

# Burn Services Jawda Guidance

**Version 3** 

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### **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 <a href="mailto:jawda@DoH.gov.ae">jawda@DoH.gov.ae</a>

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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### **About this Guidance**

The guidance sets out the definitions and reporting frequency of JAWDA Burn Facilities performance indicators. The Department of Health (DoH), with consultation from local and international expertise of Burn, has developed Burn Performance Indicators 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 of time.

The Jawda KPI for burn patients in this guidance include measures to monitor morbidity and mortality in patients undergoing burn treatments. Healthcare providers are the most qualified professionals to develop and evaluate quality of care for burn patients; therefore, it is crucial that clinicians retain a leadership position in defining performance among Burn healthcare providers.

#### Who is this guidance for?

All DoH licensed healthcare facilities providing inpatient treatment for burns injury (any degree) 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 Burn 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 <a href="mailto:IAWDA@doh.gov.ae">IAWDA@doh.gov.ae</a> 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 <u>Policy for Quality and Patient Safety</u> issued January 15<sup>th</sup> 2017, this guidance applies to all DoH Licensed Hospital Healthcare Facilities in the Emirate of Abu Dhabi in accordance with the requirements set out in this Standard.

KPI Description (title):	VAE (Ventilator associated event)
Domain	Safety
Indicator Type	Outcome
Definition	<ul> <li>VAEs are identified by using a combination of objective criteria:</li> <li>Deterioration in respiratory status after a period of stability or improvement on the ventilator,</li> <li>Evidence of infection or inflammation, and</li> <li>Laboratory evidence of respiratory infection.</li> <li>The VAE rate per 1000 ventilator days is calculated by dividing the number of VAEs by the number of ventilator days and multiplying the result by 1000 (ventilator days).</li> <li>NOTE: patient must be mechanically ventilated for at least 4 calendar days to fulfill VAE criteria (where the day of intubation and initiation of mechanical ventilation is day 1). The earliest date of event for VAE (the date of onset of worsening oxygenation) is day 3 of mechanical ventilation.</li> </ul>
Calculation	Numerator: Number of patients who received burn treatment Check one:  *Specific Event:  • VAC Ventilator-Associated Condition,
	<ul> <li>IVAC Infection related Ventilator-Associated Complication</li> <li>PVAP Possible Ventilator Associated Pneumonia</li> <li>*Specify Criteria Used:</li> </ul>
	<ul> <li>STEP 1: VAC (≥1 REQUIRED)</li> <li>At least one:</li> <li>Daily min FiO2 increase ≥ 0.20 (20 points) for ≥ 2 days† OR</li> <li>Daily min PEEP increase ≥ 3 cm H2O for ≥ 2 days†</li> </ul>
	<ul> <li>Daily min PEEP increase ≥ 3 cm H2O for ≥ 2 days†</li> <li>†after 2+ days of stable or decreasing daily minimum values.</li> </ul>
	STEP 2: IVAC
	<ul> <li>Both criteria:</li> <li>Temperature &gt; 38°C or &lt; 36° OR □ White blood cell count ≥ 12,000 or ≤ 4,000 cells/mm3 AND</li> <li>A new antimicrobial agent(s) is started, and is continued for ≥ 4 days</li> </ul>
	STEP 3: PVAP One of the following criteria is met: Criterion #1:
	<ul> <li>Positive culture of one of the following specimens, meeting quantitative or semi-quantitative thresholds, without requirement for purulent respiratory secretions:</li> <li>Endotracheal aspirate □ Lung tissue</li> <li>Broncho alveolar lavage □ Protected specimen brush</li> </ul>
	OR Criterion #2:

- Purulent respiratory secretions‡ (defined as secretions from the lungs, bronchi, or trachea that contain >25 neutrophils and <10 squamous epithelial cells per low power field [lpf, x100]) plus organism(s) identified from one of the following specimens (to include qualitative culture, or quantitative/semi-quantitative culture without sufficient growth to meet criterion #1)</li>
- Sputum
- Endotracheal aspirate □ Lung tissue
- $\bullet \quad$  Broncho alveolar lavage  $\hfill\Box$  Protected specimen brush OR

#### Criterion #3:

One of the following positive tests (as outlined in the protocol): ‡

- Organism(s) identified from pleural fluid
- Diagnostic test for Legionella species
- Lung histopathology
- Diagnostic test for selected viral pathogens ‡collected after 2 days of mechanical ventilation and within +/- 2 days of onset of increase in FiO2 or PEEP.

#### **Numerator Exclusion:**

If the date of the VAE (i.e., day 1 of the  $\geq$  2-day period of worsening oxygenation) occurs on the day of transfer/discharge or the next day, indicate the transferring /discharging facility, not the current facility of the patients in the comments box. This patient will be excluded from the numerator count of the hospital facility.

For further information please see surveillance algorithm on page 18 of the VAE module: https://www.cdc.gov/nhsn/pdfs/pscmanual/10-vae\_final.pdf

patients on high frequency ventilation or extracorporeal life support, Non-acute care locations in acute care facilities are not eligible to participate in VAE surveillance

Do not report as VAE, if the date of event (date of onset of worsening oxygenation) is on or after the date of documentation that the patient is being supported for organ donation purposes.

2 Repeated infection for the same type during 14 days from Date of Event

#### **Denominator:**

Ventilator days: Number of patients who received treatment as an inpatient for burns injury (any degree) (Refer Appendix-A) and were managed with ventilator devices. The ventilator days are collected daily, at the same time each day. These daily counts are summed and only the total for the month is used.

#### **Denominator Inclusion**:

- All ventilator days are counted, including ventilator days for residents on mechanical ventilation for < 3 days.
- Patients undergoing weaning from mechanical ventilation are included in ventilator day counts as long as the patient is receiving support from a mechanical ventilator and is eligible for VAE surveillance

Reporting Frequency	Quarterly
Unit Measure	Rate per 1000 ventilator days

International comparison	American Burn Association
if available	16d-0615-pq mk-bqip-definitions-edited-may-2 june-15-2016.pdf
	(ameriburn.org)
<b>Desired Direction</b>	Lower is better
Data Source	Patient medical record

<b>KPI Description (title):</b>	Percentage of patients who had unplanned intubation
Domain	Safety
Indicator Type	Outcome
Definition	Patient requires placement of an endotracheal tube and mechanical or assisted ventilation because of the onset of respiratory or cardiac failure manifested by severe respiratory distress, hypoxia, hypercarbia, or respiratory acidosis. In patients who were intubated in the field or Emergency Department, or those intubated for surgery, unplanned intubation occurs if they require reintubation for respiratory failure any time after extubation
Calculation	Numerator: Number of patients from the denominator, who had an unplanned intubation i.e. if they require reintubation for respiratory failure any time after extubation. (more than one unplanned reintubation just counted as one)  CPT CODE: 31500  Denominator: Total number of burn inpatients discharged in the measurement period who were extubated at any time during their admission (includes all reasons for initial intubation). (Refer Appendix-A)
Reporting Frequency	Quarterly
Unit Measure	Percentage
International	American Burn Association
comparison if available	16d-0615-pq_mk-bqip-definitions-edited-may-2_june-15-2016.pdf
	(ameriburn.org)
Desired Direction	Lower is better
Data Source	Patient medical record

KPI Description (title):	Percentage of Patients Who Had Deep Vein Thrombosis or
	Venous Thromboembolism (VTE)
Domain	Safety
Indicator Type	Outcome
Definition	DVT: The formation, development, or existence of a blood clot or thrombus within the vascular system, which may be coupled with inflammation. This diagnosis must be confirmed by a venogram, ultrasound, or CT. VTE: Lodging of a blood clot in a pulmonary artery with subsequent obstruction of blood supply to the lung parenchyma. The blood clots usually originate from the deep leg veins or the pelvic venous system. The condition must be confirmed by either a V-Q scan interpreted as high probability of pulmonary embolism or a positive pulmonary angiogram, CT angiogram, echocardiogram or on autopsy.
Calculation	Numerator: Number of patients from the denominator who received burns treatment and had developed deep vein thrombosis or venous thromboembolism during the admission.  • Deep Vein Thrombosis:  ICD 10 CM Codes: (I80.201, I80.202, I80.203, I80.209, , I80.211, I80.212, I80.213, I80.219, I80.221, I80.222, I80.223, I80.229,
	I80.231, I80.232, I80.233, I80.239, I80.291, I80.292, I80.293, I80.299, , I82.401, I82.402, I82.403, I82.409, I82.411, I82.412, I82.413, I82.419, I82.421, I82.422, I82.423, I82.429, I82.431, I82.432, I82.433, I82.439, I82.441, I82.442, I82.443, I82.449, I82.491, I82.492, I82.493, I82.499, I82.4Y1, I82.4Y2, I82.4Y3, I82.4Y9, I82.4Z1, I82.4Z2, I82.4Z3, I82.4Z9, I82.890, I82.90)  • Pulmonary Embolism: ICD 10 CM Codes: (I26.01, I26.02, I26.09, I26.90, I26.92, I26.99)
	<u>Denominator:</u> Total number of discharged inpatients, who received burns injury (any degree) treatment. (Refer Appendix-A)
	<ul> <li>Denominator Exclusion:</li> <li>Patients with a principal ICD-10-CM Diagnosis Code or secondary diagnosis present on admission for:         <ul> <li>Deep Vein Thrombosis (please see above)</li> <li>Pulmonary Embolism (please see above)</li> </ul> </li> <li>Patients where a procedure for interruption of vena cava occurs before or on the same date as the first operating room procedure (CPT Procedure Code: 37619 Ligation of inferior vena cava, 37191Insertion of intravascular vena cava filter, endovascular approach including vascular access, vessel selection, and radiological supervision and interpretation, intraprocedural road</li> </ul>
	mapping, and imaging guidance (ultrasound and fluoroscopy), when performed.
Reporting Frequency	Quarterly
Unit Measure	Rate per 1000 patient received burns treatment
International comparison if available	American Burn Association  16d-0615-pq mk-bqip-definitions-edited-may-2 june-15-2016.pdf (ameriburn.org)
Desired Direction	Lower is better
Data Source	Patient medical record
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KPI Description (title):	Percentage of patients who had acute kidney injury
Domain	Safety
Indicator Type	Outcome
Definition	A patient who did not require chronic renal replacement therapy prior to injury, who has worsening renal dysfunction after injury requiring renal replacement therapy.  Acute Kidney Injury (stage 3) is an abrupt (within a 48-hour period) reduction of kidney function defined as: Increase in SCr of more than or equal to $3x$ baseline  Or Increase in SCr to $\ge 4mg/dl$ ( $\ge 353.6\mu mol/l$ )  Or Initiation of renal replacement therapy  Or Patients >18 years, decrease in $_e$ GFR to $< 35 \ ml/min$ per $1.73 \ m^2$ .  And Reduction in urine output of $< 0.3 \ ml/kg/hr$ for $\ge 24 \ hrs$ .  Or Anuria for $\ge 12 \ h$
Calculation	Numerator: Number of patients from the denominator who received burn treatment and had developed acute kidney injury requiring renal replacement therapy.  Denominator: Total number of discharged inpatients who received burns injury (any degree) treatment. (Refer Appendix-A)
Reporting Frequency	Quarterly
Unit Measure	Percentage
International comparison if available	American Burn Association  16d-0615-pq_mk-bqip-definitions-edited-may-2_june-15-2016.pdf  (ameriburn.org)
<b>Desired Direction</b>	Lower is better
Data Source	Patient medical record chart

KPI Description (title):	CLABSI Rate per 1000 Central Line-Days
Domain	Safety
Indicator Type	Outcome
Definition	Central line-associated BSI (CLABSI): A laboratory-confirmed
	bloodstream
	infection (LCBI) where central line (CL) or umbilical catheter (UC) was in
	place
	for >2 calendar days on the date of event, with day of device placement
	being
	Day 1,
	AND
	A CL or UC was in place on the date of event or the day before. If a CL or UC
	was
	in place for >2 calendar days and then removed, the date of event of the
	LCBI
	must be the day of discontinuation or the next day. If the patient is admitted
	or
	transferred into a facility with an implanted central line (port) in place, and that is the patient's only central line, day of first access in an inpatient
	location
	is considered Day1. "Access" is defined as line placement, infusion or
	withdrawal through the line. Such lines continue to be eligible for CLABSI
	once
	they are accessed until they are either discontinued or the day after patient
	discharged (as per the Transfer Rule). Note that the "de-access" of a port
	does
	not result in the patient's removal from CLABSI surveillance.
	Central line: An intravascular catheter that terminates at, close to the
	heart, or
	in one of the great vessels that used for infusion, withdrawal of blood, or
	hemodynamic monitoring. The following are considered great vessels for
	the
	purpose of reporting central-line BSI and counting central-line days in the
	NHSN system:
	8. Aorta
	9. Pulmonary artery 10. Superior vena cava
	11. Inferior vena cava
	12. Brachiocephalic veins
	13. Internal jugular veins
	14. Subclavian veins
	15. External iliac veins
	16. Common iliac veins
	17. Femoral veins
	18. In neonates, the umbilical artery/vein.
	<b>Umbilical catheter</b> : A central vascular device inserted through the
	umbilical
	artery or vein in a neonate.

**Infusion**: The introduction of a solution through a blood vessel via a catheter

lumen. This may include continuous infusions such as nutritional fluids or medications, or it may include intermittent infusions such as flushes, IV antimicrobial administration, or blood transfusion or hemodialysis.

**Temporary central line**: A non-tunneled, non-implanted catheter.

#### **Permanent central line**: Includes

- 19. Tunneled catheters, including certain dialysis catheters
- 20. Implanted catheters (including ports)

#### **Location of Attribution:**

The inpatient location where the patient was assigned on the date of event is

the location of attribution (Exception to Location of Attribution:

Transfer Rule: If the date of event is on the date of transfer or discharge, or the

next day, the infection is attributed to the transferring/discharging location)

#### **Date of Event (Event Date):**

The Date of Event is the date the first element used to meet site-specific infection criterion occurs for the first time within the seven-day infection window period.

#### **Infection Window Period:**

Infection Window Period is defined as the 7-days during which all sitespecific

infection criteria must be met. It includes the day the first positive diagnostic

test that is an element of the site-specific infection criterion, was obtained, the

3 calendar days before and the 3 calendar days after.

**Central Line days** are the number of patients with an indwelling central lines, are collected daily, at the same time each day.

#### Calculation

<u>Numerator:</u> Number of patients who received burn treatment and had developed CLABSI that is identified during the period selected for surveillance in all inpatient setting.

# Laboratory-Confirmed Bloodstream Infection (LCBI) Criteria to define BSI:

#### LCBI 1

Patient has a recognized pathogen cultured from one or more blood cultures

#### **AND**

Organism cultured from blood is not related to an infection at another site

#### LCBI 2.

	Patient has at least one of the following signs or symptoms: fever (>38.0C), chills, or hypotension
	Cimis, or hypotension
	AND
	Organism cultured from blood is not related to an infection at another site.
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	AND The same common commensal (i.e., diphtheroids [Corynebacterium spp.
	not C. diphtheriae], Bacillus spp. [not B. anthracis], Propionibacterium spp., coagulase negative staphylococci [including S. epidermidis], viridans group streptococci, Aerococcus spp., and Micrococcus spp.) is cultured from two or more blood cultures drawn on separate occasions.
	LCBI 3 (In Patients ≤ 1 year)
	Patient $\leq$ 1 year of age has at least one of the following signs or symptoms: fever (>38.0C), hypothermia (((<36.0C), apnea, or bradycardia
	AND
	Organism cultured from blood is not related to an infection at another site,
	organism curearea nom brood is not related to an infection at another site,
	AND
	The same common commensal (i.e., diphtheroids [Corynebacterium spp.
	not C.
	diphtheriae], Bacillus spp. [not B. anthracis], Propionibacterium spp.,
	coagulase negative staphylococci [including S. epidermidis], viridans group
	streptococci, Aerococcus spp., and Micrococcus spp.) is cultured from two or more blood
	cultures drawn on separate occasions
	Numerator Exclusion:
	MBI-LCBI
	Secondary bloodstream infections
	<ul> <li>Repeated infection for the same type during 14 days from Date of</li> </ul>
	Event
	Danominator, Number of all control line days for nationts who received
	<b>Denominator:</b> Number of all central line days for patients who received treatment as an inpatient for burn injury (any degree) during the reporting
	period. (Refer Appendix-A)
	L (
Reporting Frequency	Quarterly
Unit Measure	Rate per 1000 central line days
International	AHRQ and DOH standards
comparison if available	http://www.cdc.gov/nhsn/acute-care-hospital/CLABSI/index.html
Desired Direction	Lower is better
Data Source	Captured by infection control team
	Patient's records  Lab reports
	Lab reports     Userital internal montality and montality
	Hospital internal mortality and morbidity

KPI Description (title):	CAUTI Rate per 1000 Device Days
Domain	Safety
Indicator Type	Outcome
Definition	Catheter-associated UTI (CAUTI): A UTI 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 > 2 calendar days and then removed, the date of event for the UTI must be the day of discontinuation or the next day for the UTI to be catheter-associated.
	Indwelling catheter: A drainage tube that is inserted into the urinary bladder through the urethra, is left in place, and is connected to a drainage bag (including leg bags). These devices are also called Foley catheters. Condom
	or straight in-and-out catheters are not included nor are nephrostomy tubes, ileoconduits, or suprapubic catheters unless a Foley catheter is also present.  Indwelling urethral catheters that are used for intermittent or continuous irrigation are included in CAUTI surveillance.
	Location of Attribution: The inpatient location where the patient was assigned on the date of event is the location of attribution (Exception to Location of Attribution: Transfer Rule: If the date of event is on the date of transfer or discharge, or the next day, the infection is attributed to the transferring/discharging location)
	<b>Date of Event (Event Date):</b> is the date the first element used to meet site-specific infection criterion occurs for the first time within the seven-day infection window period.
	Infection Window Period is defined as the 7-days during which all site-specific infection criteria must be met. It includes the day the first positive diagnostic test that is an element of the site-specific infection criterion, was obtained, the 3 calendar days before and the 3 calendar days after.  Indwelling catheter days which are the number of patients with an indwelling urinary catheter device, are collected daily, at the same time each day.

Criteria used to define CAUTI in Adult Patients:

#### Criteria 1a.

Patient must meet 1, 2, and 3 below:

- Patient had an indwelling urinary catheter that had been in place for > 2 days on the date of event (day of device placement = Day 1) AND was either:
  - Still present on the date of event, OR
  - Removed the day before the date of event
- 2. Patient has at least one of the following signs or symptoms:
  - Fever (>38.0°C)
  - Suprapubic tenderness
  - Costovertebral angle pain or tenderness
  - Urinary urgency
  - Urinary frequency
  - Dysuria
- 3. Patient has a urine culture with no more than two species of organisms, at least one of which is a bacteria of  $\geq 10^5$
- 4.
- 5. CFU/ml. All elements of the UTI criterion must occur during the Infection Window Period

#### Criteria used to define CAUTI for Patients ≤1 year:

Patient must meet 1, 2, and 3 below:

- 1. Patient is ≤1 year of age (an indwelling urinary catheter in place for >2 calendar days)
- 2. Patient has at least one of the following signs or symptoms:
  - Fever (>38.0°C)
  - Hypothermia (<36.0°C)</li>
  - Apnea
  - Bradycardia
  - Lethargy
  - Vomiting
  - Suprapubic tenderness
- 3. Patient has a urine culture with no more than two species of organisms, at least one of which is a bacteria of ≥10<sup>5</sup> CFU/ml. All elements of the SUTI criterion must occur during the Infection Window Period.

#### Calculation

**Numerator:** Number of patients who received burn treatment and had developed CAUTI that is identified during the period selected for surveillance.

**Numerator Exclusions:** Repeated infection for the same type during 14 days from Date of Event

<u>Denominator</u>: Total number of catheter device days for all patients who received treatment as inpatient for burns injury (any degree). <u>(Refer Appendix-A)</u>

#### **Denominator Exclusion:**

Outpatients

The following organisms cannot be used to meet the UTI definition:

- Candida species or yeast not otherwise specified
- Mold

	Dimorphic fungi or
	Parasites
	Mixed Flora (urine specimen)
Reporting Frequency	Quarterly
Unit Measure	Rate per 1000 urinary catheter days
International	AHRQ and DOH standards
comparison if available	http://www.cdc.gov/nhsn/acute-care-hospital/CAUTI/index.html
<b>Desired Direction</b>	Lower is better
Data Source	Captured by infection control team
	Patient's Records Chart
	Lab Reports
	Hospital internal mortality and morbidity

<b>KPI Description (title):</b>	Sepsis / Severe Sepsis Rate per 1000 Discharged Inpatients
Domain	Safety
	Outcome
Indicator Type Definition	Sepsis and/or Severe Sepsis defined as bacteremia with an obvious source of infection and two or more of the following clinical signs:  • Temp >38° C or <36° C  • WBC count >12,000/mm³, or > 20%immature (source of infection)  • Hypotension – (Severe Sepsis)  • Evidence of hypo perfusion, such as low blood pressure, low urine output; cool extremities; weak peripheral pulse. (Severe Sepsis)  • Elevated lactate > 3; serum bicarbonate < 20; or Altered mental status  A patient must have a documented infection as defined by:  1. Culture positive infection; or  2. Pathologic tissue source identified; or
	3. Clinical response to antimicrobials
	<ol> <li>AND three of the following:         <ol> <li>Temperature ≥39° or ≤36.5°C</li> <li>Progressive tachycardia</li> <li>Adults ≥110 bpm</li> <li>Children 2 SD above age-specific norms (85% age-adjusted max heart rate)—use local hospital mean/SD</li> </ol> </li> <li>Progressive tachypnea         <ol> <li>Adults ≥25 bpm not ventilated</li> <li>Minute ventilation ≥12 l/min ventilated</li> <li>Children 2 SD above age-specific norms (85% age-adjusted max respiratory rate)</li> </ol> </li> <li>Thrombocytopenia (will not apply until 3days after initial resuscitation)         <ol> <li>Adults ≤100,000/mcl</li> <li>Children ≥2 SD below age-specific norms</li> </ol> </li> </ol>

Calculation	<ul> <li>5. Hyperglycemia (in the absence of pre-existing diabetes mellitus)</li> <li>Untreated plasma glucose ≥200 mg/dl or equivalent mM/L</li> <li>Insulin resistance—examples include <ul> <li>≥7 units of insulin/hr intravenous drip (adults)</li> <li>Significant resistance to insulin (≥25% increase in insulin requirements over 24 hours)</li> </ul> </li> <li>6. VI. Inability to continue enteral feedings ≥ 24 hours <ul> <li>Abdominal distension</li> <li>Enteral feeding intolerance (residual 150 ml/hr in children or two times feeding rate in adults)</li> <li>Uncontrollable diarrhea (≥2500 ml/d for adults or ≥400 ml/d in children)</li> </ul> </li> <li>Numerator: Number of patients who received burn treatment and had developed sepsis / severe sepsis</li> <li>Denominator: Total number of discharged inpatients who received treatment as a burn's injury (any degree). (Refer Appendix-A)</li> </ul>
Reporting Frequency	Quarterly
Unit Measure	Rate per 1000 discharged inpatients
International	American Burn Association
comparison if available	16d-0615-pq mk-bqip-definitions-edited-may-2 june-15-2016.pdf (ameriburn.org)
Desired Direction	Lower is better
Data Source	Patient medical record chart
	<ul> <li>Hospital internal adverse event system</li> </ul>

KPI Description (title):	Rate of hospital associated or worsening pressure injury (Stage 2 and above) per 1000 inpatient days
Domain	Safety
Indicator Type	Outcome
Definition	<ul> <li>Tissue loss resulting from pressure exerted by an external object on the patient's skin or by the patient's weight against a surface. The ulcer is staged according to the depth of tissue loss: If the patient has more than one ulcer due to pressure, use this field variable to describe the most severe one.</li> <li>Stage 1: Intact skin with non-blanching erythema</li> <li>Stage 2: Partial thickness skin loss or blistering that is not due to tape or adhesive.</li> <li>Stage 3: Full thickness loss of skin. Subcutaneous fat may be visible but not muscle or bone.</li> <li>Stage 4: Full thickness tissue loss with exposure of muscle or bone.</li> <li>Unstageable pressure injuries: widely understood to be full-thickness pressure injuries in which the base is obscured by slough and/or eschar.</li> <li>Bruising indicates deep tissue injury.</li> </ul>

#### **Calculation**

**Numerator:** Number of patients who received burn treatment and had developed hospital acquired pressure ulcer injury Stage 2, 3, 4, Unstageable or Deep Tissue Injury (DTI)

Hospital associated or worsening Pressure Injury (Stage 2 and above) ICD- 10 CM Codes: L89.42, L89.43, L89.44, L89.40, L89.45, L89.812, L89.813, L89.814, L89.819, L89.810, L89.522, L89.523, L89.524, L89.529, L89.520, L89.322, L89.323, L89.324, L89.329, L89.320, L89.022, L89.023, L89.024, L89.029, L89.020, L89.622, L89.623, L89.624, L89.629, L89.620, L89.222, L89.223, L89.224, L89.229, L89.220, L89.142, L89.143, L89.144, L89.149, L89.140, L89.122, L89.123, L89.124, L89.129, L89.120, L89.892, L89.893, L89.894, L89.899, L89.890, L89.512, L89.513, L89.514, L89.519, L89.510, L89.312, L89.313, L89.314, L89.319, L89.310, L89.012, L89.013, L89.014, L89.019, L89.010, L89.612, L89.613, L89.614, L89.619, L89.610, L89.212, L89.213, L89.214, L89.219, L89.210, L89.132, L89.133, L89.134, L89.139, L89.130, L89.112, L89.113, L89.114, L89.119, L89.110, L89.152, L89.153, L89.154, L89.159, L89.150, L89.502, L89.503, L89.504, L89.509, L89.500, L89.302, L89.303, L89.304, L89.309, L89.300, L89.002, L89.003, L89.004, L89.009, L89.000, L89.602, L89.603, L89.604, L89.609, L89.600, L89.202, L89.203, L89.204, L89.209, L89.200, L89.102, L89.103, L89.104, L89.109, L89.100, L89.92, L89.93, L89.94, L89.90, L89.95, L89.46, L89.816, L89.526, L89.326, L89.026, L89.626, L89.226, L89.146, L89.126, L89.896, L89.516, L89.316, L89.016, L89.616, L89.216, L89.136, L89.116, L89.156, L89.506, L89.306, L89.006, L89.606, L89.206, L89.106, L89.96

#### Guide on stage is defined below;

**Stage 1 Pressure Injury**: Non-blanchable erythema of intact skin Intact skin with a localized area of non-blanchable erythema, which may appear differently in darkly pigmented skin. Presence of blanchable erythema or changes in sensation, temperature, or firmness may precede visual changes. Color changes do not include purple or maroon discoloration; these may indicate deep tissue pressure injury.

Stage 2 Pressure Injury: Partial-thickness skin loss with exposed dermis Partial-thickness loss of skin with exposed dermis. The wound bed is viable, pink or red, moist, and may also present as an intact or ruptured serum-filled blister. Adipose (fat) is not visible and deeper tissues are not visible. Granulation tissue, slough and eschar are not present. These injuries commonly result from adverse microclimate and shear in the skin over the pelvis and shear in the heel. This stage should not be used to describe moisture associated skin damage (MASD) including incontinence associated dermatitis (IAD), intertriginous dermatitis (ITD), medical adhesive related skin injury (MARSI), or traumatic wounds (skin tears, burns, abrasions).

**Stage 3 Pressure Injury**: Full-thickness skin loss Full-thickness loss of skin, in which adipose (fat) is visible in the ulcer and granulation tissue and epibole (rolled wound edges) are often present. Slough and/or eschar may be visible. The depth of tissue damage varies by anatomical location; areas

of significant adiposity can develop deep wounds. Undermining and tunneling may occur. Fascia, muscle, tendon, ligament, cartilage and/or bone are not exposed. If slough or eschar obscures the extent of tissue loss this is an Unstageable Pressure Injury.

**Stage 4 Pressure Injury**: Full-thickness skin and tissue loss Full-thickness skin and tissue loss with exposed or directly palpable fascia, muscle, tendon, ligament, cartilage or bone in the ulcer. Slough and/or eschar may be visible. Epibole (rolled edges), undermining and/or tunneling often occur. Depth varies by anatomical location. If slough or eschar obscures the extent of tissue loss this is an Unstageable Pressure Injury.

**Unstageable Pressure Injury**: Obscured full-thickness skin and tissue loss Full-thickness skin and tissue loss in which the extent of tissue damage within the ulcer cannot be confirmed because it is obscured by slough or eschar. If slough or eschar is removed, a Stage 3 or Stage 4 pressure injury will be revealed. Stable eschar (i.e. dry, adherent, intact without erythema or fluctuance) on the heel or ischemic limb should not be softened or removed.

**Deep Tissue Pressure Injury**: Persistent non-blanchable deep red, maroon or purple discoloration Intact or non-intact skin with localized area of persistent non-blanchable deep red, maroon, purple discoloration or epidermal separation revealing a dark wound bed or blood filled blister. Pain and temperature change often precede skin color changes. Discoloration may appear differently in darkly pigmented skin. This injury results from intense and/or prolonged pressure and shear forces at the bone-muscle interface. The wound may evolve rapidly to reveal the actual extent of tissue injury, or may resolve without tissue loss. If necrotic tissue, subcutaneous tissue, granulation tissue, fascia, muscle or other underlying structures are visible, this indicates a full thickness pressure injury (Unstageable, Stage 3 or Stage 4). Do not use DTPI to describe vascular, traumatic, neuropathic, or dermatologic conditions

#### **Numerator Inclusions:**

- All Inpatients (Adult, Pediatric and Neonatal)
- Hospital Acquired Pressure Injury (not present or present but with a lower stage on admission to hospital)

#### **Numerator Exclusions:**

- Patients with pressure Injury present on admission, that stayed the same stage or improved following hospital stay
- Hospital Acquired Pressure Stage I
- Day care patients Medical Management
- Day care patients Procedures

**<u>Denominator</u>**: Total number of inpatient days should be calculated using ONLY inpatient bed definitions for all patients receiving treatment for burn injury during the reporting period. (Refer Appendix-A)

Reporting Frequency	Quarterly
Unit Measure	Rate per 1000 inpatient days

C of UK with modification following discussion with local experts and taking local culture into sideration
wer is better
<ul><li>Patient medical record chart</li><li>Hospital internal adverse event system</li></ul>
S

KPI Description (title):	Rate of Healthcare Associated Multidrug-Resistant
	Organism (MDRO) Bloodstream Infection
Domain	Safety
Indicator Type	Outcome
Definition	Rate of the healthcare-associated MDRO bloodstream infections who meet MDRO definitions during the reporting period.
	MDRO Definitions: KPI MDRO-01 – Methicillin-resistant Staphylococcus aureus (MRSA): Number of <b>S. aureus</b> isolates cultured from blood specimen that test oxacillin-resistant by standard susceptibility testing methods.
	KPI MDRO-02 – Vancomycin-resistant Enterococci (VRE): Number of Enterococcus faecalis, Enterococcus faecium, and other Enterococcus species isolates cultured from blood specimen that test resistant to vancomycin by standard susceptibility testing methods.
	KPI MDRO-03- CephR-Klebsiella: Number of Klebsiella oxytoca or Klebsiella pneumoniae isolates cultured from blood specimen that test non susceptible (specifically, either resistant or intermediate) to at least ONE of the following cephalosporin antibiotics: Ceftazidime, Cefotaxime, Ceftriaxone, or Cefepime by standard susceptibility testing methods
	KPI MDRO-04 – Carbapenemase-Producing Organisms (CPO): Number of Escherichia coli, Klebsiella oxytoca, Klebsiella pneumoniae, and Enterobacter spp. isolates cultured from blood specimen that test resistant by standard susceptibility testing methods to at least ONE of the following carbapenem antibiotics: Carbapenem, Imipenem, Meropenem, Doripenem
Calculation	Numerator: Number of patients who received burn treatment have developed MDRO infections that meets MDRO definitions
	Numerator Exclusions: Repeated infection for the same type during 14 days from Date of Event
	<u>Denominator</u> : Total number of inpatient days for all patients received treatment for burn injury (any degree) during the reporting period. <u>(Refer Appendix-A)</u>
	<u>Denominator Inclusions</u> :

	<ul> <li>Patient admitted to hospital (Inpatients) only, including ICU and non-ICU inpatient wards</li> <li>Healthcare Facility-Onset (HO): specimen collected &gt;3 days after</li> <li>admission to the facility (specifically: on or after day 4 after</li> <li>admission, with the admission day counting as day one)</li> <li>Isolates identified from clinical specimen only (diagnosis and treatment of infection)</li> <li>Isolates from blood culture specimen only. First isolate per patient only during a 14-day interval.</li> </ul>
	Denominator Exclusions:
	<ul> <li>Community-Onset (CO): Positive lab tests results for specimens collected at an inpatient location ≤3 days after admission to the facility (i.e., on day 1, 2 or 3 after admission, with the admission day counting as day one.</li> <li>MDROs from patients in an outpatient location (e.g. outpatient clinics, emergency department, home nursing).</li> <li>MDROs from patients in an Inpatient Rehabilitation Facility or Inpatient Psychiatric Facility</li> <li>Duplicate MDRO isolates for the same patient and specimen type (blood) within 14 days after the first MDRO isolate, based on specimen collection date.</li> <li>Isolates identified through screening or active surveillance</li> </ul>
Reporting Frequency	Quarterly
Unit Measure	Rate per 1000 inpatient days
International	Indicators are based on US CDC NHSN MDRO/CDI Module:
comparison if available	http://www.cdc.gov/nhsn/PDFs/pscManual/12pscMDRO CDADcurrent.pdf OECD Quality indicators, AHRQ, CQC
<b>Desired Direction</b>	Lower is better
Data Source	<ul> <li>Patient medical record chart</li> <li>Lab test results of all specimen</li> <li>Captured by microbiologist and infection control team/ nursing as part of regular surveillance activities and infection control documentation.</li> </ul>

KPI Description (title):	ER under triage rates
Domain	Patient-Centered
Indicator Type	Outcome
Definition	Under triage refers to the situation where a patient with a more severe condition is assigned a lower triage level, indicating a lower level of urgency or priority. In the context of burn cases in the emergency department (ED), under triage can have serious consequences as it may delay appropriate and timely treatment for patients with potentially lifethreatening burns.
Calculation	Numerator: Count of all Emergency Department (ED) patients with Total Body Surface Area (TBSA) >/=20% burns who do not receive level I management during the measurement period.  Denominator: Total Number of Emergency Department patients with Total Body Surface Area (TBSA) >/=20% burn during the measurement
	<ul> <li>Denominator Exclusions:         <ul> <li>Patients who Left (ED) Against Medical Advice (LAMA)</li> <li>Patients who Left Without Being Seen (LWBS)</li> <li>Patients with non-burn injuries including friction/shearing, traumatic injuries, cold injury, rash/skin infection, inhalation injury only (Refer to Appendix C)</li> <li>Burn reconstruction patients (Refer to Appendix C)</li> </ul> </li> </ul>
Reporting Frequency	Quarterly
Unit Measure	Percentage
International	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5108619/#SD1-oaem-8-
comparison if available	103
Desired Direction	≤10%
Data Source	Patient medical record chart

KPI Description (title):	Percent of unplanned Surgical Re-operation in Burn
	Patients.
Domain	Safety
Indicator Type	Outcome
Definition	Percent of burn patients that require an emergency/urgent unplanned return to the operating room after initial operative management for a similar or related previous procedure (see Appendix B for procedure).
Calculation	Numerator: Number of burn patients from the denominator, who require an emergency/urgent unplanned return to the operating room within 48 hours of burn/reconstructive operative management for a similar or related previous procedure, during the same hospitalization.
	<ul> <li>Numerator Inclusion:         <ul> <li>Emergency Cases: Surgical procedures for emergent and critical conditions or injuries that involve an immediate threat to "life, limb, or organ," requiring emergent surgical intervention within 1 hour.</li> <li>Urgent Cases: Surgical procedures for urgent but non-critical and non-life-threatening conditions required to be completed within 6 hours.</li> <li>Related to previous burn procedure.</li> </ul> </li> </ul>
	Total number of discharged inpatients with burns injury (any degree)  (Refer Appendix A) who received surgical interventions. (Refer Appendix B for Applicable Burn Surgical Procedure Codes)
	<ul> <li>Denominator Exclusions:</li> <li>Inpatients with non-burn injuries including friction/shearing, traumatic injuries, cold injury, rash/skin infection, inhalation injury only (Refer to Appendix C)</li> <li>Burn reconstruction inpatients (Refer to Appendix C)</li> </ul>
Reporting Frequency	Quarterly
Unit Measure	Percentage
International comparison if available	n/a
<b>Desired Direction</b>	Lower is Better
Data Source	<ul><li>Patient medical record chart</li><li>Hospital administrative data</li></ul>

Median Length of Stay per Total Body Surface Area (TBSA)
Efficiency
Process
Median Length of stay in hospital per TBSA
Numerator: Total number of acute care inpatient days for burn patients with ≥ 20% TBSA) for all patients discharged in the reporting period.  Denominator: Total TBSA for inpatients that are discharged in the reporting period.
Denominator Inclusion:
• All patients with ≥20% TBSA discharged alive
Acute care= patients receiving active acute surgical/wound care intervention to >/= 90% of treated wound healing
<u>Denominator Exclusions</u> :
<ul> <li>Patients in rehab phase with &gt;90% of treated wound healing and no longer requiring surgical intervention for wound care.</li> <li>Patients &lt;20% TBSA burned</li> </ul>
<ul> <li>Patients with the discharge disposition of Dead or Left Against Medical Advice (LAMA)</li> </ul>
<ul> <li>Patients with non-burn injuries including friction/shearing, traumatic injuries, cold injury, rash/skin infection, inhalation injury only (Refer to Appendix C)</li> </ul>
<ul> <li>Burn reconstruction patients (Refer to Appendix C)</li> <li>Patients who was transferred to another acute care facility for further</li> </ul>
acute burn injury management
Quarterly
Median length of stay per TBSA
Contributors to the length-of-stay trajectory in burn-injured patients -
ScienceDirect
1 day per percent TBSA
Patient medical record chart
Hospital administrative data

KPI Description (title):	Incidence of Skin Graft Loss Requiring Re-grafting in Burn
	Patients
Domain	Safety
Indicator Type	Outcome
Definition	Percent of burn patients who require re-grafting after undergoing skin grafting for burn treatment.
Calculation	Numerator: Number of burn patients from the denominator that had skin graft loss > 10% of the grafted wound (not TBSA) that required a return to the operating room for re-graft or flap repair.  Denominator: Total number of burn inpatients who underwent any skin grafting and discharged during the reporting period.  Denominator Inclusion: Patients who required grafting and discharged from acute care within the reporting period.  Denominator Exclusions:  Non-burn injuries including friction/shearing, traumatic injuries, cold injury, rash/skin infection, inhalation injury only (Refer to Appendix C)  Burn reconstruction (Refer to Appendix C) Patients who were transferred between acute care facilities post initial grafting procedure for further care within 28 days of initial injury
Reporting Frequency	Quarterly
Unit Measure	Percentage
International comparison if available	Local comparison
<b>Desired Direction</b>	<10%
Data Source	<ul><li>Patient medical record chart</li><li>Hospital administrative data</li></ul>

Rate of Burn Wound Infection
Safety
Outcome
Percent of burn patients who acquired burn wound infection during inpatient burn treatment.
Numerator: Number of burn patients from the denominator that acquired burn wound infection during admission.  Wound infection = at least two of the following criteria:  Clinical signs such as localized pain and swelling, spreading erythema and heat at the affected site  Positive bacterial growth of the surface wound swab  Signs of systemic infection indicated by an increase in CRP levels (>10mg/L) together with a body temperature that exceeded 38 degrees C for 48hrs or more where other infection has been excluded  Denominator: Total number of inpatients treated for burns injury and discharged in the reporting period (any degree). (Refer Appendix-A).  Denominator Inclusion: Patients discharged in the reporting period.  Denominator Exclusions:  Patients with non-burn injuries including friction/shearing, traumatic injuries, cold injury, rash/skin infection, inhalation injury only (Refer to Appendix C)  Burn reconstruction patients (Refer to Appendix C)
Patients who were admitted and/or transferred with a burn wound infection (as above) on arrival.
Quarterly
Percentage
2024 NHSN Patient Safety Component Manual (cdc.gov)
<15%
Patient medical record chart
Hospital administrative data

KPI Description (title):	Time to first surgical excision >5 days from admission for
	Burn Patients with TBSA >/=20%
Domain	Efficiency
Indicator Type	Process
Definition	Percentage of patients with burn Total Body Surface Area (TBSA) >/=20% with Time to first surgical excision >5 days from admission
Calculation	Numerator: Total number of Burn patients from the denominator with burn TBSA >/= 20% who had total burn wound excision beyond 5 days from admission.  Denominator: Total number of inpatients with burn TBSA >20% and had undergone burn wound excisions and discharged during the reporting period.  Denominator Inclusion: Discharged patients in the measurement period.  Denominator Exclusions:  Burn Mass Casualty (more than 3 cases in the same burn event)  Patients with non-burn injuries including friction/shearing, traumatic injuries, cold injury, rash/skin infection, inhalation injury only (Refer to Appendix C)  Burn reconstruction patients (Refer to Appendix C)
Reporting Frequency	Quarterly
Unit Measure	Percentage
International comparison if available	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10721718/
Desired Direction	<10%
Data Source	Patient medical record chart

KPI Description (title):	Rate of Donor Site Infections
Domain	Safety
Indicator Type	Outcome
Definition	Percentage of burn patients who acquired skin graft donor-site infections
Colorabetion	within 30 days from skin graft harvest.
Calculation	Numerator: Total number of Burn patients who acquired an infection at a donor site for a skin graft within 30 days of grafting and who discharged in
	the reporting period.
	<ul> <li>Wound infection = at least two of the following criteria:</li> <li>Clinical signs such as localized pain and swelling, spreading erythema and heat at the affected site</li> <li>Positive bacterial growth of the surface wound swab</li> <li>Signs of systemic infection indicated by an increase in CRP levels (&gt;10mg/L) together with a body temperature that exceeded 38 degrees C for 48hrs or more where other infection has been excluded</li> <li>Denominator: Total number of burn inpatients that underwent skin graft harvesting and were discharged during the reporting period.</li> </ul>
	<ul> <li>Denominator Exclusions:         <ul> <li>Patients with non-burn injuries including friction/shearing, traumatic injuries, cold injury, rash/skin infection, inhalation injury only (Refer to Appendix C)</li> <li>Burn reconstruction patients (Refer to Appendix C)</li> <li>Patients admitted/transferred with donor site infections (as described above) on arrival</li> </ul> </li> </ul>
Reporting Frequency	Quarterly
Unit Measure	Percentage
International comparison if available	Skin graft donor site: a procedure for a faster healing - PMC (nih.gov)
Desired Direction	<1%
Data Source	Patient medical record chart

### APPENDIX-A-Burn ICD CODES

	Darmide	GODEO					
T20.00XA	T22.122S	T23.169D	T24.509A	T21.22XA	T22.731S	T23.741D	T25.691A
T20.00XD	T22.129A	T23.169S	T24.509D	T21.22XD	T22.732A	T23.741S	T25.691D
T20.00XS	T22.129D	T23.171A	T24.509S	T21.22XS	T22.732D	T23.742A	T25.691S
T20.011A	T22.129S	T23.171D	T24.511A	T21.23XA	T22.732S	T23.742D	T25.692A
T20.011D	T22.131A	T23.171S	T24.511D	T21.23XD	T22.739A	T23.742S	T25.692D
T20.011S	T22.131D	T23.172A	T24.511S	T21.23XS	T22.739D	T23.749A	T25.692S
T20.012A	T22.131S	T23.172D	T24.512A	T21.24XA	T22.739S	T23.749D	T25.699A
T20.012D	T22.132A	T23.172S	T24.512D	T21.24XD	T22.741A	T23.749S	T25.699D
T20.012S	T22.132D	T23.179A	T24.512S	T21.24XS	T22.741D	T23.751A	T25.699S
T20.019A	T22.132S	T23.179D	T24.519A	T21.25XA	T22.741S	T23.751D	T25.711A
T20.019D	T22.139A	T23.179S	T24.519D	T21.25XD	T22.742A	T23.751S	T25.711D
T20.019S	T22.139D	T23.191A	T24.519S	T21.25XS	T22.742D	T23.752A	T25.711S
T20.02XA	T22.139S	T23.191D	T24.521A	T21.26XA	T22.742S	T23.752D	T25.712A
T20.02XD	T22.141A	T23.191S	T24.521D	T21.26XD	T22.749A	T23.752S	T25.712D
T20.02XS	T22.141D	T23.192A	T24.521S	T21.26XS	T22.749D	T23.759A	T25.712S
T20.03XA	T22.141S	T23.192D	T24.522A	T21.27XA	T22.749S	T23.759D	T25.719A
T20.03XD	T22.142A	T23.192S	T24.522D	T21.27XD	T22.751A	T23.759S	T25.719D
T20.03XS	T22.142D	T23.199A	T24.522S	T21.27XS	T22.751D	T23.761A	T25.719S
T20.04XA	T22.142S	T23.199D	T24.529A	T21.29XA	T22.751S	T23.761D	T25.721A
T20.04XD	T22.149A	T23.199S	T24.529D	T21.29XD	T22.752A	T23.761S	T25.721D
T20.04XS	T22.149D	T23.401A	T24.529S	T21.29XS	T22.752D	T23.762A	T25.721S
T20.05XA	T22.149S	T23.401D	T24.531A	T21.30XA	T22.752S	T23.762D	T25.722A
T20.05XD	T22.151A	T23.401S	T24.531D	T21.30XD	T22.759A	T23.762S	T25.722D
T20.05XS	T22.151D	T23.402A	T24.531S	T21.30XS	T22.759D	T23.769A	T25.722S
T20.06XA	T22.151S	T23.402D	T24.532A	T21.31XA	T22.759S	T23.769D	T25.729A
T20.06XD	T22.152A	T23.402S	T24.532D	T21.31XD	T22.761A	T23.769S	T25.729D
T20.06XS	T22.152D	T23.409A	T24.532S	T21.31XS	T22.761D	T23.771A	T25.729S
T20.07XA	T22.152S	T23.409D	T24.539A	T21.32XA	T22.761S	T23.771D	T25.731A
T20.07XD	T22.159A	T23.409S	T24.539D	T21.32XD	T22.762A	T23.771S	T25.731D
T20.07XS	T22.159D	T23.411A	T24.539S	T21.32XS	T22.762D	T23.772A	T25.731S
T20.09XA	T22.159S	T23.411D	T24.591A	T21.33XA	T22.762S	T23.772D	T25.732A
T20.09XD	T22.161A	T23.411S	T24.591D	T21.33XD	T22.769A	T23.772S	T25.732D
T20.09XS	T22.161D	T23.412A	T24.591S	T21.33XS	T22.769D	T23.779A	T25.732S
T20.10XA	T22.161S	T23.412D	T24.592A	T21.34XA	T22.769S	T23.779D	T25.739A
T20.10XD	T22.162A	T23.412S	T24.592D	T21.34XD	T22.791A	T23.779S	T25.739D
T20.10XS	T22.162D	T23.419A	T24.592S	T21.34XS	T22.791D	T23.791A	T25.739S
T20.111A	T22.162S	T23.419D	T24.599A	T21.35XA	T22.791S	T23.791D	T25.791A
T20.111D	T22.169A	T23.419S	T24.599D	T21.35XD	T22.792A	T23.791S	T25.791D
T20.111S	T22.169D	T23.421A	T24.599S	T21.35XS	T22.792D	T23.792A	T25.791S
T20.112A	T22.169S	T23.421D	T25.011A	T21.36XA	T22.792S	T23.792D	T25.792A
T20.112D	T22.191A	T23.421S	T25.011D	T21.36XD	T22.799A	T23.792S	T25.792D
T20.112S	T22.191D	T23.422A	T25.011S	T21.36XS	T22.799D	T23.799A	T25.792S
T20.119A	T22.191S	T23.422D	T25.012A	T21.37XA	T22.799S	T23.799D	T25.799A
T20.119D	T22.192A	T23.422S	T25.012D	T21.37XD	T23.201A	T23.799S	T25.799D
T20.119S	T22.192D	T23.429A	T25.012S	T21.37XS	T23.201D	T24.201A	T25.799S

T20.12XA	T22.192S	T23.429D	T25.019A	T21.39XA	T23.201S	T24.201D	T26.00XA
T20.12XD	T22.199A	T23.429S	T25.019D	T21.39XD	T23.202A	T24.201S	T26.00XD
T20.12XS	T22.199D	T23.431A	T25.019S	T21.39XS	T23.202D	T24.202A	T26.00XS
T20.13XA	T22.199S	T23.431D	T25.021A	T21.60XA	T23.202S	T24.202D	T26.01XA
T20.13XD	T22.40XA	T23.431S	T25.021D	T21.60XD	T23.209A	T24.202S	T26.01XD
T20.13XS	T22.40XD	T23.432A	T25.021S	T21.60XS	T23.209D	T24.209A	T26.01XS
T20.14XA	T22.40XS	T23.432D	T25.022A	T21.61XA	T23.209S	T24.209D	T26.02XA
T20.14XD	T22.411A	T23.432S	T25.022D	T21.61XD	T23.211A	T24.209S	T26.02XD
T20.14XS	T22.411D	T23.439A	T25.022S	T21.61XS	T23.211D	T24.211A	T26.02XS
T20.15XA	T22.411S	T23.439D	T25.029A	T21.62XA	T23.211S	T24.211D	T26.10XA
T20.15XD	T22.412A	T23.439S	T25.029D	T21.62XD	T23.212A	T24.211S	T26.10XD
T20.15XS	T22.412D	T23.441A	T25.029S	T21.62XS	T23.212D	T24.212A	T26.10XS
T20.16XA	T22.412S	T23.441D	T25.031A	T21.63XA	T23.212S	T24.212D	T26.11XA
T20.16XD	T22.419A	T23.441S	T25.031D	T21.63XD	T23.219A	T24.212S	T26.11XD
T20.16XS	T22.419D	T23.442A	T25.031S	T21.63XS	T23.219D	T24.219A	T26.11XS
T20.17XA	T22.419S	T23.442D	T25.032A	T21.64XA	T23.219S	T24.219D	T26.12XA
T20.17XD	T22.421A	T23.442S	T25.032D	T21.64XD	T23.221A	T24.219S	T26.12XD
T20.17XS	T22.421D	T23.449A	T25.032S	T21.64XS	T23.221A	T24.221A	T26.12XS
T20.17X3	T22.421S	T23.449D	T25.0323	T21.65XA	T23.221S	T24.221D	T26.20XA
T20.19XD	T22.4213	T23.449S	T25.039D	T21.65XD	T23.222A	T24.221S	T26.20XD
T20.19XS	T22.422D	T23.451A	T25.039B	T21.65XS	T23.222A	T24.222A	T26.20XS
T20.19X3	T22.422S	T23.451A	T25.091A	T21.66XA	T23.222S		
T20.40XA	T22.4223	T23.4515	T25.091A	T21.66XD	T23.229A	T24.222D T24.222S	T26.21XA T26.21XD
				T21.66XS			
T20.40XS	T22.429D	T23.452A	T25.091S	T21.67XA	T23.229D	T24.229A	T26.21XS
T20.411A T20.411D	T22.429S	T23.452D	T25.092A		T23.229S	T24.229D	T26.22XA
	T22.431A	T23.452S	T25.092D	T21.67XD	T23.231A	T24.229S	T26.22XD
T20.411S T20.412A	T22.431D	T23.459A	T25.092S		T23.231D	T24.231A	T26.22XS
	T22.431S	T23.459D	T25.099A	T21.69XA	T23.231S	T24.231D	T26.30XA
T20.412D	T22.432A T22.432D	T23.459S	T25.099D	T21.69XD	T23.232A	T24.231S	T26.30XD
T20.412S		T23.461A	T25.099S	T21.69XS	T23.232D	T24.232A	T26.30XS
T20.419A	T22.432S	T23.461D	T25.111A	T21.70XA	T23.232S	T24.232D	T26.31XA
T20.419D	T22.439A	T23.461S	T25.111D	T21.70XD	T23.239A	T24.232S	T26.31XD
T20.419S	T22.439D	T23.462A	T25.111S	T21.70XS	T23.239D	T24.239A	T26.31XS
T20.42XA	T22.439S	T23.462D	T25.112A	T21.71XA	T23.239S	T24.239D	T26.32XA
T20.42XD	T22.441A	T23.462S	T25.112D	T21.71XD	T23.241A	T24.239S	T26.32XD
T20.42XS	T22.441D	T23.469A	T25.112S	T21.71XS	T23.241D	T24.291A	T26.32XS
T20.43XA	T22.441S	T23.469D	T25.119A	T21.72XA	T23.241S	T24.291D	T26.40XA
T20.43XD	T22.442A	T23.469S	T25.119D	T21.72XD	T23.242A	T24.291S	T26.40XD
T20.43XS	T22.442D	T23.471A	T25.119S	T21.72XS	T23.242D	T24.292A	T26.40XS
T20.44XA	T22.442S	T23.471D	T25.121A	T21.73XA	T23.242S	T24.292D	T26.41XA
T20.44XD	T22.449A	T23.471S	T25.121D	T21.73XD	T23.249A	T24.292S	T26.41XD
T20.44XS	T22.449D	T23.472A	T25.121S	T21.73XS	T23.249D	T24.299A	T26.41XS
T20.45XA	T22.449S	T23.472D	T25.122A	T21.74XA	T23.249S	T24.299D	T26.42XA
T20.45XD	T22.451A	T23.472S	T25.122D	T21.74XD	T23.251A	T24.299S	T26.42XD
T20.45XS	T22.451D	T23.479A	T25.122S	T21.74XS	T23.251D	T24.301A	T26.42XS
T20.46XA	T22.451S	T23.479D	T25.129A	T21.75XA	T23.251S	T24.301D	T26.50XA

T20.46XD	T22.452A	T23.479S	T25.129D	T21.75XD	T23.252A	T24.301S	T26.50XD
T20.46XS	T22.452D	T23.491A	T25.129S	T21.75XS	T23.252D	T24.302A	T26.50XS
T20.47XA	T22.452S	T23.491D	T25.131A	T21.76XA	T23.252S	T24.302D	T26.51XA
T20.47XD	T22.459A	T23.491S	T25.131D	T21.76XD	T23.259A	T24.302S	T26.51XD
T20.47XS	T22.459D	T23.492A	T25.131S	T21.76XS	T23.259D	T24.309A	T26.51XS
T20.49XA	T22.459S	T23.492D	T25.132A	T21.77XA	T23.259S	T24.309D	T26.52XA
T20.49XD	T22.461A	T23.492S	T25.132D	T21.77XD	T23.261A	T24.309S	T26.52XD
T20.49XS	T22.461D	T23.499A	T25.132S	T21.77XS	T23.261D	T24.311A	T26.52XS
T20.50XA	T22.461S	T23.499D	T25.139A	T21.79XA	T23.261S	T24.311D	T26.60XA
T20.50XD	T22.462A	T23.499S	T25.139D	T21.79XD	T23.262A	T24.311S	T26.60XD
T20.50XS	T22.462D	T23.501A	T25.139S	T21.79XS	T23.262D	T24.312A	T26.60XS
T20.511A	T22.462S	T23.501D	T25.191A	T22.20XA	T23.262S	T24.312D	T26.61XA
T20.511D	T22.469A	T23.501S	T25.191D	T22.20XD	T23.269A	T24.312S	T26.61XD
T20.511S	T22.469D	T23.502A	T25.191S	T22.20XS	T23.269D	T24.319A	T26.61XS
T20.512A	T22.469S	T23.502D	T25.192A	T22.211A	T23.269S	T24.319D	T26.62XA
T20.512D	T22.491A	T23.502S	T25.192D	T22.211D	T23.271A	T24.319S	T26.62XD
T20.512S	T22.491D	T23.5025	T25.192S	T22.211S	T23.271D	T24.321A	T26.62XS
T20.5123	T22.491S	T23.509D	T25.199A	T22.2113	T23.271S	T24.321D	T26.70XA
T20.519D	T22.492A	T23.509S	T25.199D	T22.212D	T23.2713	T24.321S	T26.70XD
T20.519B	T22.492D	T23.511A	T25.199S	T22.2125	T23.272D	T24.3213	T26.70XS
T20.5193	T22.4925	T23.511A	T25.1993	T22.2123	T23.2725	T24.322D	T26.71XA
T20.52XA	T22.4923	T23.5115	T25.411A		T23.2723	T24.322S	
T20.52XS	T22.499A	T23.5113	T25.4115	T22.219D T22.219S	T23.279D	T24.329A	T26.71XD T26.71XS
T20.53XA	T22.499D	T23.512A	T25.4113	T22.221A	T23.279S		T26.71X3
T20.53XA	T22.50XA	T23.5125	T25.412A	T22.221A	T23.291A	T24.329D T24.329S	T26.72XD
T20.53XS	T22.50XA	T23.5123	T25.412S	T22.2215	T23.291D		
T20.53X3	T22.50XS	T23.519A	T25.4123	T22.222A	T23.2915	T24.331A T24.331D	T26.72XS T26.80XA
T20.54XD	T22.511A	T23.519D	T25.419A	T22.222D	T23.292A	T24.3315	T26.80XD
T20.54XS	T22.511A	T23.521A	T25.419D	T22.222S	T23.292A	T24.3313	T26.80XS
T20.55XA	T22.5115	T23.521A	T25.421A	T22.2223	T23.2925	T24.332D	T26.81XA
T20.55XD	T22.5113	T23.5215	T25.421D	T22.229D	T23.2923	T24.3325	T26.81XD
T20.55XS	T22.512A	T23.5213	T25.421S	T22.229S	T23.299D	T24.339A	T26.81XS
T20.56XA	T22.5125	T23.522D	T25.4213	T22.2331A	T23.2995	T24.339A	T26.82XA
T20.56XD	T22.519A T22.519D	T23.522S	T25.422D	T22.231D	T23.301A	T24.339S T24.391A	T26.82XD
T20.56XS		T23.529A	T25.422S	T22.231S	T23.301D		T26.82XS
T20.57XA	T22.519S	T23.529D	T25.429A	T22.232A	T23.301S	T24.391D	T26.90XA
T20.57XD	T22.521A	T23.529S	T25.429D	T22.232D	T23.302A	T24.391S	T26.90XD
T20.57XS	T22.521D	T23.531A	T25.429S	T22.232S	T23.302D	T24.392A	T26.90XS
T20.59XA	T22.521S	T23.531D	T25.431A	T22.239A	T23.302S	T24.392D	T26.91XA
T20.59XD	T22.522A	T23.531S	T25.431D	T22.239D	T23.309A	T24.392S	T26.91XD
T20.59XS	T22.522D	T23.532A	T25.431S	T22.239S	T23.309D	T24.399A	T26.91XS
T21.00XA	T22.522S	T23.532D	T25.432A	T22.241A	T23.309S	T24.399D	T26.92XA
T21.00XD	T22.529A	T23.532S	T25.432D	T22.241D	T23.311A	T24.399S	T26.92XD
T21.00XS	T22.529D	T23.539A	T25.432S	T22.241S	T23.311D	T24.601A	T26.92XS
T21.01XA	T22.529S	T23.539D	T25.439A	T22.242A	T23.311S	T24.601D	T27.0XXA
T21.01XD	T22.531A	T23.539S	T25.439D	T22.242D	T23.312A	T24.601S	T27.0XXD

T21.01XS	T22.531D	T23.541A	T25.439S	T22.242S	T23.312D	T24.602A	T27.0XXS
T21.02XA	T22.531S	T23.541D	T25.491A	T22.249A	T23.312S	T24.602D	T27.1XXA
T21.02XD	T22.532A	T23.541S	T25.491D	T22.249D	T23.319A	T24.602S	T27.1XXD
T21.02XS	T22.532D	T23.542A	T25.491S	T22.249S	T23.319D	T24.609A	T27.1XXS
T21.03XA	T22.532S	T23.542D	T25.492A	T22.251A	T23.319S	T24.609D	T27.2XXA
T21.03XD	T22.539A	T23.542S	T25.492D	T22.251D	T23.321A	T24.609S	T27.2XXD
T21.03XS	T22.539D	T23.549A	T25.492S	T22.251S	T23.321D	T24.611A	T27.2XXS
T21.04XA	T22.539S	T23.549D	T25.499A	T22.252A	T23.321S	T24.611D	T27.3XXA
T21.04XD	T22.541A	T23.549S	T25.499D	T22.252D	T23.322A	T24.611S	T27.3XXD
T21.04XS	T22.541D	T23.551A	T25.499S	T22.252S	T23.322D	T24.612A	T27.3XXS
T21.05XA	T22.541S	T23.551D	T25.511A	T22.259A	T23.322S	T24.612D	T27.4XXA
T21.05XD	T22.542A	T23.551S	T25.511D	T22.259D	T23.329A	T24.612S	T27.4XXD
T21.05XS	T22.542D	T23.552A	T25.511S	T22.259S	T23.329D	T24.619A	T27.4XXS
T21.06XA	T22.542S	T23.552D	T25.512A	T22.261A	T23.329S	T24.619D	T27.5XXA
T21.06XD	T22.549A	T23.552S	T25.512D	T22.261D	T23.331A	T24.619S	T27.5XXD
T21.06XS	T22.549D	T23.559A	T25.512S	T22.261S	T23.331D	T24.621A	T27.5XXS
T21.07XA	T22.549S	T23.559D	T25.519A	T22.262A	T23.331S	T24.621D	T27.6XXA
T21.07XD	T22.551A	T23.559S	T25.519D	T22.262D	T23.332A	T24.621S	T27.6XXD
T21.07XS	T22.551D	T23.561A	T25.519S	T22.262S	T23.332D	T24.622A	T27.6XXS
T21.09XA	T22.551S	T23.561D	T25.521A	T22.269A	T23.332S	T24.622D	T27.7XXA
T21.09XD	T22.552A	T23.561S	T25.521D	T22.269D	T23.339A	T24.622S	T27.7XXD
T21.09XS	T22.552D	T23.562A	T25.521S	T22.269S	T23.339D	T24.629A	T27.7XXS
T21.10XA	T22.552S	T23.562D	T25.522A	T22.291A	T23.339S	T24.629D	T28.0XXA
T21.10XD	T22.559A	T23.562S	T25.522D	T22.291D	T23.341A	T24.629S	T28.0XXD
T21.10XS	T22.559D	T23.569A	T25.522S	T22.291S	T23.341D	T24.631A	T28.0XXS
T21.11XA	T22.559S	T23.569D	T25.529A	T22.292A	T23.341S	T24.631D	T28.1XXA
T21.11XD	T22.561A	T23.569S	T25.529D	T22.292D	T23.342A	T24.631S	T28.1XXD
T21.11XS	T22.561D	T23.571A	T25.529S	T22.292S	T23.342D	T24.632A	T28.1XXS
T21.12XA	T22.561S	T23.571D	T25.531A	T22.299A	T23.342S	T24.632D	T28.2XXA
T21.12XD	T22.562A	T23.571S	T25.531D	T22.299D	T23.349A	T24.632S	T28.2XXD
T21.12XS	T22.562D	T23.572A	T25.531S	T22.299S	T23.349D	T24.639A	T28.2XXS
T21.13XA	T22.562S	T23.572D	T25.532A	T22.30XA	T23.349S	T24.639D	T28.3XXA
T21.13XD	T22.569A	T23.572S	T25.532D	T22.30XD	T23.351A	T24.639S	T28.3XXD
T21.13XS	T22.569D	T23.579A	T25.532S	T22.30XS	T23.351D	T24.691A	T28.3XXS
T21.14XA	T22.569S	T23.579D	T25.539A	T22.311A	T23.351S	T24.691D	T28.40XA
T21.14XD	T22.591A	T23.579S	T25.539D	T22.311D	T23.352A	T24.691S	T28.40XD
T21.14XS	T22.591D	T23.591A	T25.539S	T22.311S	T23.352D	T24.692A	T28.40XS
T21.15XA	T22.591S	T23.591D	T25.591A	T22.312A	T23.352S	T24.692D	T28.411A
T21.15XD	T22.592A	T23.591S	T25.591D	T22.312D	T23.359A	T24.692S	T28.411D
T21.15XS	T22.592D	T23.592A	T25.591S	T22.312S	T23.359D	T24.699A	T28.411S
T21.16XA	T22.592S	T23.592D	T25.592A	T22.319A	T23.359S	T24.699D	T28.412A
T21.16XD	T22.599A	T23.592S	T25.592D	T22.319D	T23.361A	T24.699S	T28.412D
T21.16XS	T22.599D	T23.599A	T25.592S	T22.319S	T23.361D	T24.701A	T28.412S
T21.17XA	T22.599S	T23.599D	T25.599A	T22.321A	T23.361S	T24.701D	T28.419A
T21.17XD	T23.001A	T23.599S	T25.599D	T22.321D	T23.362A	T24.701S	T28.419D
T21.17XS	T23.001D	T24.001A	T25.599S	T22.321S	T23.362D	T24.702A	T28.419S

T21.19XA	T23.001S	T24.001D	T30.0	T22.322A	T23.362S	T24.702D	T28.49XA
T21.19XD	T23.002A	T24.001S	T30.4	T22.322D	T23.369A	T24.702S	T28.49XD
T21.19XS	T23.002D	T24.002A	T20.20XA	T22.322S	T23.369D	T24.709A	T28.49XS
T21.40XA	T23.002S	T24.002D	T20.20XD	T22.329A	T23.369S	T24.709D	T28.5XXA
T21.40XD	T23.009A	T24.002S	T20.20XS	T22.329D	T23.371A	T24.709S	T28.5XXD
T21.40XS	T23.009D	T24.009A	T20.211A	T22.329S	T23.371D	T24.711A	T28.5XXS
T21.41XA	T23.009S	T24.009D	T20.211D	T22.331A	T23.371S	T24.711D	T28.6XXA
T21.41XD	T23.011A	T24.009S	T20.211S	T22.331D	T23.372A	T24.711S	T28.6XXD
T21.41XS	T23.011D	T24.011A	T20.212A	T22.331S	T23.372D	T24.712A	T28.6XXS
T21.42XA	T23.011S	T24.011D	T20.212D	T22.332A	T23.372S	T24.712D	T28.7XXA
T21.42XD	T23.012A	T24.011S	T20.212S	T22.332D	T23.379A	T24.712S	T28.7XXD
T21.42XS	T23.012D	T24.012A	T20.219A	T22.332S	T23.379D	T24.719A	T28.7XXS
T21.43XA	T23.012S	T24.012D	T20.219D	T22.339A	T23.379S	T24.719D	T28.8XXA
T21.43XD	T23.019A	T24.012S	T20.219S	T22.339D	T23.391A	T24.719S	T28.8XXD
T21.43XS	T23.019D	T24.019A	T20.22XA	T22.339S	T23.391D	T24.721A	T28.8XXS
T21.44XA	T23.019S	T24.019D	T20.22XD	T22.341A	T23.391S	T24.721D	T28.90XA
T21.44XD	T23.021A	T24.019S	T20.22XS	T22.341D	T23.392A	T24.721S	T28.90XD
T21.44XS	T23.021D	T24.021A	T20.23XA	T22.341S	T23.392D	T24.722A	T28.90XS
T21.45XA	T23.021S	T24.021D	T20.23XD	T22.342A	T23.392S	T24.722D	T28.911A
T21.45XD	T23.022A	T24.021S	T20.23XS	T22.342D	T23.399A	T24.722S	T28.911D
T21.45XS	T23.022D	T24.022A	T20.24XA	T22.342S	T23.399D	T24.729A	T28.911S
T21.46XA	T23.022S	T24.022D	T20.24XD	T22.349A	T23.399S	T24.729D	T28.912A
T21.46XD	T23.029A	T24.022S	T20.24XS	T22.349D	T23.601A	T24.729S	T28.912D
T21.46XS	T23.029D	T24.029A	T20.25XA	T22.349S	T23.601D	T24.731A	T28.912S
T21.47XA	T23.029S	T24.029D	T20.25XD	T22.351A	T23.601S	T24.731D	T28.919A
T21.47XD	T23.031A	T24.029S	T20.25XS	T22.351D	T23.602A	T24.731S	T28.919D
T21.47XS	T23.031D	T24.031A	T20.26XA	T22.351S	T23.602D	T24.732A	T28.919S
T21.49XA	T23.031S	T24.031D	T20.26XD	T22.352A	T23.602S	T24.732D	T28.99XA
T21.49XD	T23.032A	T24.031S	T20.26XS	T22.352D	T23.609A	T24.732S	T28.99XD
T21.49XS	T23.032D	T24.032A	T20.27XA	T22.352S	T23.609D	T24.739A	T28.99XS
T21.50XA	T23.032S	T24.032D	T20.27XD	T22.359A	T23.609S	T24.739D	T31.0
T21.50XD	T23.039A	T24.032S	T20.27XS	T22.359D	T23.611A	T24.739S	T31.10
T21.50XS	T23.039D	T24.039A	T20.29XA	T22.359S	T23.611D	T24.791A	T31.11
T21.51XA	T23.039S	T24.039D	T20.29XD	T22.361A	T23.611S	T24.791D	T31.20
T21.51XD	T23.041A	T24.039S	T20.29XS	T22.361D	T23.612A	T24.791S	T31.21
T21.51XS	T23.041D	T24.091A	T20.30XA	T22.361S	T23.612D	T24.792A	T31.22
T21.52XA	T23.041S	T24.091D	T20.30XD	T22.362A	T23.612S	T24.792D	T31.30
T21.52XD	T23.042A	T24.091S	T20.30XS	T22.362D	T23.619A	T24.792S	T31.31
T21.52XS	T23.042D	T24.092A	T20.311A	T22.362S	T23.619D	T24.799A	T31.32
T21.53XA	T23.042S	T24.092D	T20.311D	T22.369A	T23.619S	T24.799D	T31.33
T21.53XD	T23.049A	T24.092S	T20.311S	T22.369D	T23.621A	T24.799S	T31.40
T21.53XS	T23.049D	T24.099A	T20.312A	T22.369S	T23.621D	T25.211A	T31.41
T21.54XA	T23.049S	T24.099D	T20.312D	T22.391A	T23.621S	T25.211D	T31.42
T21.54XD	T23.051A	T24.099S	T20.312S	T22.391D	T23.622A	T25.211S	T31.43
T21.54XS	T23.051D	T24.101A	T20.319A	T22.391S	T23.622D	T25.212A	T31.44
T21.55XA	T23.051S	T24.101D	T20.319D	T22.392A	T23.622S	T25.212D	T31.50

T21.55XD	T23.052A	T24.101S	T20.319S	T22.392D	T23.629A	T25.212S	T31.51
T21.55XS	T23.052D	T24.102A	T20.32XA	T22.392S	T23.629D	T25.219A	T31.52
T21.56XA	T23.052S	T24.102D	T20.32XD	T22.399A	T23.629S	T25.219D	T31.53
T21.56XD	T23.059A	T24.102S	T20.32XS	T22.399D	T23.631A	T25.219S	T31.54
T21.56XS	T23.059D	T24.109A	T20.33XA	T22.399S	T23.631D	T25.221A	T31.55
T21.57XA	T23.059S	T24.109D	T20.33XD	T22.60XA	T23.631S	T25.221D	T31.60
T21.57XA	T23.061A	T24.109S	T20.33XS	T22.60XD	T23.632A	T25.221S	T31.61
T21.57XS	T23.061D	T24.111A	T20.34XA	T22.60XS	T23.632D	T25.222A	T31.62
T21.59XA	T23.061S	T24.111D	T20.34XD	T22.611A	T23.632S	T25.222D	T31.63
T21.59XD	T23.062A	T24.111S	T20.34XS	T22.611D	T23.639A	T25.222S	T31.64
T21.59XS	T23.062D	T24.112A	T20.35XA	T22.611S	T23.639D	T25.229A	T31.65
T22.00XA	T23.062S	T24.112D	T20.35XD	T22.612A	T23.639S	T25.229D	T31.66
T22.00XD	T23.069A	T24.112S	T20.35XS	T22.612D	T23.641A	T25.229S	T31.70
T22.00XS	T23.069D	T24.119A	T20.36XA	T22.612S	T23.641D	T25.231A	T31.71
T22.00X3	T23.069S	T24.119D	T20.36XD	T22.619A	T23.641S	T25.231D	T31.72
T22.011A	T23.071A	T24.119S	T20.36XS	T22.619D	T23.642A	T25.231S	T31.72
T22.0115	T23.071A	T24.1193	T20.37XA	T22.619S	T23.642D	T25.232A	T31.74
T22.0113	T23.0715	T24.121A	T20.37XA	T22.621A	T23.642S	T25.232A	T31.75
T22.012A	T23.0713	T24.1215	T20.37XS	T22.621D	T23.649A	T25.2325	T31.76
T22.012S	T23.072D	T24.122A T24.122D	T20.39XA	T22.621S	T23.649D	T25.239A	T31.77
T22.019A	T23.072S		T20.39XD	T22.622A	T23.649S	T25.239D	T31.80
T22.019D	T23.079A	T24.122S	T20.39XS	T22.622D	T23.651A	T25.239S	T31.81
T22.019S	T23.079D	T24.129A	T20.60XA	T22.622S	T23.651D	T25.291A	T31.82
T22.021A	T23.079S	T24.129D	T20.60XD	T22.629A	T23.651S	T25.291D	T31.83
T22.021D	T23.091A	T24.129S	T20.60XS	T22.629D	T23.652A	T25.291S	T31.84
T22.021S	T23.091D	T24.131A	T20.611A	T22.629S	T23.652D	T25.292A	T31.85
T22.022A T22.022D	T23.091S T23.092A	T24.131D T24.131S	T20.611D T20.611S	T22.631A T22.631D	T23.652S T23.659A	T25.292D T25.292S	T31.86 T31.87
T22.0225	T23.092A	T24.1313	T20.612A	T22.631S	T23.659D	T25.2923	T31.88
T22.0223	T23.0925	T24.132A	T20.612D	T22.632A	T23.659S	T25.299D	T31.90
T22.029A	T23.0923	T24.1325	T20.612S	T22.632D	T23.661A	T25.299S	T31.90
T22.029S	T23.099A	T24.1323	T20.619A	T22.632S	T23.661D	T25.311A	T31.92
T22.0293	T23.099S	T24.139A	T20.619D	T22.639A	T23.661S	T25.311A	T31.93
T22.031A	T23.101A	T24.139B	T20.619S	T22.639D	T23.662A	T25.3115	T31.94
T22.0315	T23.101A	T24.191A	T20.62XA	T22.639S	T23.662D	T25.3113	T31.95
T22.032A	T23.101S	T24.191D T24.191S	T20.62XD T20.62XS	T22.641A	T23.662S T23.669A	T25.312D T25.312S	T31.96
T22.032D T22.032S	T23.102A T23.102D	T24.1913	T20.63XA	T22.641D T22.641S	T23.669D	T25.3123	T31.97 T31.98
T22.0323	T23.1025	T24.192A	T20.63XD	T22.642A	T23.669S	T25.319A	T31.99
T22.039A	T23.1023	T24.192D	T20.63XS	T22.642D	T23.671A	T25.319D	T32.0
T22.0395	T23.109A	T24.1923	T20.64XA	T22.642S	T23.671D	T25.321A	T32.10
T22.041A	T23.109D	T24.199A	T20.64XD	T22.649A	T23.6715	T25.321A	T32.10
T22.041A	T23.111A	T24.199D	T20.64XS	T22.649D	T23.672A	T25.3215	T32.20
		T24.401A					
T22.041S T22.042A	T23.111D	T24.401A	T20.65XA	T22.649S	T23.672D	T25.322A	T32.21
	T23.111S		T20.65XD	T22.651A	T23.672S	T25.322D	T32.22
T22.042D	T23.112A	T24.401S	T20.65XS	T22.651D	T23.679A	T25.322S	T32.30

T22.042S	T23.112D	T24.402A	T20.66XA	T22.651S	T23.679D	T25.329A	T32.31
T22.049A	T23.112S	T24.402D	T20.66XD	T22.652A	T23.679S	T25.329D	T32.32
T22.049D	T23.119A	T24.402S	T20.66XS	T22.652D	T23.691A	T25.329S	T32.33
T22.049S	T23.119D	T24.409A	T20.67XA	T22.652S	T23.691D	T25.331A	T32.40
T22.051A	T23.119S	T24.409D	T20.67XD	T22.659A	T23.691S	T25.331D	T32.41
T22.051D	T23.121A	T24.409S	T20.67XS	T22.659D	T23.692A	T25.331S	T32.42
T22.051S	T23.121D	T24.411A	T20.69XA	T22.659S	T23.692D	T25.332A	T32.43
T22.052A	T23.121S	T24.411D	T20.69XD	T22.661A	T23.692S	T25.332D	T32.44
T22.052D	T23.122A	T24.411S	T20.69XS	T22.661D	T23.699A	T25.332S	T32.50
T22.052S	T23.122D	T24.412A	T20.70XA	T22.661S	T23.699D	T25.339A	T32.51
T22.059A	T23.122S	T24.412D	T20.70XD	T22.662A	T23.699S	T25.339D	T32.52
T22.059D	T23.129A	T24.412S	T20.70XS	T22.662D	T23.701A	T25.339S	T32.53
T22.059S	T23.129D	T24.419A	T20.711A	T22.662S	T23.701D	T25.391A	T32.54
T22.061A	T23.129S	T24.419D	T20.711D	T22.669A	T23.701S	T25.391D	T32.55
T22.061D	T23.131A	T24.419S	T20.711S	T22.669D	T23.702A	T25.391S	T32.60
T22.061S	T23.131A	T24.421A	T20.7113	T22.669S	T23.702D	T25.392A	T32.61
T22.062A	T23.1315	T24.421D	T20.712D	T22.691A	T23.702S	T25.392D	T32.62
T22.062D	T23.1313	T24.421S	T20.712S	T22.691D	T23.7023	T25.392S	T32.63
T22.062S	T23.132A	T24.4213	T20.7123	T22.691S	T23.709A	T25.3923	T32.64
T22.069A	T23.1325	T24.422A	T20.719A	T22.692A	T23.709D	T25.399D	T32.65
T22.069D	T23.1323	T24.4225	T20.7195	T22.692D	T23.711A	T25.399S	T32.66
T22.069S	T23.139A	T24.4223	T20.7193	T22.692S	T23.711A	T25.611A	T32.70
T22.0093	T23.139D	T24.429A	T20.72XA	T22.699A	T23.7115	T25.611D	T32.71
T22.091A	T23.141A	T24.429D	T20.72XS	T22.699D	T23.7113	T25.611S	T32.72
					T23.712A		
T22.091S	T23.141D	T24.431A	T20.73XA	T22.699S		T25.612A	T32.73
T22.092A	T23.141S	T24.431D	T20.73XD	T22.70XA	T23.712S	T25.612D	T32.74
T22.092D T22.092S	T23.142A T23.142D	T24.431S T24.432A	T20.73XS T20.74XA	T22.70XD T22.70XS	T23.719A T23.719D	T25.612S T25.619A	T32.75 T32.76
T22.099A	T23.1425	T24.432A	T20.74XA	T22.711A	T23.719D	T25.619D	T32.77
T22.099D	T23.1423	T24.4325	T20.74XS	T22.711A	T23.721A	T25.619S	T32.77
T22.099S	T23.149A	T24.439A	T20.74X3	T22.7115	T23.721A	T25.621A	T32.81
T22.10XA	T23.149B	T24.439A	T20.75XA	T22.7113	T23.7215	T25.621D	T32.82
T22.10XA	T23.151A	T24.439B	T20.75XS	T22.712D	T23.7213	T25.621S	T32.83
T22.10XS	T23.151A	T24.491A	T20.75X3	T22.712S	T23.722D	T25.622A	T32.84
T22.111A	T23.1515	T24.491D	T20.76XD	T22.7123	T23.722S	T25.622D	T32.85
T22.111D T22.111S	T23.152A	T24.491S T24.492A	T20.76XS T20.77XA	T22.719D T22.719S	T23.729A T23.729D	T25.622S T25.629A	T32.86 T32.87
T22.1113	T23.152D T23.152S	T24.492A	T20.77XA	T22.7193	T23.7295	T25.629D	T32.88
T22.112A	T23.1523	T24.492D	T20.77XS	T22.721A	T23.731A	T25.629D	
		T24.4923	T20.77X3			T25.631A	T32.90
T22.112S T22.119A	T23.159D	T24.499A	T20.79XA	T22.721S T22.722A	T23.731D	T25.631D	T32.91
	T23.159S	T24.499D			T23.731S		T32.92
T22.119D	T23.161A		T20.79XS T21.20XA	T22.722D	T23.732A	T25.631S	T32.93
T22.119S	T23.161D	T24.501A		T22.722S	T23.732D	T25.632A	T32.94
T22.121A	T23.161S	T24.501D	T21.20XD	T22.729A	T23.732S	T25.632D	T32.95
T22.121D	T23.162A	T24.501S	T21.20XS	T22.729D	T23.739A	T25.632S	T32.96
T22.121S	T23.162D	T24.502A	T21.21XA	T22.729S	T23.739D	T25.639A	T32.97

T22.122A	T23.162S	T24.502D	T21.21XD	T22.731A	T23.739S	T25.639D	T32.98
T22.122D	T23.169A	T24.502S	T21.21XS	T22.731D	T23.741A	T25.639S	T32.99

### APPENDIX-B-Burn Procedure Codes (not limited to)

	APPENDIX-B-Burn Procedure Codes (not limited to)
СРТ	CPT Description FY2021
15852	Dressing change (for other than burns) under anesthesia (other than local)
16000	Initial treatment, first degree burn, when no more than local treatment is required
16020	Dressings and/or debridement of partial-thickness burns, initial or subsequent; small (less than 5% total body surface area)
16025	Dressings and/or debridement of partial-thickness burns, initial or subsequent; medium (eg, whole face or whole extremity, or 5% to 10% total body surface area)
16030	Dressings and/or debridement of partial-thickness burns, initial or subsequent; large (eg, more than 1 extremity, or greater than 10% total body surface area)
15040	Harvest of skin for tissue cultured skin autograft, 100 sq cm or less
15050	Pinch graft, single or multiple, to cover small ulcer, tip of digit, or other minimal open area (except on face), up to defect size 2 cm diameter
15100	Split-thickness autograft, trunk, arms, legs; first 100 sq cm or less, or 1% of body area of infants and children (except 15050)
15101	Split-thickness autograft, trunk, arms, legs; each additional 100 sq cm, or each additional 1% of body area of infants and children, or part thereof (List separately in addition to code for primary procedure)
15110	Epidermal autograft, trunk, arms, legs; first 100 sq cm or less, or 1% of body area of infants and children
15111	Epidermal autograft, trunk, arms, legs; each additional 100 sq cm, or each additional 1% of body area of infants and children, or part thereof (List separately in addition to code for primary procedure)
15115	Epidermal autograft, face, scalp, eyelids, mouth, neck, ears, orbits, genitalia, hands, feet, and/or multiple digits; first 100 sq cm or less, or 1% of body area of infants and children
15116	Epidermal autograft, face, scalp, eyelids, mouth, neck, ears, orbits, genitalia, hands, feet, and/or multiple digits; each additional 100 sq cm, or each additional 1% of body area of infants and children, or part thereof (List separately in addition to code for primary procedure)
15120	Split-thickness autograft, face, scalp, eyelids, mouth, neck, ears, orbits, genitalia, hands, feet, and/or multiple digits; first 100 sq cm or less, or 1% of body area of infants and children (except 15050)
15121	Split-thickness autograft, face, scalp, eyelids, mouth, neck, ears, orbits, genitalia, hands, feet, and/or multiple digits; each additional 100 sq cm, or each additional 1% of body area of infants and children, or part thereof (List separately in addition to code for primary procedure)
15130	Dermal autograft, trunk, arms, legs; first 100 sq cm or less, or 1% of body area of infants and children
15131	Dermal autograft, trunk, arms, legs; each additional 100 sq cm, or each additional 1% of body area of infants and children, or part thereof (List separately in addition to code for primary procedure)
15135	Dermal autograft, face, scalp, eyelids, mouth, neck, ears, orbits, genitalia, hands, feet, and/or multiple digits; first 100 sq cm or less, or 1% of body area of infants and children
15136	Dermal autograft, face, scalp, eyelids, mouth, neck, ears, orbits, genitalia, hands, feet, and/or multiple digits; each additional 100 sq cm, or each additional 1% of body area of infants and children, or part thereof (List separately in addition to code for primary procedure)
15150	Tissue cultured skin autograft, trunk, arms, legs; first 25 sq cm or less

15151	Tissue cultured skin autograft, trunk, arms, legs; additional 1 sq cm to 75 sq cm (List separately in addition to code for primary procedure)
15152	Tissue cultured skin autograft, trunk, arms, legs; each additional 100 sq cm, or each additional 1% of body area of infants and children, or part thereof (List separately in addition to code for primary procedure)
15155	Tissue cultured skin autograft, face, scalp, eyelids, mouth, neck, ears, orbits, genitalia, hands, feet, and/or multiple digits; first 25 sq cm or less
15156	Tissue cultured skin autograft, face, scalp, eyelids, mouth, neck, ears, orbits, genitalia, hands, feet, and/or multiple digits; additional 1 sq cm to 75 sq cm (List separately in addition to code for primary procedure)
15157	Tissue cultured skin autograft, face, scalp, eyelids, mouth, neck, ears, orbits, genitalia, hands, feet, and/or multiple digits; each additional 100 sq cm, or each additional 1% of body area of infants and children, or part thereof (List separately in addition to code for primary procedure)
15200	Full thickness graft, free, including direct closure of donor site, trunk; 20 sq cm or less
15201	Full thickness graft, free, including direct closure of donor site, trunk; each additional 20 sq cm, or part thereof (List separately in addition to code for primary procedure)
15220	Full thickness graft, free, including direct closure of donor site, scalp, arms, and/or legs; 20 sq cm or less
15221	Full thickness graft, free, including direct closure of donor site, scalp, arms, and/or legs; each additional 20 sq cm, or part thereof (List separately in addition to code for primary procedure)
15240	Full thickness graft, free, including direct closure of donor site, forehead, cheeks, chin, mouth, neck, axillae, genitalia, hands, and/or feet; 20 sq cm or less
15241	Full thickness graft, free, including direct closure of donor site, forehead, cheeks, chin, mouth, neck, axillae, genitalia, hands, and/or feet; each additional 20 sq cm, or part thereof (List separately in addition to code for primary procedure)
15260	Full thickness graft, free, including direct closure of donor site, nose, ears, eyelids, and/or lips; 20 sq cm or less
15261	Full thickness graft, free, including direct closure of donor site, nose, ears, eyelids, and/or lips; each additional 20 sq cm, or part thereof (List separately in addition to code for primary procedure)
15271	Application of skin substitute graft to trunk, arms, legs, total wound surface area up to 100 sq cm; first 25 sq cm or less wound surface area
15272	Application of skin substitute graft to trunk, arms, legs, total wound surface area up to 100 sq cm; each additional 25 sq cm wound surface area, or part thereof (List separately in addition to code for primary procedure)
15273	Application of skin substitute graft to trunk, arms, legs, total wound surface area greater than or equal to 100 sq cm; first 100 sq cm wound surface area, or 1% of body area of infants and children
15274	Application of skin substitute graft to trunk, arms, legs, total wound surface area greater than or equal to 100 sq cm; each additional 100 sq cm wound surface area, or part thereof, or each additional 1% of body area of infants and children, or part thereof (List separately in addition to code for primary procedure)
15275	Application of skin substitute graft to face, scalp, eyelids, mouth, neck, ears, orbits, genitalia, hands, feet, and/or multiple digits, total wound surface area up to 100 sq cm; first 25 sq cm or less wound surface area
15276	Application of skin substitute graft to face, scalp, eyelids, mouth, neck, ears, orbits, genitalia, hands, feet, and/or multiple digits, total wound surface area up to 100 sq cm; each additional 25 sq cm wound surface area, or part thereof (List separately in addition to code for primary procedure)
15277	Application of skin substitute graft to face, scalp, eyelids, mouth, neck, ears, orbits, genitalia, hands, feet, and/or multiple digits, total wound surface area greater than or equal to 100 sq cm; first 100 sq cm wound surface area, or 1% of body area of infants and children

15278	Application of skin substitute graft to face, scalp, eyelids, mouth, neck, ears, orbits, genitalia, hands, feet, and/or multiple digits, total wound surface area greater than or equal to 100 sq cm; each additional 100 sq cm wound surface area, or part thereof, or each additional 1% of body area of infants and children, or part thereof (List separately in addition to code for primary procedure)
15760	Graft; composite (eg, full thickness of external ear or nasal ala), including primary closure, donor area
15769	Grafting of autologous soft tissue, other, harvested by direct excision (eg, fat, dermis, fascia)
15770	Graft; derma-fat-fascia
14350	Filleted finger or toe flap, including preparation of recipient site
15600	Delay of flap or sectioning of flap (division and inset); at trunk
15610	Delay of flap or sectioning of flap (division and inset); at scalp, arms, or legs
15620	Delay of flap or sectioning of flap (division and inset); at forehead, cheeks, chin, neck, axillae, genitalia, hands, or feet
15630	Delay of flap or sectioning of flap (division and inset); at eyelids, nose, ears, or lips
15650	Transfer, intermediate, of any pedicle flap (eg, abdomen to wrist, Walking tube), any location
15730	Midface flap (ie, zygomaticofacial flap) with preservation of vascular pedicle(s)
15731	Forehead flap with preservation of vascular pedicle (eg, axial pattern flap, paramedian forehead flap)
15733	Muscle, myocutaneous, or fasciocutaneous flap; head and neck with named vascular pedicle (ie, buccinators, genioglossus, temporalis, masseter, sternocleidomastoid, levator scapulae)
15734	Muscle, myocutaneous, or fasciocutaneous flap; trunk
15736	Muscle, myocutaneous, or fasciocutaneous flap; upper extremity
15738	Muscle, myocutaneous, or fasciocutaneous flap; lower extremity
15740	Flap; island pedicle requiring identification and dissection of an anatomically named axial vessel
15750	Flap; neurovascular pedicle
15756	Free muscle or myocutaneous flap with microvascular anastomosis
15757	Free skin flap with microvascular anastomosis
15758	Free fascial flap with microvascular anastomosis

### Appendix C: Non-burn Injuries

Friction/Shearing	Traumatic injuries	Cold Injury	Rash/Skin Infection	Inhalation Injury Only	Burn reconstruction
<ul> <li>Road Rash / Gravel Burn</li> <li>Treadmill</li> <li>Tire</li> <li>Other</li> </ul>	Degloving	• Cold Injury • Frostbite • Other	<ul> <li>Toxic Epidermal Necrolysis/ Stevens- Johnson Syndrome</li> <li>Skin Necrosis (Purpura Fulminans, Septic Skin Necrosis, DIC)</li> <li>Necrotizing Soft Tissue</li> <li>Pemphigus/Pemphigo id</li> <li>Calciphylaxis</li> <li>Hidradenitis</li> <li>Other</li> </ul>	<ul> <li>House/Residence</li> <li>Industrial</li> <li>Chemical/Alkaline</li> <li>Chemical Acid</li> <li>Vehicle</li> <li>Steam</li> <li>Gas Explosion</li> <li>Other</li> </ul>	Burn reconstruction cases admitted or operated as day case >28 days after injury and usually with additional diagnosis codes: L90.5 or L91.0

# Summary of Changes in Version 2

KPI #	Changes		
BN010 - BN016	Added NEW Burn KPIs		
APPENDIX B	Added Appendix B for Burn procedure codes		
BN001-BN008	Remove Denominator exclusion: Discharge against medical advice		
BN002	<ul> <li>Added in the Numerator: (more than one unplanned reintubation just counted as one)</li> <li>In the denominator replaced the word intubation with extubation.</li> </ul>		
BN006	• Replace ≥105 to ≥10 <sup>5</sup> CFU/ml		
BN007	<ul> <li>Rephrase the denominator sentence- Total number of discharge patients who received treatment as a burns injury (any degree).</li> <li>Added Unit Measure: Rate per 1000 discharge patients</li> </ul>		
BN001-BN0016	Wherever applicable added appendix A and B as Link form.		

# Summary of Changes in Version 3

KPI#	Changes effective Q4 2024			
BN001-				
BN016	Revised All the domain and indicator type based on IOM website			
BN002	Denominator changed from "Total number of patients who received treatment as an inpatient for burns injury (any degree) and who were extubated" to "Total number of burn inpatients discharged in the measurement period who were extubated at any time during their admission (includes all reasons for initial intubation)." (Refer Appendix-A)			
BN003	Denominator changed from "Total number of patients who received treatment as an inpatient for burns injury (any degree) to "Total number of discharged inpatients who received burns injury (any degree) treatment". (Refer Appendix-A)			
BN004	Denominator changed from "Total number of patients who received treatment as an inpatient for burns injury (any degree) to "Total number of discharged inpatients who received burns injury (any degree) treatment". (Refer Appendix-A)			
BN010	<ul> <li>Added Denominator Exclusions:</li> <li>Patients with non-burn injuries including friction/shearing, traumatic injuries, cold injury, rash/skin infection, inhalation injury only (Refer to Appendix C)</li> <li>Burn reconstruction patients (Refer to Appendix C)</li> </ul>			
BN011	Denominator changed from "All Burn patients that required surgical interventions. See Appendix B for Applicable Burn Surgical Procedure Codes" to "Total number of discharged inpatients with burns injury (any degree) (Refer Appendix A) who received surgical interventions. (Refer Appendix B for Applicable Burn Surgical Procedure Codes)"			
BN012	Added Denominator Exclusion:  • Patients who was transferred to another acute care facility for further acute burn injury management.  Unit Measure update: Median length of stay per TBSA			
BN013	Added Denominator Exclusion:  Patients who were transferred between acute care facilities post initial grafting procedure for further care within 28 days of initial injury			
BN014	Added Denominator Exclusion:  • Patients who were admitted and/or transferred with a burn wound infection (as above) on arrival.			
BN016	Added Denominator Exclusion: Patients admitted/transferred with donor site infections (as described above) on arrival			
BN011 -	Added Denominator Exclusions:			
BN016	<ul> <li>Inpatients with non-burn injuries including friction/shearing, traumatic injuries, cold injury, rash/skin infection, inhalation injury only (Refer to Appendix C)</li> <li>Burn reconstruction inpatients (Refer to Appendix C)</li> </ul>			
Appendix C	New appendix has been added that lists the condition included in the non-burn injuries.			