



**Technical Guidance for
Surgical Workload, Outcome and Research Database:**

V1.1

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1. Standard Indicators

1.1. Activity Volume

Methodology: Count of all activity.
Data Source: HES (Hospital Episode Statistics)

1.2. Average Length of Stay (Days)

Numerator: Number of bed days (excluding daycase)
Denominator: Number of spells (excluding daycase)
Methodology: Average
Data Source: HES (Hospital Episode Statistics)

1.3. 2/7/30 day Re-admission Rate (%)

Numerator: Total number of emergency re-admissions within 2/7/30 days of discharge
Denominator: Total number of discharges following an admission
Methodology: Percentage
Data Source: HES (Hospital Episode Statistics)
Note: Re-admission is attributed to the consultant responsible for the patient in the initial admission.

1.4. Re-operations within 30 days (%)

Numerator: Total number of re-operations within 30 days of discharge

Denominator: Total number of discharges following an admission

Methodology: Percentage

Data Source: HES (Hospital Episode Statistics)

Note: Re-operations are attributed to the consultant responsible for the patient in the initial admission.

1.5. Day case Rates (%)

Numerator: Number of procedures carried out as a daycase

Denominator: Total number of procedures carried out

Methodology: Percentage

Data Source: HES (Hospital Episode Statistics)

Note: Daycase is classified as a patient who is coded as having a 0 day length of stay by checking the admission and discharge dates are the same.

1.6. Short Stay Rates (%)

Numerator: Number of patients admitted and discharged within 48hrs

Denominator: Total number of patients discharged

Methodology: Percentage

Data Source: HES (Hospital Episode Statistics)

Note:

1.7. Proportion of laparoscopic procedures

Numerator: Number of hernia patients who have undergone a laparoscopic procedure.

Denominator: Total number of procedures carried out

Methodology: Percentage

Data Source: HES (Hospital Episode Statistics)

Note:

1.8. Ratio of emergency to all admissions

Numerator: Number of emergency procedures.

Denominator: Total number of procedures carried out

Methodology: Percentage

Data Source: HES (Hospital Episode Statistics)

Note:

2. Bespoke Pathway Indicators

2.1. Gall bladder disease

2.1.1. Proportion of patients admitted in an emergency with gall bladder disease who have a cholecystectomy within 14 days

Numerator:	Number of emergency patients with a primary operation of J18 (cholecystectomy) within 14 days of admission
Denominator:	Number of emergency patients with an ICD-10 code for gall bladder related conditions matching the primary diagnosis codes in section 4 code sets including K85 (Acute pancreatitis) excluding K82.2: Alcohol-induced acute pancreatitis and K85.3: Drug-induced acute pancreatitis
Methodology:	Percentage
Data Source:	HES (Hospital Episode Statistics)
Note:	Operations within 14 days is defined as the difference in days between the recorded admission date and recorded operation date being <15 days

2.1.2. Proportion of patients admitted in an emergency with gallstone related acute pancreatitis who have a cholecystectomy within 14 days

Numerator:	Number of emergency patients with a primary operation of J18 (cholecystectomy) within 14 days of admission
Denominator:	Number of emergency patients with an ICD-10 code K85 (Acute pancreatitis) excluding K82.2: Alcohol-induced acute pancreatitis and K85.3: Drug-induced acute pancreatitis

Methodology: Percentage

Data Source: HES (Hospital Episode Statistics)

Note: Operations within 14 days is defined as the difference in days between the recorded admission date and recorded operation date being <15 days

2.1.3. Proportion of patients admitted in an emergency with acute cholecystitis or biliary pain (excluding acute pancreatitis) who have a cholecystectomy within 14 days

Numerator: Number of emergency patients with a primary operation of J18 (cholecystectomy) within 14 days of admission

Denominator: Number of emergency patients with an ICD-10 code for gall bladder related conditions matching the primary diagnosis codes in section 4 code sets

Methodology: Percentage

Data Source: HES (Hospital Episode Statistics)

Note: Operations within 14 days is defined as the difference in days between the recorded admission date and recorded operation date being <15 days

2.1.4. Proportion of laparoscopic Gallstone procedures converted to open procedures during surgery

Numerator: Number of elective patients undergoing laparoscopic reflux procedure with a Y714 (Failed minimal access approach converted to open) in any secondary procedure field.

Denominator: Total number J18 (cholecystectomy) procedures

Methodology: Percentage

Data Source: HES (Hospital Episode Statistics)

Note:

2.1.5. Proportion of patients who have a laparoscopic cholecystectomy who go on to have a ERCP within 30 days

Numerator: Number of patients with an ICD-10 code matching the primary diagnosis codes in section 4 code sets alongside any of the following procedure codes in any position within 30 days of discharge from a laparoscopic cholecystectomy

J38: Endoscopic sphincterotomy of sphincter

J39: Endoscopic sphincterotomy of accessory ampulla of Vater

J40: Endoscopic retrograde insertion of tubal prosthesis into bile duct

J41: Endoscopic dilation of bile duct

J43: Endoscopic retrograde cholangiopancreatography

J44: Endoscopic retrograde cholangiography

J45: Endoscopic retrograde pancreatography

Denominator: Total number of J18 (cholecystectomy) procedures with associated Y75.1 (Laparoscopically assisted approach to abdominal cavity) or Y75.2 (Laparoscopic approach to abdominal cavity NEC)

Methodology: Percentage

Data Source: HES (Hospital Episode Statistics)

Note:

2.1.6. Number of patients who have a hepatico jejunostomy within 1yr of a laparoscopic cholecystectomy

Numerator: Number of patients who have a hepatico jejunostomy within 1yr of a laparoscopic cholecystectomy

Methodology: Percentage

Data Source: HES (Hospital Episode Statistics)

Note: Hepatico jejunostomy defined as any of the following OPSC codes in any position:

- J272: Partial excision of bile duct and anastomosis of bile duct to duodenum
- J273: Partial excision of bile duct and anastomosis of bile duct to jejunum
- J274: Partial excision of bile duct and end to end anastomosis of bile duct
- J278: Other specified excision of bile duct
- J279: Unspecified excision of bile duct
- J291: Anastomosis of hepatic duct to transposed jejunum and insertion of tubal prosthesis HFQ
- J292: Anastomosis of hepatic duct to jejunum NEC
- J298: Other specified connection of hepatic duct
- J299: Unspecified connection of hepatic duct
- J301: Anastomosis of common bile duct to duodenum
- J302: Anastomosis of common bile duct to transposed jejunum
- J303: Anastomosis of common bile duct to jejunum NEC
- J308: Other specified connection of common bile duct
- J309: Unspecified connection of common bile duct
- J321: Reconstruction of bile duct
- J322: Reanastomosis of bile duct
- J328: Other specified repair of bile duct
- J329: Unspecified repair of bile duct

2.1.7. Proportion of cholecystectomy with simultaneous on-table cholangiogram

Numerator: Number of OTC procedures performed in a secondary position of a cholecystectomy

Denominator: Total number of cholecystectomy procedures carried out

Methodology: Percentage

Data Source: HES (Hospital Episode Statistics)

Note: OTC codes defined as either J372 (Operative cholangiography through cystic duct) or J373 (Direct puncture operative cholangiography)

2.1.8. Proportion of patients admitted for gall bladder disease who are readmitted in an emergency within 1yr

Numerator: Number of patients admitted in an emergency with any primary gallstone ICD-10 code in section 4 after a previous gallstone admission

Denominator: Total number of patients diagnosed with any primary gallstone ICD-10 code in section 4

Methodology: Percentage

Data Source: HES (Hospital Episode Statistics)

Note:

2.2. Reflux

2.2.1. Laparoscopic reflux procedures converted to open (%)

Numerator: Number of elective patients undergoing laparoscopic reflux procedure with a Y714 (Failed minimal access approach converted to open) in any secondary procedure field.

Denominator: Total number of elective patients undergoing laparoscopic reflux procedure

Methodology: Percentage

Data Source: HES (Hospital Episode Statistics)

Note:

2.3. Appendicectomy

2.3.1. Radiological Drainage post procedure

Numerator: Number of Y22 procedures after an index procedure

Denominator: Total number of procedures

Methodology: Percentage

Data Source: HES (Hospital Episode Statistics)

Note:

2.3.2. Ratio of male to female patients undergoing an appendicectomy

Numerator: Number of male patients undergoing an appendicectomy

Denominator: Total number of patients undergoing an appendicectomy

Methodology: Percentage

Data Source: HES (Hospital Episode Statistics)

Note:

4. Interventions and Code Sets

4.1. Achalasia

Intervention	Primary OPCS Codes	Secondary OPCS Codes	ICD 10 Codes
Hellers-Cardiomyotomy	G091, G092, G098, G099		K220 (If primary OPCS is G098 or G099)
Hellers-Cardiomyotomy with funduplication	G091	G243, G244, G248, G249	

4.2. Appendicectomy

Intervention	Primary OPCS Codes	Secondary OPCS Codes	ICD 10 Codes
Appendicectomy	H01		

4.3. Bariatric Surgery

Intervention	Primary OPCS Codes	Secondary OPCS Codes	ICD 10 Codes
Bilio-Pancreatic Diversion	G612, G618, G619, G716		E66
Gastric Band	G303		E66
Gastric Bypass	G311, G312, G318, G319, G321, G238, G239, G331, G338, G339		E66
Sleeve Gastrectomy	G28, G302, G304		E66

4.4. Bile Duct Exploration

Intervention	Primary OPCS Codes	Secondary OPCS Codes	ICD 10 Codes
Bile duct exploration	J33, J374		
Bile duct exploration and cholecystectomy	J182, J184		

4.5. Colectomy

Intervention	Primary OPCS Codes	Secondary OPCS Codes	ICD 10 Codes
Ileorectal Anastomosis	G724, H051, H101,H112, H113		K50 - Crohn's Disease, K51 - Ulcerative Colitis, K523 - Indeterminate Colitis
Total / Subtotal Colectomy	H052, H053, H058, H059, H298, H299, H114, H115	G741, G742, G743 (If primary OPCS is H058, H059, H298, H299, H115)	K50 - Crohn's Disease, K51 - Ulcerative Colitis, K523 - Indeterminate Colitis
Ileocaecal Resection for Crohn's Disease	H071, H072, H073, H074, H078, H079, H061, H062, H063, H064, H068, H069	G721, G722, G723, G742, G743	K50 - Crohn's Disease

4.6. Elective Splenectomy

Intervention	Primary OPCS Codes	Secondary OPCS Codes	ICD 10 Codes
Cysts	J69, J70		D734
Haemolytic Anaemias	J69, J70		D57, D58, D59
ITP	J69, J70		D693, D696
Malignant	J69, J70		C81, C82, C83, C84, C85, C86, C88, C90, C96
Other Splenectomy	J69, J70		

4.6. Endocrine

Intervention	Primary OPCS Codes	Secondary OPCS Codes	ICD 10 Codes
Bilateral adrenalectomy	B221, B222, B228, B229	Z941 (If primary OPCS is B228, B229)	
Partial adrenalectomy	B224, B251		
Partial parathyroidectomy	B143, B144, B145, B148, B149	Z942, Z943, Z944 (If primary OPCS is B148, B149)	C750 - Malignant, E21 - Benign
Partial thyroidectomy	B082, B083, B084, B085, B086, B088, B089	Z942, Z943, Z944 (If primary OPCS is B088, B089)	C73 - Malignant, E01, E04, E05, E06, E07 - Benign
Total parathyroidectomy	B141, B142		C750 - Malignant, E21 - Benign
Total thyroidectomy	B081		C73 - Malignant, E01, E04, E05, E06, E07 - Benign
Unilateral adrenalectomy	B223, B228, B229	Z942, Z943, Z944 (If primary OPCS is B288, B289)	

4.7. Gall bladder disease

Intervention	Primary OPCS Codes	Secondary OPCS Codes	ICD 10 Codes
Cholecystectomy	J18		K800, K801, K802, K810, K811, K818, K819, K820, K821, K822, K823, K824, K828, K829

4.8. Gastrectomy

Intervention	Primary OPCS Codes	Secondary OPCS Codes	ICD 10 Codes
Palliative Bypass	G339, G339, G511, G311, G312, G318, G319, G321, G328, G329, G331, G338, G339		C16, C269, C494, D481, D487, D489, C81, C82, C83, C84, C85, C86 - Malignant, E340, D130, K220, K224, K229, K27 - Benign
Sub-total / distal gastrectomy	G281, G282, G283, G288, G289		C16, C269, C494, D481, D487, D489, C81, C82, C83, C84, C85, C86 - Malignant, E340, D130, K220, K224, K229, K27 - Benign
Total Gastrectomy	G27		C16, C269, C494, D481, D487, D489, C81, C82, C83, C84, C85, C86 - Malignant, E340, D130, K220, K224, K229, K27 - Benign

4.9. Hernia

Intervention	Primary OPCS Codes	Secondary OPCS Codes	ICD 10 Codes
Epigastric	T271, T272, T273, T278, T279, T98		K43
Femoral	T22	Z942, Z943, Z944 - Unilateral, Z491, Z492 and Z493 - Bilateral	K41
Femoral Recurrent	T23	Z942, Z943, Z944 - Unilateral, Z491, Z492 and Z493 - Bilateral	K41
Incisional hernia repair	T25, T261, T262, T263, T268, T269		
Inguinal Hernia	T198, T199, T201, T202, T203, T204, T208, T209	Z942, Z943, Z944 - Unilateral, Z491, Z492 and Z493 - Bilateral	K40
Inguinal hernia recurrent	T211, T212, T213, T214, T218, T219	Z942, Z943, Z944 - Unilateral, Z491, Z492 and Z493 - Bilateral	K40
Paraumbilical	T241, T242, T243, T248, T249, T97		K42

4.10. Ileoanal Pouch Formation

Intervention	Primary OPCS Codes	Secondary OPCS Codes	ICD 10 Codes
Ileoanal Pouch Formation	H042, H043, G725, H33	H042, H043, G725 (if primary OPCS is H33)	K523 - Indeterminate colitis, K51 - Ulcerative Colitis, any other ICD 10 code - Other Diagnosis

4.11. Liver Resection

Intervention	Primary OPCS Codes	Secondary OPCS Codes	ICD 10 Codes
Segmental / Minor	J023, J024, J028, J029, J18	J023, J024, J028, J029 (if primary OPCS is J18)	K768, K769, D376, D134, K760, K746, D135, B181, K805, Q442, K758, K801, K828, K830, K740, K750, K811, K838, B839, D175, K802, Q447, K744, K803, Q446, K835, Q444, B678, B670, S361, D180 - Benign, C221, C240, C249, D015 - Cholangiocarcinoma, C787, C180, C19, C20, C187, C186, C785, C189, C183 - Colorectal Liver metastases, C23 - Gall bladder cancer, C220 - Hepatocellular Carcinoma, C229, C222, C851, C786, C772, C169, C227, C56, C800, C172, C179, C224, C749, D479, C241, C259, C798, C480, C494, C780, C795, C809 - Other malignant

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Major	J021, J022, J18	J021, J022 (if primary OPCS is J18)	K768, K769, D376, D134, K760, K746, D135, B181, K805, Q442, K758, K801, K828, K830, K740, K750, K811, K838, B839, D175, K802, Q447, K744, K803, Q446, K835, Q444, B678, B670, S361, D180 - Benign, C221, C240, C249, D015 - Cholangiocarcinoma, C787, C180, C19, C20, C187, C186, C785, C189, C183 - Colorectal Liver metastases, C23 - Gall bladder cancer, C220 - Hepatocellular Carcinoma, C229, C222, C851, C786, C772, C169, C227, C56, C800, C172, C179, C224, C749, D479, C241, C259, C798, C480, C494, C780, C795, C809 - Other malignant
Extended major	J026, J027, J18	J026, J027 (if primary OPCS is J18)	K768, K769, D376, D134, K760, K746, D135, B181, K805, Q442, K758, K801, K828, K830, K740, K750, K811, K838, B839, D175, K802, Q447, K744, K803, Q446, K835, Q444, B678, B670, S361, D180 - Benign, C221, C240, C249, D015 - Cholangiocarcinoma, C787, C180, C19, C20, C187, C186, C785, C189, C183 - Colorectal Liver metastases, C23 - Gall bladder cancer, C220 - Hepatocellular Carcinoma, C229, C222, C851, C786, C772, C169, C227, C56, C800, C172, C179, C224, C749, D479, C241, C259, C798, C480, C494, C780, C795, C809 - Other malignant

4.12. Oesophagectomy

Intervention	Primary OPCS Codes	Secondary OPCS Codes	ICD 10 Codes
Oesophagectomy	G01, G02, G03		C15, D001, K227, C269, C494, D481, D487, D489, C81, C82, C83, C84, C85, C86, E340 - Malignant, D130, D131, K220, K221, K222, K223, K224, K228, K229, K25, K27, K31 - Benign

4.13. Paediatric groin surgery

Intervention	Primary OPCS Codes	Secondary OPCS Codes	ICD 10 Codes
Hydrocele	N11		
Inguinal Hernia	T191, T192, T198, T199, T201, T202, T203, T204, T208, T209	Z942, Z943, Z944 - Unilateral, Z491, Z492 and Z493 - Bilateral	
Medical circumcision	N303		
Umbilical hernia	T24, T97		
Undescended testis	N082, N092		

4.14. Pancreas Resections

Intervention	Primary OPCS Codes	Secondary OPCS Codes	ICD 10 Codes
Whipples	J561, J562, J563		D136, D137, K86 - Benign, C170, C24, C25 - Malignant, Any other ICD-10 code - Other coding
Total Pancreatectomy	J551, J552		D136, D137, K86 - Benign, C170, C24, C25 - Malignant, Any other ICD-10 code - Other coding
Distal Pancreatectomy	J571, J572, J573, J574, J575		D136, D137, K86 - Benign, C170, C24, C25 - Malignant, Any other ICD-10 code - Other coding
Chronic Pancreatitis Drainage procedures	J564, J572, J59		D136, D137, K86 - Benign, C170, C24, C25 - Malignant, Any other ICD-10 code - Other coding

4.15. Proctectomy and Ileostomy

Intervention	Primary OPCS Codes	Secondary OPCS Codes	ICD 10 Codes
Proctectomy and Panproctocolectomy with Permanent Ileostomy	H041, H048, H049, H331, HH337, H338, H339, H332	G741, G748, G749 (if primary OPCS is H048, H049, H331, HH337, H338, H339, H332)	K50 - Crohns disease, K51 - Ulcerative colitis, K523 - Indeterminate Colitis

4.16. Reflux

Intervention	Primary OPCS Codes	Secondary OPCS Codes	ICD 10 Codes
Antireflux procedure using abdominal approach	G243		K21, K44

4.17. Strictureplasty and Small Bowel Resection for Crohn's Disease

Intervention	Primary OPCS Codes	Secondary OPCS Codes	ICD 10 Codes
Small Bowel Resection	G581, G582, G583, G584, G585, G588, G589, G591, G631, G633, G634, G671, G691, G692, G693, G694, G698, G699, G702, G703, G708, G709, G781, G784, G788, G789, G822, G49, G58, G69		K50
Strictureplasty in Crohn's Disease	G782		K50

4.18. Surgery for Perianal Crohn's Disease

Intervention	Primary OPCS Codes	Secondary OPCS Codes	ICD 10 Codes
Anal Fissure	H564 - Botulinum toxin injection, H562 - Lateral internal sphincterotomy	X851 (if primary OPCS is H564)	K50
Anal stenosis and stricture	H532, H548, H549		K50
Drainage of perianal abscess	H581, H582, H583		K50
Examination under anaesthesia	H444		K50
Perianal fistula	H551, H552, H553 - Fistulotomy, H554 - Seton insertion, H556, H557, H558, H559, H414 - Fistula Repair		K50
Rectovaginal fistula procedures	P134, P253		K50