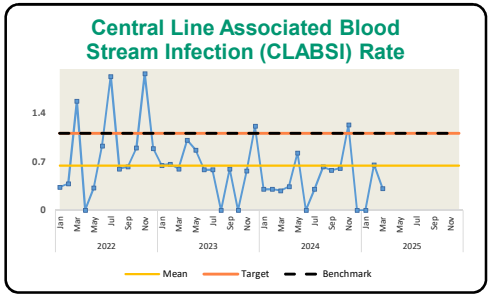
Jeddah

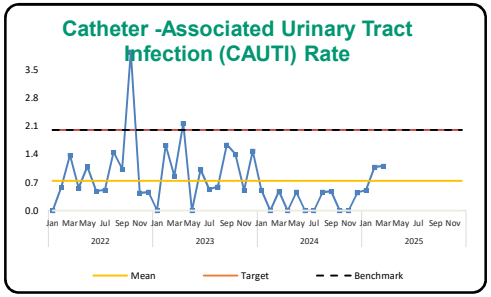








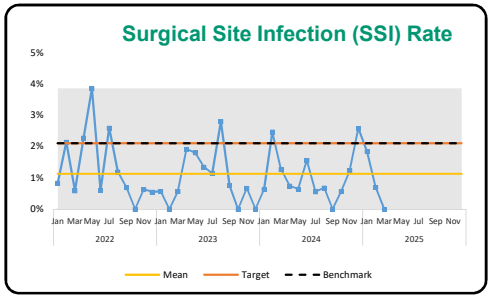


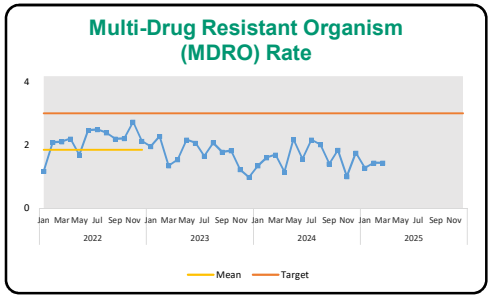


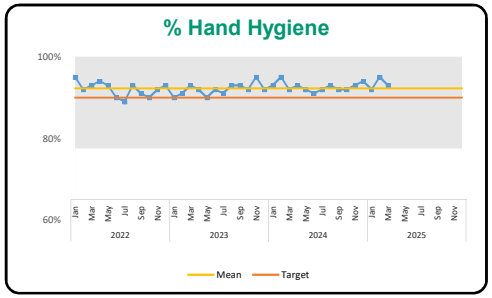
Key Performance Indicators

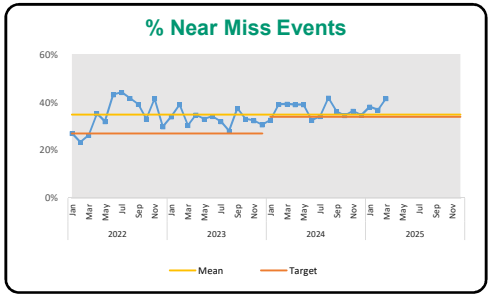
Safety

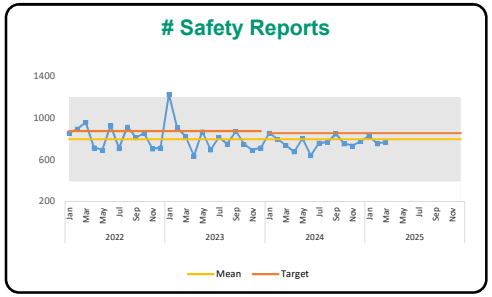
Jeddah

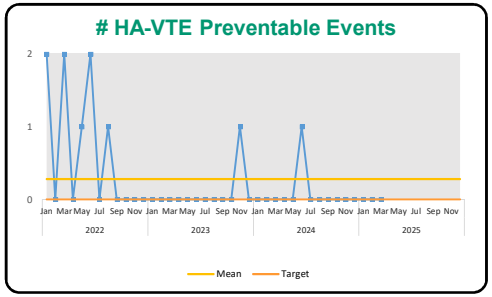












Key Performance Indicators

Safety

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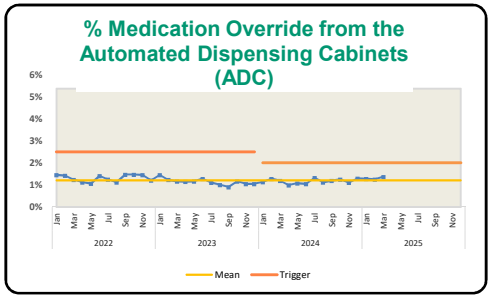
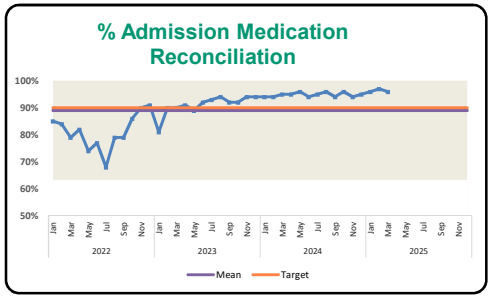
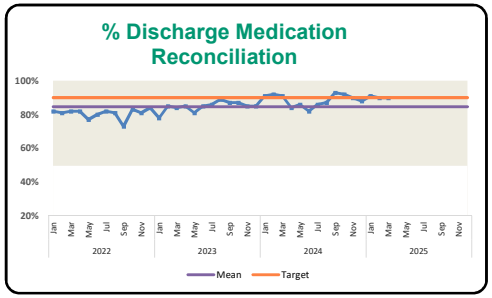
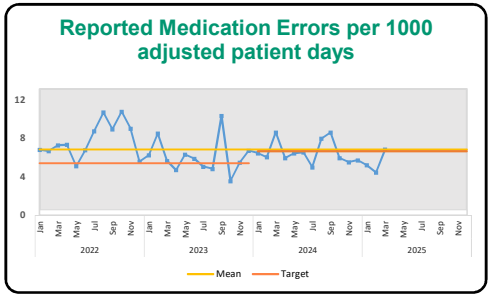
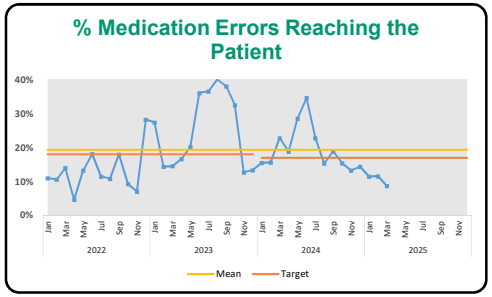






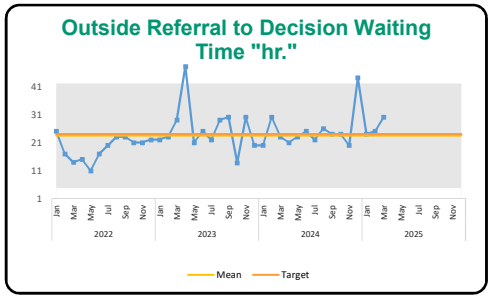


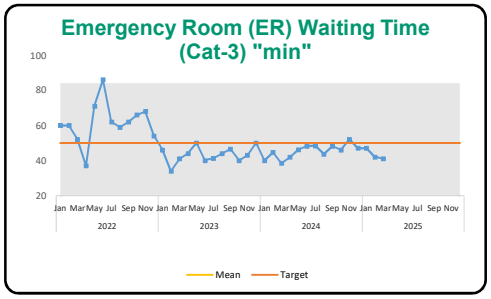


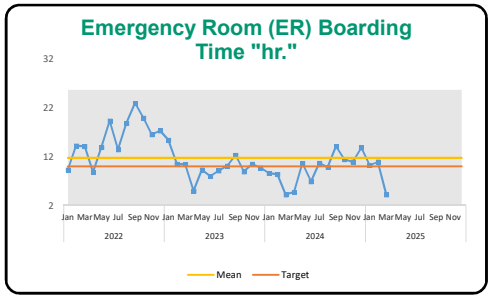
Key Performance Indicators

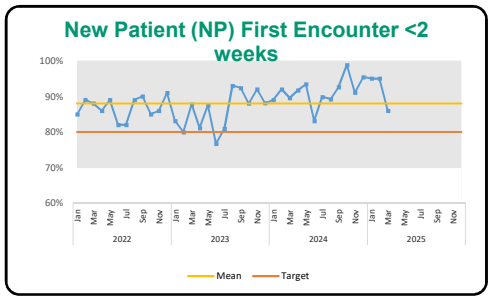
Access

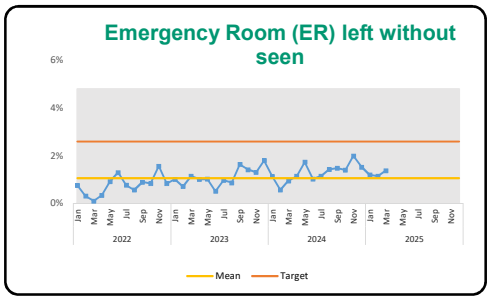
Jeddah

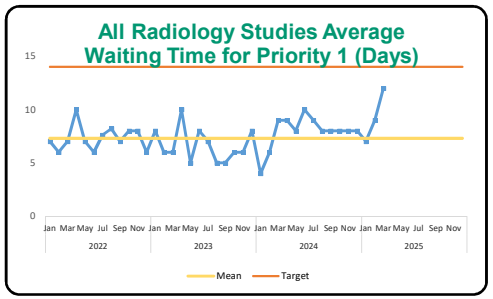








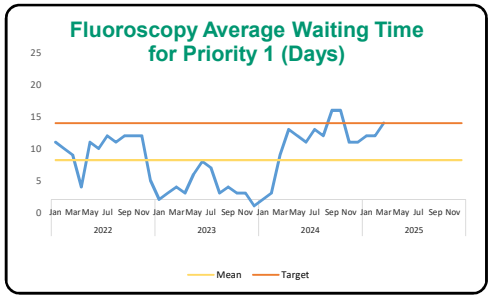


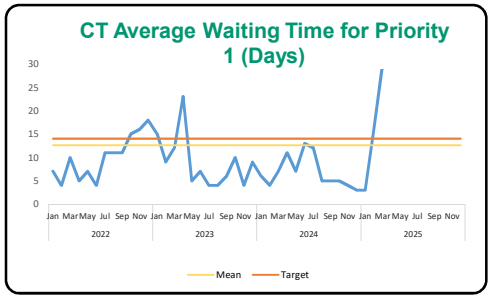


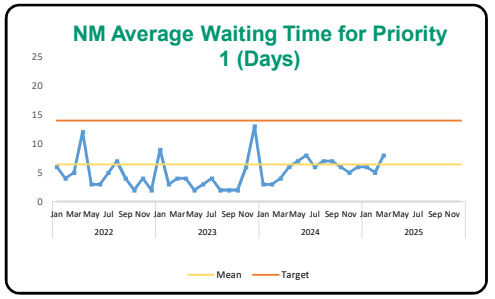
Key Performance Indicators

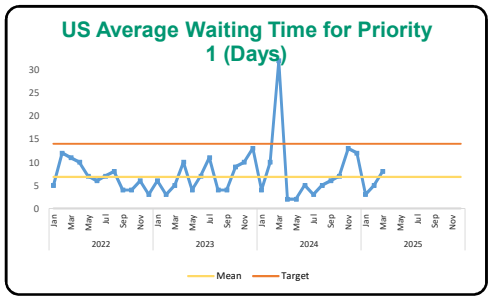
Access

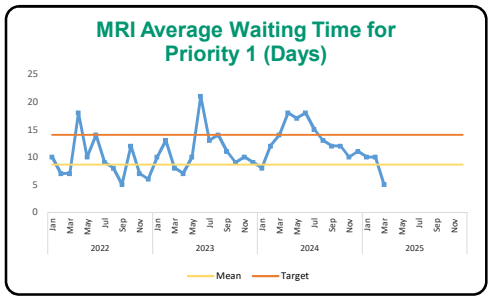
Jeddah

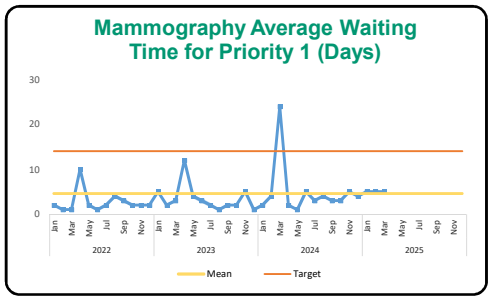








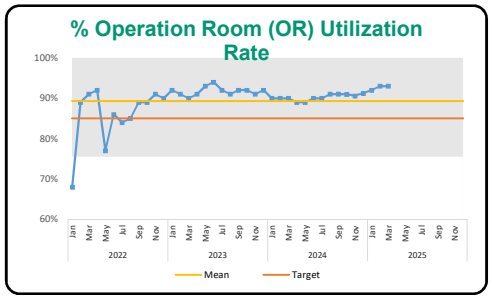


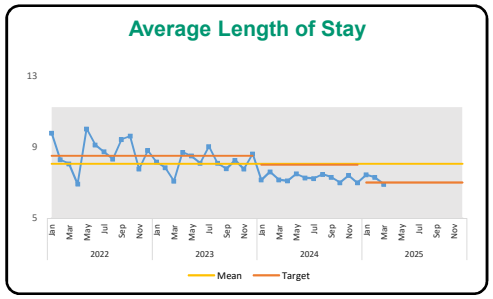


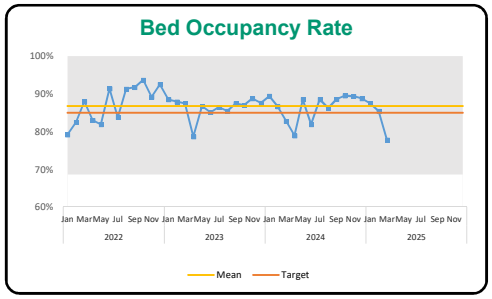
Key Performance Indicators

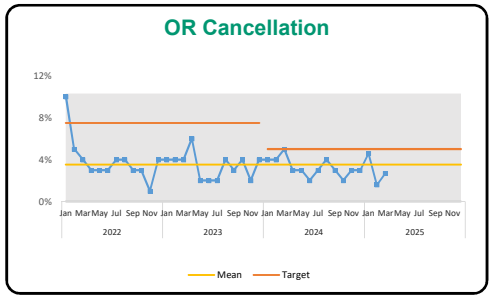
Efficiency

Jeddah









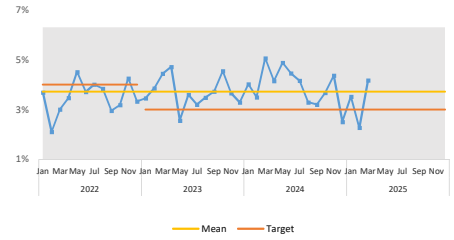
Key Performance Indicators

Effectiveness

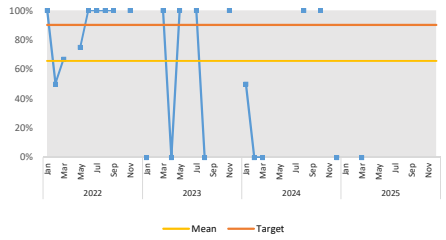
Jeddah

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

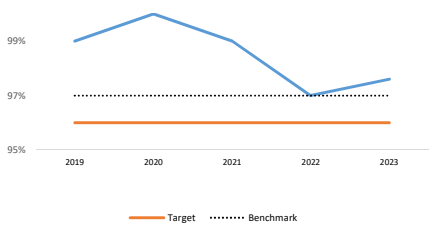
Readmission Rate < 7 days



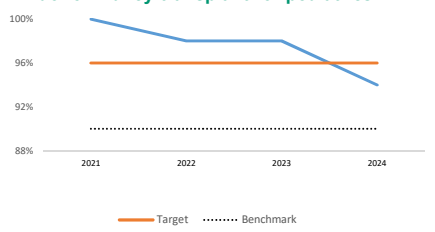
% Door to Balloon Time < 90 min



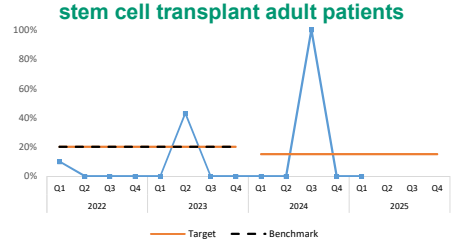
One- year graft survival rate for living donor kidney transplant for adults



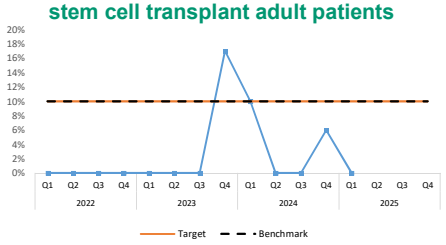
One-year graft survival rate for living donor kidney transplant for pediatrics



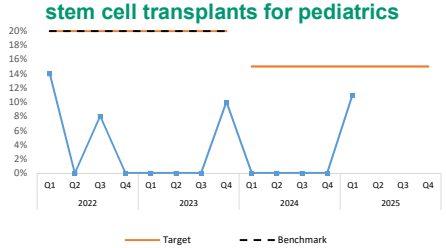
100- day mortality rate for allogeneic stem cell transplant adult patients



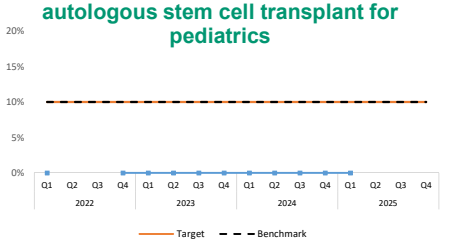
100-day mortality rate for autologous stem cell transplant adult patients



100-day mortality rate for allogeneic stem cell transplants for pediatrics



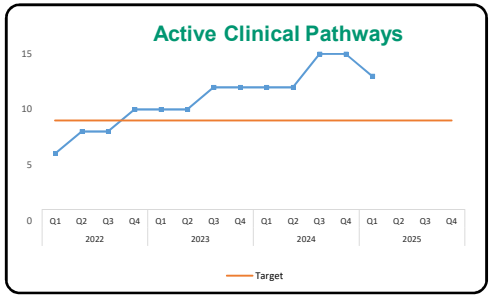
100- day mortality rate for autologous stem cell transplant for pediatrics

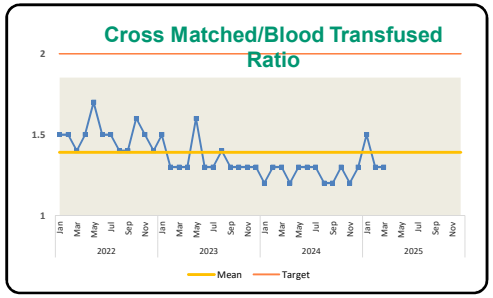


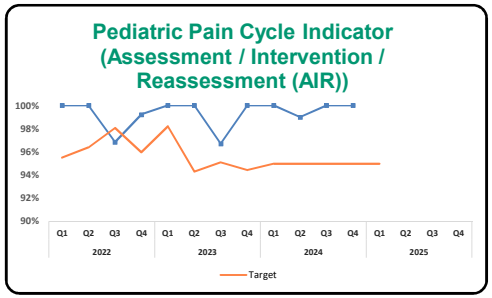
Key Performance Indicators

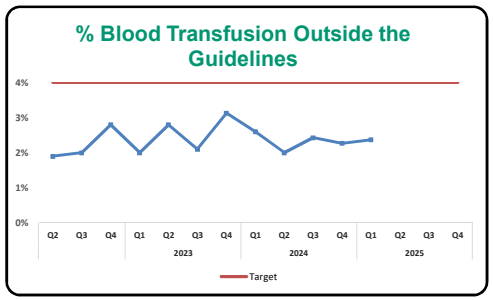
Appropriateness

Jeddah





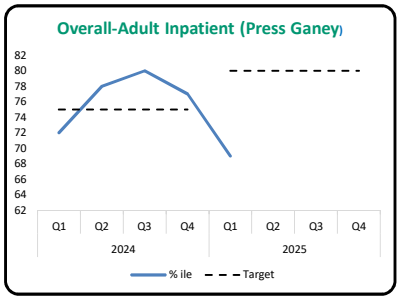


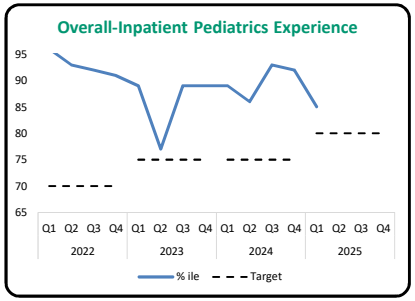


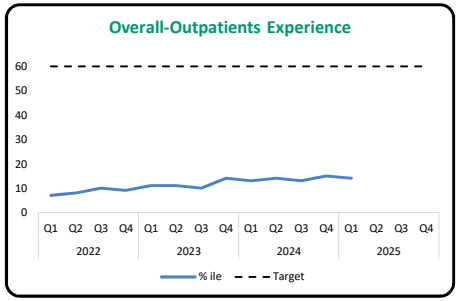
Key Performance Indicators

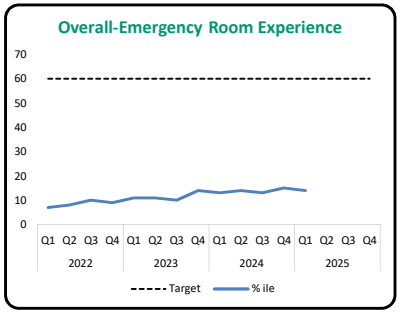
Experience

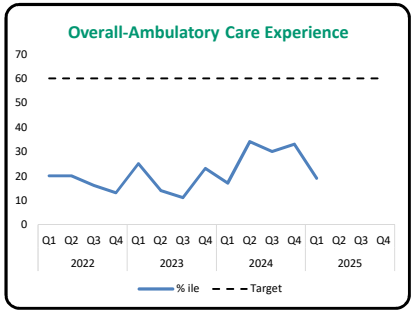
Jeddah

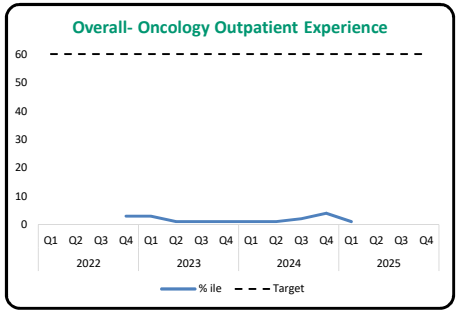








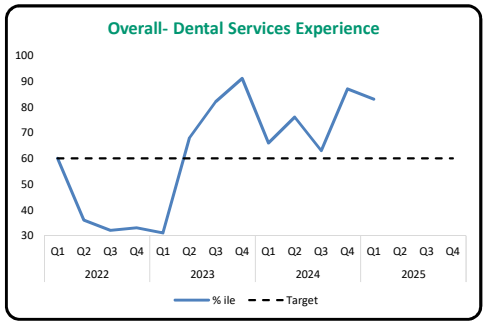


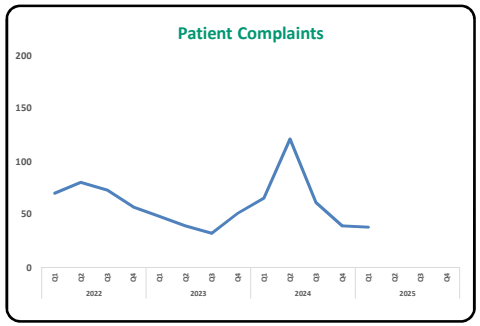


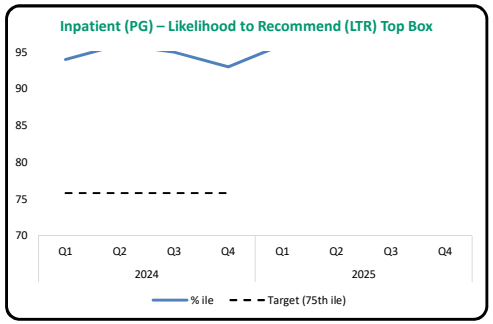
Key Performance Indicators

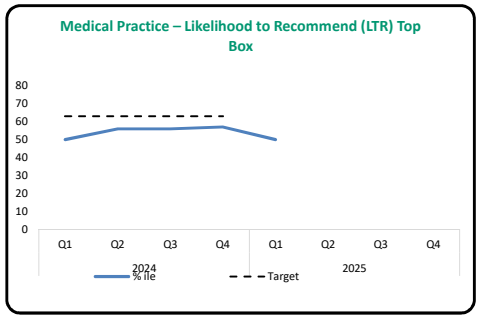
Experience

Jeddah





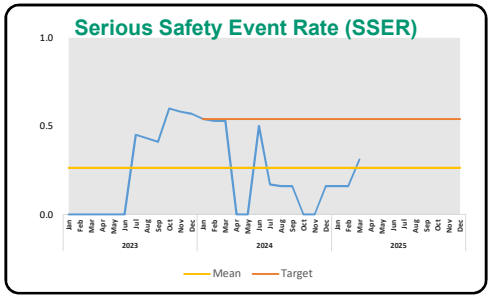


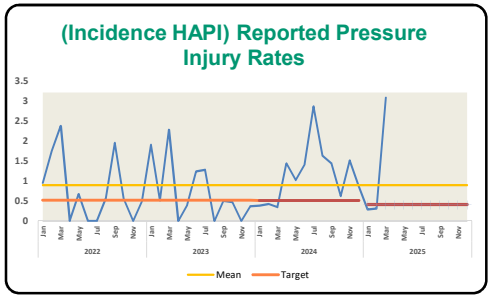


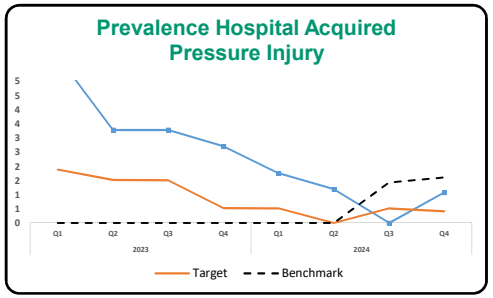
Key Performance Indicators

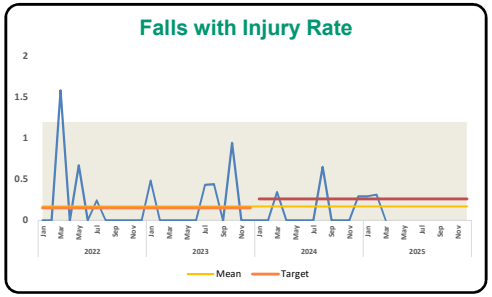
Safety

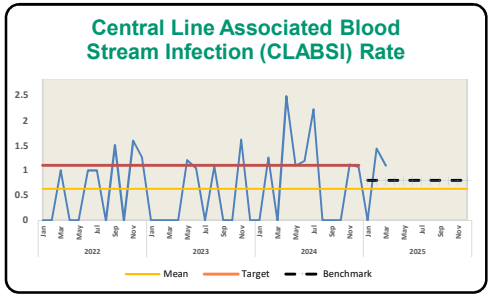
Madinah

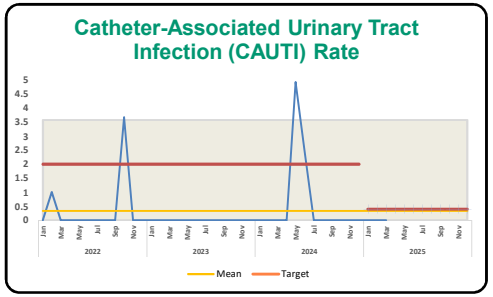








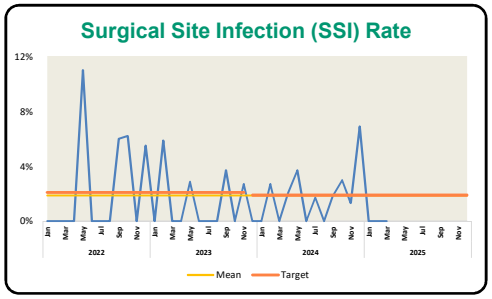


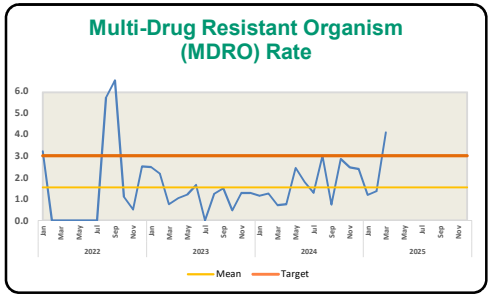


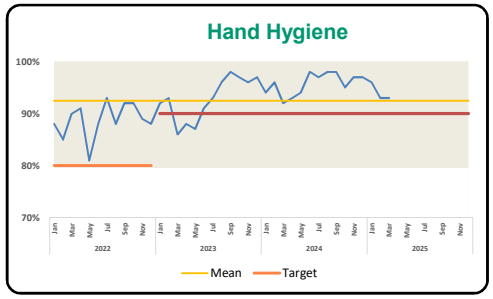
Key Performance Indicators

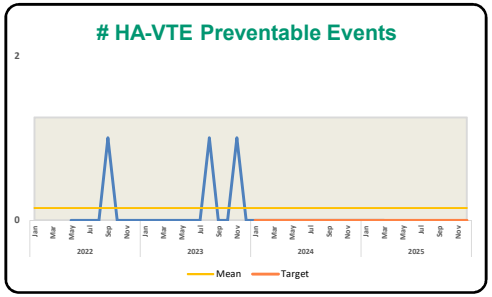
Safety

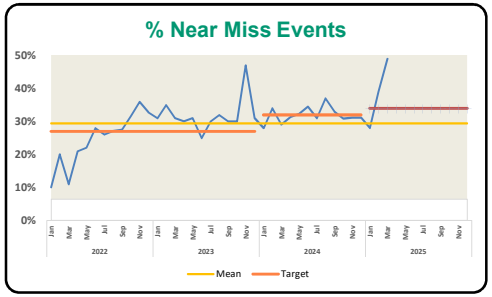
Madinah

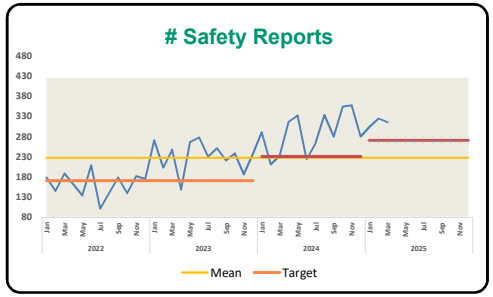








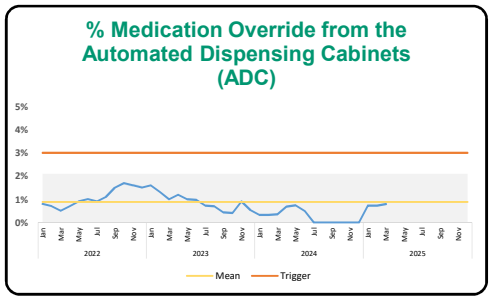


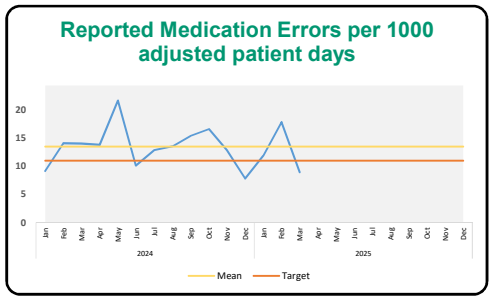


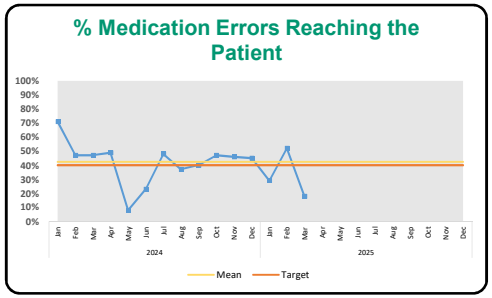
Key Performance Indicators

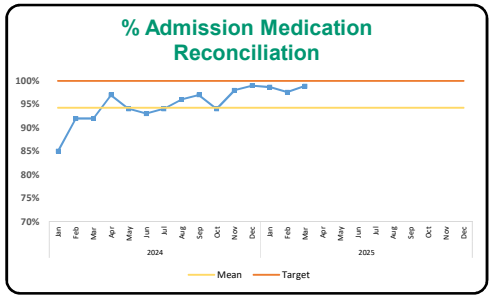
Safety

Madinah





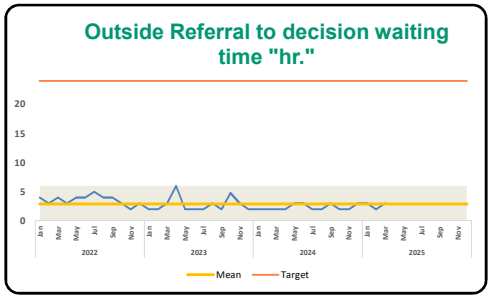


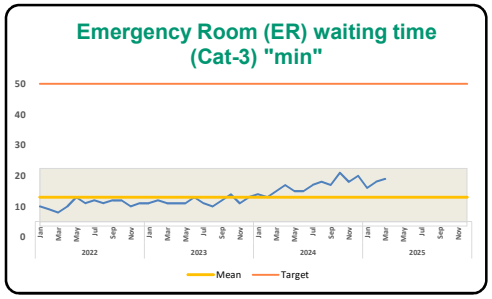


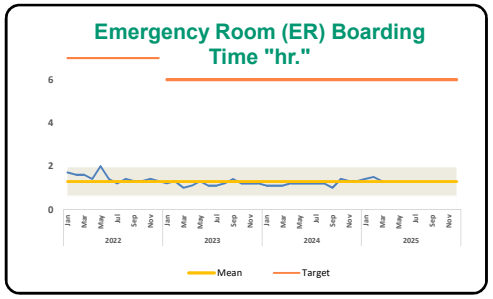
Key Performance Indicators

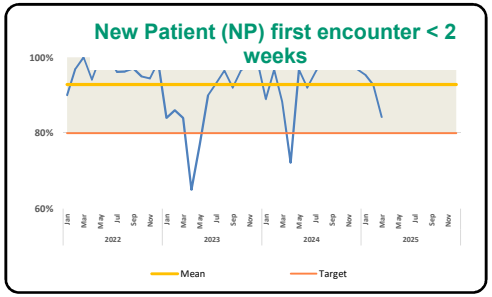
Access

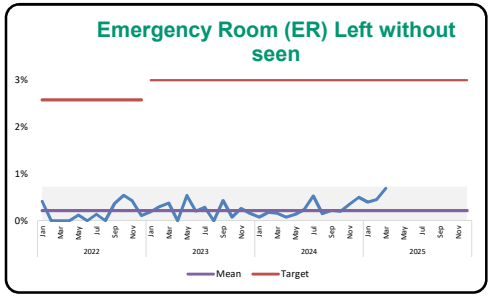
Madinah

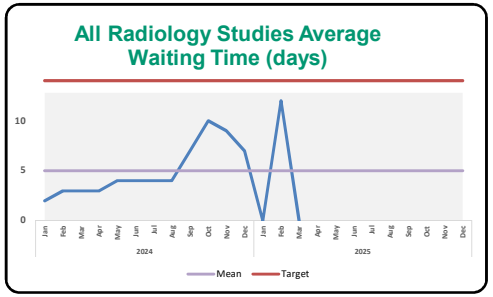








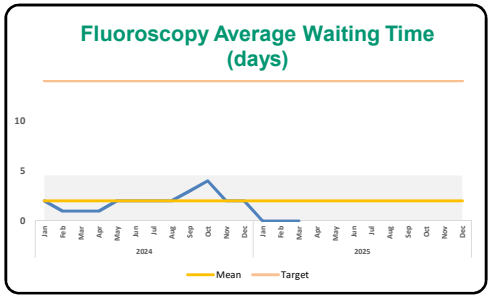


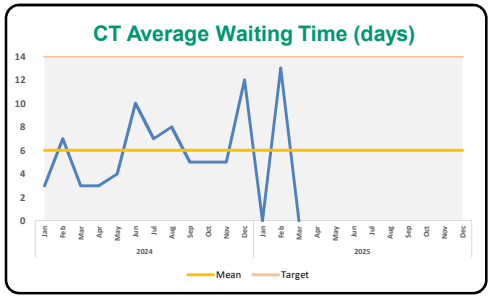


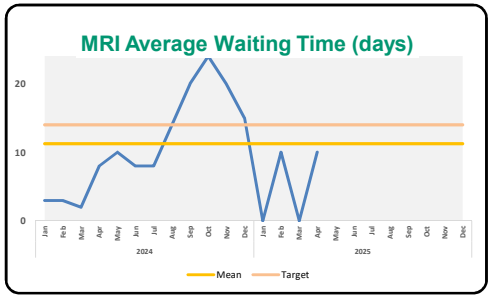
Key Performance Indicators

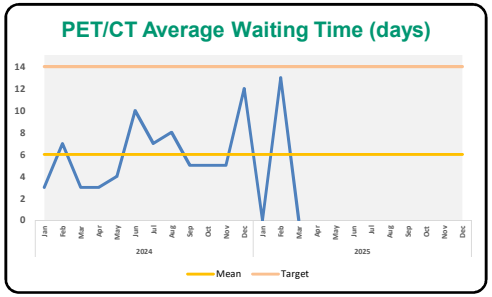
Access

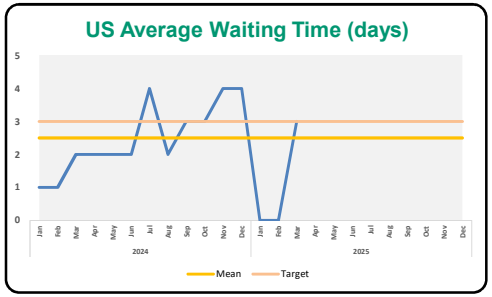
Madinah

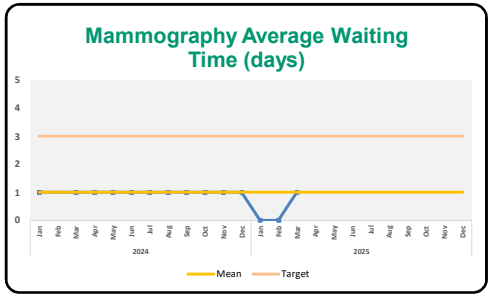








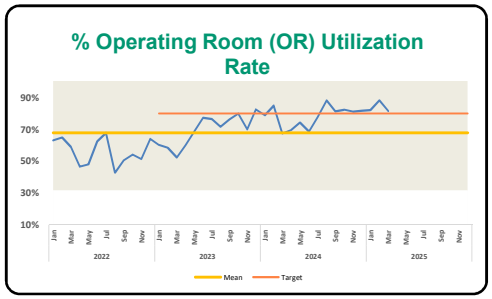


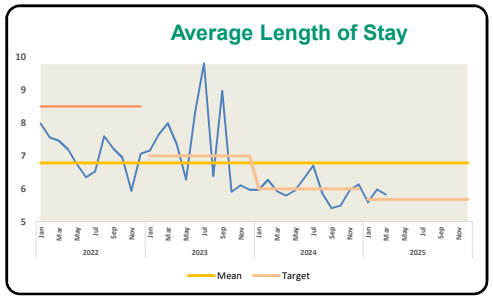


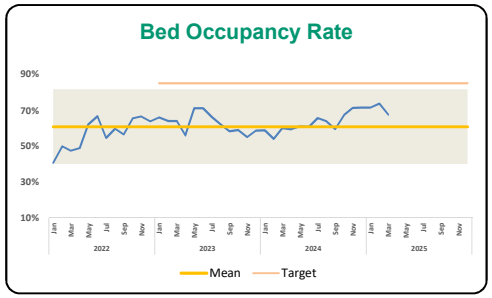
Key Performance Indicators

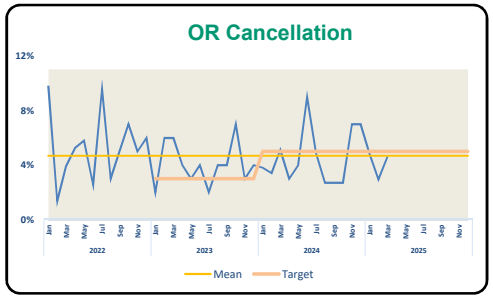
Efficiency

Madinah









Effectiveness

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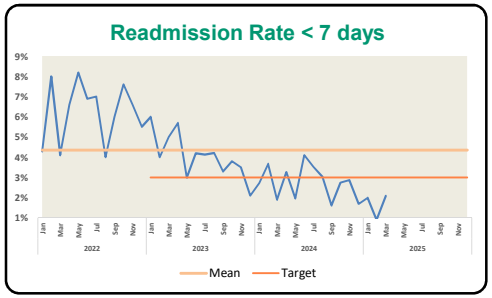
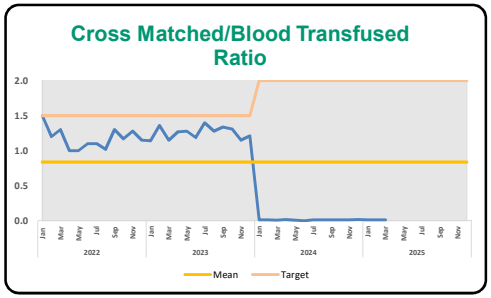
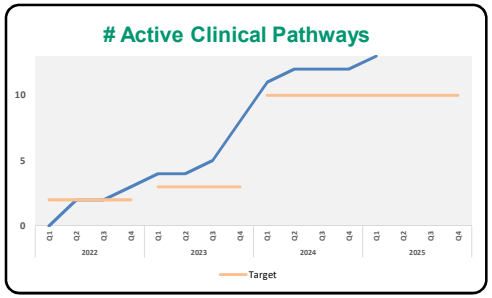


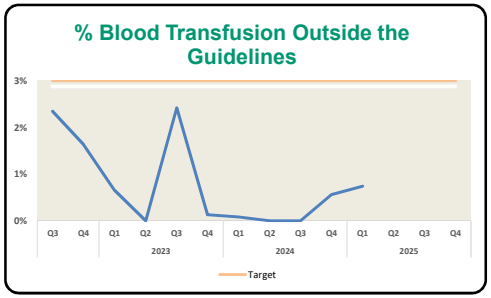
Key Performance Indicators

Appropriateness

Madinah



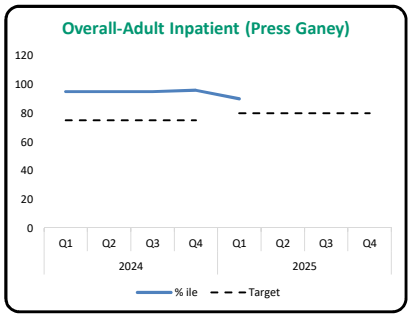


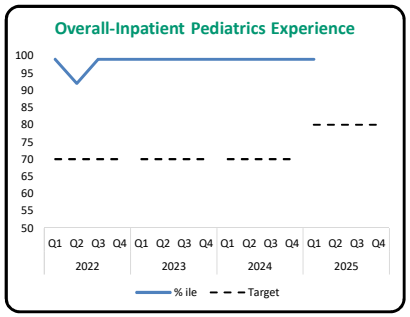


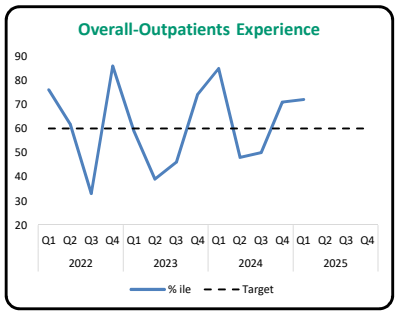
Key Performance Indicators

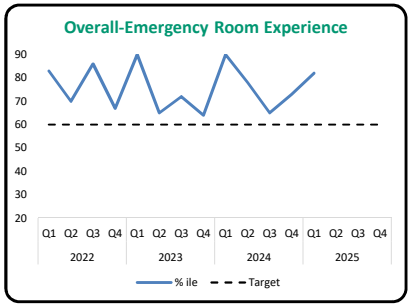
Experience

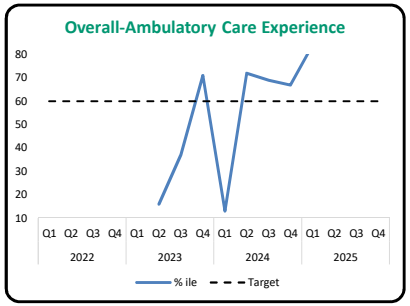
Madinah

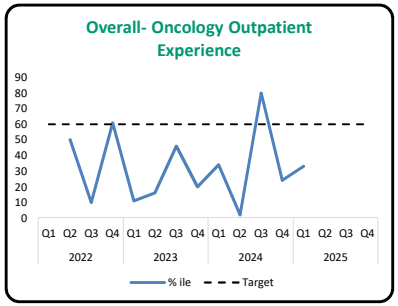








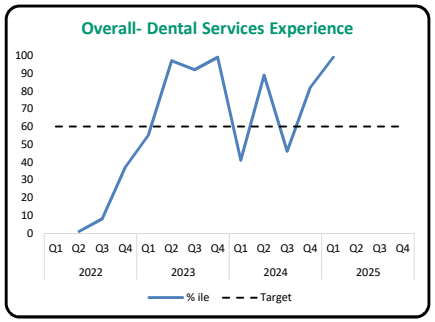


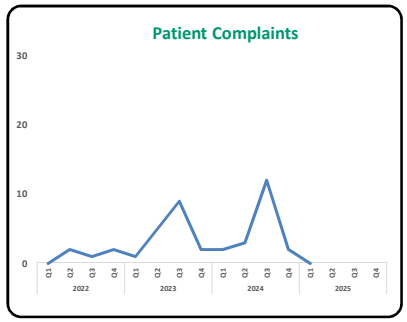


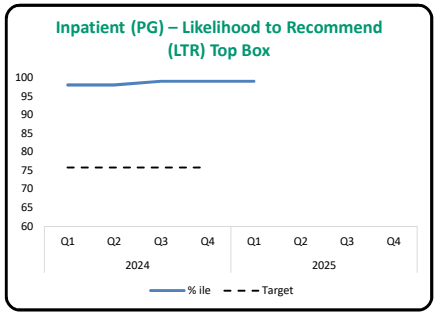
Key Performance Indicators

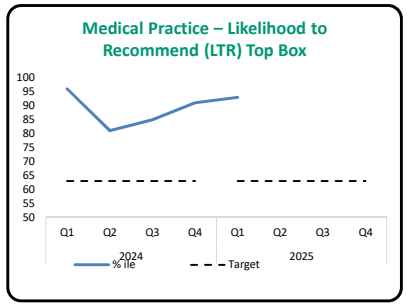
Experience

Madinah









08

Appendix A: KPIs Definitions

Appendix - A 2024

	Legend	Explanation
	Area of strength	1.KPI meets the target for two months or more (within the quarter). 2. KPI is improving all the time
	Area for Improvement	1.KPI does not meet the target for two months or more (within the quarter). 2.KPI is not improving by time.
	Not strength nor Improvement	1. Stable or close to the target. 2.KPI meets the target in some months but not improving by time.
	No Data Provided	Data was not received from the owner yet (not ready by the report releasing time)
	Not Active / discontinued	Not measured yet in this site

KPIs Definitions
Safety

1. Serious Safety Event Rate (SSER) per Adjusted Patient Days

"The Serious Safety Event Rate (SSER) for hospitals is calculated as a rolling 12-month average of Serious Safety Events (SSE) per 10,000 Adjusted Patient Days. Twelve consecutive months of SSE data is required to calculate the initial SSER. Serious Safety Event is defined as a deviation from Generally Accepted Performance Standard (GAPS) that reaches the patient and results in moderate to severe harm or death. Total number of Serious Safety Events during past 12 months/Adjusted Patient Days for past 12 months X 10,000.Target: Riyadh: 0.43, Jeddah Target: 0.17, Madinah: 0.54Benchmark: Not Available (NA)"

2.1 A Percent of surveyed patient with Hospital Acquired pressure injury (stage 2 and above)

"The number of patients with a documented pressure injury of Stage 2,3,4, Unstageable or DTI on the day of the NDNQI pressure injury survey that is hospital acquired divided by the total number of patients surveyed and multiplied by 100.Target NDNQI (National Database of Nursing Quality Indicators) hospitals with bed size of 500 staffed bed or more. Benchmark Riyadh and Jeddah: NDNQI"

2.2 Pressure Injury Rate

"Total number of Hospital acquired Pressure Injury (HAPI) Stage 2 and Above per 1000 patient days. If a patient has more than one HAPI it is counted as one HAPI. Community acquired pressure injuries are excluded. Total No. of PU in a month /Patient Days X 1000.Target: Riyadh: 0.24, Jeddah: 0.52, Madinah 0.51 "

3. Falls with Injury

"Total number of patient falls that result in injury based on the inclusion criteria reported monthly in QIS (Quality Information system). It's a combination of Inpatient and Outpatient. Our internal target is set based on the previous year result and changed based on KFSH strategic objective. Total Number of Falls in a month with inclusion criteria x 1000/Patient Days. Target: Riyadh: 0.19, Jeddah: 0.15, Madinah: 0.26 "

4. Central Line (CLABSI) Rate

"A laboratory confirmed bloodstream infection (LCBI) where an eligible bloodstream infection organism is identified, and an eligible central line is present on the LCBI date of event or the day before. Incidence Density: the number of new cases within a specified time period divided by the size of the population initially at risk""(# of New CLABSI / # of Central Line Days) X 1000Target: Riyadh: 1.1, Jeddah: 1.1, Madinah: 0.8Benchmark: 1.1 (National Healthcare Safety Network (NHSN))"

KPIs Definitions
Safety

5. Catheter-Associated Urinary Tract Infection (CAUTI) Rates

"A urinary tract infection where an indwelling urinary catheter was in place for >2 calendar days on the date of event, with day of device placement being Day 1, and an indwelling urinary catheter was in place on the date of event or the day before. If an indwelling urinary catheter was in place for more than 2 consecutive days in an inpatient location and then removed, the date of event for the UTI must be the day of device discontinuation or the next day for the UTI to be catheter-associated.(# of New CAUTI / # of Urinary Catheter Days) X 1000Target: Riyadh: 2, Jeddah: 2, Madinah:0.4Benchmark: 2 (National Healthcare Safety Network (NHSN))"

6. Surgical Site Infection (SSI) Rate

"An infection that occurs after surgery in the part of the body where the surgery took place. Surgical site infections can sometimes be superficial infections involving the skin only. Other surgical site infections are more serious and can involve tissues under the skin, organs, or implanted material. The composite indicator that provides a combined score for the following indicators:• CABG, Cesarean Section, Colon Surgery, Rectal Surgery, Ventricular Shunt Procedure, Abdominal Hysterectomy, Cardiac Procedure, Craniotomy, Hip Prosthesis, Kidney Transplant, Knee Prosthesis, Liver Transplant, Heart Transplant. Each indicator presents the percentage of surgical procedures included in the surveillance that meets National Healthcare Safety Network (NHSN) benchmark.""# of Surgical Site Infections (SSI) of selected operative procedure category for surveillance during the quarter / # of procedures of the same selected operative category for surveillance during the same quarter X 100Target: Riyadh: 2.1%, Jeddah 2.1, Madinah:1.9Benchmark: 2.1 (National Healthcare Safety Network (NHSN))"

7. Multi-Drug-Resistant Organism (MDRO) Rate

"Incidence rate of Hospital onset MDRO from all inpatient locations includes infection and colonization.(Total number of hospital onset MDRO / Patient days) * 1000Target: Riyadh: 3, Jeddah: 3, Madinah: 3"

8. Hand Hygiene

"The proportion of audited staff that follow hand hygiene procedures before and after contact with patients and their environment. Number of compliance events before or after contacts/ Total number of audits*100Target: Riyadh: 90%, Jeddah: 90%, Madinah: 90%"

KPIs Definitions
Safety

9. % Near Miss Events
"The percentage of the incidents reported through the QIS that was about to occur but was captured before they reach the patient to the total number of reported incidents. Reported Near Misses/ Total number of Reported Incidents x 100Target: Riyadh: 27%, Jeddah: 34%, Madinah: 32 %Benchmark: Not Available (NA)"

10. Number of Safety Reports
"It is the number of the incidents that are reported through the Quality Information system (QIS) on the last day of the reporting period. Total incidents reported in QIS (- All rejected incidents).Target: Riyadh: 1020, Jeddah: 850, Madinah: 230Benchmark: Not Available (NA)"

11. # HA-VTE Preventable Events
"Hospital-Acquired Preventable Venous thromboembolism (HA-VTE) is defined as any episode of venous thrombo-embolism during admission and within 60 days after discharge that is not present during admission and were not on appropriate measures. Target: Riyadh: 0, Jeddah: 0, Madinah: 0Benchmark: Not Available (NA)"

12. % Medication Override from the Automated Dispensing Cabinets (ADC)
"Percent of medication removed from the automated dispensing cabinets (ADC) utilizing the override function in relation to the total number of medications removed from the (ADC).Formula: Medication removed from the automated dispensing cabinets (ADC) utilizing the override function divided by / total number of medications removed from the (ADC) X100Trigger: Riyadh: 2.5%, Jeddah: 2.5%, Madinah: 3%Benchmark: Not Available (NA)"

13. % Admission Medication Reconciliation
"Admission Medication reconciliation is the process of creating the most accurate list possible of all medications the patient is taking including drug name, dosage, frequency, and route and comparing that list against the physician’s admission orders, with the goal of providing correct medications to the patient at all transition points within the hospital. The indicator will show the percent of patients who had their medications reconciled upon admission to the hospital out of the total number of admitted inpatients. Total number of patients with completed admission medication reconciliation / Total number of admitted inpatients x100Target: Riyadh: 100%, Jeddah: 100%, Madinah: 100%Benchmark: Not Available (NA)"

KPIs Definitions
Safety

14. % Discharge Medication Reconciliation
"Discharge Medication reconciliation is the process of creating the most accurate list possible of all medications the patient is taking including drug name, dosage, frequency, and route and comparing that list against the physician's discharge orders, with the goal of providing correct medications to the patient at all transition points within the hospital. The indicator will show the percent of patients who had their medications reconciled upon discharge from the hospital out of the total number of discharged inpatients Total completed Discharge reconciliation / total inpatient discharges x100Target: Riyadh 100%, Jeddah: 100%, Madinah: 100%Benchmark: Not Available (NA)"

15. Reported Medication Errors per 1000 adjusted patient days
"Total number of reported medication errors including all levels of harm and all stages of the medication use process, reported through the Quality Information System by incident date per 1000 patient days Total number of reported medication errors including all levels of harm and all stages of the medication use process in QIS by incident date/Patient Days X 1000Target: Riyadh: 3.4, Jeddah: 5.38, Madinah: 11%Benchmark: Not Available (NA)"

"16. % Medication Errors Reaching the Patient"
"The percent of reported medication errors reaching the patient (non near miss events), from the total number of reported medication errors including all stages of medication use process reported through the Quality Information System per month. Number of reported medication errors reaching the patient (non near moss reports) / Total number of reported medication errors including all stages of medication use process and all levels of harm reported through the Quality Information System per month X100Target: Riyadh: 38%, Jeddah: 18%, Madinah: 40%Benchmark: Not Available (NA)"

KPIs Definitions

Access

1. Outside Referral to decision waiting time "hr"

"This is the median time (in hours) from when the referred case is uploaded in the referral system to decision (to either accept/not accept/Incomplete) by the appropriate medical department/referred medical department during the period under review Decision time – Case upload TimeTarget: Riyadh: 24, Jeddah: 24, Madinah: 24Benchmark: Not Available (NA)"

2. Emergency Room (ER) waiting time to be seen (3) "min".

"It is the median time (minutes) to be seen by a physician spent in the ER by patients who are categories as a (3). It is computed from time of patient register in the registration desk till been seen by a DEM consultant for that category. (Seen by a DEM consultant is dropped when the consultant claims the case in FirstNet)""Actual time patients seen by DEM consultant – time patient was register then (Total number of patient +1)/2 ""Target: Riyadh: 50, Jeddah: 50, Madinah: 50Benchmark: Not Available (NA)"

3. Emergency Room (ER) Boarding Time "hr."

"""It is the median time (hours) to admission spent in the ER by patients who had a decision to be admitted. It is computed from time of doctor decision to admit patient to the time the patient leaves the emergency room heading to the floor, discharged from DEM or dead in DEM. Actual admission time is the time where patient physically leave DEM to inpatient Unit. "Actual patients admission time to floor – DEM doctor decision to admit patient time then (Total # +1) /2= Median Target: Riyadh: 6, Jeddah: 10, Madinah: 6Benchmark: Not Available (NA)"

4. New Patient (NP) first encounter < 2 weeks

"""Percentage of new patients accepted that have a first encounter before 2 weeks from acceptance for the 5 core services in the Riyadh (Oncology, Heart center, Organ Transplants, Neuroscience, Genetics), in Jeddah (Oncology, Heart center, Neuroscience).""Total number of accepted patients first encounter before 2 weeks as per the inclusion criteria divided by total number of accepted patients in the same period X 100 Target: Riyadh: 80% Jeddah: 80%, Madinah: 80%Benchmark: Not Available (NA)"

5. Emergency Room (ER) Left without seen

"It is the percentage of patients who left the emergency department because of waiting for a long time and before they are been seen by a physician. Total Number of patient who Left Without Being Seen / total emergency visits X 100Target: Riyadh: 3%, Jeddah: 2.58%, Madinah: 3%Benchmark: Not Available (NA)"

6. Radiology waiting time Priority 1 (New Patient: Oncology, Cardiac, Transplant, Neuro)

"The waiting time (in days) to the third available Radiology appointment slot per Modality. Target: Riyadh: 14 Days, Jeddah 14 Days, Madinah: 14Benchmark: Not Available (NA)"

KPIs Definitions
Efficiency

"1. % Operating Room (OR) utilization rate"

"OR Utilization rate is the time (in hours) actually used for patient care plus average turnover time for the reporting period divided by the number of hours available/schedulable. (Utilized time in hours / Available time in hours) Target: Riyadh: 80%, Jeddah: 85%, Madinah: %80Benchmark: Not Available (NA)"

2. Average Length of Stay (ALOS)

"The length of stay of a patient should be counted as the date of discharge minus the date of admission.(Total Discharge Days / Total Discharges).Target: Riyadh: 7.54, Jeddah: 8.5, Madinah: 6 Benchmark: Not Available (NA)"

3. Bed Occupancy Rate

"Occupancy rate is the average daily census divided by the number of flagged as counted inpatient beds on the last day of the reporting period, expressed as a percentage (Patients are counted at 23:59 every day). Counted beds are beds flagged by the admission office based on Approval of the COO. Counted beds include beds closed on the short term for infection control, staffing or maintenance reasons. Average Daily Census / Inpatient beds (include ICU) X100Target: Riyadh: 85%, Jeddah: 85%, Madinah: 85%Benchmark: Not Available (NA)"

4. Operating Room (OR) Cancellation

"Percentage of OR cancellation. Target: Riyadh: 7.5%, Jeddah: 7.5%, Madinah: 3%Benchmark: Not Available (NA)"

KPIs Definitions
Effectiveness

1. Readmission Rate < 7 days
"This is the number of patients who were readmitted within 7 days of discharge during the period under review. (All patients readmitted within 7 days of discharge / All patients discharged) X 100.Target (Riyadh, Jeddah, & Madinah): 3%Benchmark: Not Available (NA)"

2. Door To Balloon Time
"Percentage of Chest pain patients arriving at the DEM with ST elevation who are taken to the CCL for reperfusion in 90 minutes or less. Target: Riyadh: 85%, Jeddah: 90%, Madinah: NA Benchmark: Not Available (NA)"

3. Transplant Quality Index
"A composite index which is a combination of the 4 sub indicators, which are; 1-year graft survival rate for living donor liver transplants for adults, 1-year graft survival rate for living donor liver transplants for pediatrics, 1-year graft survival rate for living donor kidney transplants for adults, and 1-year graft survival rate for living donor kidney transplants for pediatrics. Adults are 18+.Transplant Quality Index
3.1 1-year graft survival rate for living donor liver transplants for adults. Riyadh Target: 85%; Benchmark: 92.14%.3.2 1-year graft survival rate for living donor liver transplants for pediatrics. Riyadh Target: 98%; Benchmark: 91.68%.3.3 1-year graft survival rate for living donor kidney transplants for adults. Riyadh Target: 98.09%; Benchmark: 98.%, Jeddah Target: 98%; Benchmark: 97%.3.4 1-year graft survival rate for living donor kidney transplants for pediatrics. Riyadh Target: 95%; Benchmark: 98.74%, Jeddah Target: 98%; Benchmark: 90%."

4. Oncology Quality Index for Adults
"A composite index which is a combination of the 5 sub indicators, which are; 100-day patient mortality rate for allogenic stem cell transplant adult patients, 100-day patient mortality rate for autologous stem cell transplant adult patients, 5-year actual patient survival rate for colorectal cancer in adults, 5-year actual patient survival rate for lymphoma for adults and 5-year actual patient survival rate for breast cancer for adults. Adults are 18+.Oncology Quality Index for Adults4.1 100-day patient mortality rate for allogenic stem cell transplant adult patients. Riyadh Target: 10%; Benchmark:10%, Jeddah Target: 20%.4.2 100-day patient mortality rate for autologous stem cell transplant adult patients. Riyadh Target: 5%; Benchmark:5%, Jeddah Target: 10%.4.3 5-year actual patient survival rate for colorectal cancer in adults. Riyadh Target: 94.5%.4.4 5-year actual patient survival rate for lymphoma for adults. 4.5 5-year actual patient survival rate for breast cancer for adults. Benchmark: Not Available (NA)"

5. Oncology Quality Index for Pediatrics

"A composite index which is a combination of the 4 sub indicators, which are; 100-day patient mortality rate for allogenic stem cell transplants for pediatrics, 100-day patient mortality rate for autologous stem cell transplants for pediatrics, 5-year patient survival rate for Renal Tumors for pediatrics, and 5-year patient survival rate for acute lymphoblastic leukemia for pediatrics. Oncology Quality Index for Pediatrics 5.1 100-day patient mortality rate for allogenic stem cell transplants for pediatrics. Riyadh Target: 10%; Benchmark:10%, Jeddah Target: 20%; Benchmark: 10%.5.2 100-day patient mortality rate for autologous stem cell transplants for pediatrics. Riyadh Target: 5%; Benchmark:0%, Jeddah Target: 10%; Benchmark: 5%.5.3 5-year patient survival rate for Renal Tumors for pediatrics. Target: 94%.5.4 5-year patient survival rate for acute lymphoblastic leukemia for pediatrics. Target: 88%.Benchmark: Not Available (NA)"

Sub Indicator Description (Updated 3rd Q 2021)

"100-day patient mortality rate for allogenic stem cell transplants for pediatrics: Measures the percentage of pediatric patients who have received allogenic stem cell transplant which have not survived past the 100-day mark since the procedure. A measurement lag will exist when measuring the 100-day mortality rate to ensure 100 days have elapsed since the patient received the procedure (e.g. reporting in H1 2019 will include only those who received a procedure 100 days before the end of H1 2019).(Number of pediatric patients who received allogenic stem cell transplant which have not survived for more than 100 days / Number of pediatric patients who received allogenic stem cell transplant in the same period) * 100"

6. Cardiology Quality Index

"Cardiology quality index is the composite of three sub indicators, which are; the 1-year patient survival rate for heart transplants for adults, the 1-year patient survival rate for heart transplants for pediatrics, and the 30-day re-admission rate for heart failures. The patients who are tracked for survival rates do not have to be the same patients for both time horizons. Adults are 18+.Target: Not Available (NA)Cardiology Quality Index 6.1 1-year patient survival rate for heart transplants for adults. Riyadh Target: 85%6.2 1-year patient survival rate for heart transplants for pediatrics. Riyadh Target: 90%"

KPIs Definitions
Appropriateness

1. Active Clinical Pathways
"The total number of active Clinical Pathways. Target: Riyadh:40 per year, Jeddah: 9, Madinah: 10 (To be confirmed) Benchmark: Not Available (NA)."

2. Crossmatch : Blood Transfusion Ratio (C:T ratio) New
"In the Blood Bank, this is a ratio of crossmatched red blood cell units (RBC) for potential transfusion, versus the number of actual transfused units. By tracking the C:T ratio, the ordering process for the efficient use of red blood cell units is monitored. Target: Riyadh: 2, Jeddah: 2, Madinah: 1.5Benchmark: Not Available (NA)."

3. % CT Scan Radiation Dose following the NDRL guidelines (Adults)
"The percentage of CT scan cases following the recommended national diagnostic reference levels (NDRL) guidelines for adults. Target: Riyadh: 95%, Jeddah: NA, Madinah: NA Benchmark: Not Available (NA)."

4. % CT Scan Radiation Dose following the NDRL guidelines (Pediatrics)
"The percentage of CT scan cases following the recommended national diagnostic reference levels (NDRL) guidelines for pediatrics. Target: Riyadh: 95%, Jeddah: NA, Madinah: NA. Benchmark: Not Available (NA)."

3. % Blood Transfusions outside the Guidelines
"The percentage of the blood transfusion cases outside the guidelines covering all inpatients units in KFSH&RC excluding ICU'S and ER.for RBC < 80 g/l , and for Platelets < 10.Total number of Transfusion outside the guidelines /Total transfusion (within and outside the guidelines) X 100Target: Riyadh: 12%, Jeddah: 12%, Madinah: 3%"

4. Pediatric Pain Cycle Indicator (Assessment / Intervention / Reassessment (AIR))
"A cross-sectional count of the number of cases with completed pain AIR cycles who exist on the patient care unit at a specific point in time. Target: Riyadh: NDNQI Benchmark, Jeddah: NDNQI Benchmark, Madinah: NA. "

KPIs Definitions
Experience

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1. Overall Hospital Rating (PG)
"The average satisfaction score of all adult patients admitted to KFSH&RC for medical services Note: Effective Q1-2023 we will transition from the HCAHPS survey to the press Ganey survey for our adult inpatient population; thus, we will have one inpatient score that measures the experience of all inpatients (adult and pediatric). In addition, we will retain the HCAHPS (Adult) inpatient global domains overall rating and LTR Benchmark: 80th percentile (88.5)"

2. Inpatient Pediatrics Experience
"Average score of pediatric patient experiences within inpatient hospital stays, Inpatient ≤ 14 years old. Overall Mean score = Patient (1) mean score+…Patient (n) mean score / total # of patients. Target/ Benchmark (2025): 80th percentile (88.5)"

3. Outpatients Experience
"Average score of patient experiences with the Outpatient Physician/Nurse Practitioner clinic visits. Overall Mean score = Patient (1) mean score+…Patient (n) mean score / total # of patients. Target/ Benchmark (2025):60th percentile (94.3)"

4. Emergency Room Experience
"Average score of patient experiences with the emergency department visits, who were treated and discharged. Overall Mean score = Patient (1) mean score+…Patient (n) mean score / total # of patients. Target/ Benchmark (2025): 60th percentile (88.2)"

5. Ambulatory Care Experience
"Average score of patient satisfaction with same day surgical procedures, tests, treatments and programs. Overall Mean score = Patient (1) mean score+…Patient (n) mean score / total # of patients. Target/ Benchmark (2025): 60th percentile (96.6"

KPIs Definitions
Experience

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6. Oncology Outpatient Experience
"Average score of patient experiences with the Oncology Outpatient Services (Chemotherapy, Radiotherapy).Overall Mean score = Patient (1) mean score+…Patient (n) mean score / total # of patients. Target/ Benchmark (2025): 60th percentile (95.8)"

7. Dental services Experience
"Average score of patient experience during dental practice or orthodontic service visits. Overall Mean score = Patient (1) mean score+…Patient (n) mean score / total # of patients. Target/ Benchmark (2025): 60th percentile (91.7)"

"8. Inpatient Experience Inpatient (PG) – Likelihood to Recommend (LTR) Top Box"
Target/ Benchmark (2025):96th percentile (87.5)

"9. Outpatient Experience Medical Practice – Likelihood to Recommend (LTR) Top Box"
Target/ Benchmark (2025):65th percentile (87.5)

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Appendix B:
Mortality & Morbidity Categories

Appendix B
Mortality Categories

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Category 1	Expected death due to terminal illness/end of stage chronic disease. Without health care provider delay, omission and/or commission identified
Category 2	Expected death, with health care provider delay, omission and/or commission identified
Category 3	Unexpected death, without health care provider delay, omission and/or commission identified
Category 4	Unexpected preventable death, with health care provider delay, omission and/or commission identified

Appendix B
Morbidity Categories

Severity Assessment Code (SAC):
Adapted from Department of Veterans Affairs, Veterans Affair National Center for Patient Safety, Ann Arbor, Michigan, USA

Figure 1 Consequences Table

	Serious	Major	Moderate	Minor	Near Miss
Clinical Consequences Patient	Cardiac and/or respiratory arrest/ Failure as result of occurrence.	Cardiac changes requiring intervention because of occurrence	Vital Signs changed as result of occurrence	No harm to the patient or person involved	Occurrence did not reach the patient
	Ventilation required or prolonged	Hospital-acquired fractures	Decreased level of consciousness	Patient requiring increase level of care including:	May have potentially led to harm, but did not actually occur (for example wrong medication prescribed but alerted before dispensed)
	Patient with Death unrelated to the nature course of illness and differing from the immediate expected outcome of the patient management	Bleeding requiring immediate intervention	Additional medication	Review and evaluation	
	Procedures involving the wrong patient or body part	Transfer to higher level of care (ICU) as result of occurrence	Treatment required	Additional investigations	
	Possible suicide	Change of laboratory values of critical levels	Invasive diagnostic procedures required	Referral to another clinician	
	Retained instruments/material requiring intervention	Surgical intervention required because of occurrence			

Appendix B
Morbidity Categories

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Severity Assessment Code (SAC):
Adapted from Department of Veterans Affairs, Veterans Affair National Center for Patient Safety, Ann Arbor, Michigan, USA

Figure 1 Consequences Table

	Serious	Major	Moderate	Minor	Near Miss
Clinical Consequences Patient	Hemolytic blood transfusion	Hospital admission is Required as result of occurrence			
	Medication error leading to death				
	Maternal death or serious morbidity associated with labor or delivery				
	Infant abduction or discharge to wrong family				

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Appendix C:
Detailed Priority Risks

Detailed Risk Riyadh CGM

Risk Rating	Active Management	**Risk Impact**	Extreme	**Risk Likelihood**	Likely	**Due Date - Mitigation Plan**	Dec 2025

Risk ID	CGM-R-016	**Group/Division**	**CGM**	**Branches**	**Riyadh ✓**	**Jeddah**	**Madinah**

Risk Title	Suspension or delay of services
Detailed Risk Statement	**IF** we are unable to maintain and analyze the produced genomic data **Because of** shortage of storage resources compared to increasing sequencing load, **Then** there will be interruption/delay of services and maybe loss of precious historical genomic data.
Risk Group	Operational
Risk Category	Information Technology
Risk Sub-Category	Data Integrity & Patient Record Management
Risk Owner	CGM
Mitigation Strategy	Accept / Avoid / Treat/Mitigate / Transfer

Control Measures

- The CGM team has implemented a very strict procedure to maintain only the most essential datasets and delete the other data that can be reproduced or recomputed (These procedures, which is extremely sophisticated, consumes much of the team time, and this ultimately lead to reduced productivity and delay of services).

Mitigation Plan

- CGM recently acquired extra throughput sequencing machines, leading to doubling produced data size. Acquisition of storage and IT resources is essential for the operation of genomic testing due to the growing size of the data. Note: CGM submitted many memos (CGM/392/45, HITA/18/46, CGM-CS/20/46, CGM-CS/30/46) to upgrade the infrastructure comprehensively to cope with growing clinical services and research,
but the reply was no fund available.

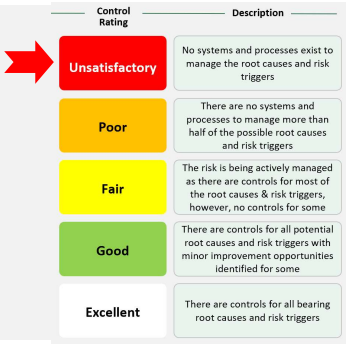
Detailed Risk Riyadh NSCOE

Risk Rating	Active Management	**Risk Impact**	High	**Risk Likelihood**	Almost Certain	**Due Date - Mitigation Plan**	Sep 2025

Risk ID	NSCOE-R-003	**Group/Division**	NSCOE (Neuroscience Center of Excellence)	**Branches**	**Riyadh ✓**	**Jeddah**	**Madinah**

Risk Title	Inability to bring the cutting edge instruments	**Risk Group**	Strategic
Detailed Risk Statement	**IF** Inability to bring cutting edge instruments and devices **Because** of limited budget **Then** preventing the center to move at the leading position regionally and globally	**Risk Category**	Strategy & Growth
		Risk Sub-Category	Strategic Transformation
		Risk Owner	Executive Director, Neuroscience Center of Excellence
		Mitigation Strategy	**Accept** / **Avoid** / **Treat/Mitigate** / **Transfer**

Control Measures	• There is no control for this risk.	**Mitigation Plan**	• To bring the new cutting edge devices. **SAUDI PDPL_ROPA Forms** was submitted to capital projects and seek financial support. No reply yet



Detailed Risks
Medical Services I Jeddah

Risk Rating	**Active Management**	**Risk Impact**	**High (4)**	**Risk Likelihood**	**Likely (4)**	**Due Date - *Mitigation Plan***	**Dec 2026**		
Risk ID	**MCA-R-241**	**Group/Division**	MCA			**Branches**	**Riyadh**	**Jeddah ✓**	**Madinah**
Risk Title	**Reduced Capacity of Core Service and Delayed Treatment Due to Radiation Therapy Center Constraints**					**Risk Group**	**Operational**		
Detailed Risk Statement	***IF:*** there is Limited access to Radiation Therapy ***BECAUSE:*** The unavailability of radiation therapy facility at KFSH&RC-J The demand vs. capacity imbalance of radiation therapy machines in the Western region ***THEN*** It could lead to: • Rejection of referrals • Delayed start of radiation therapy • Adverse patient outcomes • Patient scheduling challenges • Negative impact on Patient Experience					**Risk Category**	Health Care Delivery Quality and Patient Safety		
						Risk Sub-Category	**Medical Care**		
						Risk Owner	MCA-Oncology Department		
						Mitigation Strategy	**Accept**	**Avoid**	**Treat/Mitigate**	**Transfer**
Control Measures	❑ Refer patient to King Abdulaziz University Hospital to receive radiation therapy treatment. ❑ Redirect patient to KFSHRC-Riyadh or other facility			**Mitigation Plan**		▪ Explore funding opportunities: Seek funding sources to support the establishment of a local radiation therapy facility (Budget pending) ▪ Partnership with external facilities: Establish partnerships with nearby radiation therapy facilities to facilitate patient referrals and coordinate care.			

Detailed Risks
Medical Services I Jeddah

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Risk Rating	**Active Management**	**Risk Impact**	**High (4)**	**Risk Likelihood**	**Likely (4)**	**Due Date - *Mitigation Plan***	**DEC 2025**

Risk ID	**MCA-R-197**	**Group/Division**	MCA	**Branches**	**Riyadh**	**Jeddah ✓**	**Madinah**

Risk Title	**Reduced Acceptance and Delayed Surgical Operations Due to Limited Operating Rooms Capacity**	**Risk Group**	**Operational**
Detailed Risk Statement	***IF:*** there is a reduction in patient acceptance and delay in performing the surgical operations within timeframe ***BECAUSE:*** Inadequate Operating Room Capacity ***THEN*** It could lead to: • Low acceptance rate • Delayed surgeries • Adverse patient outcomes (e.g. cardiac patients) • Operational challenges • Financial losses • Increase waiting list (access to care)	**Risk Category**	Health Care Delivery Quality and Patient Safety
		Risk Sub-Category	**Medical Care**
		Risk Owner	MCA-Pre-Operative Services
		Mitigation Strategy	**Accept** / **Avoid** / **Treat/Mitigate** / **Transfer**

Control Measures	❑ Extend the operation for after hours and on the weekend ❑ Efficient OR utilization: Implement processes to optimize OR utilization, such as scheduling complex procedures during off-peak hours, minimizing turnaround times between cases and extend the operation hours during the night shift.	**Mitigation Plan**	▪ Capacity planning: Regularly assess the facility's OR capacity needs and develop strategies to address anticipated increases in demand. ▪ Outpatient and minimally invasive surgery: Expand outpatient and minimally invasive surgery options to reduce the need for inpatient procedures. ▪ Strategic partnerships: Collaborate with other healthcare providers and community organizations to share resources and coordinate care

Detailed Risks
Medical Services I Jeddah

Risk Rating	**Active Management**	**Risk Impact**	**Extreme (5)**	**Risk Likelihood**	**Possible (3)**	**Due Date - *Mitigation Plan***	**DEC 2026**

Risk ID	**MCA-R-018**	**Group/Division**	MCA	**Branches**	**Riyadh**	**Jeddah ✓**	**Madinah**

Risk Title	**Long Admission Waiting Lists Due to Limited Bed Capacity**	**Risk Group**	**Operational**
Detailed Risk Statement	***IF:*** the facility is unable to meet the demand for patient admissions ***BECAUSE:*** Insufficient bed capacity ***THEN*** It could lead to: • Delayed admissions • Prolong the boarding in EMS • Adverse patient outcomes • Patient dissatisfaction • Staff burnout • Financial losses	**Risk Category**	Health Care Delivery Quality and Patient Safety
		Risk Sub-Category	**Medical Care**
		Risk Owner	MCA
		Mitigation Strategy	**Accept** / **Avoid** / **Treat/Mitigate** / **Transfer**

Control Measures	❑ Efficient patient flow: Implement processes to optimize patient flow through the facility, reducing the length of stay and improving bed turnover. ❑ Start Performance Improvement projects early in 2022 in order to improve ALOS and bed utilization. ❑ Establish an Extended Care Facility Palliative Care Unit. ❑ Develop an Integrated home health care program. ❑ Admit patients to off service wards. ❑ Extend hours of operation and/or operate during the weekend in the Outpatient Oncology Treatment Areas (OTA.)	**Mitigation Plan**	Ongoing strategies: ▪ Capacity planning: Regularly assess the facility's bed capacity needs and develop strategies to address anticipated increases in demand. Required budget : ▪ Strategic partnerships: Collaborate with other healthcare providers and community organizations to share resources and coordinate care.

Detailed Risks
Medical Services I Jeddah

Risk Rating	**Active Management**	**Risk Impact**	**Extreme (5)**	**Risk Likelihood**	**Likely (4)**	**Due Date - *Mitigation Plan***	**DEC 2026**

Risk ID	**MCA-R-246**	**Group/Division**	MCA	**Branches**	**Riyadh**	**Jeddah ✓**	**Madinah**

Risk Title	**Revenue Loss Due to Coding Delays and Inaccuracies**	**Risk Group**	**Operational**
Detailed Risk Statement	***IF:*** Financial Risks of Inaccurate Coding could happen ***BECAUSE:*** • Medical coders fail to assign accurate codes • Incomplete/inaccurate clinical documentation leading to coding errors. • Insufficient coding/CDI staff affecting accuracy and timeliness. • Delayed or undocumented physician query responses hindering correct coding. • High discharge volumes &complex cases can overwhelm, leading to rushed work &increased errors. ***THEN:*** • Financial losses affecting revenue cycle management • Incorrect billing, denied claims, and potential legal consequences • Non-compliance with regulatory standards • Institution's reputation and service capacity • Staff burnout	**Risk Category**	Health Care Delivery Quality and Patient Safety
		Risk Sub-Category	**Medical Care**
		Risk Owner	MCA
		Mitigation Strategy	**Accept** / **Avoid** / **Treat/Mitigate** / **Transfer**
Control Measures	❑ Perform internal coding audit (5% for insurance and 1% for non-insurance per month) of coded cases to assess coding accuracy. ❑ CDI team conducts concurrent chart review of inpatient charts for 8%- 10% of total admission to identify gaps and ensure accurate documentation ❑ Organize monthly training sessions for clinical staff to emphasize the importance of comprehensive records and how they relate to coding accuracy. ❑ KPIs in place to measure coding accuracy and query response rate.	**Mitigation Plan**	1. Expand CDI Reviews by having more workforce in the CDI section to conduct regular chart reviews for 80% of total admission to ensure accurate documentation. 2. Expend coding audit and coding team by having two additional coders and one additional auditor to manage the high volume and complexity of cases and for accurate and timely coding. 3. Assign a champion from each medical department for a collaborative approach to escalate findings, improve documentation accuracy. 4. Leverage Technology to Automate Workflows • Employ computer-assisted coding and clinical documentation improvement auditing tools to identify incomplete or incorrect codes, easing the workload on coders and reviewers.

Detailed Risks
Medical Affairs I Madinah

Risk Rating	Active Management	**Risk Impact**	Extreme	**Risk Likelihood**	Likely	**Due Date - *Mitigation Plan***	Dec-2025

Risk ID	MCA-R-226	**Group/Division**	MA	**Branches**	**Riyadh**	**Jeddah**	**Madinah ✓**

Risk Title	**Unavailability of Cardiac Catheterization Laboratory (Cath Lab) facilities**
Detailed Risk Statement	• ***If*** *there is no available Percutaneous Coronary Interventions in KFSHRC-Madinah,* • ***Because*** *unavailability of Cardiac Catheterization Laboratory (Cath Lab) services,* • ***Then*** *diagnostic tests that can impact patient care and life saving/urgent procedures where specific timing for intervention should be met will be delayed affecting patients' survival safety outcomes. Loss of revenue and manpower resources.*
Control Measures	❑ *A* process in place where patients who are in need for life-saving procedures or urgent intervention are being stabilized and transferred to Madinah Cardiac Centre where the Cardiac Catheterization Laboratory services are available.

Risk Group	**Operational**
Risk Category	**Services & Facilities**
Risk Sub-Category	**Facilities & Utilities**
Risk Owner	**CEOHD**
Mitigation Strategy	**Accept** / **Avoid** / **Treat/Mitigate** / **Transfer**

Control Rating	Description
Unsatisfactory	No systems and processes exist to manage the root causes and risk triggers
Poor	There are no systems and processes to manage more than half of the possible root causes and risk triggers
Fair	The risk is being actively managed as there are controls for most of the root causes & risk triggers, however, no controls for some
Good	There are controls for all potential root causes and risk triggers with minor improvement opportunities identified for some
Excellent	There are controls for all bearing root causes and risk triggers

Mitigation Plan

- The project will be submitted in the operational plan for 2025

Detailed Risks
Medical Affairs I Madinah

Risk Rating	Continuous Review	**Risk Impact**	Extreme	**Risk Likelihood**	Unlikely	**Due Date - *Mitigation Plan***	Dec-2025

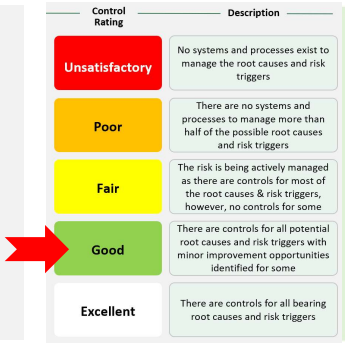
Risk ID	MCA-R-091	**Group/Division**	MA	**Branches**	**Riyadh**	**Jeddah**	**Madinah ✓**

Risk Title	**No positive pressure Isolation rooms available**	**Risk Group**	**Operational**

Detailed Risk Statement	• ***If*** *there are no positive pressure isolation rooms in the hospital,*
	• ***Because*** *The old building design,*
	• ***Then*** *immunocompromised patients are not protected from the airborne transmission of any infection during their hospital stay.*
	  • *This would severely impact patient safety*
	  • *This would have a negative impact on the hospital's reputation*
	  • *It raises risk of infection for transplant patient*
		Risk Category	**Services & Facilities**

		Risk Sub-Category	**Facilities & Utilities**
		Risk Owner	**CEOHD**
		Mitigation Strategy	**Accept** / **Avoid** / **Treat/Mitigate** / **Transfer**

Control Measures	HEPA filters can be used to purify the air in the rooms used for severely immunocompromised patients	**Mitigation Plan**	• Project to accommodate positive pressure room must be initiated by the MCA and Engineering • The total estimated cost of the project is SAR 12,504,300 • The project delayed for 2026 budget



Detailed Risks
Medical Affairs I Madinah

Risk Rating	**Active Management**	**Risk Impact**	**High**	**Risk Likelihood**	**Likely**	**Due Date - *Mitigation Plan***	Oct-2027

Risk ID	**MCA-R-242**	**Group/Division**	MA	**Branches**	**Riyadh**	**Jeddah**	**Madinah ✓**

Risk Title	**Delay treatment of oncology patient due to unavailability of Radiation Therapy**
Detailed Risk Statement	• ***If*** there is a delay of treatment for oncology patients • ***Because*** of the unavailability of radiation therapy facility, ***Then*** It could lead to: • Adverse patient outcomes, which cloud be a permeant organ loss • Financial losses • Delayed or denied treatments • Operational challenges
Risk Group	**Operational**
Risk Category	**Health Care Delivery Quality and Patient Safety**
Risk Sub-Category	**Medical Care**
Risk Owner	MCA-Department of Medicine
Mitigation Strategy	**Accept** / **Avoid** / **Treat/Mitigate** / **Transfer**
Control Measures	• Patients are referred to KFSHRC Jeddah Or Riyadh • Note: Jeddah does not have its own radiation therapy facility and serves only as a facilitator for treatment arrangements.

Control Rating	Description
Unsatisfactory	No systems and processes exist to manage the root causes and risk triggers
Poor	There are no systems and processes to manage more than half of the possible root causes and risk triggers
Fair	The risk is being actively managed as there are controls for most of the root causes & risk triggers, however, no controls for some
Good	There are controls for all potential root causes and risk triggers with minor improvement opportunities identified for some
Excellent	There are controls for all bearing root causes and risk triggers

Mitigation Plan

- Explore funding opportunities: Seek funding sources to support the establishment of a local radiation therapy
- Establish agreements with Jeddah private hospitals or the Ministry of Health (MOH) to prioritize accepting oncology cases for radiation therapy.

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Thank you