

## Supplemental Material

Table I OPCS codes for orthopaedic surgery requiring antibiotic prophylaxis

W15	1st Metatarsal Osteotomy, e.g. for Hallux Valgus	W19	Primary Open Reduction of Fracture with Intramedullary Fixation
W37	Total Hip Replacement, cemented	W20	Primary Open Reduction of Fracture with Extra medullary Fixation
W38	Total Hip Replacement, uncemented	W21	Primary Open Reduction of Intra-articular Fracture with Fixation
W39	Total Hip Replacement, other	W22	Other Primary Open Reduction of Fracture
W94	Total Hip Replacement, hybrid, cemented	W23	Secondary Open Reduction of Fracture
W95	Total Hip Replacement, hybrid, uncemented	W24	Closed Reduction of Fracture with Internal Fixation
W40	Total Knee Replacement, cemented	W25	Closed Reduction of Fracture with External Fixation
W41	Total Knee Replacement, uncemented	W46	Prosthetic Replacement of Head of Femur, cemented
W42	Total Knee Replacement, other	W47	Prosthetic Replacement of Head of Femur, uncemented
W43	Total Prosthetic Replacement of Other Joint, cemented		
W44	Total Prosthetic Replacement of Other Joint, uncemented		
W49	Humeral Head Replacement, cemented		
W50	Humeral Head Replacement, uncemented		
W59	Fusion of Toe Joint		
W60	Fusion of Other Joint		
W96	Total Shoulder Replacement, cemented		
W97	Total Shoulder Replacement, uncemented		
O06	Hybrid Total Shoulder Replacement, cemented humerus		
O07	Hybrid Total Shoulder Replacement, cemented glenoid		
O08	Hybrid Total Shoulder Replacement, both components cemented		
O21	Total Elbow Replacement, cemented		
O22	Total Elbow Replacement, uncemented		

<b>GASTROINTESTINAL SURGERY</b>
J02 Partial excision of liver
J03 Extirpation of lesion of liver
J04 Repair of liver
J18 Excision of gall bladder and exploration of common bile duct
J27 Excision of bile duct
J28 Excision of lesion of bile duct
J29 Connection of hepatic duct
J30 Connection of common bile duct
J31 Open introduction of prosthesis into bile duct (if stones but not if cancer)
J32 Repair of bile duct
J33 Incision of bile duct
J34 Plastic repair of sphincter of Oddi using duodenal approach
J35 Incision of sphincter of Oddi using duodenal approach
J36 Other operations on ampulla of Vater using duodenal approach
J55 Total excision of pancreas
J56 Excision of head of pancreas
J57 Other partial excision of pancreas
J58 Extirpation of lesion of pancreas
J59 Connection of pancreatic duct
J60 Other open operations on pancreatic duct
J61 Open drainage of lesion of pancreas
UPPER GI
G01 Excision of oesophagus and stomach (oesophagogastrectomy)
G27 Total excision of stomach (total gastrectomy)
G28 Partial excision of stomach (partial gastrectomy)
G31 Connection of stomach to duodenum
G32 Connection of stomach to transposed jejunum
G33 Other connection of stomach to jejunum
G35 Operations on ulcer of stomach
G36 Other repair of stomach
G38.5 Incision of stomach not elsewhere classified
G41 Repair of perforation of pylorus
LOWER GI
H04 Total excision of colon and rectum
H05 Total excision of colon
H06 Extended excision of right hemicolon
H07 Other excision of right hemicolon
H08 Excision of transverse colon
H09 Excision of left hemicolon
H10 Excision of sigmoid colon
H11 Other excision of colon
H12 Extirpation of lesion of colon
H13 Bypass of colon
H14 Exteriorisation of caecum
H15 Other exteriorisation of colon
H16 Incision of colon
H29 Subtotal excision of colon and rectum
H33 Excision of rectum
G49 Excision of duodenum
G50 Open extirpation of lesion of duodenum
G52 Operations on ulcer of duodenum
G53 Other open operations on duodenum
G58 Excision of jejunum
G59 Extirpation of lesion of jejunum
G60 Artificial opening into jejunum

G63 Other open operations on jejunum
G68 Allotransplantation of ileum
G70 Open extirpation of lesion of ileum
G74 Creation of artificial opening into ileum
G75 Attention to artificial opening into ileum
G78 Other open operations on ileum
<b>GYNAECOLOGICAL SURGERY</b>
Q07 Abdominal excision of uterus
Q08 Vaginal excision of uterus
Q09 Other excision of uterus
Q074 laparoscopic total hysterectomy
Q075 - laparoscopic subtotal hysterectomy
<b>UROLOGICAL SURGERY</b>
M651 TURP
M421 TURBT
M091 Fragmentation of kidney stone
M271 Fragmentation of ureteric stone
M273 Fragmentation of ureteric stone
M094 Removal of kidney stone
M263 Removal of ureteric stone
M343 Radical cystectomy
M612 Laparoscopic radical prostatectomy M612 AND Y752 ( need to include)
Y752 Laparoscopic radical prostatectomy
<b>VASCULAR SURGERY</b>
L16 Extraanatomic bypass of aorta
L18 Emergency replacement of aneurysmal segment of aorta
L19 Other replacement of aneurysmal segment of aorta
L20 Other emergency bypass of segment of aorta
L21 Other bypass of segment of aorta
L22 Attention to prosthesis of aorta
L23 Plastic repair of aorta
L25 Other open operations on aorta
L28 Transluminal insertion of stent graft for aneurysmal segment of aorta
L29 Reconstruction of carotid artery
L30 Other open operations on carotid artery
L37 Reconstruction of subclavian artery
L38 Other open operations on subclavian artery
L41 Reconstruction of renal artery
L42 Other open operations on renal artery
L45 Reconstruction of other visceral branch of abdominal aorta
L46 Other open operations on other visceral branch of abdominal aorta
L48 Emergency replacement of aneurysmal iliac artery
L49 Other replacement of aneurysmal iliac artery
L50 Other emergency bypass of iliac artery
L51 Other bypass of iliac artery
L52 Reconstruction of iliac artery
L53 Other open operations on iliac artery
L56 Emergency replacement of aneurysmal femoral artery
L57 Other replacement of aneurysmal femoral artery
L58 Other emergency bypass of femoral artery
L59 Other bypass of femoral artery
L60 Reconstruction of femoral artery
L62 Other open operations on femoral artery
L65 Revision of reconstruction of artery
L68 Repair of other artery

L70 Other open operations on other artery
L75 Other arteriovenous operations
L77 Connection of vena cava or branch of vena cava
L79 Other operations on vena cava

Table II: Cochrane EPOC (Effective Practice and Organisation of Care) Risk of Bias Criteria for Interrupted Time Series studies and analysis plan for addressing each risk

Cochrane Risk of Bias Criteria	Analysis Plan
<p><b>Was the intervention independent of other changes?</b></p> <p>Low</p>	<p>This was a planned intervention and analysis. The stimulus for the analysis was concern about possible unintended consequences of the policy change; The policy was intended to reduce <i>C difficile</i> infection.</p> <p>Multivariate analysis was used to adjust for possible changes in demography, co-morbidity or risk factors for AKI</p>
<p><b>Was the shape of the intervention effect pre-specified?</b></p> <p>Low</p>	<p>The point of analysis was the point of intervention (introduction of the new antibiotic policy in October 2008). The anticipated shape of the intervention effect was an increase in post-operative renal impairment after the intervention</p>
<p><b>Was the intervention unlikely to affect data collection?</b></p> <p>Low</p>	<p>Analysis compared frequency of sampling for renal function tests in the risk window in the pre- and post-intervention phases in order to test whether the intervention may have affected data collection. There were slightly greater numbers of tests performed in the pre-intervention period which would have biased results towards the null as it may have led to cases of AKI being missed.</p>
<p><b>Was knowledge of the allocated interventions adequately prevented during the study?</b></p> <p>Low</p>	<p>The primary outcome (acute kidney injury) was objectively defined from serum creatinine tests</p>
<p><b>Were incomplete outcome data adequately addressed?</b></p> <p>Low</p>	<p>We included information about frequency of renal function tests in the pre- and post-intervention periods and were able to identify any patients with missing data that prevented assessment of post-operative renal impairment. We have only drawn conclusions from groups where there was a low incidence of missing data.</p>
<p><b>Was the study free from selective outcome reporting?</b></p> <p>Low</p>	<p>Our study only has one outcome and this was derived from routine data. There was a significant amount of missing data as serum creatinine testing was not done. We have reported the frequency of missing data.</p>
<p><b>Was the study free from other risks of bias?</b></p> <p>Low</p>	<p>We had 24 monthly time points pre- and post-intervention so were able to adjust for seasonal variation.</p>

Table III. Multivariate Analysis of included versus excluded patients

<b>Orthopaedic Surgery</b>				
<b>Variable</b>	<b>B</b>	<b>Sig</b>	<b>B</b>	<b>95% CI</b>
<b>Age at surgery</b>	0.07	<0.001	1.08	1.07, 1.08
<b>Gender</b>	-0.40	<0.001	0.67	0.59, 0.76
<b>Charlson comorbidity Index</b>	0.11	0.04	1.12	1.01, 1.24
<b>Urology</b>				
<b>Age at surgery</b>	0.03	<0.001	1.03	1.02, 1.03
<b>Gender</b>	-0.28	0.02	0.76	0.60, 0.96
<b>Charlson comorbidity Index</b>	-0.03	0.43	0.98	0.92, 1.04
<b>Vascular</b>				
<b>Age at surgery</b>	0.06	<0.001	1.06	1.05, 1.08
<b>Gender</b>	-0.25	0.28	0.78	0.50, 1.22
<b>Charlson comorbidity Index</b>	0.02	0.75	1.03	0.89, 1.19
<b>Gastrointestinal</b>				
<b>Age at surgery</b>	0.02	<0.001	1.02	1.01, 1.02
<b>Gender</b>	-0.53	<0.001	0.59	0.50, 0.70
<b>Charlson comorbidity Index</b>	0.49	<0.001	1.64	1.49, 1.80
<b>Gynaecology</b>				
<b>Age at surgery</b>	0.02	<0.001	1.02	1.01, 1.04
<b>Gender</b>	-	-	-	-
<b>Charlson comorbidity Index</b>	0.28	<0.001	1.32	1.15, 1.52