

Appendix 1: Health outcome indicators

Patient population	KPI	Description	Success measure
Bariatric	Re-operation	The following surgeries within 30 days of the primary surgery were taken into account: <ul style="list-style-type: none"> - Operative treatment for esophageal perforation - Endoscopic extension gastric bypass - Endoscopic sleeve and Pouch bypass - Endoscopic gastronomy - Overstitching stomach perforation (open/ endoscopic) - Endoscopic small intestine resection - Endoscopic intestinal anastomosis - Overstitching intestinal perforation (open / laparoscopic) - Cholecystectomy laparoscopic - Laparotomy - Closure of the Petersen mesenteric defect - Bleeding within 24 hours of the primary surgery - Incisional hernia (open / laparoscopic) 	If a surgery was performed within 30 days following the primary surgery, the treatment failed to meet the clinical outcome indicator.
	Deficiency	The following blood levels were measured: <ul style="list-style-type: none"> - Ferritine (22 µg/L) - Active B12 (32 pmol/L) - Folate (7 nmol/L) - Vitamin B1 (70 nmol/L) - Vitamin B6 (35 nmol/L) - Vitamin D (50 nmol/L) 	The blood level measure after 9 months and before 21 months closed to one year mark post-surgery was used as the measure to decide if the patient had deficiencies. If in this measure any of the blood levels were below the norm levels the patient was classified as deficient and therefore failed the clinical outcome indicator.
	Re-admission	Hospital admissions within 30 days post-surgery having one of the following diagnoses: <ul style="list-style-type: none"> - Acute abdomen (peritonitis) - Hernia diaphragmatic - Incisional hernia - Pyloric hypertrophy - Pylorospasm - Gastroesophageal Reflux - Other (stomach) complaints - Local skin and subcutis infections - Abscess intra-abdominal - Morbid obesity (BMI <45) - Morbid obesity (BMI >45) - Duodenal ulcer / ventricles + perf - Obstipation 	If there was an additional unplanned admission the treatment was stated to have failed to meet the clinical outcome indicator.

		<ul style="list-style-type: none"> - Cholecystitis / Cholelithiasis - Pancreatis - intussusception - mesenteric thrombosis - Volvulus bowel - Ileus - Other non-malignant Gastrointestinal condition - Acute deep venous pathology 	
	Admission time	Admission time directly following the surgery	If admission time of the primary admission exceeded 72 hours treatment was stated to have failed to meet the clinical outcome indicator.
	ED	<p>Emergency department visits within 30 days post-surgery having one of the following diagnoses:</p> <ul style="list-style-type: none"> - Acute abdomen (peritonitis) - Hernia diaphragmatic - Incisional hernia - Pyloric hypertrophy - Pylorospasm - Gastroesophageal Reflux - Other (stomach) complaints - Local skin and subcutis infections - Abscess intra-abdominal - Morbid obesity (BMI <45) - Morbid obesity (BMI >45) - Duodenal ulcer / ventricles + perf - Obstipation - Cholecystitis / Cholelithiasis - Pancreatis - intussusception - mesenteric thrombosis - Volvulus bowel - Ileus - Other non-malignant Gastrointestinal condition - Acute deep venous pathology 	If there was an emergency department visit within 30 post surgery the treatment failed to meet the clinical outcome indicator.
	TWL (total weight loss)	$(\text{Initial weight} - \text{current weight}) / \text{initial weight}$	If TWL exceeded 20% in a period of 455 days following the surgery the clinical outcome indicator was considered successfully passed.

Breast Cancer	Re-operation	All surgeries due to infections or bleeding as a result of the primary surgery:	Once a patient received a surgery due to infections or bleeding the treatment was stated to have failed to meet the clinical outcome indicator.
	Surgical Margins	All patients who received surgery (lumpectomy or mastectomy) due to close or positive margins	Once a patient did receive surgery the treatment the treatment was stated to have failed to meet the clinical outcome indicator. If margins did not need a further surgery the clinical outcome indicator was considered to be successfully passed.
	Recurrence	All who had a recurrence of the primary tumor. It was considered all these patients did receive surgery (either an mastectomy or mastectomy).	Once the patient received surgery to treat the recurrence the treatment the treatment was stated to have failed to meet the clinical outcome indicator.

