



دائرة الصحة  
DEPARTMENT OF HEALTH

**JAWDA Quarterly KPI  
Guidelines for Pediatrics Health  
Service Providers**

**Issued: 2022**

## Table of Contents

|  |                                     |
|--|-------------------------------------|
| <b>Executive Summary .....</b>   | <b>3</b>                            |
| <b>About this Guidance.....</b>  | <b>4</b>                            |
| <b>Pediatric 30-Day All-Cause Readmission Rate .....</b>                         | <b>5</b>                            |
| <b>Pediatric 30-Day Lower Respiratory Infection (LRI) Readmission Rate .....</b> | <b>7</b>                            |
| <b>Pediatric Central line-associated Bloodstream Infections (CLABSI) .....</b>   | <b>9</b>                            |
| <b>Pediatric Postoperative Sepsis Rate.....</b>                                  | <b>11</b>                           |
| <b>Pediatric Accidental Puncture or Laceration Rate .....</b>                    | <b>12</b>                           |
| <b>Pediatric ventilator-associated Pneumonia (ped. VAP).....</b>                 | <b>13</b>                           |
| <b>Pediatric all-Cause Mortality Rate .....</b>                                  | <b>15</b>                           |
| <b>Infant all-Cause Mortality Rate.....</b>                                      | <b>Error! Bookmark not defined.</b> |
| Appendix A: Sepsis Diagnosis Codes .....   | 17                                  |
| Appendix B: Spine surgery CPT codes .....  | 17                                  |
| <b>Summary of Changes 2024.....</b>  | <b>18</b>                           |

### Executive Summary

The Department of Health– Abu Dhabi (DOH) is the regulatory body of the healthcare sector in the Emirate of Abu Dhabi and ensures excellence in healthcare for the community by monitoring the health status of its population.

The Emirate of Abu Dhabi is experiencing a substantial growth in the number of hospitals, centers and clinics. This is ranging from school clinics and mobile units to internationally renowned specialist and tertiary academic centers. Although, access and quality of care has improved dramatically over the last couple of decades, mirroring the economic upturn and population boom of Emirate of Abu Dhabi, however challenges remain in addressing further improvements.

The main challenges that are presented with increasingly dynamic population include an aging population with increased expectation for treatment, utilization of technology and diverse workforce leading to increased complexity of healthcare provision in Abu Dhabi. All of this results in an increased and inherent risk to quality and patient safety.

DOH has developed dynamic and comprehensive quality framework in order to bring about improvements across the health sector. This guidance relates to the quality indicators that DOH is mandating the quarterly reporting against by the operating general and specialist hospitals in Abu Dhabi.

The guidance sets out the full definition and method of calculation for patient safety and clinical effectiveness indicators. For enquiries about this guidance, please contact [jawda@doh.gov.ae](mailto:jawda@doh.gov.ae)

This document is subject for review and therefore it is advisable to utilize online versions available on the DOH at all times.

|                   |                          |
|-------------------|--------------------------|
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| Published Update: | Version 3 - 2022         |
|                   | Version 4- Sep 2022      |
|                   | Version 5 – Mar 2024     |
| Effective:        | Q1 2024                  |

### About this Guidance

The guidance sets out the definitions and reporting frequency of Jawda Pediatric Healthcare performance indicators (PED). The Department of Health (DoH), in consultation with local pediatrics healthcare expertise has developed Pediatric Healthcare performance indicators (PED) that are aimed for assessing the degree to which a provider competently and safely delivers the appropriate clinical services to the patient within the optimal period.

The Jawda KPIs in this guidance include measures to monitor morbidity in pediatrics patients receiving pediatrics healthcare services.

### Who is this guidance for?

All DoH licensed healthcare facilities providing pediatrics healthcare in the Emirate of Abu Dhabi.

### How do I follow this guidance?

Each provider will nominate one member of staff to coordinate, collect, monitor and report pediatrics health services quality indicators data as per communicated dates. The nominated healthcare facility lead must in the first instance e-mail their contact details (if different from previous submission) to [JAWDA@doh.gov.ae](mailto:JAWDA@doh.gov.ae) and submit the required quarterly quality performance indicators through Jawda online portal.

### What are the Regulation related to this guidance?

- Legislation establishing the Health Sector
- As per DoH [Policy for Quality and Patient Safety](#) issued January 15<sup>th</sup> 2017, this guidance applies to all DOH Licensed Hospitals providing pediatric health services in the Emirate of Abu Dhabi in accordance with the requirements set out in this Standard.

## Jawda Pediatric Healthcare Quality Performance Indicators

Type: Quality Indicator

Indicator Number: PED001

|                                 |   |
|---------------------------------|---|
| <b>KPI Description (title):</b> | <b>Pediatric 30-Day All-Cause Readmission Rate</b>  |
| <b>Domain</b>                   | Effectiveness of Care   |
| <b>Sub-Domain</b>               | Readmission   |
| <b>Definition:</b>              | Percentage of patients less than 18 years who were re- admitted to a hospital for any condition, including a different condition than the reason for their index hospital admission.  |
| <b>Calculation:</b>             | <p><b>Numerator:</b> Number of pediatric inpatients who were readmitted to an acute care hospital including children's hospital within 30 days of discharge from index hospitalization. (If a patient has more than one readmission <i>within 30 days</i> of discharge from the index admission, only the first is considered as readmission).</p> <p><b>Numerator exclusions:</b><br/>Presence of at least one of the following:</p> <ul style="list-style-type: none"> <li>• Readmission was for a planned procedure / planned treatment protocol</li> <li>• Readmission with the following admittance status: <ul style="list-style-type: none"> <li>○ Elective</li> <li>○ Transfer admission from acute care</li> </ul> </li> <li>• Admission was for obstetric care, including labor and delivery (<b>Primary or secondary code series 000-09A, Pregnancy, childbirth and the puerperium Chapter</b>)</li> <li>• Neonates (zero to twenty-eight days inclusive)</li> <li>• Admission with a principal diagnosis of mental illness (<b>ICD-10 CM codes F01-F99 series</b>)</li> <li>• Admission with a principal diagnosis or treatment of malignancy or status of chemotherapy (Malignant neoplasms (<b>C00-C96</b>), In situ neoplasms (<b>D00-D09</b>), <b>Z51.11</b> Encounter for antineoplastic chemotherapy, &amp; <b>Z51.12</b> Encounter for antineoplastic immunotherapy)</li> <li>• Admission for palliative care (<b>Primary or secondary ICD-10-CM: Z51.5</b>)</li> </ul> <p><b>Denominator</b><br/>Total number of pediatric inpatients less than 18 years old discharged (All medical and surgical discharges) from acute care hospitals including children's hospital during the reporting period.</p> <p><b>Denominator exclusions:</b></p> <ul style="list-style-type: none"> <li>• The patient was 18 years old or older at the time of discharge.</li> <li>• Neonates (zero to twenty-eight days inclusive)</li> <li>• Episodes with a discharge of death</li> <li>• Patients who were discharged/left against medical advice (AMA)</li> <li>• Patients who were transferred to another acute care facility during the index hospitalization</li> </ul> |

## Jawda Pediatric Healthcare Quality Performance Indicators

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|  | <ul style="list-style-type: none"> <li>Records with an unavailable discharge date or time.</li> <li>Readmissions within 30 days from the index discharge</li> <li>Admission was for obstetric care, including labor and delivery (<b>Primary or secondary code series 000-09A, Pregnancy, childbirth and the puerperium Chapter</b>)</li> <li>Admission with a principal diagnosis of mental illness (<b>ICD-10 CM codes F01-F99 series</b>)</li> <li>Admission with a principal diagnosis or treatment of malignancy or status of chemotherapy (Malignant neoplasms (<b>C00-C96</b>), In situ neoplasms (<b>D00-D09</b>), <b>Z51.11</b> Encounter for antineoplastic chemotherapy, &amp; <b>Z51.12</b> Encounter for antineoplastic immunotherapy)</li> <li>Admission for palliative care (<b>Primary or secondary ICD-10-CM: Z51.5</b>)</li> <li>Admission with documentation that treatment suggestion was not followed by the patient (i.e. refusal of tracheostomy or BiPAP) (<b>Z91.19</b> Patient's non-compliance with other medical treatment and regimen)</li> </ul> |
| <b>Reporting Frequency:</b>                  | Quarterly  |
| <b>Unit of Measure:</b>                      | Rate per 100 pediatric discharges (All-cause)  |
| <b>International comparison if available</b> | Center of Excellence for Pediatric Quality Measurement (CEPQM)<br><a href="https://www.ahrq.gov/sites/default/files/wysiwyg/pqmp/measures/acute/chipra-0129-fullreport.pdf">https://www.ahrq.gov/sites/default/files/wysiwyg/pqmp/measures/acute/chipra-0129-fullreport.pdf</a>  |
| <b>Desired direction:</b>                    | Lower is better  |
| <b>Notes for all providers</b>               |  |
| <b>Data sources and guidance:</b>            | <ul style="list-style-type: none"> <li>Hospital patient data source</li> <li>Patient's records (Malaffi data extraction within DOH)</li> </ul>   |

## Jawda Pediatric Healthcare Quality Performance Indicators

Type: Quality Indicator

Indicator Number: PED002

|                                 |  |
|---------------------------------|--|
| <b>KPI Description (title):</b> | <b>Pediatric 30-Day Lower Respiratory Infection (LRI) Readmission Rate</b>   |
| <b>Domain</b>                   | Effectiveness of Care  |
| <b>Sub-Domain</b>               | Readmission  |
| <b>Definition:</b>              | Percentage of patients less than 18 years of age who had an unplanned readmission within 30 days of discharge from the index hospitalization for lower respiratory infections (LRI).   |
| <b>Calculation:</b>             | <p><b>Numerator</b><br/>Number of pediatric patients less than 18 years of age with unplanned Readmission to an acute care hospital including children's hospital within 30 days of discharge from index hospitalization for LRI. (If a patient has more than one unplanned admissions <i>within 30 days</i> of discharge from the index admission, only the first is considered as readmission).</p> <p><b>Numerator Exclusions</b><br/>Presence of at least one of the following:</p> <ul style="list-style-type: none"> <li>• Readmission was for a planned procedure / planned treatment protocol</li> <li>• Readmission with the following admittance status: <ul style="list-style-type: none"> <li>○ Elective</li> <li>○ Transfer admission from acute care</li> </ul> </li> <li>• Neonates (zero to twenty eight days inclusive)</li> <li>• Admission was for obstetric care, including labor and delivery (<b>Primary or secondary code series 000-09A, Pregnancy, childbirth and the puerperium Chapter</b>)</li> <li>• Admission with a principal diagnosis of mental illness (<b>ICD-10 CM codes F01-F99 series</b>)</li> <li>• Admission with a principal diagnosis or treatment of malignancy or status of chemotherapy (Malignant neoplasms (<b>C00-C96</b>), In situ neoplasms (<b>D00-D09</b>), <b>Z51.11</b> Encounter for antineoplastic chemotherapy, &amp; <b>Z51.12</b> Encounter for antineoplastic immunotherapy)</li> <li>• Admission for palliative care (<b>Primary or secondary ICD-10-CM: Z51.5</b>)</li> </ul> <p><b>Denominator</b><br/>Total number of pediatric patients less than 18 years of age discharged from acute care hospital including children's hospital with a principal discharge diagnosis of bronchiolitis, influenza, or community-acquired pneumonia (CAP) or secondary diagnosis code for one of these LRIs plus a principal ICD-10-CM diagnosis code for asthma, respiratory failure, or sepsis/bacteremia during the reporting period.</p> <p><b>ICD-10 CM codes:</b> J21.0, J21.1, J21.8, J21.9, J09.X1, J09.X2, J10.00, J10.01, J10.08, J10.1, J11.00, J11.08, J11.1, J12.0, J12.1, J12.2, J12.3, J12.81, J12.89, J12.9, J13, J14, J15.0, J15.1, J15.20, J15.211, J15.212, J15.29, J15.3, J15.4, J15.5, J15.6, J15.7, J15.8, J15.9, J16.0, J16.8, J17, J18.0, J18.1, J18.2, J18.8, J18.9, A01.03, A02.22, A21.2, A22.1, A24.1, A37.00, A37.01, A37.10, A37.11, A37.80, A37.81, A37.90,</p> |

## Jawda Pediatric Healthcare Quality Performance Indicators

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|  | <p>A37.91, A42.0, A43.0, A54.84, B01.2, B05.2, B06.81, B25.0, B37.1, B38.0, B38.1, B38.2, B39.0, B39.1, B39.2, B44.0, B44.1, B58.3, B59, B77.81, U07.1</p> <p><b>Asthma:</b> J45.20, J45.21, J45.22, J45.30, J45.31, J45.32, J45.40, J45.41, J45.42, J45.50, J45.51, J45.52, J45.901, J45.902, J45.909, J45.990, J45.991, J45.998.</p> <p><b>Respiratory Failure:</b> J96.00, J96.01, J96.02, J96.10, J96.11, J96.12, J96.20, J96.21, J96.22, J96.90, J96.91, J96.92.</p> <p><b>Denominator Exclusions:</b></p> <ul style="list-style-type: none"> <li>• The patient was 18 years old or older at the time of discharge.</li> <li>• Neonates (zero to twenty-eight days inclusive)</li> <li>• Episodes with a discharge of death</li> <li>• Patients who were discharged/left against medical advice (AMA)</li> <li>• Patients having a principal diagnosis of LRI or secondary diagnosis of LRI plus a principal ICD-10-CM diagnosis code for asthma, respiratory failure, or sepsis/bacteremia during the index hospitalization and subsequently transferred to another acute care facility.</li> <li>• Records with an unavailable discharge date or time.</li> <li>• Readmissions within 30 days from the index discharge</li> <li>• Admission was for obstetric care, including labor and delivery (<b>Primary or secondary code series 000-09A, Pregnancy, childbirth and the puerperium Chapter</b>)</li> <li>• Admission with a principal diagnosis of mental illness (<b>F01-F99 series</b>)</li> <li>• Admission with a principal diagnosis or treatment of malignancy or status of chemotherapy (Malignant neoplasms (<b>C00-C96</b>), In situ neoplasms (<b>D00-D09</b>), <b>Z51.11</b> Encounter for antineoplastic chemotherapy, &amp; <b>Z51.12</b> Encounter for antineoplastic immunotherapy)</li> <li>• Admission for palliative care (<b>Primary or secondary ICD-10-CM: Z51.5</b>)</li> <li>• Admission with documentation that treatment suggestion was not followed by the patient (i.e. refusal of tracheostomy or BiPAP) (<b>Z91.19</b> Patient's non-compliance with other medical treatment and regimen)</li> </ul> |
| <b>Reporting Frequency:</b>                  | Quarterly   |
| <b>Unit of Measure:</b>                      | Rate per 100 LRI discharges   |
| <b>International comparison if available</b> | Center of Excellence for Pediatric Quality Measurement (CEPQM)<br><a href="https://www.ahrq.gov/sites/default/files/wysiwyg/pqmp/measures/acute/chipra-131-fullreport.pdf">https://www.ahrq.gov/sites/default/files/wysiwyg/pqmp/measures/acute/chipra-131-fullreport.pdf</a>   |
| <b>Desired direction:</b>                    | Lower is better   |
| <b>Notes for all providers</b>               |   |
| <b>Data sources and guidance:</b>            | Hospital patient data source<br>Patient's records (Malaffi data extraction within DOH)  |



## Jawda Pediatric Healthcare Quality Performance Indicators

Type: Quality Indicator

Indicator Number: PED003

|                                 |  |
|---------------------------------|--|
| <b>KPI Description (title):</b> | <b>Pediatric Central line-associated Bloodstream Infections (CLABSI)</b>   |
| <b>Domain</b>                   | Patient Safety   |
| <b>Sub-Domain</b>               | Adverse Events (AE) and Sentinel events  |
| <b>Definition:</b>              | <p>Central line-associated bloodstream infection (CLABSI):</p> <p>A laboratory confirmed bloodstream infection where</p> <ul style="list-style-type: none"> <li>• An eligible BSI organism is identified and</li> <li>• An eligible central line is present on the Laboratory Confirmed Bloodstream Infection (LCBI) date of event (DOE) or the day before</li> <li>• For all inpatients less than 18 years of age</li> </ul> <p><i>Eligible Central Line: A Central Line (CL) that has been in place for more than two consecutive calendar days (on or after CL day 3), following the first access of the central line, in an inpatient location, during the current admission. Such lines remain eligible for CLABSI events until the day after removal from the body or patient discharge whichever comes first.</i></p>   |
| <b>Calculation:</b>             | <p><b>Numerator</b></p> <p>Numerator: Each CLABSI that is identified during the period selected for surveillance in all inpatients less than 18 years of age.</p> <p><b>ICD 10 CM code (not limited to):</b> T80.211A, T80.211D, T80.211S</p> <p>Must meet one of the following Laboratory-Confirmed Bloodstream Infection (LCBI) criteria:</p> <p><u>LCBI 1:</u><br/>           Patient of any age has a recognized bacterial or fungal pathogen, not included on the NHSN common commensal list:<br/>           1. Identified from one or more blood specimens obtained by a culture OR<br/>           2. Identified to the genus or species level by non-culture based microbiologic testing (NCT) methods.</p> <p style="text-align: center;">AND</p> <p>Organism(s) identified in blood is not related to an infection at another site.</p> <p><u>LCBI2:</u><br/>           Patient of any age has at least one of the following signs or symptoms:<br/>           fever (&gt;38.0oC), chills, or hypotension</p> <p style="text-align: center;">AND</p> <p>Organism(s) identified in blood is not related to an infection at another site</p> <p style="text-align: center;">AND</p> <p>The same NHSN common commensal is identified by a culture, from two or more blood specimens collected on separate occasions.</p> <p><u>LCBI3:</u><br/>           Patient ≤ 1 year of age has at least one of the following signs or symptoms:<br/>           fever (&gt;38.0oC), hypothermia (&lt;36.0oC), apnea, or bradycardia</p> |

## Jawda Pediatric Healthcare Quality Performance Indicators

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|  | <p style="text-align: center;">AND</p> <p>Organism(s) identified in blood is not related to an infection at another site</p> <p style="text-align: center;">AND</p> <p>The same NHSN common commensal is identified by a culture, from two or more blood specimens collected on separate occasions</p> <p><b>Numerator Exclusions:</b></p> <ul style="list-style-type: none"> <li>• Extracorporeal life support (ECMO <i>ICD-10 CM Z92.81 or CPT code 33946-33986</i>) or Ventricular Assist Device (VAD) for more than 2 days and is still in place on the BSI date of event or the day before.</li> <li>• Observed or suspected patient injection into the vascular access line</li> <li>• Epidermolysis bullosa (EB) or Munchausen Syndrome by Proxy (MSBP) diagnosis during the current admission. (<i>Q81.0, Q81.1, Q81.2, Q81.8, Q81.9, L12.30, L12.31, L12.35, &amp; L51.2, F68.10, F68.11, F68.12, &amp; F68.13</i>)</li> <li>• Pus at the vascular access site - <i>T80.212A, T80.212D, T80.212S, T80.219A, T80.219D, T80.219S</i></li> <li>• Group B Streptococcus identified from blood, with a date of event during the first 6 days of life (<i>B95.1</i>)</li> <li>• Repeated infection for the same type during 14 days from Date of Event</li> </ul> <p><b>Denominator:</b><br/>Number of all central line days for all patients (in all inpatient settings) less than 18 years of age during the reporting period.</p> <ul style="list-style-type: none"> <li>• It is not required for a BSI to be associated with a specific device when more than one line is present.</li> <li>• Only one central line per patient is counted per calendar day regardless of the number of central lines present.</li> </ul> <p>All central lines on inpatient units should be included in device day counts regardless of access.</p> <p><b>Applicable CPT codes (not limited to):</b> 36555-36590</p> <p><b>Denominator exclusions:</b></p> <ul style="list-style-type: none"> <li>• Exclude NICU population who are less than 28 days</li> <li>• MBI-LCBI</li> <li>• Secondary bloodstream infections</li> </ul> |
| <b>Reporting Frequency:</b>                  | Quarterly   |
| <b>Unit of Measure:</b>                      | Rate per 1000 central line days   |
| <b>International comparison if available</b> | <a href="https://www.cdc.gov/nhsn/pdfs/pscmanual/4psc_clabscurrent.pdf">https://www.cdc.gov/nhsn/pdfs/pscmanual/4psc_clabscurrent.pdf</a>   |
| <b>Desired direction:</b>                    | Lower is better   |
| <b>Notes for all providers</b>               |   |

## Jawda Pediatric Healthcare Quality Performance Indicators

|                                   |   |
|-----------------------------------|---|
| <b>Data sources and guidance:</b> | <ul style="list-style-type: none"> <li>• Captured by infection control team</li> <li>• Patient's records</li> <li>• Lab reports</li> <li>• Hospital internal mortality and morbidity</li> </ul> |
|-----------------------------------|---|

**Type: Quality Indicator**

**Indicator Number:**

**PED004**

|  |   |
|--|---|
| <b>KPI Description (title):</b>              | <b>Pediatric Postoperative Sepsis Rate</b>  |
| <b>Domain</b>                                | Patient Safety  |
| <b>Sub-Domain</b>                            | Complication  |
| <b>Definition:</b>                           | Postoperative sepsis cases (secondary diagnosis) per 1,000 surgery discharges for patients less than 18 years of age (inpatients).  |
| <b>Calculation:</b>                          | <p><b>Numerator:</b><br/>Discharges, among cases meeting the inclusion and exclusion rules for the denominator, with any secondary ICD-10-CM diagnosis codes for sepsis (<i>Appendix A</i>).</p> <p><b>Denominator:</b><br/>Surgical discharges for patients less than 18 years of age with any-listed procedure codes for an operating room procedure.<br/><b>Service codes: 20, 20-01, 20-02</b></p> <p><b>Denominator exclusions:</b></p> <ul style="list-style-type: none"> <li>• Principal ICD-10-CM diagnosis code (or secondary diagnosis present on admission / prior to surgery) for sepsis (<i>Appendix A</i>)</li> <li>• Principal ICD-10-CM diagnosis code for infection</li> <li>• Neonates (zero to twenty-eight days inclusive)</li> <li>• Principal ICD-10-CM diagnosis code for pregnancy, childbirth and puerperium (<i>ICD-10 CM Code series 000-09A</i>)</li> </ul> |
| <b>Reporting Frequency:</b>                  | Quarterly   |
| <b>Unit of Measure:</b>                      | Rate per 1000 surgical discharges   |
| <b>International comparison if available</b> | AHRQ Pediatric Quality Indicator 10 (PDI 10) Postoperative Sepsis Rate; July 2020<br><a href="https://www.qualityindicators.ahrq.gov/Downloads/Modules/PDI/V2020/TechSpecs/PDI_10_Postoperative_Sepsis_Rate.pdf">https://www.qualityindicators.ahrq.gov/Downloads/Modules/PDI/V2020/TechSpecs/PDI_10_Postoperative_Sepsis_Rate.pdf</a>  |
| <b>Desired direction:</b>                    | Lower is better   |
| <b>Notes for all providers</b>               |   |
| <b>Data sources and guidance:</b>            | <ul style="list-style-type: none"> <li>• Captured by infection control team</li> <li>• Lab reports</li> <li>• Hospital internal mortality and morbidity</li> <li>• Patient's records (Malaffi data extraction within DOH)</li> </ul>  |

## Jawda Pediatric Healthcare Quality Performance Indicators

Type: Quality Indicator

Indicator Number: PED005

|  |   |
|--|---|
| <b>KPI Description (title):</b>              | <b>Pediatric Accidental Puncture or Laceration Rate</b>   |
| <b>Domain</b>                                | Patient Safety  |
| <b>Sub-Domain</b>                            | Complication  |
| <b>Definition:</b>                           | Accidental punctures or lacerations (secondary diagnosis) during procedure per 1,000 discharges for patients less than 18 years of age (inpatients).  |
| <b>Calculation:</b>                          | <p><b>Numerator:</b><br/>Discharges, among cases meeting the inclusion and exclusion rules for the denominator, with any secondary ICD-10-CM diagnosis codes for accidental puncture or laceration during a procedure</p> <p><b>ICD-10 CM:</b> D78.11, D78.12, E36.11, E36.12, G97.48, G97.49, H59.211, H59.212, H59.219, H95.31, H95.32, I97.51, I97.52, J95.71, J95.72, K91.71, K91.72, L76.11, L76.12, M96.820, M96.821, N99.71, N99.72</p> <p><b>Denominator:</b><br/>Surgical and medical discharges for patients less than 18 years of age.</p> <p><b>Denominator Exclusions:</b></p> <ul style="list-style-type: none"> <li>Principal ICD-10-CM diagnosis code (or secondary diagnosis present on admission) for accidental puncture or laceration during a procedure <b>(Same as numerator codes above)</b></li> <li>Spine surgery CPT codes <b>(Appendix B)</b></li> <li>Neonates (zero to twenty-eight days inclusive)</li> <li>Neonate with birth weight less than 500 grams</li> <li>Principal ICD-10-CM diagnosis code for pregnancy, childbirth and puerperium Code series <b>(ICD-10CM 000-09A)</b></li> </ul> |
| <b>Reporting Frequency:</b>                  | Quarterly   |
| <b>Unit of Measure:</b>                      | Rate per 1000 surgical and medical discharges   |
| <b>International comparison if available</b> | AHRQ Pediatric Quality Indicator 01 (PDI 01) Accidental Puncture or Laceration Rate; July 2020<br><a href="https://www.qualityindicators.ahrq.gov/Downloads/Modules/PDI/V2020/TechSpecs/PDI_01_Accidental_Puncture_or_Laceration_Rate.pdf">https://www.qualityindicators.ahrq.gov/Downloads/Modules/PDI/V2020/TechSpecs/PDI_01_Accidental_Puncture_or_Laceration_Rate.pdf</a>   |
| <b>Desired direction:</b>                    | Lower is better   |
| <b>Notes for all providers</b>               |   |
| <b>Data sources and guidance:</b>            | <ul style="list-style-type: none"> <li>Patient's records</li> <li>Hospital internal mortality and morbidity</li> </ul>  |

## Jawda Pediatric Healthcare Quality Performance Indicators

Type: Quality Indicator

Indicator Number: PED006

|                                      |  |
|--------------------------------------|--|
| <b>KPI Description (title):</b>      | <b>Pediatric ventilator-associated Pneumonia (ped. VAP)</b>  |
| <b>Domain</b>                        | Patient safety   |
| <b>Sub-Domain</b>                    | Complication   |
| <b>Definition:</b>                   | Pneumonia (PNEU) identified by using a combination of imaging, clinical and laboratory criteria. For further information please see surveillance algorithm on page 6-5 of the VAP module<br><a href="https://www.cdc.gov/nhsn/pdfs/pscmanual/6pscvapcurrent.pdf">https://www.cdc.gov/nhsn/pdfs/pscmanual/6pscvapcurrent.pdf</a>  |
| <b>Population</b>                    | (Ped VAP) surveillance is only applicable to patients in pediatric locations   |
| <b>Criteria to define (ped. VAP)</b> | <p><b><u>Numerator:</u></b> Number of pediatric patients who are mechanically ventilated and developed Pneumonia during the surveillance period</p> <p>Exclusion:<br/>Repeated infection for the same type during 14 days from Date of Event</p> <p><b>ICD 10 CODES FOR VAP:</b> J95.851, J95.859, Z99.11, Z99.12</p> <p><b><u>Denominator:</u></b> Device days and patient days are used for denominators: Number of patients managed with ventilator devices, are collected daily, at the same time each day. These daily counts are summed and only the total for the month is used.</p> <p><b>The VAP rate per 1000 ventilator days</b> is calculated by dividing the number of VAP by the number of ventilator days and multiplying the result by 1000 (ventilator days).</p> <p><b>The Ventilator Utilization Ratio</b> is calculated by dividing the number of ventilator days by the number of patient days.</p> |
| <b>Inclusion</b>                     | <p>Patient is defined to have Ventilator-associated Pneumonia ((pedVAP) if meets one the following imaging test result</p> <p><b>1 . Imaging test evidence:</b> patient has Two or more serial chest imaging test results with at least one of the following new and persistent or progressive and persistent</p> <ul style="list-style-type: none"> <li>• Infiltrate</li> <li>• Consolidation</li> <li>• Cavitation</li> <li>• Pneumatocoles, in infants ≤1 year old</li> </ul> <p style="text-align: center;"><b>AND</b></p> <p><b>2. Sign &amp; symptoms:</b> Worsening gas exchange i.e., oxygen desaturations [for example pulse oximetry &lt;94%], increased oxygen requirements, or increased ventilator demand).</p> <p style="text-align: center;"><b>AND</b></p> <p><b>And at least three of the following:</b></p> <ul style="list-style-type: none"> <li>• Temperature instability</li> </ul>                |

## Jawda Pediatric Healthcare Quality Performance Indicators

|  |   |
|--|---|
|  | <ul style="list-style-type: none"> <li>Leukopenia (<math>\leq 4000</math> WBC/mm<sup>3</sup>) or leukocytosis (<math>&gt;15,000</math> WBC/mm<sup>3</sup>) and left shift (<math>&gt;10\%</math> band forms)</li> <li>New onset of purulent sputum<sup>3</sup> or change in character of sputum<sup>4</sup>, or increased respiratory secretions or increased suctioning requirements</li> <li>Apnea, tachypnea<sup>5</sup>, nasal flaring with retraction of chest wall or nasal flaring with grunting</li> <li>Wheezing, rales<sup>6</sup>, or rhonchi</li> <li>Cough</li> </ul> <p>Bradycardia (<math>&lt;100</math> beats/min) or tachycardia (<math>&gt;170</math> beats/min)</p>  |
| <b>Exclusion</b>                             | <ul style="list-style-type: none"> <li>Surveillance for PedVAP shall not be conducted in adult and neonatal locations</li> <li>Organisms that cannot be used to meet the VAP definition are as follows: <ol style="list-style-type: none"> <li>1) "Normal respiratory flora," "normal oral flora," "mixed respiratory flora," "mixed oral flora," "altered oral flora" or other similar results indicating isolation of commensal flora of the oral cavity or upper respiratory tract</li> <li>2) The following organisms unless identified from lung tissue or pleural fluid specimens: <ol style="list-style-type: none"> <li>a. <i>Candida</i> species* or yeast not otherwise specified</li> <li>b. coagulase-negative <i>Staphylococcus</i> species</li> <li>c. <i>Enterococcus</i> species</li> </ol> <p><b>Note:</b> <i>Candida</i> species* or yeast not otherwise specified, coagulase-negative <i>Staphylococcus</i> species, and <i>Enterococcus</i> species identified from blood cannot be deemed secondary to a PNU2 or PNU3, unless the organism was also identified from a pleural fluid or lung tissue specimen</p> <ol style="list-style-type: none"> <li>d. *<i>Candida</i> species isolated from sputum, endotracheal aspirate, broncho-alveolar lavage (BAL) specimens or protected specimen brushing combined with a matching organism isolated from a blood specimen can be used to satisfy the PNU3 definition.</li> </ol> </li> <li>3) Additionally, because organisms belonging to the following genera are typically causes of community-associated infections and are rarely or are not known to be causes of healthcare-associated infections, they are also excluded, and cannot be used to meet any NHSN definition: <i>Blastomyces</i>, <i>Histoplasma</i>, <i>Coccidioides</i>, <i>Paracoccidioides</i>, <i>Cryptococcus</i> and <i>Pneumocystis</i>.</li> </ol> </li> </ul> |
| <b>Reporting Frequency:</b>                  | Quarterly   |
| <b>Unit of Measure:</b>                      | Rate per 1000 ventilator days   |
| <b>International comparison if available</b> | <a href="https://www.cdc.gov/nhsn/pdfs/pscmanual/6pscvapcurrent.pdf">https://www.cdc.gov/nhsn/pdfs/pscmanual/6pscvapcurrent.pdf</a><br>National Healthcare Safety Network report, data summary for 2013, Device-associated Module   |
| <b>Desired direction:</b>                    | Lower is better   |
| <b>Notes for all providers</b>               |   |
| <b>Data sources and guidance:</b>            | <ul style="list-style-type: none"> <li>Patient's records</li> <li>Hospital internal mortality and morbidity</li> </ul>  |

## Jawda Pediatric Healthcare Quality Performance Indicators

Type: Quality Indicator

Indicator Number: PED007

|  |  |
|--|--|
| <b>KPI Description (title):</b>              | <b>Pediatric all-Cause Mortality Rate</b>  |
| <b>Domain</b>                                | Patient Safety   |
| <b>Sub-Domain</b>                            | Complication   |
| <b>Definition:</b>                           | Rate of all-cause mortality for patients ages below 18 years.  |
| <b>Calculation:</b>                          | <p><b>Numerator:</b> Number of pediatric patients (below 18 years old) in denominator who died within 30 days (in hospital and out-of-hospital) of the admission date of the denominator cases.</p> <p><b>Denominator:</b> Number of all pediatric admissions to hospital below 18 years old during the reporting period.</p> <p><b>Denominator Exclusion:</b><br/>Neonates and Infants (0 days-1 year)</p> <p><b>Denominator Inclusions:</b></p> <ul style="list-style-type: none"> <li>• All admissions (including day cases, LTC, PAR, intensive care units)</li> <li>• Admissions resulting in a transfer to another acute care facility.</li> <li>• A transfer from another acute care facility</li> <li>• Left against medical advice</li> </ul> |
| <b>Reporting Frequency:</b>                  | Quarterly  |
| <b>Unit of Measure:</b>                      | Rate per 100 admissions  |
| <b>International comparison if available</b> | <a href="https://academic.oup.com/ijcoms/article/3/2/iyad010/7231468">https://academic.oup.com/ijcoms/article/3/2/iyad010/7231468</a><br><a href="#">Summary Hospital-level Mortality Indicator (SHMI) – Deaths associated with hospitalisation, England, July 2022 – June 2023: Background quality report (digital.nhs.uk)</a>  |
| <b>Desired direction:</b>                    | Lower is better  |
| <b>Notes for all providers</b>               |  |
| <b>Data sources and guidance:</b>            | <ul style="list-style-type: none"> <li>• Patient's records (Malaffi data extraction within DOH)</li> <li>• Hospital internal mortality and morbidity.</li> </ul>   |

## Jawda Pediatric Healthcare Quality Performance Indicators

Type: Quality Indicator

Indicator Number: PED008

|  |  |
|--|--|
| <b>KPI Description (title):</b>              | <b>Infant all-Cause Mortality Rate</b>   |
| <b>Domain</b>                                | Patient Safety   |
| <b>Sub-Domain</b>                            | Complication   |
| <b>Definition:</b>                           | Rate of all-cause mortality for infants.   |
| <b>Calculation:</b>                          | <p><b><i>Numerator:</i></b> Number of infant patients in denominator who died within 30 days (in-hospital and out-of-hospital ) of the admission date of the denominator cases.</p> <p><b><i>Denominator:</i></b> Number of all infant admissions to hospital during the reporting period.</p> <p><b>Denominator Exclusion:</b><br/>Neonates and Pediatrics</p> <p><b>Denominator Inclusions:</b></p> <ul style="list-style-type: none"> <li>• All admissions (including day cases, LTC, PAR, intensive care units)</li> <li>• Admissions resulting in a transfer to another acute care facility.</li> <li>• A transfer from another acute care facility</li> <li>• Left against medical advice</li> </ul> |
| <b>Reporting Frequency:</b>                  | Quarterly  |
| <b>Unit of Measure:</b>                      | Rate per 100 admissions  |
| <b>International comparison if available</b> | <a href="https://academic.oup.com/ijcoms/article/3/2/lyad010/7231468">https://academic.oup.com/ijcoms/article/3/2/lyad010/7231468</a><br><a href="#">Summary Hospital-level Mortality Indicator (SHMI) – Deaths associated with hospitalisation, England, July 2022 – June 2023: Background quality report (digital.nhs.uk)</a>  |
| <b>Desired direction:</b>                    | Lower is better  |
| <b>Notes for all providers</b>               |  |
| <b>Data sources and guidance:</b>            | <ul style="list-style-type: none"> <li>• Patient's records (Malaffi data extraction within DOH)</li> <li>• Hospital internal mortality and morbidity</li> </ul>  |



## Jawda Pediatric Healthcare Quality Performance Indicators

### Appendix A: Sepsis Diagnosis Codes

|       |        |        |        |        |        |        |          |
|-------|--------|--------|--------|--------|--------|--------|----------|
| A02.1 | A40.1  | A41.02 | A41.50 | A41.81 | B37.7  | P36.30 | P36.9    |
| A22.7 | A40.3  | A41.1  | A41.51 | A41.89 | P36.0  | P36.39 | R65.20   |
| A26.7 | A40.8  | A41.2  | A41.52 | A41.9  | P36.10 | P36.4  | R65.21   |
| A32.7 | A40.9  | A41.3  | A41.53 | A42.7  | P36.19 | P36.5  | T81.12XA |
| A40.0 | A41.01 | A41.4  | A41.59 | A54.86 | P36.2  | P36.8  | T81.12XD |

### Appendix B: Spine surgery CPT codes

|       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 22010 | 22327 | 22614 | 22854 | 62287 | 62370 | 63066 | 63197 | 63295 |
| 22015 | 22328 | 22630 | 22855 | 62290 | 62380 | 63075 | 63198 | 63300 |
| 22100 | 22505 | 22632 | 22856 | 62291 | 63001 | 63076 | 63199 | 63301 |
| 22101 | 22510 | 22633 | 22857 | 62292 | 63003 | 63077 | 63200 | 63302 |
| 22102 | 22511 | 22634 | 22858 | 62294 | 63005 | 63078 | 63250 | 63303 |
| 22103 | 22512 | 22800 | 22859 | 62302 | 63011 | 63081 | 63251 | 63304 |
| 22110 | 22513 | 22802 | 22861 | 62303 | 63012 | 63082 | 63252 | 63305 |
| 22112 | 22514 | 22804 | 22862 | 62304 | 63015 | 63085 | 63265 | 63306 |
| 22114 | 22515 | 22808 | 22864 | 62305 | 63016 | 63086 | 63266 | 63307 |
| 22116 | 22526 | 22810 | 22865 | 62320 | 63017 | 63087 | 63267 | 63308 |
| 22206 | 22527 | 22812 | 22867 | 62321 | 63020 | 63088 | 63268 | 63600 |
| 22207 | 22532 | 22818 | 22868 | 62322 | 63030 | 63090 | 63270 | 63610 |
| 22208 | 22533 | 22819 | 22869 | 62323 | 63035 | 63091 | 63271 | 63615 |
| 22210 | 22534 | 22830 | 22870 | 62324 | 63040 | 63101 | 63272 | 63620 |
| 22212 | 22548 | 22840 | 22899 | 62325 | 63042 | 63102 | 63273 | 63621 |
| 22214 | 22551 | 22841 | 62263 | 62326 | 63043 | 63103 | 63275 | 63650 |
| 22216 | 22552 | 22842 | 62264 | 62327 | 63044 | 63170 | 63276 | 63655 |
| 22220 | 22554 | 22843 | 62267 | 62350 | 63045 | 63172 | 63277 | 63661 |
| 22222 | 22556 | 22844 | 62268 | 62351 | 63046 | 63173 | 63278 | 63662 |
| 22224 | 22558 | 22845 | 62269 | 62355 | 63047 | 63180 | 63280 | 63663 |
| 22226 | 22585 | 22846 | 62270 | 62360 | 63048 | 63182 | 63281 | 63664 |
| 22310 | 22586 | 22847 | 62272 | 62361 | 63050 | 63185 | 63282 | 63685 |
| 22315 | 22590 | 22848 | 62273 | 62362 | 63051 | 63190 | 63283 | 63688 |
| 22318 | 22595 | 22849 | 62280 | 62365 | 63055 | 63191 | 63285 | 63700 |
| 22319 | 22600 | 22850 | 62281 | 62367 | 63056 | 63194 | 63286 | 63702 |
| 22325 | 22610 | 22852 | 62282 | 62368 | 63057 | 63195 | 63287 | 63704 |
| 22326 | 22612 | 22853 | 62284 | 62369 | 63064 | 63196 | 63290 | 63706 |
| 63707 | 63709 | 63710 | 63740 | 63741 | 63744 | 63746 | 64999 |       |

## Summary of Changes 2024

| KPI #      | Changes   |
|------------|---|
| PED001     | <ul style="list-style-type: none"> <li>Added codes in Numerator exclusions: <i>Primary or secondary code for obstetric care and palliative care</i></li> <li>Added codes in Denominator exclusions: <i>Primary or secondary code for obstetric care and palliative care</i></li> </ul>  |
| PED002     | <ul style="list-style-type: none"> <li>Added codes in Numerator exclusions: <i>Primary or secondary code for obstetric care and palliative care</i></li> <li>Added codes in Denominator exclusions: <i>Primary or secondary code for obstetric care and palliative care</i></li> </ul>  |
| PED003     | <ul style="list-style-type: none"> <li>Revised codes in Numerator: <i>ICD 10 CM code (not limited to): T80.211A, T80.211D, T80.211S</i></li> <li>Added applicable codes in Denominator</li> </ul>   |
| PED004     | <ul style="list-style-type: none"> <li>Removed in denominator All CPT procedures: 10021-69990</li> <li><i>Replaced with operating room codes (Service codes: 20, 20-01, 20-02)</i></li> </ul>   |
| PED005     | <ul style="list-style-type: none"> <li>Added in numerator <i>ICD-10 CM: D78.11, D78.12, E36.11, E36.12, G97.48, G97.49, H59.211, H59.212, H59.219, H95.31, H95.32, I97.51, I97.52, J95.71, J95.72, K91.71, K91.72, L76.11, L76.12, M96.820, M96.821, N99.71, N99.72</i></li> <li>Removed codes in denominator exclusions and added in Appendix B <i>Spine surgery CPT codes (Appendix B)</i></li> </ul> |
| PED006     | <ul style="list-style-type: none"> <li>Removed Pediatric VAP from QI and moved to Pediatric KPIs</li> </ul>   |
| PED007     | <ul style="list-style-type: none"> <li>Added all-cause mortality in the Pediatric KPIs</li> </ul>   |
| PED008     | <ul style="list-style-type: none"> <li>Added all-cause mortality in the for infants</li> </ul>  |
| Appendices | <ul style="list-style-type: none"> <li>Revised Appendix A format</li> <li>Added Appendix B for Spine Surgeries</li> </ul>   |