



دائرة الصحة
DEPARTMENT OF HEALTH

**JAWDA Quarterly
Guidelines for Bariatric
Surgery (BS)**

Issue: October 2019

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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 jawda@DoH.gov.ae

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

Published: October 2019, Version 2. Effective date January 01, 2020

About this Guidance

The guidance sets out the definitions and reporting frequency of JAWDA Bariatric Surgery (BS) performance indicators. The Department of Health (DoH), with consultation from local and international expertise of obesity and weight management, has developed Bariatric Surgery 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 Bariatric Surgery performance indicators in this guidance include measures to monitor morbidity and mortality in patients undergoing bariatric surgery i.e. (postoperative complications, readmissions, re-operation, and extended length of stay). Healthcare providers are the most qualified professionals to develop and evaluate quality of care for obesity and weight management patients; therefore, it is crucial that clinicians retain a leadership position in defining performance among Bariatric healthcare providers.

Who is this guidance for?

All DoH licensed healthcare facilities providing bariatric surgery services 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 Bariatric 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 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
- [DOH Standard for Obesity and Weight Diagnosis, Pharmacological and Surgical Management Interventions](#)
- As per DoH [Policy for Quality and Patient Safety](#) issued January 15th 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.

Bariatric Surgery Quality Indicators

Type: BS Quality Indicator

Indicator Number: BS01

KPI Description (title):	Rate of Minor Complications among Low-Risk Patients within 30 days from Primary principal Bariatric Surgery																																		
Domain	Patient Safety																																		
Sub-Domain	Complication/Outcome																																		
Definition:	<p>Rate of minor medical/surgical complications among low risk primary principle bariatric surgery patients (18 years or older) within 30 days of the surgery date.</p> <p>Primary Principal Procedure: The most complex bariatric operative procedure performed during this OR encounter AND the first metabolic or bariatric procedure for the patient to ever undergo.</p>																																		
Calculation:	<p>Numerator: Total number of low-risk bariatric surgery patients (18 years or older) who have undergone a primary principal bariatric surgery and had a minor complication within 30 days of the principal bariatric surgery.</p> <p>Denominator: Total number of low-risk patients (18 years or older) who have undergone a primary principal bariatric surgery during the reporting period.</p> <p>Bariatric Surgery CPT Codes: 43644,43645, 43659, 43775, 43846,43847, 43999</p> <p>Minor Complication Codes:</p> <table border="1"> <thead> <tr> <th>ICD-10</th> <th>CPT - Included</th> <th>CPT Excluded</th> </tr> </thead> <tbody> <tr> <td>K28 - K28.9; K56.7;</td> <td>43235 - 43236; 43239; 43259</td> <td>N/A</td> </tr> <tr> <td>K91.89</td> <td>43245</td> <td>N/A</td> </tr> <tr> <td>R11.2</td> <td>96360; 96361</td> <td>N/A</td> </tr> <tr> <td>N39.0</td> <td></td> <td>N/A</td> </tr> <tr> <td>E86.0</td> <td>96360; 96361</td> <td>N/A</td> </tr> <tr> <td>N17.8; N17.9</td> <td>96360; 96361</td> <td>90935; 90937; 90945; 90947</td> </tr> <tr> <td>N19</td> <td>90935</td> <td>N/A</td> </tr> <tr> <td>N20.0</td> <td></td> <td>N/A</td> </tr> <tr> <td>K43.2</td> <td>N/A</td> <td>N/A</td> </tr> <tr> <td>T81.4xxx; K95.01; K95.81</td> <td></td> <td>N/A</td> </tr> </tbody> </table>		ICD-10	CPT - Included	CPT Excluded	K28 - K28.9; K56.7;	43235 - 43236; 43239; 43259	N/A	K91.89	43245	N/A	R11.2	96360; 96361	N/A	N39.0		N/A	E86.0	96360; 96361	N/A	N17.8; N17.9	96360; 96361	90935; 90937; 90945; 90947	N19	90935	N/A	N20.0		N/A	K43.2	N/A	N/A	T81.4xxx; K95.01; K95.81		N/A
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Exclusion	<ul style="list-style-type: none"> Patient who are considered as high risk at the time of surgery as defined in Appendix A Patients who have undergone revisional surgery. Patients who were discharged against medical advice 																																		
Reporting Frequency:	Quarterly																																		
Unit of Measure:	Percentage																																		
International comparison if available	Developed locally by modifying similar indicators used by MBSAQIP																																		

JAWDA Quarterly Guidelines for Bariatric Surgery

Desired direction:	Lower is better
Notes for all providers	
Data sources and guidance:	Hospital patient data source, bariatric registry

JAWDA Quarterly Guidelines for Bariatric Surgery

Type: BS Quality Indicator

Indicator Number: BS02

KPI Description (title):	Rate of Minor Complications among High-Risk Patients within 30 days from Principal Bariatric Surgery																																		
Domain	Patient Safety																																		
Sub-Domain	Complication/Outcome																																		
Definition:	Rate of minor medical/surgical complications within 30 days of the surgery date among high-risk bariatric surgery patients (18 years or older).																																		
Calculation:	<p>Numerator: Total number of high-risk patients (18 years or older) who have undergone a principal bariatric surgery and had a minor complications within 30 days of the principal bariatric surgery.</p> <p>Denominator: Total number of high-risk patients (18 years or older) who have undergone a principal bariatric surgery during reporting period</p> <p>Bariatric Surgery CPT Codes: 43644-43645, 43659, 43775, 43846-43847, 43848, 43999</p> <p>Minor Complication Codes:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">ICD-10</th> <th style="text-align: left;">CPT - Included</th> <th style="text-align: left;">CPT Excluded</th> </tr> </thead> <tbody> <tr> <td>K28 - K28.9; K56.7;</td> <td>43235 - 43236; 43239; 43259</td> <td>N/A</td> </tr> <tr> <td>K91.89</td> <td>43245</td> <td>N/A</td> </tr> <tr> <td>R11.2</td> <td>96360; 96361</td> <td>N/A</td> </tr> <tr> <td>N39.0</td> <td></td> <td>N/A</td> </tr> <tr> <td>E86.0</td> <td>96360; 96361</td> <td>N/A</td> </tr> <tr> <td>N17.8; N17.9</td> <td>96360; 96361</td> <td>90935; 90937; 90945; 90947</td> </tr> <tr> <td>N19</td> <td>90935</td> <td>N/A</td> </tr> <tr> <td>N20.0</td> <td></td> <td>N/A</td> </tr> <tr> <td>K43.2</td> <td>N/A</td> <td>N/A</td> </tr> <tr> <td>T81.4xxx; K95.01; K95.81</td> <td></td> <td>N/A</td> </tr> </tbody> </table>		ICD-10	CPT - Included	CPT Excluded	K28 - K28.9; K56.7;	43235 - 43236; 43239; 43259	N/A	K91.89	43245	N/A	R11.2	96360; 96361	N/A	N39.0		N/A	E86.0	96360; 96361	N/A	N17.8; N17.9	96360; 96361	90935; 90937; 90945; 90947	N19	90935	N/A	N20.0		N/A	K43.2	N/A	N/A	T81.4xxx; K95.01; K95.81		N/A
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Desired direction:	Lower is better																																		
Notes for all providers																																			
Data sources and guidance:	Hospital patient data source, bariatric registry																																		

JAWDA Quarterly Guidelines for Bariatric Surgery

Type: BS Quality Indicator

Indicator Number: BS03

KPI Description (title):	Rate of Major Complications among Low-Risk Patients within 30 days from Primary Principal Bariatric Surgery																																															
Domain	Patient Safety																																															
Sub-Domain	Complication/Outcome																																															
Definition:	Rate of major medical/surgical complications within 30 days of the primary principal surgery date among low risk bariatric surgery patients (18 years or older). Primary Principal Procedure: The most complex bariatric operative procedure performed during this OR encounter AND the first metabolic or bariatric procedure for the patient to ever undergo.																																															
Calculation:	<p>Numerator: Total number of low risk patients (18 years or older) who have undergone a primary principal bariatric surgery and had a major complication(s) within 30 days of the primary principal bariatric surgery.</p> <p>Denominator: Total number of low-risk patients (18 years or older) who have undergone a primary principal bariatric surgery during the reporting period.</p> <p>Bariatric Surgery CPT Codes: 43644,43645, 43659, 43775, 43846,43847, 43999</p> <p>Major Complication Codes:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">ICD-10</th> <th style="text-align: left;">CPT - Included</th> <th style="text-align: left;">CPT Excluded</th> </tr> </thead> <tbody> <tr> <td>182 code range series</td> <td>34001; 34051; 34101; 34111; 34151; 34201; 34203; 34401; 34421; 34451, 34471, 34490; 37620</td> <td>N/A</td> </tr> <tr> <td>Z98.0;T82.533; T85.598; T85.638A</td> <td>44602; 44604; 49320</td> <td>N/A</td> </tr> <tr> <td>L02.91; Z98.0</td> <td>10030; 10080 - 10120; 11000 - 11047; 99601; 99602;</td> <td>11042 - 11044</td> </tr> <tr> <td>K92.2</td> <td>36430; 36440; 36444; 36450; with blood transfusion</td> <td>N/A</td> </tr> <tr> <td>K56.49 - K56.52; K56.60; K56.5</td> <td>44180; 44602; 44604; 49320</td> <td>N/A</td> </tr> <tr> <td>K63.1</td> <td>44602; 44604; 49320</td> <td>N/A</td> </tr> <tr> <td>K43.0</td> <td>35902; 43281; 43282</td> <td>N/A</td> </tr> <tr> <td>I21.01-29; I22.1-9; I23.0-.8; I25.2</td> <td>N/A</td> <td>N/A</td> </tr> <tr> <td>I63.00 - I63.9</td> <td>N/A</td> <td>N/A</td> </tr> <tr> <td>N17.8; N17.9; N19;N18.1 - N18.9</td> <td>90935; 90937; 90945; 90947</td> <td>N/A</td> </tr> <tr> <td>J96.0-J96.9</td> <td>31500; 94660-94662</td> <td>N/A</td> </tr> <tr> <td>R11.2</td> <td>96365 - 96371; 96373 - 96376; 96379</td> <td>N/A</td> </tr> <tr> <td>K91.3; K95.89</td> <td>43775; 43848</td> <td>N/A</td> </tr> <tr> <td>T81.4xxx; K95.01; K95.81</td> <td>10040-10180; 11000-11047</td> <td>N/A</td> </tr> </tbody> </table>			ICD-10	CPT - Included	CPT Excluded	182 code range series	34001; 34051; 34101; 34111; 34151; 34201; 34203; 34401; 34421; 34451, 34471, 34490; 37620	N/A	Z98.0;T82.533; T85.598; T85.638A	44602; 44604; 49320	N/A	L02.91; Z98.0	10030; 10080 - 10120; 11000 - 11047; 99601; 99602;	11042 - 11044	K92.2	36430; 36440; 36444; 36450; with blood transfusion	N/A	K56.49 - K56.52; K56.60; K56.5	44180; 44602; 44604; 49320	N/A	K63.1	44602; 44604; 49320	N/A	K43.0	35902; 43281; 43282	N/A	I21.01-29; I22.1-9; I23.0-.8; I25.2	N/A	N/A	I63.00 - I63.9	N/A	N/A	N17.8; N17.9; N19;N18.1 - N18.9	90935; 90937; 90945; 90947	N/A	J96.0-J96.9	31500; 94660-94662	N/A	R11.2	96365 - 96371; 96373 - 96376; 96379	N/A	K91.3; K95.89	43775; 43848	N/A	T81.4xxx; K95.01; K95.81	10040-10180; 11000-11047	N/A
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Reporting Frequency:	Quarterly																																															

JAWDA Quarterly Guidelines for Bariatric Surgery

Unit of Measure:	% complications
International comparison if available	Developed locally by modifying similar indicators used by MBSAQIP
Desired direction:	Lower is better
Notes for all providers	
Data sources and guidance:	Hospital patient data source, bariatric registry

JAWDA Quarterly Guidelines for Bariatric Surgery

Type: BS Quality Indicator

Indicator Number: BS04

KPI Description (title):	Rate of Major Complications among High-Risk Patients within 30 days from Principal Bariatric Surgery		
Domain	Patient Safety		
Sub-Domain	Complication/Outcome		
Definition:	Rate of major medical/surgical complications within 30 days of the surgery date among high-risk bariatric surgery patients (18 years or older).		
Calculation:	<p>Numerator: Total number of high-risk patients (18 years or older) who have undergone a principal bariatric surgery and had a major complication(s) within 30 days of the principal bariatric surgery.</p> <p>Denominator: Total number of high-risk patients (18 years or older) who have undergone a principal bariatric surgery during the reporting period.</p> <p>Bariatric Surgery CPT Codes: 43644-43645, 43659, 43775, 43846-43847, 43848, 43999</p> <p>Major Complication Codes:</p>		
	ICD-10	CPT - Included	CPT Excluded
	I82 code range series	34001; 34051; 34101; 34111; 34151; 34201; 34203; 34401; 34421; 34451, 34471, 34490; 37620	N/A
	Z98.0; T82.533; T85.598; T85.638A	44602; 44604; 49320	N/A
	L02.91; Z98.0	10030; 10080 - 10120; 11000 - 11047; 99601; 99602;	11042 - 11044
	K92.2	36430; 36440; 36444; 36450; Blood transfusion	N/A
	K56.49 - K56.52; K56.60; K56.5	44180; 44602; 44604; 49320	N/A
	K63.1	44602; 44604; 49320	N/A
	K43.0	35902; 43281; 43282	N/A
	I21.01-29; I22.1-9; I23.0-8; I25.2	N/A	N/A
	I63.00 - I63.9	N/A	N/A
	N17.8; N17.9; N19; N18.1 - N18.9	90935; 90937; 90945; 90947	N/A
	J96.0-J96.9	31500; 94660-94662	N/A
	R11.2	96365 - 96371; 96373 - 96376; 96379	N/A
	K91.3; K95.89	43775; 43848	N/A
T81.4xxx; K95.01; K95.81	10040-10180; 11000-11047	N/A	
Inclusion	<ul style="list-style-type: none"> • Patients who are considered as high risk at the time of the principle bariatric surgery as defined in Appendix A. • Patients who have undergone a revisional surgery. 		
Exclusion	<ul style="list-style-type: none"> • Patients who are discharged against medical advice • Low-risk cases 		
Reporting Frequency:	Quarterly		
Unit of Measure:	% complications		
International comparison if available	Developed locally by modifying similar indicators used by MBSAQIP		
Desired direction:	Lower is better		
Notes for all providers			
Data sources and guidance:	Hospital patient data source, bariatric registry		

JAWDA Quarterly Guidelines for Bariatric Surgery

Type: BS Quality Indicator

Indicator Number: BS05

KPI Description (title):	Re-operation Rate among Low-Risk Patients within 30 days from Primary Principal Bariatric Surgery		
Domain	Patient Safety		
Sub-Domain	Complications		
Definition:	Re-operation rate among low-risk patients 18 years old or older within 30 days from primary principal bariatric procedure surgery. Primary Principal Procedure: The most complex bariatric operative procedure performed during this OR encounter AND the first metabolic or bariatric procedure for the patient to ever undergo.		
Calculation:	<p>Numerator: Total number of low-risk patients (18 years or older) who had a re-operation within 30 days of the primary principal bariatric surgery.</p> <p>Denominator: Total number of low-risk patients (18 years or older) who have undergone a primary principal bariatric surgery during the reporting period.</p> <p>Bariatric Surgery CPT Codes: 43644,43645, 43659, 43775, 43846,43847, 43999</p>		
	Reason for RTOR	ICD-10	CPT
	Leak	Z98.0; T82.533; T85.598; T85.638A	44602; 44604; 49320
	Stricture / Bowel Obstruction	K56.49; K56.50; K56.51; K56.52; K56.60; K56.5	
	Perforations (non-traumatic)	K63.1	
	Severe Wound Infection	T81.32	10030
	Incision & Drainage, Skin, Sub-Q and Accessory Structures		10040 - 10180; 11000 - 11047
Inclusion	<ul style="list-style-type: none"> Low-risk adult patients (18 years and above) with a primary principal bariatric surgery 		
Exclusion	<ul style="list-style-type: none"> Patient who are considered as high risk at the time of surgery as defined in Appendix A. Patients who have undergone revisional surgery. Patients who are discharged against medical advice 		
Reporting Frequency:	Quarterly		
Unit of Measure:	% Complication rate		
International comparison if available	Developed locally by modifying similar indicators used by MBSAQIP		
Desired direction:	Lower is better		
Notes for all providers			
Data sources and guidance:	Hospital patient data source, bariatric registry		

JAWDA Quarterly Guidelines for Bariatric Surgery

Type: BS Quality Indicator

Indicator Number: BS06

KPI Description (title):	Re-operation Rate among High-Risk Patients within 30 days from Principal Bariatric Surgery	
Domain	Patient Safety	
Sub-Domain	Complications	
Definition:	Re-operation rate among high-risk patients (18 years old or older) within 30 days from principal bariatric procedure surgery	
Calculation:	<p>Numerator: Total number of high-risk patients (18 years or older) who had a re-operation within 30 days of the principal bariatric surgery.</p> <p>Denominator: Total number of high-risk patients (18 years or older) who have undergone a principal bariatric surgery during the reporting period.</p> <p>Bariatric Surgery CPT Codes: 43644, 43645, 43659, 43775, 43846, 43847, 43848, 43999</p>	
	Reason for RTOR	ICD-10
	Leak	Z98.0; T82.533; T85.598; T85.638A
	Stricture / Bowel Obstruction	K56.49; K56.50; K56.51; K56.52; K56.60; K56.5
	Perforations (non-traumatic)	K63.1
	Severe Wound Infection	T81.32
	Incision & Drainage, Skin, Sub-Q and Accessory Structures	T81.32
	CPT	44602; 44604; 49320
		10030
		10040 - 10180; 11000 - 11047
Inclusion	<ul style="list-style-type: none"> Patients who are considered as high risk at the time of the principle bariatric surgery as defined in Appendix A. Patients who have undergone a revisional surgery. 	
Exclusion	<ul style="list-style-type: none"> Patients who are discharged against medical advice Low-risk cases 	
Reporting Frequency:	Quarterly	
Unit of Measure:	% Complication rate	
International comparison if available	Developed locally by modifying similar indicators used by MBSAQIP	
Desired direction:	Lower is better	
Notes for all providers		
Data sources and guidance:	Hospital patient data source, bariatric registry	

JAWDA Quarterly Guidelines for Bariatric Surgery

Type: BS Quality Indicator

Indicator Number: BS07

KPI Description (title):	Unplanned Hospital Readmission among Low-Risk Patients within 30 days of the Primary Principal Bariatric Surgery
Domain	Patient Safety
Sub-Domain	Complications
Definition:	<p>Percentage of low-risk bariatric patients (18 years or older) who had an unplanned hospital readmission within 30 days of the primary principal bariatric surgery encounter discharge date.</p> <p>Primary Principal Procedure: The most complex bariatric operative procedure performed during this OR encounter AND the first metabolic or bariatric procedure for the patient to ever undergo.</p>
Calculation:	<p>Numerator: Total number of low risk patients (18 years or older) who had an unplanned hospital readmission within 30 days of the primary principal bariatric surgery encounter discharge date.</p> <p>Denominator: Total number of discharged low-risk patients (18 years or older) who have undergone a primary principal bariatric surgery.</p> <p>Bariatric Surgery CPT Codes: 43644,43645, 43659, 43775, 43846,43847, 43999</p>
Inclusion	<ul style="list-style-type: none"> • Low-risk adult patients (18 years and above) with a primary principal bariatric surgery
Exclusion	<ul style="list-style-type: none"> • Patient who are considered as high risk at the time of surgery as defined in Appendix A • Patients who undergoing revisional surgery. • Patients who are discharged against medical advice
Reporting Frequency:	Quarterly
Unit of Measure:	% complication rate
International comparison if available	Developed locally by modifying similar indicators used by MBSAQIP
Desired direction:	Lower is better
Notes for all providers	
Data sources and guidance:	Hospital patient data source, bariatric registry

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Type: BS Quality Indicator

Indicator Number: BS08

KPI Description (title):	Unplanned Hospital Readmission among High-Risk Patients within 30 days of the Principal Bariatric Surgery
Domain	Patient Safety
Sub-Domain	Complications
Definition:	Percentage of high-risk bariatric patients (18 years or older) who had an unplanned hospital readmission within 30 days of the principal bariatric surgery encounter discharge date.
Calculation:	<p>Numerator: Total number of high-risk patients (18 years or older) who had an unplanned hospital readmission within 30 days of the principal bariatric surgery encounter discharge date.</p> <p>Denominator: Total number of discharged high-risk patients (18 years or older) who have undergone a principal bariatric surgery</p> <p>Bariatric Surgery CPT Codes: 43644, 43645, 43659, 43775, 43846, 43847, 43848, 43999</p>
Inclusion	<ul style="list-style-type: none"> • Patients who are considered as high risk at the time of the principle bariatric surgery as defined in Appendix A. • Patients who have undergone a revisional surgery.
Exclusion	<ul style="list-style-type: none"> • Patients who are discharged against medical advice • Low risk cases
Reporting Frequency:	Quarterly
Unit of Measure:	% complication rate
International comparison if available	Developed locally by modifying similar indicators used by MBSAQIP
Desired direction:	Lower is better
Notes for all providers	
Data sources and guidance:	Hospital patient data source, bariatric registry

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Type: BS Quality Indicator

Indicator Number: BS09

KPI Description (title):	Death Rate among Low-Risk Patients within 30 days from Primary Principal Bariatric Surgery
Domain	Patient Safety
Sub-Domain	Complications
Definition:	Rate of death within 30 days following the primary principal bariatric surgery among low-risk patients 18 years or older. <i>Primary Principal Procedure:</i> The most complex bariatric operative procedure performed during this OR encounter AND the first metabolic or bariatric procedure for the patient to ever undergo.
Calculation:	Numerator: Total number of low-risk patients (18 years or older) who died within 30 days of the primary principal bariatric surgery. Denominator: Total number of low-risk patients (18 years or older) who have undergone a primary principal bariatric surgery during the reporting period <i>Bariatric Surgery CPT Codes: 43644,43645, 43659, 43775, 43846,43847, 43999</i>
Inclusion	<ul style="list-style-type: none"> Low-risk adult patients (18 years and above) with a primary principal bariatric surgery.
Exclusion	<ul style="list-style-type: none"> Patients who are considered as high risk at time of surgery as defined in Appendix A. Patients who have undergone revisional surgery. Patients who are discharged against medical advice
Reporting Frequency:	Quarterly
Unit of Measure:	% Performance
International comparison if available	Developed locally by modifying similar indicators used by MBSAQIP
Desired direction:	Lower is better
Notes for all providers	
Data sources and guidance:	Hospital patient data source, bariatric registry

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Type: BS Quality Indicator

Indicator Number: BS10

KPI Description (title):	Death Rate among High-Risk Patients within 30 days from Principal Bariatric Surgery
Domain	Patient Safety
Sub-Domain	Complications
Definition:	Rate of death within 30 days following the principal bariatric surgery among high-risk patients (18 years or older).
Calculation:	<p>Numerator: Total number of high-risk patients (18 years or older) who died within 30 days of the principal bariatric surgery.</p> <p>Denominator: Total number of high-risk patients (18 years or older) who have undergone a principal bariatric surgery during the reporting period.</p> <p>Bariatric Surgery CPT Codes: 43644, 43645, 43659, 43775, 43846, 43847, 43848, 43999</p>
Inclusion	<ul style="list-style-type: none"> Patients who are considered as high risk at the time of the principle bariatric surgery as defined in Appendix A. Patients who have undergone a revisional surgery.
Exclusion	<ul style="list-style-type: none"> Patients who are discharged against medical advice Low-risk cases
Reporting Frequency:	Quarterly
Unit of Measure:	% Performance
International comparison if available	Developed locally by modifying similar indicators used by AHRQ, OECD, CQC, and MBSAQIP
Desired direction:	Lower is better
Notes for all providers	
Data sources and guidance:	Hospital patient data source, bariatric registry

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Type: BS Quality Indicator

Indicator Number: BS011

KPI Description (title):	Extended Length of Stay (LOS) > 7 days among Low-Risk Primary Principal Bariatric Surgery Patients
Domain	Patient Safety
Sub-Domain	Effectiveness/Process
Definition:	The percentage of low-risk patients (18 years or older) undergoing primary principal bariatric surgery who had an extended postoperative LOS (>7 days). Primary Principal Procedure: The most complex bariatric operative procedure performed during this OR encounter AND the first metabolic or bariatric procedure for the patient to ever undergo.
Calculation:	Numerator: Total number of low-risk patients who experienced extended length of stay (> 7 days) following the primary principal bariatric procedure. Denominator: Total number of low-risk patients (18 years or older) who have undergone a primary principal bariatric surgery. during the reporting period Bariatric Surgery CPT Codes: 43644,43645, 43659, 43775, 43846,43847, 43999
Inclusion	<ul style="list-style-type: none"> Low-risk adult patients (18 years and above) with a primary principal bariatric surgery
Exclusion	<ul style="list-style-type: none"> Patient who are considered as high risk at the time of surgery as defined in Appendix A. Patients who have undergone revisional surgery.
Reporting Frequency:	Quarterly
Unit of Measure:	% performance
International comparison if available	Developed locally by modifying similar indicators used by MBSAQIP
Desired direction:	Lower is better
Notes for all providers	
Data sources and guidance:	Hospital patient data source, bariatric registry

JAWDA Quarterly Guidelines for Bariatric Surgery

Type: BS Quality Indicator

Indicator Number: BS012

KPI Description (title):	Extended Length of Stay (LOS) > 7 days among High-Risk Bariatric Surgery Patients
Domain	Patient Safety
Sub-Domain	Effectiveness/Process
Definition:	The percentage of high-risk patients (18 years or older) who have undergone a principal bariatric surgery and had an extended postoperative LOS (>7 days).
Calculation:	<p>Numerator: Total number of high-risk patients (18 years or older) who experienced an extended length of stay (> 7 days) following the principal bariatric procedure.</p> <p>Denominator: Total number of high-risk patients (18 years or older) who have undergone a principal bariatric surgery during the reporting period.</p> <p>Bariatric Surgery CPT Codes: 43644, 43645, 43659, 43775, 43846, 43847, 43848, 43999</p>
Inclusion	<ul style="list-style-type: none"> • Patients who are considered as high risk at the time of the principle bariatric surgery as defined in Appendix A. • Patients who have undergone a revisional surgery.
Exclusion	<ul style="list-style-type: none"> • Low-risk cases
Reporting Frequency:	Quarterly
Unit of Measure:	% performance
International comparison if available	Developed locally by modifying similar indicators used by MBSAQIP
Desired direction:	Lower is better
Notes for all providers	
Data sources and guidance:	Hospital patient data source, bariatric registry

Appendix A: Glossary

Term	Definition
Low Risk	<ul style="list-style-type: none"> • No previous metabolic or bariatric surgical procedures (regardless of approach). • Does not meet any of the “high risk” criteria below.
High Risk	<p>To be considered high-risk, the patient must meet any one or more of the following criteria:</p> <ul style="list-style-type: none"> • Revisional surgery • BMI >50 (Z68.43, Z68.44, Z68.45) • H/O Venous Thromboembolism (VTE) (Z86.718) • Severe Obstructive Sleep Apnea (OSA) (G47.33) • Poor Functional Status (Z74.09) • H/O Acute Myocardial Infarction (AMI) (AMI - I21, I22 and I23 range and I25.2) • H/O Percutaneous Coronary Intervention (PCI) (PCI - Z98.61) • H/O End Organ Damage (N18.1 - N18.9) • Transplant (Z94.0 - Z94.7 and Z94.81 - Z94.89) • Age >55 yrs
Primary Surgery	The first metabolic or bariatric procedure ever performed on the patient.
Principal Surgery	The most complex bariatric operative procedure performed during this OR encounter.
Revisional Surgery	A revision is a procedure in which the patient has a history of having any bariatric procedure at any time in the past and the current procedure modifies all or part of the previous bariatric procedure.

Appendix B: Approved procedure CPT codes:

CPT	Description
43644	Laparoscopy, surgical, gastric restrictive procedure; with gastric bypass and Roux-en-Y gastroenterostomy (roux limb 150 cm or less)
43645	Laparoscopy, surgical, gastric restrictive procedure; with gastric bypass and small intestine reconstruction to limit absorption
43659	Unlisted laparoscopy procedure, stomach
43770	Laparoscopy, surgical, gastric restrictive procedure; placement of adjustable gastric restrictive device (eg. Gastric band and subcutaneous port components)
43771	Laparoscopy, surgical, gastric restrictive procedure; revision of adjustable gastric restrictive device component only
43775	Laparoscopy, surgical, gastric restrictive procedure; longitudinal gastrectomy (ie. Sleeve gastrectomy)
43842	Gastric restrictive procedure, without gastric bypass, for morbid obesity; vertical-banded gastroplasty
43843	Gastric restrictive procedure, without gastric bypass, for morbid obesity; other than vertical-banded gastroplasty
43845	Gastric restrictive procedure with partial gastrectomy, pylorus-preserving duodenoileostomy and ileoileostomy (50 to 100 cm common channel) to limit absorption (biliopancreatic diversion with duodenal switch)
43846	Gastric restrictive procedure, with gastric bypass for morbid obesity; with short limb (150 cm or less) Roux-en-Y gastroenterostomy
43847	Gastric restrictive procedure, with gastric bypass for morbid obesity; with small intestine reconstruction to limit absorption
43848	Revision, open, of gastric restrictive procedure for morbid obesity, other than adjustable gastric restrictive device (separate procedure)
43999	Unlisted procedure, stomach

Appendix C: Minor Complications ICD-10 and CPT Codes:

Minor Complication	ICD-10	CPT - Included	CPT - Excluded
Marginal Ulcer diagnosed with endoscopy	K28 - K28.9; K56.7;	43235 - 43236; 43239; 43259	N/A
Anastomotic Stricture Requiring Endoscopic dilatation	K91.89	43245	N/A
Nausea / Vomiting	R11.2	96360; 96361	N/A
Urinary Tract Infection (UTI)	N39.0		N/A
Dehydration	E86.0	96360; 96361	N/A
Acute Renal Failure managed w/ IV fluids - no hemodialysis	N17.8; N17.9	96360; 96361	90935; 90937; 90945; 90947
Unspecified Kidney Failure	N19	90935	N/A
Kidney stone	N20.0		N/A
Incisional Hernia	K43.2	N/A	N/A
Trocar surgical site infection managed with drainage & local wound care	T81.4xxx; K95.01; K95.81		N/A

Appendix D: Major Complications ICD-10 Codes

Complication	ICD-10	CPT - Included	CPT - Excluded
Venous Thrombembolism (VTE) requiring administration of anticoagulant or intervention, such as embolectomy or inferior vena cava (IVC) filter	I82 code range series	34001; 34051; 34101; 34111; 34151; 34201; 34203; 34401; 34421; 34451, 34471, 34490; 37620	N/A
Anastomotic Leak requiring reoperation	Z98.0; T82.533; T85.598; T85.638A	44602; 44604; 49320	N/A
Percutaneous drainage of abscess, stent placement, or conservative management with parenteral nutrition or NPO	L02.91; Z98.0	10030; 10080 - 10120; 11000 - 11047; 99601; 99602;	11042 - 11044
Gastrointestinal hemorrhage requiring transfusion or intervention	K92.2	36430; 36440; 36444; 36450; with blood transfusion	N/A

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Small bowel obstruction with reoperation	K56.49 - K56.52; K56.60; K56.5	44180; 44602; 44604; 49320	N/A
Bowel perforation with reoperation	K63.1	44602; 44604; 49320	N/A
Trocar site hernia requiring reoperation	K43.0	35902; 43281; 43282	N/A
Myocardial infarction (AMI)	I21.01-29; I22.1-9; I23.0-8; I25.2	N/A	N/A
Cerebrovascular accident (CVA)	I63.00 – I63.9	N/A	N/A
Renal Failure requiring dialysis	N17.8; N17.9; N19; N18.1 – N18.9	90935; 90937; 90945; 90947	N/A
Respiratory failure requiring intubation	J96.0-J96.9	31500; 94660- 94662	N/A
Chronic nausea and vomiting not responsive to conservative management and requiring total parenteral nutrition (TPN)	R11.2	96365 – 96371; 96373 – 96376; 96379	N/A
Gastric sleeve stenosis/obstruction requiring revision to gastric bypass	K91.3; K95.89	43775; 43848	N/A
Surgical site infection (SSI – superficial, deep or organ space) requiring debridement, washout in the operating room, or percutaneous intervention	T81.4xxx; K95.01; K95.81	10040-10180; 11000-11047	N/A