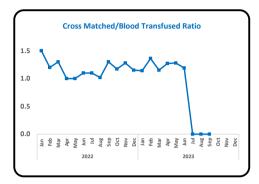
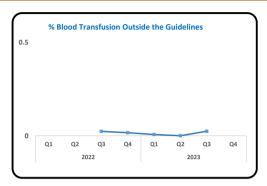


## Madinah







# Appendix - a (as of 2023)

## **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: 0.15, Madinah: 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 0.52

#### 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: 0.15

## 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 1000

Target: Riyadh: 1.1, Jeddah: 1.1, Madinah: 1.1

## 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 1000

Target: Riyadh: 2, Jeddah: 2, Madinah: 2

Benchmark: 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 100

## 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) \* 1000

Target: 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\*100

Target: Riyadh: 90%, Jeddah: 90%, Madinah: 90%

#### 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 100

Target: Riyadh: 27%, Jeddah: 27%, Madinah: 27%

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: 870, Madinah: 170

#### 11. # HA-VTE Preventable Events

Hospital-Acquired Preventable Venous thromboembolism (HA-VTE) is defined as any episode of venous thromboembolism during admission and within 60 days after discharge that is not present during admission and were not on appropriate measures.

Target: Riyadh: 0.80, Jeddah: 0.80, Madinah: 0.80

Benchmark: Not Available (NA)

## Access

#### 1. 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: 50

Benchmark: Not Available (NA)

#### 2. 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: 6

Benchmark: Not Available (NA)

#### 3. 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)

## 4. 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 100

Target: Riyadh: 3%, Jeddah: 2.58%, Madinah: 3%

Benchmark: Not Available (NA)

#### 5. 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: NA

Benchmark: Not Available (NA)

#### 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: %80

Benchmark: 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: 8.5, Jeddah: 8.5, Madinah: 7

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) X100

Target: 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)

## **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 Adults

- 4.1 100-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%

#### **Appropriateness**

## 1. 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: 1.5

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## 2. % 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 100 Target: Riyadh: 12%, Jeddah: 12%, Madinah: <2%

#### 3. 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.