



maryland
health services
cost review commission

Episode Quality Payment Program Episode Playbook

Prometheus Episode Definition Summaries

Version 1

Updated: September 15th, 2021

DISCLAIMER: These episode summaries are provided to illustrate episode construction and help EQIP participants understand what is included in episode costs. Direct recreation of episodes will not be possible from these summaries. The codes included in each episode are independently developed and verified by Change Healthcare.

Outline

1. Episode Components Key
2. Performance Year One (2022) Episodes of Care
 - A. Acute Myocardial Infarction (AMI)
 - B. CABG &/or Valve Procedures (CxCABG)
 - C. Coronary Angioplasty (PCI)
 - D. Pacemaker/ Defibrillator (PCMDFR)
 - E. Hip/ Pelvic Fracture (HIPLFR)
 - F. Hip Replacement & Hip Revision (HIPRPL)
 - G. Knee Arthroscopy (KNARTH)
 - H. Knee Replacement & Knee Revision (KNRPL)
 - I. Lumbar Laminectomy (LBRLAM)
 - J. Lumbar Spine Fusion (FUSION)
 - K. Shoulder Replacement (SHLDRP)
 - L. Colonoscopy (COLOS)
 - M. Colorectal Resection (COLON)
 - N. Gall Bladder Surgery (GBSURG)
 - O. Upper GI Endoscopy (EGD)

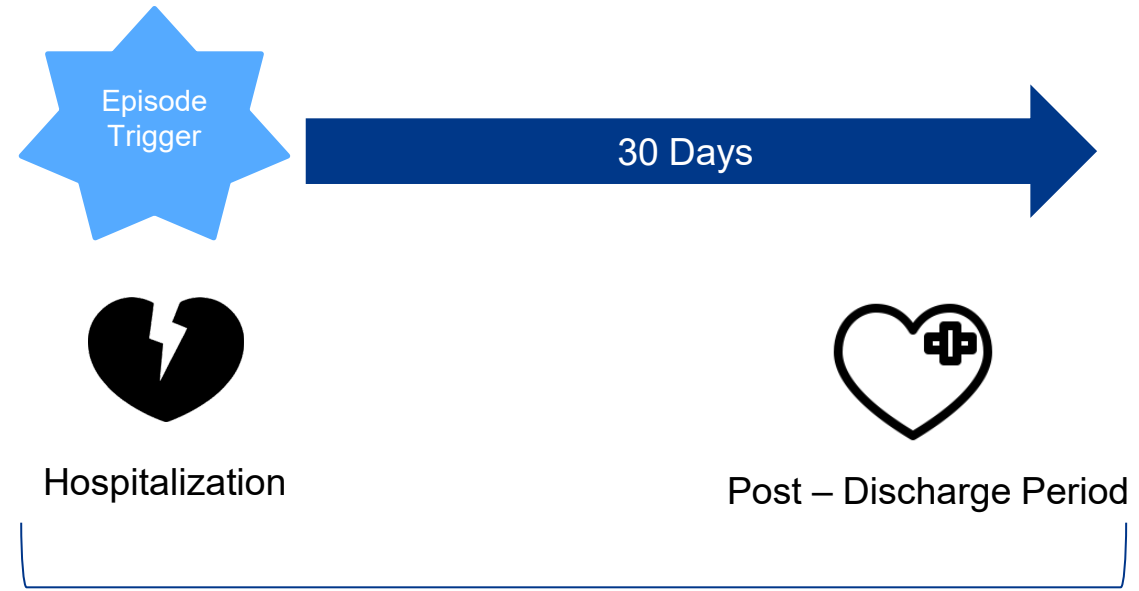
Episode Components Key

Trigger Codes	Codes that, when coupled with a trigger diagnosis and meet trigger criteria, indicate an episode exists.
Trigger Diagnoses	Descriptive diagnoses codes that must be present on the claim with a 'Trigger Code' in order for an episode to initiate.
Relevant Procedures	These include all services that are relevant to a given episode but would only be included in the episode if they have a relevant diagnosis code on the claim.
Relevant Diagnoses	These are diagnosis codes that could steer services to an episode's costs. These have been clinically validated to identify claims that are for routine/typical care for an episode and include codes that represent signs and symptoms related to the episode, diagnosis codes for similar conditions, status codes, family history codes or for aftercare.
Complications	Codes that indicate the occurrence of complication care and potentially avoidable episode complication (PAEC) during the episode time window.

Acute Myocardial Infarction (AMI)

An Acute Myocardial Infarction Episode needs longer term treatment and secondary prevention for successful management of AMI patients. Services with diagnosis codes for signs and symptoms related to underlying coronary artery disease such as chest pain or shortness of breath, and for care of other associated conditions such as hypertension and hyperlipidemia, have been defined as typical care for AMI. Secondary diagnoses on the index AMI stay or other services for conditions such as unstable angina, fluid and electrolyte disturbances, and stroke have been labeled as complications. The AMI episode is first constructed with the index hospitalization and the 30-day post-discharge services bundled together.

Episode Length – AMI



Total Episode Cost= All expected services and complication costs associated from index hospitalization until the end of the post-trigger window.

Duration Pre-Trigger Window	Duration Post-Trigger Window
N/A	30 Days

Episode Triggers – AMI

Trigger Group Name	Code Type	Codes
STEMI	ICD10	I2101-I2130
Subendocardial Infarct	ICD10	I214

Trigger Diagnoses – ICD-10

STEMI

Subendocardial Infarct

Relevant Procedures – CPT, HCPC, ICD-10

Advance care planning	E & M - home visit	Imaging - nuclear - kidney - radiopharmaceutical	Lab - cytology
Alcohol / Drug Use Management	E & M - hospital	Imaging - nuclear - kidney - scan	Lab - endocrine
Alcohol / Drug Use Screening	E & M - nursing home	Imaging - nuclear - localization of inflammation	Lab - endocrine response test
Ancillary Services	E & M - other	Imaging - nuclear - lung scan	Lab - genetic testing - brugada syndrome
Anti-TNF agents	E & M - prevention	Imaging - nuclear - lymphatics	Lab - genetic testing - cardiac ion channel syndrome
Aortic resection, replacement or anastomosis	Electrocardiogram - EKG monitoring	Imaging - nuclear - other	Lab - gi - fat absorption
Bleeding Status	Electrophysiology Studies, Cryoablation	Imaging - nuclear - other - automated data add - on	Lab - hematology - blood count
Blood Count	HbA1C	Imaging - nuclear - other blood / related	Lab - hematology - blood count - eosinophil count
Blood Gases, Pulse Oximetry	Hearing Test	Imaging - nuclear - other musculoskeletal	Lab - hematology - coagulation
Blood transfusion	Heart Echo / Ultrasound	Imaging - nuclear - platelet kinetics	Lab - immunology
Blood Type, Coomb's test	Heart valve procedures	Imaging - nuclear - radiopharmaceutical - radiopharmaceutical - other	Lab - infectious agent antibody
Bundled Payment / Medical Home	Hepatitis B vaccine	Imaging - nuclear - red cell survival	Lab - infectious agent antigen
Cardiac cath & Angiogram	High dose steroids	Imaging - nuclear - shilling test - radiopharmaceutical	Lab - infectious agent dna
Cardiac Stress Test	Home Health / Hospice	Imaging - nuclear - thyroid - radiopharmaceutical	Lab - microbiology
Care Plan Oversight	Home Health Services	Imaging - nuclear - tumor localization	Lab - microbiology - c & s
Case Management Services	Hormone Therapy	Imaging - nuclear - venous thrombosis - radiopharmaceutical	Lab - microbiology - microscopic exam
Case Management Services - Behavioral	HPV VACCINE	Imaging - nuclear - venous thrombosis - scan	Lab - microbiology - other
Case Management Services - Maternity	Imaging - arteriography - extremities	Imaging - other imaging	Lab - microbiology - viral culture
CHEMOTHERAPY	Imaging - arteriography - other	Imaging - other imaging - fluoroscopy	Lab - microscopic - koh prep
Chest X-Ray	Imaging - arteriography - renal	Imaging - other imaging - fluoroscopy - guidance	Lab - microscopic - wet mount
CHLAMYDIA SCREENING	Imaging - ct - aorta	Imaging - pet - colorectal cancer - recurrence / metastasis	Lab - other clinical lab
Chronic Care Management	Imaging - ct - cardiac	Imaging - pet - lymphoma - staging	Lab - other hematology
Colonoscopy/Sigmoidoscopy ColorectalCa Screen	Imaging - ct - chest	Imaging - pet - other	Lab - pathology consultation
Coordinated Care Fees/Services	Imaging - ct - follow - up	Imaging - pet - tumor imaging	Lab - specimen collection - blood - arterial - arterial puncture
Coronary Thrombolysis	Imaging - ct - guidance	Imaging - supplies - contrast agent - high osmolar	Lab - specimen collection - blood - venous - venipuncture
Counseling Services	Imaging - ct - head / brain	Imaging - supplies - contrast agent - low osmolar	Lab - specimen collection - blood - venous - venous port
Diagnostic bronchoscopy and biopsy of bronchus	Imaging - ct - other	Imaging - supplies - ultrasound related	Lab - specimen collection - specimen handling
Diagnostic physical therapy	Imaging - cta - aorta	Imaging - therapeutic procedure - abscess drainage	Lab - specimen collection - urine
Diagnostic ultrasound of abdomen or retroperitoneum	Imaging - cta - chest	Imaging - therapeutic procedure - other therapeutic procedure	Lab - stat request
Diagnostic ultrasound of heart (echocardiogram)	Imaging - cta - coronary	Imaging - us - extremity	Lab - surgical pathology
DME - bath / toilet aids	Imaging - cta - head / neck	Imaging - us - eye	Lab - therapeutic drug assay
DME - beds / accessories	Imaging - mra - chest	Imaging - us - guide - biopsy	Lab - tissue typing
DME - heat/cold application	Imaging - mra - head	Imaging - us - guide - other	Lab - transfusion medicine
DME - mobility aids	Imaging - mri - brain	Imaging - us - head / neck	Lab - urinalysis
DME - other	Imaging - mri - chest	Imaging - us - intravascular	Laboratory - Chemistry and Hematology
DME - patient lifts	Imaging - mri - contrast agent	Imaging - us - other	LEAD SCREENING
DME - repair / maintenance	Imaging - mri - guidance	Imaging - us - retroperitoneum	Lipid Level Monitoring
DME - restraints	Imaging - mri - lower extremity	Imaging - venography - other	Low dose steroids
DME - safety equipment	Imaging - mri - other	Imaging - x-ray - other - joint survey	Lung Function Tests
DME - traction	Imaging - nuclear - bladder / ureter	Imaging - x-ray - ribs	LVEF < 40% or LV systolic dysfunction
DME - trapeze / other orthopedic device	Imaging - nuclear - blood / plasma volume - radiopharmaceutical	Imaging Abdomen	Magnetic resonance imaging
DME - whirlpool - equipment	Imaging - nuclear - blood / plasma volume - scan	IMMUNOTHERAPY	Markers for Inflammation
DME - wound therapy	Imaging - nuclear - bone scan - radiopharmaceutical	Insertion, revision, replacement, removal of cardiac pacemaker or cardioverter/d	Medication Assisted Management (MAT)
DME and supplies	Imaging - nuclear - brain - radiopharmaceutical	Lab - blood gases	Medication Therapy Management Services
Drug Delivery implantation	Imaging - nuclear - csf - radiopharmaceutical	Lab - chemistry	Medications (Injections, infusions and other forms)
E & M - consultation	Imaging - nuclear - csf - scan	Lab - chemistry and toxicology tests	Metabolic Renal Hepatic Chemistry Panel
E & M - emergency care	Imaging - nuclear - hepatobiliary ductal scan - radiopharmaceutical	Lab - cytogenetics	NewBorn Blood Tests

Relevant Procedures – CPT, HCPC, ICD-10

Online Management	Other care - nutrition - enteral - pump	Pacemaker Defibrillator Check	Procedure - pacemaker / defibrillator - transcutaneous pacing
Opioid Administration / Dispensing (OTP)	Other care - nutrition - enteral - tubing	Pathology	Procedure - pericardiocentesis
Other - non - covered	Other care - nutrition - medical food	Peer Services	Procedure - peripheral nerve repair / graft - graft / guide
Other care - bladder / bowel care - catheter	Other care - nutrition - parenteral	Personal Care Services	Procedure - peripheral venous catheter
Other care - bladder / bowel care - drainage bag	Other care - nutrition - parenteral - nutrition solution	Physical Therapy / Rehab	Procedure - related supplies - ablation - catheter
Other care - bladder / bowel care - other supplies	Other care - nutrition - parenteral - pump	Physician Services	Procedure - related supplies - access catheter
Other care - bladder / bowel care - other supplies - diaper / related	Other care - observation	Physician Services - Inpatient	Procedure - related supplies - catheter
Other care - bladder / bowel care - other supplies - skin barrier	Other care - other	Physician Services - Outpatient	Procedure - related supplies - dilation / stenting
Other care - chronic edema - appliance - limb compression	Other care - other - ancillary services	PQRI	Procedure - related supplies - drainage
Other care - chronic edema - appliance - non - segmental	Other care - other - education	Preventive Medicine, Care Coordination	Procedure - related supplies - graft - tendon repair
Other care - chronic edema - appliance - segmental	Other care - other - exercise classes	Procedure - anesthesia	Procedure - related supplies - graft / repair
Other care - chronic edema - compression stocking	Other care - other - external counterpulsation	Procedure - anesthesia - related supplies	Procedure - related supplies - implant
Other care - chronic edema - compressor	Other care - other - external defibrillator	Procedure - artery - abdomen - angioplasty - transluminal / percutaneous	Procedure - related supplies - other
Other care - chronic edema - compressor - non - segmental	Other care - other - infection control	Procedure - artery - abdomen - atherectomy - transluminal / percutaneous	Procedure - related supplies - resection - morcellator
Other care - chronic edema - compressor - segmental	Other care - other - irrigation	Procedure - artery - extremity - angioplasty - transluminal / percutaneous	Procedure - related supplies - retrieval - device
Other care - chronic edema - surgical stockings	Other care - other - lodging	Procedure - artery - extremity - atherectomy - transluminal / percutaneous	Procedure - sedation
Other care - diabetes care - glucose monitoring	Other care - other - meals	Procedure - artery - nos - angioplasty / stenting	Procedure - spinal canal - catheter
Other care - diabetes care - insulin pump	Other care - other - medical records	Procedure - artery - nos - atherectomy - catheter	Procedure - suture - skin - repair of superficial wound
Other care - home care - emergency response system	Other care - other - pacemaker - monitor	Procedure - artery - nos - thrombolysis	Procedure - thyroid ablation - radionucleotide
Other care - home care - home health aide	Other care - other - pvd - compressor	Procedure - artery / vein - nos - closure / closure device	Procedure - vascular - occlusion / embolization - transcatheter
Other care - home care - meals	Other care - other - weight management	Procedure - artery / vein - nos - other	Procedure - vascular - related supplies - angioplasty
Other care - home care - nursing care	Other care - pain management - pca / related	Procedure - artery / vein - nos - thrombectomy catheter	Procedure - vascular - related supplies - atherectomy
Other care - home care - nursing care - lpn	Other care - prevention - smoking cessation	Procedure - biopsy - endocardium	Procedure - vascular - related supplies - embolization protective system
Other care - home care - nursing care - np	Other care - respiratory - equipment / supplies	Procedure - block - nerve	Procedure - vascular - related supplies - graft material
Other care - home care - nursing care - rn	Other care - respiratory - equipment / supplies - apnea monitor	Procedure - bronchoscopy - dx + / - wash / brushing - bronchoscopy - dx + / - wa	Procedure - vascular - related supplies - occlusion catheter
Other care - home care - other care	Other care - respiratory - equipment / supplies - cpap	Procedure - bronchoscopy - other	Procedure - vascular access - port / pump - insertion
Other care - home care - other care - attendant care	Other care - respiratory - equipment / supplies - ippb	Procedure - bronchoscopy w / alveolar lavage	Procedure - vein - nos - angioplasty
Other care - home care - other care - chore care	Other care - respiratory - equipment / supplies - nebulizer	Procedure - bronchoscopy w / biopsy	Procedure - vein - vena cava - filter
Other care - home care - other care - companion care	Other care - respiratory - equipment / supplies - peak flow meter	Procedure - cardiac - other	Procedures and Reporting
Other care - home care - other care - day care	Other care - respiratory - equipment / supplies - spirometer	Procedure - cardiac - other or	Prophylactic vaccinations and inoculations
Other care - home care - other care - homemaker	Other care - respiratory - equipment / supplies - ventilator	Procedure - cardiac assist device - intra - aortic balloon	Prosthetics - other
Other care - home care - other care - respite care	Other care - respiratory - other	Procedure - cardiac assist device - lvad	Psychiatry Evaluations
Other care - home care - physician supervision	Other care - respiratory - oxygen / oxygen concentrator	Procedure - cardioversion	Psychiatry Services
Other care - home care - rehabilitation - occupational therapy	Other care - respiratory - tracheostomy care	Procedure - catheter - arterial - arterial line for monitoring	Psychological and psychiatric evaluation and therapy
Other care - home care - rehabilitation - physical therapy	Other care - respiratory - ventilator management	Procedure - central venous catheter - fluoroscopy - guidance	RADIATION TREATMENTS
Other care - home care - social worker	Other care - respiratory therapy	Procedure - central venous catheter - insertion	Risk Assessment
Other care - home care - specialized visit	Other care - wound care	Procedure - central venous catheter - repair / maintenance	Routine Immunizations
Other care - home care - training	Other care - wound care - electromagnetic therapy	Procedure - chest tube / thoracentesis - insertion of chest tube	Rx - administration - infusion
Other care - hospice	Other care - wound care - growth factor	Procedure - chest tube / thoracentesis - thoracentesis	Rx - administration - injection
Other care - long term care - assisted living	Other care - wound care - hyperbaric oxygen	Procedure - coronary - ptca - stent	Rx - allergy - antihistamines / comb
Other care - long term care - residential care	Other diagnostic cardiovascular procedures	Procedure - debridement of nails	Rx - analg/antipy/nsaids - narcotics
Other care - nutrition - assessment	Other diagnostic procedures (interview, evaluation, consultation)	Procedure - extracorporeal circulation	Rx - analg/antipy/nsaids - nsaids
Other care - nutrition - counseling - dietician	Other diagnostic ultrasound	Procedure - graft - skin - graft material	Rx - antibiotics - aminoglycosides
Other care - nutrition - education	Other Laboratory	Procedure - maintenance - cns / spinal pump / port	Rx - antibiotics - anti-infectives, misc
Other care - nutrition - enteral	Other non-OR therapeutic cardiovascular procedures	Procedure - ortho - related supplies - other	Rx - antibiotics - cephalosporins
Other care - nutrition - enteral - administration	Other OR heart procedures	Procedure - other anal / rectal procedures - other procedures - rectum / anus	Rx - antibiotics - chloramphenicol / comb
Other care - nutrition - enteral - formula	Other OR procedures on vessels other than head and neck	Procedure - other non - or rx - other non - or skin procedures	Rx - antibiotics - macrolides

Relevant Procedures – CPT, HCPC, ICD-10

Rx - antibiotics - penicillins	Rx - electrolytic, caloric, water - caloric rx, amino acid prep	Tests - cardiac - analysis - pace / defib	Therapy - habilitation
Rx - antibiotics - quinolones	Rx - electrolytic, caloric, water - hydration - unspecified	Tests - cardiac - doppler	Therapy - hyperbaric oxygen
Rx - antibiotics - sulfonamides / comb	Rx - electrolytic, caloric, water - multi-mineral prep	Tests - cardiac - ecg - ecg - 12 lead	Therapy - neurostimulator - incontinence
Rx - antibiotics - tetracyclines	Rx - electrolytic, caloric, water - potassium supp	Tests - cardiac - ecg - ecg - other	Therapy - neurostimulator - other
Rx - antibiotics / antivirals / antifungals - infusion	Rx - electrolytic, caloric, water - replacement preparations, misc	Tests - cardiac - ecg monitoring - event recorder	Therapy - neurostimulator - tens - device
Rx - antibiotics, misc	Rx - electrolytic, caloric, water - sodium chlor preps	Tests - cardiac - echo - contrast agent	Therapy - neurostimulator - tens - leads
Rx - antidiabetic rx - insulins	Rx - endocrine - other - parathyroid hormones	Tests - cardiac - echo - intracardiac	Therapy - neurostimulator - tens - supplies
Rx - antifungals	Rx - gi - antichol/antispasmodics	Tests - cardiac - electrophysiology - other	Therapy - other
Rx - antivirals	Rx - gi - antiemetics	Tests - cardiac - electrophysiology - supplies - other	Therapy - phlebotomy
Rx - autonomic rx - nicotine preps	Rx - gi - h2 antagonists	Tests - cardiac - electrophysiology - tilt table evaluation	Therapy - pt - exercises / activities
Rx - autonomic rx - parasympathomimetics	Rx - gi - ppis	Tests - cardiac - monitoring - chf	Therapy - pt - modalities
Rx - autonomic rx - sympathomimetic rx	Rx - gi drug misc,nec	Tests - cardiac - other	Therapy - rehabilitation
Rx - b-lactam antibiotics	Rx - gu - other - bladder rx	Tests - cardiac - radiopharmaceuticals	Therapy - rehabilitation - other
Rx - blood derivatives	Rx - hematopoietic system - hematopoietic growth factors	Tests - cardiac - swan ganz	Therapy - transfusion - administration
Rx - cardiovascular system - antiarrhythmic rx	Rx - hematopoietic system - iron / related	Tests - cardiac stress tests - cardiac perfusion scan - rest / exercise	Therapy - transfusion - blood
Rx - cardiovascular system - beta blockers	Rx - hematopoietic system - other	Tests - cardiac stress tests - cardiac stress tests - other	Therapy - transfusion - granulocytes
Rx - cardiovascular system - cardiac drugs	Rx - immune system - dmard / related	Tests - cardiovascular - other	Therapy - transfusion - plasma
Rx - cardiovascular system - cardiac glycosides	Rx - immune system - interferons	Tests - ent - other dx	Therapy - transfusion - platelets
Rx - cardiovascular system - hypotensive rx	Rx - miscellaneous rx	Tests - eye - dx - other	Therapy - ultraviolet light therapy
Rx - cardiovascular system - natriuretic peptides	Rx - miscellaneous rx - anesthetics, local	Tests - gi - other dx	Therapy - vaccination - chicken pox
Rx - cardiovascular system - vasodilating agents, nec	Rx - miscellaneous rx - enzymes	Tests - gu - post void residual / bladder capacity	Therapy - vaccination - dtp / related
Rx - cardiovascular system - vasodilating rx	Rx - muscle relaxants - muscle relax, neuromusc block	Tests - gu - urodynamics - voiding pressure	Therapy - vaccination - hepatitis a vaccine
Rx - central nervous system - anticonvulsants	Rx - muscle relaxants - muscle relax, skeletal central	Tests - neuro - eeg	Therapy - vaccination - hepatitis b
Rx - central nervous system - antidepressants	Rx - muscle relaxants - muscle relax, skeletal, misc	Tests - neuro - evoked potentials	Therapy - vaccination - hib vaccine
Rx - central nervous system - anxiolytic/sedative/hypnot nec	Rx - other	Tests - neuro - muscle testing	Therapy - vaccination - mmr / related
Rx - central nervous system - barbiturates	Rx - pharmacy fee	Tests - neuro - ncv / emg	Therapy - vaccination - other vaccine
Rx - central nervous system - benzodiazepines	Rx - reproductive system - progestins	Tests - neuro - other	Therapy - vaccination - poliovirus vaccine
Rx - central nervous system - non-amphetamine stimulants	Rx - respiratory - beta agonists	Tests - neuro - sleep studies	Therapy - vaccination - vaccine administration
Rx - central nervous system - symnpatholytic rx	Rx - respiratory - methylxanthines	Tests - other cardiac scans	Thyroid Function Tests
Rx - central nervous system - tranq/antipsychotics	Rx - respiratory - mucolytics/cold comb	Tests - other cardiac scans - infarct scan	Traction, splints, and other wound care
Rx - central nervous system - vascular 5ht1 agonists	Rx - respiratory - phenylephrine	Tests - pulmonary - other	Transitional Care Management
Rx - coagulation system - anticoagulants	Rx - serums, toxoids, vaccines - serums	Tests - pulmonary - peak flow	Transportation - other transportation
Rx - coagulation system - antiheparin agnt	Rx - serums, toxoids, vaccines - toxins	Tests - vascular - arterial - extremity	Transportation - paramedic
Rx - coagulation system - antiplatelet rx	Rx - skin / mucous membrane - antiinflam s/mm agnts / comb nec	Tests - vascular - cerebrovascular	Ungrouped Codes
Rx - coagulation system - hemostatics	Rx - skin / mucous membrane - s/mm miscellaneous	Tests - vascular - other	Upper GI endoscopy
Rx - coagulation system - thrombolytic rx	Rx - vitamins - multivit prep	Tests - vascular - venous	Urine Protein
Rx - diagnostic rx - gastric function	Rx - vitamins - vitamin b / b complex	Therapy - acupuncture	Vaccine for flu or Pneumonia
Rx - diagnostic rx - roentgenography	Rx - vitamins - vitamin d	Therapy - activity therapy	Vitamin K administration
Rx - diagnostic rx - thyroid function	Screen for amino acid disorders	Therapy - allergy treatment	Wellness Assessment
Rx - diagnostic rx, misc	Shock / Cardiac Arrest	Therapy - apheresis	
Rx - diuretics - diuretic, carb anhydrase inhib	Smoking / Tobacco Cessation	Therapy - behavior - evaluation and therapy	
Rx - diuretics, loop diuretics	Subsequent Physician Services Inpatient	Therapy - behavior - other	
Rx - diuretics, osmotic	Supplies	Therapy - behavior - partial hospitalization	
Rx - diuretics, thiazides / related	Tests - allergy tests - intradermal	Therapy - biofeedback	
Rx - eent - topical - eye/ear/nose/throat misc	Tests - allergy tests - other	Therapy - cardiac rehab	
Rx - electrolytic, caloric, water - calcium supplements	Tests - allergy tests - patch	Therapy - chiropractic / osteopathic manipulation	
Rx - electrolytic, caloric, water - caloric rx dextrose / rel	Tests - allergy tests - percutaneous	Therapy - dialysis - supplies	

Relevant Diagnoses – ICD-10

STEMI

Subendocardial Infarct

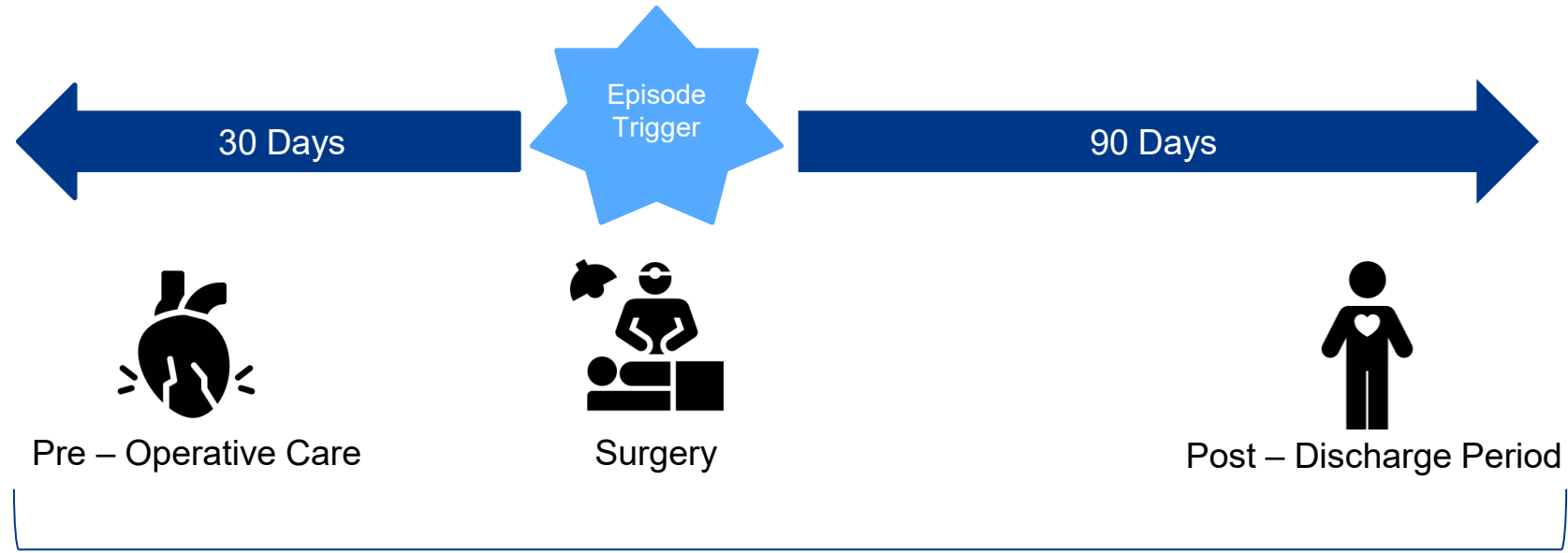
Complications – ICD-10

Accidental Falls	Decubitus Ulcer	Influenza with Pneumonia	Sepsis
Acute CHF / pulm edema	Dehydration	IVC & other intra-abd venous thrombosis	Severe Sepsis
Acute cor pulmonale	Delirium, Encephalopathy	Malfunction / Complication of Heart Device	Shock / Cardiac Arrest
Acute esophagitis, acute gastritis, duodenitis	Dermatitis, Urticaria	Meningitis / Encephalitis	Shock during or following cardiac surgery
Acute Kidney Failure	Diabetes, poor control	MRSA Pneumonia	Shock during or post-procedure
Adverse effects of drugs	dic, coagulation, hemorrhagic disorders	MRSA, Drug Resistant Infections	Skin - other
Altered mental status	empyema, lung abscess	Opportunistic Infections	Suicide or Self-inflicted Injury
arterial thromboembolism	Esophageal Reflux and Other Esophagitis	Other bacterial infections	Thromboembolic Stroke
Aspiration Pneumonia	Fluid Electrolyte Acid Base Problems	Other Bacterial Pneumonia	Tracheostomy Complications
Bacteremia, SIRS, no organ dysfunction	Foreign body left during procedure	Other lower respiratory disease	Transfusion, Infusion related complications
C-Difficile Infection	Gastroenteritis	other lung complications	Transient cerebral ischemia, TIA
Chronic Fungal and Other Pneumonias	GI Bleed	Other lung problems	Urethral Stricture
Coma, persistent vegetative state	Gram Negative Pneumonia	Other Mental Disorders	Urinary Frequency & other symptoms
Complication of genitourinary device	HAC 02: Air Embolism	Other Phlebitis, Lymphangitis, varices	Urinary Tract Infection
Complication of Implanted device, graft	HAC 04: Stage III and IV Pressure Ulcers	Other Staph Pneumonia	Vascular Prosthetic Device/Graft Complication
Complications after heart procedures	HAC 09: Manifestations of Poor Glycemic Control	Phlebitis, Deep vein thrombosis (DVT)	Ventilator Associated Pnuemonia
Complications from Central Line	Hemoptysis	Pulmonary Embolism	Ventilator Dependence
Complications from chemotherapy	Hemorrhage	Renovascular and other secondary hypertension	Viral Pneumonia
Complications of anesthesia	Hemorrhagic Stroke	Resp Failure following trauma / surgery	Wound Dehiscence
complications of medical care	Hepatorenal Syndrome	Respiratory Failure	Wound Infections
complications of surgical procedures	Hypertensive Urgency	Respiratory Insufficiency	
Debilitating Viral Pneumonia	Hypotension / Syncope	rhabdomyolysis	

CABG &/or Valve Procedures (CxCABG)

The Services and costs associated with a procedure of coronary artery bypass grafting, with or without valve surgery, arrhythmia surgery, or other related open-heart procedures, are grouped together into a complex coronary artery bypass graft (CxCABG) episode. If the procedure is performed in the setting of an AMI, it is regarded as typical care for the AMI episode.

Episode Length – CxCABG



Total Episode Cost= All expected services and complication costs associated during the entire index period of the CxCABG episode.

Duration Pre-Trigger Window	Duration Post-Trigger Window
30 Days	90 Days

Episode Triggers – CxCABG

Trigger Group Name	Code Type	Codes
Coronary Artery Bypass Graft (CABG)	CPT	33510-33536
Heart Valve Repair, Outflow Reconstruction	CPT	33400-33496 33860-33870
Heart Valve Replacement	CPT	33405-33413, 33430, 33465, 33475
REDO CABG	CPT	33530

Trigger Diagnoses – ICD-10

Acute CHF / pulm edema	Myocarditis
Acute myocardial infarction	Other cardiac arrhythmias
Acute pericarditis	Other Cardiovascular Disease
Atrial Flutter / Fibrillation	Other Heart Blocks / Conduction Disorders
Cardiomyopathy	Other heart disease
Chronic Heart Failure, Degeneration	Other lung problems
Congestive heart failure; nonhypertensive	Premature Beats
Coronary Artery Anomaly	Previous CABG
Coronary Artery Bypass Graft (CABG)	Previous heart valve replacement
CV - atherosclerosis - aorta	Previous PCI
CV - other heart ds	Pulmonary heart disease
Endocarditis	Recent AMI
Heart Aneurysm and other Sequelae of AMI	redo cabg
Heart Failure unspecified as acute or chronic	Resp - abnormal chest sounds
Heart Valve Disorders	Sinus Node Dysfunction
Heart Valve Repair, Outflow Reconstruction	STEMI
heart valve replacement	Subendocardial Infarct
Highgrade Heart Block	Supraventricular Tachyarrhythmias
Hypertensive Heart Disease	Transplanted Heart w Angina
Hypertensive Heart Disease w Heart Failure	Unstable angina
Hypertensive Heart Disease w Heart Failure & CKD	Ventricular Arrhythmias
Marfan's Syndrome	

Relevant Procedures – CPT, HCPC, ICD-10

Advance care planning	E & M - nursing home	Imaging - nuclear - hepatobiliary ductal scan - radiopharmaceutical	Lab - cytology
Alcohol / Drug Use Management	E & M - other	Imaging - nuclear - kidney - radiopharmaceutical	Lab - endocrine
Alcohol / Drug Use Screening	E & M - prevention	Imaging - nuclear - kidney - scan	Lab - genetic testing - brugada syndrome
Ancillary Services	Electrocardiogram - EKG monitoring	Imaging - nuclear - localization of inflammation	Lab - genetic testing - cardiac ion channel syndrome
Anesthesia	Electrographic cardiac monitoring	Imaging - nuclear - lung scan	Lab - gi - fat absorption
Aortic resection, replacement or anastomosis	Electrophysiology Studies, Cryoablation	Imaging - nuclear - lymphatics	Lab - hematology - blood count
Bleeding Status	Endovascular Repair of Heart Valves	Imaging - nuclear - other	Lab - hematology - blood count - eosinophil count
Blood Count	Extracorporeal shock wave, other than urinary	Imaging - nuclear - other - automated data add - on	Lab - hematology - coagulation
Blood Gases, Pulse Oximetry	HbA1C	Imaging - nuclear - other blood / related	Lab - immunology
Blood transfusion	Hearing Test	Imaging - nuclear - other musculoskeletal	Lab - infectious agent antibody
Blood Type, Coomb's test	Heart Echo / Ultrasound	Imaging - nuclear - platelet kinetics	Lab - infectious agent antigen
Bundled Payment / Medical Home	Heart valve procedures	Imaging - nuclear - radiopharmaceutical - radiopharmaceutical - other	Lab - infectious agent dna
Bypass Coronary Artery, Percutaneous Endoscopic Approach	Heart Valve Repair, Outflow Reconstruction	Imaging - nuclear - red cell survival	Lab - microbiology
Cardiac cath & Angiogram	heart valve replacement	Imaging - nuclear - shilling test - radiopharmaceutical	Lab - microbiology - c & s
Cardiac Stress Test	Hepatitis B vaccine	Imaging - nuclear - tumor localization	Lab - microbiology - microscopic exam
Care Plan Oversight	High dose steroids	Imaging - nuclear - venous thrombosis - radiopharmaceutical	Lab - microbiology - other
Case Management Services	Home Health / Hospice	Imaging - nuclear - venous thrombosis - scan	Lab - microbiology - viral culture
Case Management Services - Behavioral	Home Health Services	Imaging - other imaging	Lab - microscopic - koh prep
CHEMOTHERAPY	Hormone Therapy	Imaging - other imaging - fluoroscopy	Lab - microscopic - wet mount
Chest X-Ray	HPV VACCINE	Imaging - other imaging - fluoroscopy - guidance	Lab - other clinical lab
CHLAMYDIA SCREENING	Imaging - arteriography - extremities	Imaging - pet - other	Lab - other hematology
Chronic Care Management	Imaging - arteriography - other	Imaging - supplies - contrast agent - high osmolar	Lab - pathology consultation
Colonoscopy/Sigmoidoscopy ColorectalCa Screen	Imaging - arteriography - renal	Imaging - supplies - contrast agent - low osmolar	Lab - specimen collection - blood - arterial - arterial puncture
Coordinated Care Fees/Services	Imaging - ct - aorta	Imaging - supplies - ultrasound related	Lab - specimen collection - blood - venous - venipuncture
Coronary Artery Bypass Graft (CABG)	Imaging - ct - cardiac	Imaging - therapeutic procedure - abscess drainage	Lab - specimen collection - blood - venous - venous port
Coronary Thrombolysis	Imaging - ct - chest	Imaging - therapeutic procedure - other therapeutic procedure	Lab - specimen collection - specimen handling
Counseling Services	Imaging - ct - follow - up	Imaging - us - extremity	Lab - specimen collection - urine
Diagnostic physical therapy	Imaging - ct - guidance	Imaging - us - eye	Lab - stat request
Diagnostic ultrasound of abdomen or retroperitoneum	Imaging - ct - head / brain	Imaging - us - guide - biopsy	Lab - surgical pathology
Diagnostic ultrasound of heart (echocardiogram)	Imaging - ct - other	Imaging - us - guide - other	Lab - therapeutic drug assay
Dilation of Coronary Artery, Open Approach	Imaging - cta - aorta	Imaging - us - head / neck	Lab - transfusion medicine
DME - bath / toilet aids	Imaging - cta - chest	Imaging - us - intravascular	Lab - urinalysis
DME - beds / accessories	Imaging - cta - coronary	Imaging - us - other	Laboratory - Chemistry and Hematology
DME - heat/cold application	Imaging - cta - head / neck	Imaging - us - retroperitoneum	LEAD SCREENING
DME - mobility aids	Imaging - mra - chest	Imaging - venography - other	Lipid Level Monitoring
DME - other	Imaging - mra - head	Imaging - x-ray - other - joint survey	Low dose steroids
DME - patient lifts	Imaging - mri - brain	Imaging - x-ray - ribs	Lung Function Tests
DME - repair / maintenance	Imaging - mri - chest	Imaging - x-ray - upper gi - other	LVEF < 40% or LV systolic dysfunction
DME - restraints	Imaging - mri - contrast agent	Imaging - x-ray - upper gi - small bowel - contrast	Magnetic resonance imaging
DME - safety equipment	Imaging - mri - guidance	Imaging - x-ray - urinary tract - cystography / voiding cystourethrogram	Markers for Inflammation
DME - wound therapy	Imaging - mri - lower extremity	Imaging - x-ray - urinary tract - other	Medication Assisted Management (MAT)
DME and supplies	Imaging - mri - other	Imaging Abdomen	Medication Therapy Management Services
Drug Delivery implantation	Imaging - nuclear - bladder / ureter	Insertion of catheter or spinal stimulator and injection into spinal canal	Medications (Injections, infusions and other forms)
E & M - consultation	Imaging - nuclear - blood / plasma volume - radiopharmaceutical	Insertion, revision, replacement, removal of cardiac pacemaker or cardioverter/d	Metabolic Renal Hepatic Chemistry Panel
E & M - emergency care	Imaging - nuclear - blood / plasma volume - scan	Lab - blood gases	Minimally Invasive CABG
E & M - home visit	Imaging - nuclear - brain - radiopharmaceutical	Lab - chemistry	NewBorn Blood Tests
E & M - hospital	Imaging - nuclear - csf - scan	Lab - chemistry and toxicology tests	Online Management

Relevant Procedures – CPT, HCPC, ICD-10

Open Coronary Endarterectomy	Other care - nutrition - education	Other diagnostic ultrasound	Procedure - central venous catheter - repair / maintenance
Opioid Administration / Dispensing (OTP)	Other care - nutrition - enteral	Other Laboratory	Procedure - chest tube / thoracentesis - insertion of chest tube
Orthotics - upper extremity	Other care - nutrition - enteral - administration	Other non-OR therapeutic cardiovascular procedures	Procedure - chest tube / thoracentesis - thoracentesis
Other - non - covered	Other care - nutrition - enteral - formula	Other OR heart procedures	Procedure - coronary - cabg
Other care - bladder / bowel care - catheter	Other care - nutrition - enteral - pump	Other OR procedures on vessels other than head and neck	Procedure - coronary - ptca - stent
Other care - bladder / bowel care - drainage bag	Other care - nutrition - enteral - tubing	Other Surgery of Heart & Valve	Procedure - debridement - wound / infection / burn - debridement
Other care - bladder / bowel care - other supplies	Other care - nutrition - medical food	Pacemaker Defibrillator Check	Procedure - debridement of nails
Other care - bladder / bowel care - other supplies - diaper / related	Other care - nutrition - parenteral	Pathology	Procedure - esophageal / gastric intubation
Other care - bladder / bowel care - other supplies - skin barrier	Other care - nutrition - parenteral - all - inclusive	PCI with stents, atherectomy	Procedure - extracorporeal circulation
Other care - chronic edema - appliance - limb compression	Other care - nutrition - parenteral - nutrition solution	Peer Services	Procedure - gastrostomy
Other care - chronic edema - appliance - non - segmental	Other care - nutrition - parenteral - pump	Personal Care Services	Procedure - graft
Other care - chronic edema - appliance - segmental	Other care - observation	Physical Therapy / Rehab	Procedure - graft - skin - graft material
Other care - chronic edema - compression stocking	Other care - other	Physician Services	Procedure - great vessels - thorax - repair / graft
Other care - chronic edema - compressor	Other care - other - ancillary services	Physician Services - Inpatient	Procedure - gu - other non - or rx
Other care - chronic edema - compressor - non - segmental	Other care - other - education	Physician Services - Outpatient	Procedure - heart valve - other
Other care - chronic edema - compressor - segmental	Other care - other - exercise classes	PQRI	Procedure - i&d - skin - drainage of abscess
Other care - chronic edema - surgical stockings	Other care - other - external counterpulsation	Preventive Medicine, Care Coordination	Procedure - maintenance - cns / spinal pump / port
Other care - diabetes care - glucose monitoring	Other care - other - external defibrillator	Procedure - ablation - arrhythmia - open	Procedure - other anal / rectal procedures - other procedures - rectum / anus
Other care - diabetes care - glucose monitoring - lancet	Other care - other - infection control	Procedure - anesthesia	Procedure - other non - or rx - other non - or skin procedures
Other care - diabetes care - glucose monitoring - other supplies	Other care - other - irrigation	Procedure - anesthesia - related supplies	Procedure - pacemaker / defibrillator - transcutaneous pacing
Other care - diabetes care - insulin pump	Other care - other - lodging	Procedure - aorta - repair - aneurysm / dissection - endovascular	Procedure - pericardiocentesis
Other care - home care - emergency response system	Other care - other - meals	Procedure - aorta - repair - aneurysm / dissection - open	Procedure - peripheral nerve repair / graft - graft / guide
Other care - home care - home health aide	Other care - other - medical records	Procedure - artery - abdomen - angioplasty - transluminal / open	Procedure - peripheral venous catheter
Other care - home care - meals	Other care - other - pacemaker - monitor	Procedure - artery - abdomen - angioplasty - transluminal / percutaneous	Procedure - related supplies - ablation - catheter
Other care - home care - nursing care	Other care - other - pvd - compressor	Procedure - artery - abdomen - atherectomy - transluminal / percutaneous	Procedure - related supplies - access catheter
Other care - home care - nursing care - lpn	Other care - other - weight management	Procedure - artery - extremity - angioplasty - transluminal / percutaneous	Procedure - related supplies - catheter
Other care - home care - nursing care - np	Other care - pain management - pca / related	Procedure - artery - extremity - atherectomy - transluminal / percutaneous	Procedure - related supplies - dilation / stenting
Other care - home care - nursing care - rn	Other care - prevention - smoking cessation	Procedure - artery - iliac - repair / graft - endovascular	Procedure - related supplies - drainage
Other care - home care - other care	Other care - respiratory - equipment / supplies	Procedure - artery - nos - angioplasty / stenting	Procedure - related supplies - graft - tendon repair
Other care - home care - other care - attendant care	Other care - respiratory - equipment / supplies - apnea monitor	Procedure - artery - nos - atherectomy - catheter	Procedure - related supplies - graft / repair
Other care - home care - other care - chore care	Other care - respiratory - equipment / supplies - cpap	Procedure - artery - nos - thrombolysis	Procedure - related supplies - implant
Other care - home care - other care - companion care	Other care - respiratory - equipment / supplies - ippb	Procedure - artery - pulmonary - angioplasty - percutaneous	Procedure - related supplies - other
Other care - home care - other care - day care	Other care - respiratory - equipment / supplies - nebulizer	Procedure - artery - thorax - embolectomy / thrombectomy	Procedure - related supplies - resection - morcellator
Other care - home care - other care - homemaker	Other care - respiratory - equipment / supplies - peak flow meter	Procedure - artery / vein - nos - closure / closure device	Procedure - related supplies - retrieval - device
Other care - home care - other care - respite care	Other care - respiratory - equipment / supplies - spirometer	Procedure - artery / vein - nos - other	Procedure - sedation
Other care - home care - physician supervision	Other care - respiratory - equipment / supplies - ventilator	Procedure - artery / vein - nos - thrombectomy catheter	Procedure - suture - skin - complex wound repair
Other care - home care - rehabilitation - occupational therapy	Other care - respiratory - other	Procedure - biopsy - endocardium	Procedure - suture - skin - layer closure of wound
Other care - home care - rehabilitation - physical therapy	Other care - respiratory - oxygen / oxygen concentrator	Procedure - block - nerve	Procedure - suture - skin - repair of superficial wound
Other care - home care - rehabilitation - speech therapy	Other care - respiratory - tracheostomy care	Procedure - cardiac - cardiac - other	Procedure - vascular - occlusion / embolization - transcatheter
Other care - home care - social worker	Other care - respiratory - ventilator management	Procedure - cardiac - other or	Procedure - vascular - related supplies - angioplasty
Other care - home care - specialized visit	Other care - respiratory therapy	Procedure - cardiac assist device - intra - aortic balloon	Procedure - vascular - related supplies - atherectomy
Other care - home care - training	Other care - wound care	Procedure - cardiac assist device - lvad	Procedure - vascular - related supplies - embolization protective system
Other care - hospice	Other care - wound care - electromagnetic therapy	Procedure - cardioversion	Procedure - vascular - related supplies - graft material
Other care - long term care - assisted living	Other care - wound care - growth factor	Procedure - catheter - arterial - arterial line for monitoring	Procedure - vascular - related supplies - occlusion catheter
Other care - long term care - residential care	Other care - wound care - hyperbaric oxygen	Procedure - catheter - arterial - selective branch catheter	Procedure - vascular access - port / pump - insertion
Other care - nutrition - assessment	Other diagnostic cardiovascular procedures	Procedure - central venous catheter - fluoroscopy - guidance	Procedure - vein - nos - angioplasty
Other care - nutrition - counseling - dietician	Other diagnostic procedures (interview, evaluation, consultation)	Procedure - central venous catheter - insertion	Procedure - vein - nos - vein harvest

Relevant Procedures – CPT, HCPC, ICD-10

Procedure - vein - upper extremity - vein harvest	Rx - central nervous system - benzodiazepines	Rx - respiratory - phenylephrine	Tests - pulmonary - other
Procedure - vein - vena cava - filter	Rx - central nervous system - non-amphetamine stimulants	Rx - serums, toxoids, vaccines - serums	Tests - pulmonary - peak flow
Procedures and Reporting	Rx - central nervous system - sympatholytic rx	Rx - serums, toxoids, vaccines - toxins	Tests - vascular - arterial - extremity
Prophylactic vaccinations and inoculations	Rx - central nervous system - tranq/antipsychotics	Rx - skin / mucous membrane - antiinflam s/mm agnts / comb nec	Tests - vascular - cerebrovascular
Prosthetics - other	Rx - central nervous system - vascular 5ht1 agonists	Rx - skin / mucous membrane - s/mm miscellaneous	Tests - vascular - other
Psychiatry Evaluations	Rx - coagulation system - anticoagulants	Rx - vitamins - multivit prep	Tests - vascular - venous
Psychiatry Services	Rx - coagulation system - antiheparin agnt	Rx - vitamins - vitamin b / b complex	Therapy - acupuncture
Psychological and psychiatric evaluation and therapy	Rx - coagulation system - antiplatelet rx	Rx - vitamins - vitamin d	Therapy - activity therapy
redo cabg	Rx - coagulation system - hemostatics	Screen for amino acid disorders	Therapy - allergy treatment
Risk Assessment	Rx - coagulation system - thrombolytic rx	Shock / Cardiac Arrest	Therapy - apheresis
Robotic Surgery	Rx - diagnostic rx - gastric function	Smoking / Tobacco Cessation	Therapy - behavior - evaluation and therapy
Rx - administration - infusion	Rx - diagnostic rx - roentgenography	Supplies	Therapy - behavior - other
Rx - administration - injection	Rx - diagnostic rx, misc	Surgery for cardiac arrhythmia	Therapy - behavior - partial hospitalization
Rx - allergy - antihistamines / comb	Rx - diuretics - diuretic, carb anhydrase inhib	TAVR	Therapy - biofeedback
Rx - analg/antipy/nsaids - narcotics	Rx - diuretics, loop diuretics	Tests - allergy tests - intradermal	Therapy - cardiac rehab
Rx - analg/antipy/nsaids - nsaids	Rx - diuretics, osmotic	Tests - allergy tests - other	Therapy - chiropractic / osteopathic manipulation
Rx - antibiotics - aminoglycosides	Rx - diuretics, thiazides / related	Tests - allergy tests - patch	Therapy - dialysis - home
Rx - antibiotics - anti-infectives, misc	Rx - eent - topical - eye/ear/nose/throat misc	Tests - allergy tests - percutaneous	Therapy - dialysis - supplies
Rx - antibiotics - cephalosporins	Rx - electrolytic, caloric, water - calcium supplements	Tests - cardiac - analysis - pace / defib	Therapy - habilitation
Rx - antibiotics - chloramphenicol / comb	Rx - electrolytic, caloric, water - caloric rx dextrose / rel	Tests - cardiac - doppler	Therapy - hyperbaric oxygen
Rx - antibiotics - macrolides	Rx - electrolytic, caloric, water - caloric rx, amino acid prep	Tests - cardiac - eeg - eeg - 12 lead	Therapy - neurostimulator - incontinence
Rx - antibiotics - penicillins	Rx - electrolytic, caloric, water - hydration - unspecified	Tests - cardiac - eeg - other	Therapy - neurostimulator - other
Rx - antibiotics - quinolones	Rx - electrolytic, caloric, water - multi-mineral prep	Tests - cardiac - eeg monitoring - event recorder	Therapy - neurostimulator - tens - device
Rx - antibiotics - sulfonamides / comb	Rx - electrolytic, caloric, water - potassium supp	Tests - cardiac - echo - contrast agent	Therapy - neurostimulator - tens - leads
Rx - antibiotics - tetracyclines	Rx - electrolytic, caloric, water - replacement preparations, misc	Tests - cardiac - echo - intracardiac	Therapy - neurostimulator - tens - supplies
Rx - antibiotics / antivirals / antifungals - infusion	Rx - electrolytic, caloric, water - sodium chlor preps	Tests - cardiac - electrophysiology - other	Therapy - other
Rx - antibiotics, misc	Rx - endocrine - other - parathyroid hormones	Tests - cardiac - electrophysiology - supplies - other	Therapy - phlebotomy
Rx - antidiabetic rx - insulins	Rx - gi - antichol/antispasmodics	Tests - cardiac - electrophysiology - tilt table evaluation	Therapy - pt - exercises / activities
Rx - antifungals	Rx - gi - antiemetics	Tests - cardiac - monitoring - chf	Therapy - pt - modalities
Rx - autonomic rx - nicotine preps	Rx - gi - h2 antagonists	Tests - cardiac - other	Therapy - rehabilitation
Rx - autonomic rx - parasympathomimetics	Rx - gi - ppis	Tests - cardiac - radiopharmaceuticals	Therapy - rehabilitation - other
Rx - autonomic rx - sympathomimetic rx	Rx - gi drug misc,nec	Tests - cardiac - swan ganz	Therapy - transfusion - administration
Rx - b-lactam antibiotics	Rx - gu - other - bladder rx	Tests - cardiac stress tests - cardiac perfusion scan - rest / exercise	Therapy - transfusion - blood
Rx - blood derivatives	Rx - hematopoietic system - hematopoietic growth factors	Tests - cardiac stress tests - cardiac stress tests - other	Therapy - transfusion - granulocytes
Rx - cardiovascular system - antiarrhythmic rx	Rx - hematopoietic system - iron / related	Tests - cardiac - cardiovascular - other	Therapy - transfusion - plasma
Rx - cardiovascular system - beta blockers	Rx - hematopoietic system - other	Tests - ent - other dx	Therapy - transfusion - platelets
Rx - cardiovascular system - cardiac drugs	Rx - miscellaneous rx	Tests - gi - duodenal motility study	Therapy - ultraviolet light therapy
Rx - cardiovascular system - cardiac glycosides	Rx - miscellaneous rx - anesthetics, local	Tests - gi - other dx	Therapy - vaccination - hepatitis b
Rx - cardiovascular system - hypotensive rx	Rx - miscellaneous rx - enzymes	Tests - gu - post void residual / bladder capacity	Thyroid Function Tests
Rx - cardiovascular system - natriuretic peptides	Rx - muscle relaxants - muscle relax, neuromusc block	Tests - gu - urodynamics - voiding pressure	Traction, splints, and other wound care
Rx - cardiovascular system - vasodilating agents, nec	Rx - muscle relaxants - muscle relax, skeletal central	Tests - neuro - eeg	Transitional Care Management
Rx - cardiovascular system - vasodilating rx	Rx - muscle relaxants - muscle relax, skeletal, misc	Tests - neuro - evoked potentials	Transportation - other transportation
Rx - central nervous system - amphetamines	Rx - other	Tests - neuro - muscle testing	Transportation - paramedic
Rx - central nervous system - anticonvulsants	Rx - pharmacy fee	Tests - neuro - ncv / emg	Ungrouped Codes
Rx - central nervous system - antidepressants	Rx - respiratory - beta agonists	Tests - neuro - other	Urine Protein
Rx - central nervous system - anxiolytic/sedative/hypnot nec	Rx - respiratory - methylxanthines	Tests - neuro - sleep studies	Vaccine for flu or Pneumonia
Rx - central nervous system - barbiturates	Rx - respiratory - mucolytics/cold comb	Tests - other cardiac scans	Ventricular Repair, Postinfarct VSD
			Vitamin K administration
			Wellness Assessment

Relevant Diagnoses – ICD-10

Acute CHF / pulm edema	Other cardiac arrhythmias
Acute myocardial infarction	Other Cardiovascular Disease
Acute pericarditis	Other Heart Blocks / Conduction Disorders
Atrial Flutter / Fibrillation	Other heart disease
Cardiomyopathy	Other lung problems
Chronic Heart Failure, Degeneration	Premature Beats
Congestive heart failure; nonhypertensive	Previous CABG
Coronary Artery Anomaly	Previous heart valve replacement
CV - atherosclerosis - aorta	Previous PCI
CV - other heart ds	Pulmonary heart disease
Endocarditis	Recent AMI
Heart Aneurysm and other Sequelae of AMI	Resp - abnormal chest sounds
Heart Failure unspecified as acute or chronic	Sinus Node Dysfunction
Heart Valve Disorders	STEMI
Highgrade Heart Block	Subendocardial Infarct
Hypertensive Heart Disease	Supraventricular Tachyarrhythmias
Hypertensive Heart Disease w Heart Failure	Transplanted Heart w Angina
Hypertensive Heart Disease w Heart Failure & CKD	Unstable angina
Marfan's Syndrome	Ventricular Arrhythmias
Myocarditis	

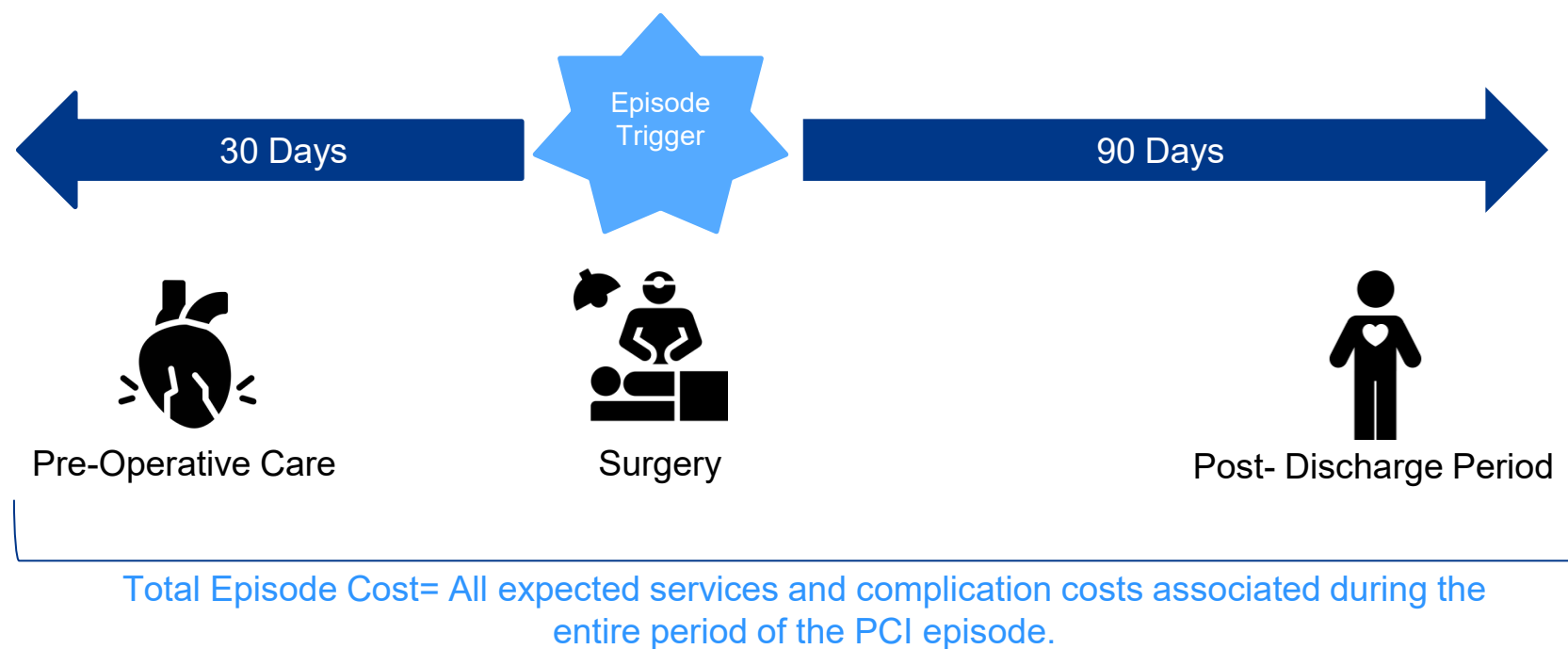
Complications – ICD-10

Accidental Falls	Decubitus Ulcer	Malfunction / Complication of Heart Device	Shock during or following cardiac surgery
Acute CHF / pulm edema	Dehydration	Meningitis / Encephalitis	Shock during or post-procedure
Acute cor pulmonale	Delirium, Encephalopathy	MRSA Pneumonia	Sinus Node Dysfunction
Acute esophagitis, acute gastritis, duodenitis	Dermatitis, Urticaria	MRSA, Drug Resistant Infections	Skin - other
Acute Kidney Failure	Diabetes, poor control	Opportunistic Infections	STEMI
Acute myocardial infarction	dic, coagulation, hemorrhagic disorders	Other bacterial infections	Subendocardial Infarct
Acute Pancreatitis, pseudo cyst	empyema, lung abscess	Other Bacterial Pneumonia	Suicide or Self-inflicted Injury
Adverse effects of drugs	Endocarditis	Other cardiac arrhythmias	Supraventricular Tachyarrhythmias
Altered mental status	Esophageal Reflux and Other Esophagitis	Other cerebral complications	Thromboembolic Stroke
arterial thromboembolism	Fluid Electrolyte Acid Base Problems	Other Heart Blocks / Conduction Disorders	Tracheostomy Complications
Aspiration Pneumonia	Foreign body left during procedure	Other lower respiratory disease	Transfusion, Infusion related complications
Atrial Flutter / Fibrillation	Gastroenteritis	other lung complications	Transient cerebral ischemia, TIA
Bacteremia, SIRS, no organ dysfunction	GI Bleed	Other lung problems	Transplanted Heart w Angina
Bladder Dysfunction, hemorrhage	Gram Negative Pneumonia	Other Mental Disorders	Unstable angina
C-Difficile Infection	HAC 02: Air Embolism	Other Phlebitis, Lymphangitis, varices	Urethral Stricture
Candida Infection	HAC 04: Stage III and IV Pressure Ulcers	Other Staph Pneumonia	Urinary Complications
Chronic Fungal and Other Pneumonias	HAC 08: Surgical Site Infection-Mediastinitis after CABG	Othr - other	Urinary Frequency & other symptoms
Coma, persistent vegetative state	HAC 09: Manifestations of Poor Glycemic Control	Perforation, Peritonitis, Abd Abscess	Urinary Incontinence
Complication of genitourinary device	Heart Aneurysm and other Sequelae of AMI	Phlebitis, Deep vein thrombosis (DVT)	Urinary Tract Infection
Complication of Implanted device, graft	Heart Failure unspecified as acute or chronic	Pulmonary Embolism	Vascular Insufficiency of intestine
Complication of nervous system device	Hemoptysis	Pyogenic Arthritis	Vascular Prosthetic Device/Graft Complication
Complications after heart procedures	Hemorrhage	Recent AMI	Ventilator Associated Pnuemonia
Complications from Central Line	Hemorrhagic Stroke	Renovascular and other secondary hypertension	Ventilator Dependence
Complications from chemotherapy	Hepatorenal Syndrome	Resp Failure following trauma / surgery	Ventricular Arrhythmias
Complications of anesthesia	Highgrade Heart Block	Respiratory Failure	Viral Pneumonia
Complications of colostomy, enterostomy	Hypertensive Urgency	Respiratory Insufficiency	Wound Dehiscence
complications of medical care	Hypotension / Syncope	rhabdomyolysis	Wound Infections
complications of surgical procedures	Influenza with Pneumonia	Sepsis	
Complications of surgical procedures or medical care	Interstitial Emphysema	Severe Sepsis	
Debilitating Viral Pneumonia	IVC & other intra-abd venous thrombosis	Shock / Cardiac Arrest	

Coronary Angioplasty (PCI)

The Coronary Angioplasty Episode evaluates services that are typical/routine for the expected care and services that are related to associated complications. Patients are defined as those with a primary procedure code of PCI on an inpatient stay service or a PCI procedure code in any position on an outpatient facility/professional service, along with a qualifying diagnosis code. If the PCI procedure is performed for AMI, it is associated back to this episode.

Episode Length – PCI



Duration Pre-Trigger Window	Duration Post-Trigger Window
30 Days	90 Days

Episode Triggers – PCI

Trigger Group Name	Code Type	Codes
PCI with stents, atherectomy	CPT HCPC	92920-92944, 92980-92996 C9600-C9608, G0290-G0291
Procedure - coronary - ptca - angioplasty	CPT	92982-92984
Procedure - coronary - thrombectomy	CPT	92973

Trigger Diagnoses – ICD-10, CPT, HCPC

Acute CHF / pulm edema	Other Heart Blocks / Conduction Disorders
Acute myocardial infarction	PCI with stents, atherectomy
Acute pericarditis	Premature Beats
Chronic Heart Failure, Degeneration	Previous CABG
Congestive heart failure; nonhypertensive	Previous PCI
Coronary Artery Anomaly	Procedure - coronary - ptca - angioplasty
CV - av block - 1st degree	Procedure - coronary - thrombectomy
CV - other heart ds	Recent AMI
CV - right bundle branch block	Resp - abnormal chest sounds
Heart Aneurysm and other Sequelae of AMI	Sinus Node Dysfunction
Heart Failure unspecified as acute or chronic	STEMI
Highgrade Heart Block	Subendocardial Infarct
Hypertensive Heart Disease	Supraventricular Tachyarrhythmias
Hypertensive Heart Disease w Heart Failure	Transplanted Heart w Angina
Hypertensive Heart Disease w Heart Failure & CKD	Unstable angina
Other cardiac arrhythmias	Ventricular Arrhythmias
Other Cardiovascular Disease	

Relevant Procedures – CPT, HCPC, ICD-10

Advance care planning	E & M - prevention	Imaging - nuclear - other	Lab - immunology
Alcohol / Drug Use Management	Electrocardiogram - EKG monitoring	Imaging - nuclear - other - automated data add - on	Lab - infectious agent antibody
Alcohol / Drug Use Screening	Electrophysiology Studies, Cryoablation	Imaging - nuclear - other blood / related	Lab - infectious agent antigen
Ancillary Services	HbA1C	Imaging - nuclear - other musculoskeletal	Lab - infectious agent dna
Anesthesia	Hearing Test	Imaging - nuclear - platelet kinetics	Lab - microbiology
Anti-TNF agents	Heart Echo / Ultrasound	Imaging - nuclear - radiopharmaceutical - radiopharmaceutical - other	Lab - microbiology - c & s
Aortic resection, replacement or anastomosis	Heart valve procedures	Imaging - nuclear - red cell survival	Lab - microbiology - microscopic exam
Bleeding Status	Hepatitis B vaccine	Imaging - nuclear - shilling test - radiopharmaceutical	Lab - microbiology - other
Blood Count	High dose steroids	Imaging - nuclear - tumor localization	Lab - microbiology - viral culture
Blood Gases, Pulse Oximetry	Home Health / Hospice	Imaging - nuclear - venous thrombosis - radiopharmaceutical	Lab - microscopic - koh prep
Blood transfusion	Home Health Services	Imaging - nuclear - venous thrombosis - scan	Lab - microscopic - wet mount
Blood Type, Coomb's test	Hormone Therapy	Imaging - other imaging	Lab - other clinical lab
Bundled Payment / Medical Home	HPV VACCINE	Imaging - other imaging - fluoroscopy	Lab - other hematology
Cardiac cath & Angiogram	Imaging - arteriography - extremities	Imaging - other imaging - fluoroscopy - guidance	Lab - pathology consultation
Cardiac Stress Test	Imaging - arteriography - other	Imaging - pet - other	Lab - specimen collection - blood - arterial - arterial puncture
Care Plan Oversight	Imaging - arteriography - renal	Imaging - supplies - contrast agent - high osmolar	Lab - specimen collection - blood - venous - venipuncture
Case Management Services	Imaging - ct - aorta	Imaging - supplies - contrast agent - low osmolar	Lab - specimen collection - blood - venous - venous port
Case Management Services - Behavioral	Imaging - ct - cardiac	Imaging - supplies - ultrasound related	Lab - specimen collection - specimen handling
CHEMOTHERAPY	Imaging - ct - chest	Imaging - therapeutic procedure - abscess drainage	Lab - specimen collection - urine
Chest X-Ray	Imaging - ct - follow - up	Imaging - therapeutic procedure - other therapeutic procedure	Lab - stat request
CHLAMYDIA SCREENING	Imaging - ct - guidance	Imaging - us - extremity	Lab - therapeutic drug assay
Chronic Care Management	Imaging - ct - head / brain	Imaging - us - eye	Lab - tissue typing
Colonoscopy/Sigmoidoscopy ColorectalCa Screen	Imaging - ct - other	Imaging - us - guide - biopsy	Lab - transfusion medicine
Coordinated Care Fees/Services	Imaging - cta - aorta	Imaging - us - guide - other	Lab - urinalysis
Coronary Thrombolysis	Imaging - cta - chest	Imaging - us - head / neck	Laboratory - Chemistry and Hematology
Counseling Services	Imaging - cta - coronary	Imaging - us - intravascular	LEAD SCREENING
Diagnostic physical therapy	Imaging - cta - head / neck	Imaging - us - other	Lipid Level Monitoring
Diagnostic ultrasound of abdomen or retroperitoneum	Imaging - mra - chest	Imaging - us - retroperitoneum	Low dose steroids
Diagnostic ultrasound of heart (echocardiogram)	Imaging - mra - head	Imaging - venography - other	Lung Function Tests
DME - bath / toilet aids	Imaging - mri - brain	Imaging - x-ray - other - joint survey	LVEF < 40% or LV systolic dysfunction
DME - beds / accessories	Imaging - mri - chest	Imaging - x-ray - ribs	Magnetic resonance imaging
DME - heat/cold application	Imaging - mri - contrast agent	Imaging - x-ray - upper gi - other	Markers for Inflammation
DME - mobility aids	Imaging - mri - guidance	Imaging - x-ray - upper gi - small bowel - contrast	Medication Assisted Management (MAT)
DME - other	Imaging - mri - lower extremity	Imaging - x-ray - urinary tract - cystography / voiding cystourethrogram	Medication Therapy Management Services
DME - patient lifts	Imaging - mri - other	Imaging - x-ray - urinary tract - other	Medications (Injections, infusions and other forms)
DME - repair / maintenance	Imaging - nuclear - bladder / ureter	Imaging Abdomen	Metabolic Renal Hepatic Chemistry Panel
DME - restraints	Imaging - nuclear - blood / plasma volume - radiopharmaceutical	IMMUNOTHERAPY	NewBorn Blood Tests
DME - safety equipment	Imaging - nuclear - blood / plasma volume - scan	Insertion, revision, replacement, removal of cardiac pacemaker or cardioverter/d	Online Management
DME - wound therapy	Imaging - nuclear - brain - radiopharmaceutical	Lab - blood gases	Opioid Administration / Dispensing (OTP)
DME and supplies	Imaging - nuclear - csf - radiopharmaceutical	Lab - chemistry	Other - non - covered
Drug Delivery implantation	Imaging - nuclear - csf - scan	Lab - endocrine	Other care - bladder / bowel care - catheter
E & M - consultation	Imaging - nuclear - hepatobiliary ductal scan - radiopharmaceutical	Lab - genetic testing - brugada syndrome	Other care - bladder / bowel care - drainage bag
E & M - emergency care	Imaging - nuclear - kidney - radiopharmaceutical	Lab - genetic testing - cardiac ion channel syndrome	Other care - bladder / bowel care - other supplies
E & M - home visit	Imaging - nuclear - kidney - scan	Lab - gi - fat absorption	Other care - bladder / bowel care - other supplies - diaper / related
E & M - hospital	Imaging - nuclear - localization of inflammation	Lab - hematology - blood count	Other care - bladder / bowel care - other supplies - skin barrier
E & M - nursing home	Imaging - nuclear - lung scan	Lab - hematology - blood count - eosinophil count	Other care - chronic edema - appliance - limb compression
E & M - other	Imaging - nuclear - lymphatics	Lab - hematology - coagulation	Other care - chronic edema - appliance - non - segmental

Relevant Procedures – CPT, HCPC, ICD-10

Other care - chronic edema - appliance - segmental	Other care - observation	Personal Care Services	Procedure - heart valve - other
Other care - chronic edema - compression stocking	Other care - other	Physical Therapy / Rehab	Procedure - i&d - skin - drainage of abscess
Other care - chronic edema - compressor	Other care - other - ancillary services	Physician Services	Procedure - maintenance - cns / spinal pump / port
Other care - chronic edema - compressor - non - segmental	Other care - other - education	Physician Services - Inpatient	Procedure - other anal / rectal procedures - other procedures - rectum / anus
Other care - chronic edema - compressor - segmental	Other care - other - exercise classes	Physician Services - Outpatient	Procedure - other non - or rx - other non - or skin procedures
Other care - chronic edema - surgical stockings	Other care - other - external counterpulsation	PQRI	Procedure - pacemaker / defibrillator - transcutaneous pacing
Other care - diabetes care - glucose monitoring	Other care - other - external defibrillator	Preventive Medicine, Care Coordination	Procedure - pericardiocentesis
Other care - diabetes care - glucose monitoring - lancet	Other care - other - infection control	Procedure - anesthesia	Procedure - peripheral nerve repair / graft - graft / guide
Other care - diabetes care - glucose monitoring - other supplies	Other care - other - irrigation	Procedure - anesthesia - related supplies	Procedure - peripheral venous catheter
Other care - diabetes care - insulin pump	Other care - other - lead assessment	Procedure - artery - abdomen - angioplasty - transluminal / open	Procedure - related supplies - ablation - catheter
Other care - home care - emergency response system	Other care - other - lodging	Procedure - artery - abdomen - angioplasty - transluminal / percutaneous	Procedure - related supplies - access catheter
Other care - home care - home health aide	Other care - other - meals	Procedure - artery - abdomen - atherectomy - transluminal / percutaneous	Procedure - related supplies - catheter
Other care - home care - meals	Other care - other - medical records	Procedure - artery - extremity - angioplasty - transluminal / percutaneous	Procedure - related supplies - dilation / stenting
Other care - home care - nursing care	Other care - other - pacemaker - monitor	Procedure - artery - extremity - atherectomy - transluminal / percutaneous	Procedure - related supplies - drainage
Other care - home care - nursing care - lpn	Other care - other - pvd - compressor	Procedure - artery - iliac - repair / graft - endovascular	Procedure - related supplies - graft - tendon repair
Other care - home care - nursing care - np	Other care - other - weight management	Procedure - artery - nos - angioplasty / stenting	Procedure - related supplies - graft / repair
Other care - home care - nursing care - rn	Other care - pain management - pca / related	Procedure - artery - nos - atherectomy - catheter	Procedure - related supplies - implant
Other care - home care - other care	Other care - prevention - smoking cessation	Procedure - artery - nos - thrombolysis	Procedure - related supplies - other
Other care - home care - other care - attendant care	Other care - respiratory - equipment / supplies	Procedure - artery - pulmonary - angioplasty - percutaneous	Procedure - related supplies - resection - morcellator
Other care - home care - other care - chore care	Other care - respiratory - equipment / supplies - apnea monitor	Procedure - artery / vein - nos - closure / closure device	Procedure - related supplies - retrieval - device
Other care - home care - other care - companion care	Other care - respiratory - equipment / supplies - cpap	Procedure - artery / vein - nos - other	Procedure - sedation
Other care - home care - other care - day care	Other care - respiratory - equipment / supplies - ippb	Procedure - artery / vein - nos - thrombectomy catheter	Procedure - suture - skin - complex wound repair
Other care - home care - other care - homemaker	Other care - respiratory - equipment / supplies - nebulizer	Procedure - biopsy - endocardium	Procedure - suture - skin - layer closure of wound
Other care - home care - other care - respite care	Other care - respiratory - equipment / supplies - peak flow meter	Procedure - block - nerve	Procedure - suture - skin - repair of superficial wound
Other care - home care - physician supervision	Other care - respiratory - equipment / supplies - spirometer	Procedure - cardiac - other	Procedure - vascular - occlusion / embolization - transcatheter
Other care - home care - rehabilitation - occupational therapy	Other care - respiratory - equipment / supplies - ventilator	Procedure - cardiac - other or	Procedure - vascular - related supplies - angioplasty
Other care - home care - rehabilitation - physical therapy	Other care - respiratory - other	Procedure - cardiac assist device - intra - aortic balloon	Procedure - vascular - related supplies - atherectomy
Other care - home care - rehabilitation - speech therapy	Other care - respiratory - oxygen / oxygen concentrator	Procedure - cardiac assist device - lvad	Procedure - vascular - related supplies - embolization protective system
Other care - home care - social worker	Other care - respiratory - tracheostomy care	Procedure - cardioversion	Procedure - vascular - related supplies - graft material
Other care - home care - specialized visit	Other care - respiratory - ventilator management	Procedure - catheter - arterial - arterial line for monitoring	Procedure - vascular - related supplies - occlusion catheter
Other care - home care - training	Other care - respiratory therapy	Procedure - catheter - arterial - selective branch catheter	Procedure - vascular access - port / pump - insertion
Other care - hospice	Other care - wound care	Procedure - central venous catheter - fluoroscopy - guidance	Procedure - vein - nos - angioplasty
Other care - long term care - assisted living	Other care - wound care - electromagnetic therapy	Procedure - central venous catheter - insertion	Procedure - vein - vena cava - filter
Other care - long term care - residential care	Other care - wound care - growth factor	Procedure - central venous catheter - repair / maintenance	Procedures and Reporting
Other care - nutrition - assessment	Other care - wound care - hyperbaric oxygen	Procedure - chest tube / thoracostomy - insertion of chest tube	Prophylactic vaccinations and inoculations
Other care - nutrition - counseling - dietician	Other diagnostic cardiovascular procedures	Procedure - chest tube / thoracostomy - thoracostomy	Prosthetics - other
Other care - nutrition - education	Other diagnostic procedures (interview, evaluation, consultation)	Procedure - coronary - ptca - angioplasty	Psychiatry Evaluations
Other care - nutrition - enteral	Other diagnostic ultrasound	Procedure - coronary - ptca - stent	Psychiatry Services
Other care - nutrition - enteral - administration	Other Laboratory	Procedure - coronary - coronary - thrombectomy	Psychological and psychiatric evaluation and therapy
Other care - nutrition - enteral - formula	Other non-OR therapeutic cardiovascular procedures	Procedure - debridement - wound / infection / burn - debridement	Risk Assessment
Other care - nutrition - enteral - pump	Other OR heart procedures	Procedure - debridement of nails	Robotic Surgery
Other care - nutrition - enteral - tubing	Other OR procedures on vessels other than head and neck	Procedure - esophageal / gastric intubation	Rx - administration - infusion
Other care - nutrition - medical food	Pacemaker Defibrillator Check	Procedure - extracorporeal circulation	Rx - administration - injection
Other care - nutrition - parenteral	Pathology	Procedure - gastrostomy	Rx - allergy - antihistamines / comb
Other care - nutrition - parenteral - all - inclusive	PCI with stents, atherectomy	Procedure - graft	Rx - analg/antipy/nsaids - narcotics
Other care - nutrition - parenteral - nutrition solution	Peer Services	Procedure - graft - skin - graft material	Rx - analg/antipy/nsaids - nsaids
Other care - nutrition - parenteral - pump	Percutaneous transluminal coronary angioplasty (PTCA)	Procedure - gu - other non - or rx	Rx - antibiotics - aminoglycosides

Relevant Procedures – CPT, HCPC, ICD-10

Rx - antibiotics - anti-infectives, misc	Rx - diuretics, osmotic	Rx - vitamins - multivit prep	Tests - vascular - venous
Rx - antibiotics - cephalosporins	Rx - diuretics, thiazides / related	Rx - vitamins - vitamin b / b complex	Therapy - acupuncture
Rx - antibiotics - chloramphenicol / comb	Rx - eent - topical - eye/ear/nose/throat misc	Rx - vitamins - vitamin d	Therapy - activity therapy
Rx - antibiotics - macrolides	Rx - electrolytic, caloric, water - calcium supplements	Screen for amino acid disorders	Therapy - allergy treatment
Rx - antibiotics - penicillins	Rx - electrolytic, caloric, water - caloric rx dextrose / rel	Shock / Cardiac Arrest	Therapy - apheresis
Rx - antibiotics - quinolones	Rx - electrolytic, caloric, water - caloric rx, amino acid prep	Smoking / Tobacco Cessation	Therapy - behavior - evaluation and therapy
Rx - antibiotics - sulfonamides / comb	Rx - electrolytic, caloric, water - hydration - unspecifed	Supplies	Therapy - behavior - other
Rx - antibiotics - tetracyclines	Rx - electrolytic, caloric, water - multi-mineral prep	Tests - allergy tests - intradermal	Therapy - behavior - partial hospitalization
Rx - antibiotics / antivirals / antifungals - infusion	Rx - electrolytic, caloric, water - potassium supp	Tests - allergy tests - other	Therapy - biofeedback
Rx - antibiotics, misc	Rx - electrolytic, caloric, water - replacement preparations, misc	Tests - allergy tests - patch	Therapy - cardiac rehab
Rx - antidiabetic rx - insulins	Rx - electrolytic, caloric, water - sodium chlor preps	Tests - allergy tests - percutaneous	Therapy - chiropractic / osteopathic manipulation
Rx - antidiabetic rx, misc	Rx - endocrine - other - antigout rx	Tests - cardiac - analysis - pace / defib	Therapy - dialysis - supplies
Rx - antifungals	Rx - endocrine - other - parathyroid hormones	Tests - cardiac - doppler	Therapy - habilitation
Rx - antivirals	Rx - endocrine - other - pituitary hormones	Tests - cardiac - eeg - eeg - 12 lead	Therapy - hyperbaric oxygen
Rx - autonomic rx - nicotine preps	Rx - gi - antichol/antispasmodics	Tests - cardiac - eeg - other	Therapy - neurostimulator - incontinence
Rx - autonomic rx - parasympathomimetics	Rx - gi - antiemetics	Tests - cardiac - eeg monitoring - event recorder	Therapy - neurostimulator - other
Rx - autonomic rx - sympathomimetic rx	Rx - gi - h2 antagonists	Tests - cardiac - echo - contrast agent	Therapy - neurostimulator - tens - device
Rx - b-lactam antibiotics	Rx - gi - ppis	Tests - cardiac - echo - intracardiac	Therapy - neurostimulator - tens - leads
Rx - blood derivatives	Rx - gi drug misc, nec	Tests - cardiac - electrophysiology - other	Therapy - neurostimulator - tens - supplies
Rx - cardiovascular system - antiarrhythmic rx	Rx - gu - other - bladder rx	Tests - cardiac - electrophysiology - supplies - other	Therapy - other
Rx - cardiovascular system - beta blockers	Rx - hematopoietic system - hematopoietic growth factors	Tests - cardiac - electrophysiology - tilt table evaluation	Therapy - phlebotomy
Rx - cardiovascular system - cardiac drugs	Rx - hematopoietic system - iron / related	Tests - cardiac - monitoring - chf	Therapy - pt - exercises / activities
Rx - cardiovascular system - cardiac glycosides	Rx - hematopoietic system - other	Tests - cardiac - other	Therapy - pt - modalities
Rx - cardiovascular system - hypotensive rx	Rx - immune system - dmard / related	Tests - cardiac - radiopharmaceuticals	Therapy - radiation - physics / dosimetry / special svcs
Rx - cardiovascular system - natriuretic peptides	Rx - immune system - gold compounds	Tests - cardiac - swan ganz	Therapy - rehabilitation
Rx - cardiovascular system - vasodilating agents, nec	Rx - immune system - interferons	Tests - cardiac stress tests - cardiac perfusion scan - rest / exercise	Therapy - rehabilitation - other
Rx - cardiovascular system - vasodilating rx	Rx - miscellaneous rx	Tests - cardiac stress tests - cardiac stress tests - other	Therapy - transfusion - administration
Rx - central nervous system - amphetamines	Rx - miscellaneous rx - anesthetics, local	Tests - cardiovascular - other	Therapy - transfusion - blood
Rx - central nervous system - anticonvulsants	Rx - miscellaneous rx - enzymes	Tests - ent - other dx	Therapy - transfusion - plasma
Rx - central nervous system - antidepressants	Rx - muscle relaxants - muscle relax, neuromusc block	Tests - eye - dx - other	Therapy - transfusion - platelets
Rx - central nervous system - anxiolytic/sedative/hypnot nec	Rx - muscle relaxants - muscle relax, skeletal central	Tests - gi - duodenal motility study	Therapy - ultraviolet light therapy
Rx - central nervous system - barbiturates	Rx - muscle relaxants - muscle relax, skeletal, misc	Tests - gi - other dx	Therapy - vaccination - hepatitis b
Rx - central nervous system - benzodiazepines	Rx - other	Tests - gu - post void residual / bladder capacity	Thyroid Function Tests
Rx - central nervous system - non-amphetamine stimulants	Rx - pharmacy fee	Tests - gu - urodynamics - voiding pressure	Traction, splints, and other wound care
Rx - central nervous system - sympatolytic rx	Rx - reproductive system - androgens / comb	Tests - neuro - eeg	Transitional Care Management
Rx - central nervous system - tranq/antipsychotics	Rx - reproductive system - estrogens / comb	Tests - neuro - evoked potentials	Transportation - other transportation
Rx - central nervous system - vascular 5ht1 agonists	Rx - reproductive system - gonadotropin rel horm agnsts	Tests - neuro - muscle testing	Transportation - paramedic
Rx - coagulation system - anticoagulants	Rx - reproductive system - gonadotropins	Tests - neuro - ncv / emg	Ungrouped Codes
Rx - coagulation system - antiheparin agnt	Rx - reproductive system - oxytocics	Tests - neuro - other	Urine Protein
Rx - coagulation system - antiplatelet rx	Rx - reproductive system - progestins	Tests - neuro - sleep studies	Vaccine for flu or Pneumonia
Rx - coagulation system - hemostatics	Rx - respiratory - beta agonists	Tests - other cardiac scans	Vitamin K administration
Rx - coagulation system - thrombolytic rx	Rx - respiratory - methylxanthines	Tests - other cardiac scans - infarct scan	Wellness Assessment
Rx - diagnostic rx - gastric function	Rx - respiratory - mucolytics/cold comb	Tests - pulmonary - other	
Rx - diagnostic rx - roentgenography	Rx - respiratory - phenylephrine	Tests - pulmonary - peak flow	
Rx - diagnostic rx, misc	Rx - serums, toxoids, vaccines - serums	Tests - vascular - arterial - extremity	
Rx - diuretics - diuretic, carb anhydrase inhib	Rx - skin / mucous membrane - antiinflam s/mm agnts / comb nec	Tests - vascular - cerebrovascular	
Rx - diuretics, loop diuretics	Rx - skin / mucous membrane - s/mm miscellaneous	Tests - vascular - other	

Relevant Diagnoses – ICD-10

Acute CHF / pulm edema	Other cardiac arrhythmias
Acute myocardial infarction	Other Cardiovascular Disease
Acute pericarditis	Other Heart Blocks / Conduction Disorders
Chronic Heart Failure, Degeneration	Premature Beats
Congestive heart failure; nonhypertensive	Previous CABG
Coronary Artery Anomaly	Previous PCI
CV - av block - 1st degree	Recent AMI
CV - other heart ds	Resp - abnormal chest sounds
CV - right bundle branch block	Sinus Node Dysfunction
Heart Aneurysm and other Sequelae of AMI	STEMI
Heart Failure unspecified as acute or chronic	Subendocardial Infarct
Highgrade Heart Block	Supraventricular Tachyarrhythmias
Hypertensive Heart Disease	Transplanted Heart w Angina
Hypertensive Heart Disease w Heart Failure	Unstable angina
Hypertensive Heart Disease w Heart Failure & CKD	Ventricular Arrhythmias

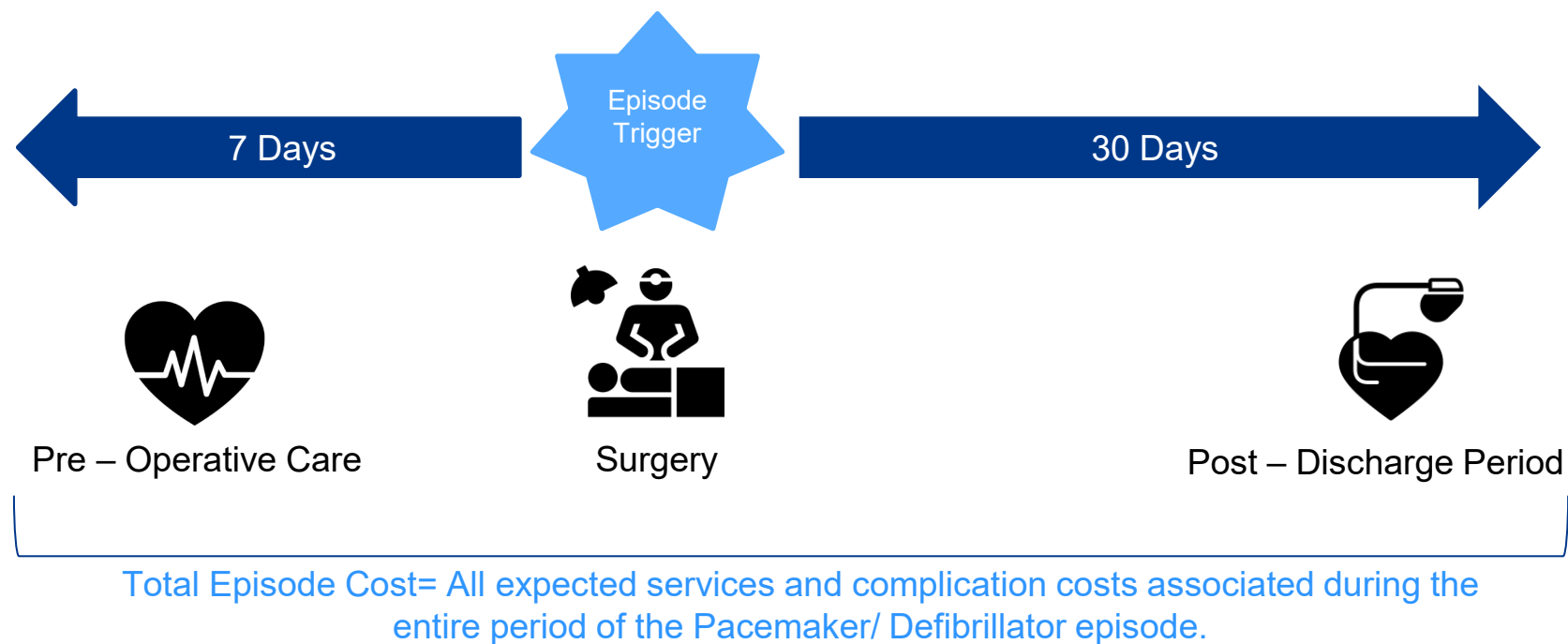
Complications – ICD-10

Accidental Falls	Esophageal Reflux and Other Esophagitis	Other Staph Pneumonia
Acute CHF / pulm edema	Fluid Electrolyte Acid Base Problems	Othr - other
Acute cor pulmonale	Foreign body left during procedure	Phlebitis, Deep vein thrombosis (DVT)
Acute esophagitis, acute gastritis, duodenitis	Gastroenteritis	Pulmonary Embolism
Acute Kidney Failure	GI Bleed	Recent AMI
Acute myocardial infarction	Gram Negative Pneumonia	Resp Failure following trauma / surgery
Acute Pancreatitis, pseudo cyst	HAC 02: Air Embolism	Respiratory Failure
Adverse effects of drugs	HAC 04: Stage III and IV Pressure Ulcers	Respiratory Insufficiency
Altered mental status	HAC 09: Manifestations of Poor Glycemic Control	rhabdomyolysis
arterial thromboembolism	Heart Failure unspecified as acute or chronic	Sepsis
Aspiration Pneumonia	Hemorrhage	Severe Sepsis
Atrial Flutter / Fibrillation	Hemorrhagic Stroke	Shock / Cardiac Arrest
Bacteremia, SIRS, no organ dysfunction	Hepatorenal Syndrome	Shock during or following cardiac surgery
C-Difficile Infection	Highgrade Heart Block	Shock during or post-procedure
Chronic Fungal and Other Pneumonias	Hypertensive Urgency	Sinus Node Dysfunction
Coma, persistent vegetative state	Hypotension / Syncope	Skin - other
Complication of genitourinary device	Influenza with Pneumonia	Supraventricular Tachyarrhythmias
Complications after heart procedures	Interstitial Emphysema	Thromboembolic Stroke
Complications from Central Line	Malfunction / Complication of Heart Device	Tracheostomy Complications
Complications of anesthesia	Meningitis / Encephalitis	Transfusion, Infusion related complications
complications of medical care	MRSA Pneumonia	Transient cerebral ischemia, TIA
complications of surgical procedures	MRSA, Drug Resistant Infections	Urethral Stricture
Congestive heart failure; nonhypertensive	Other bacterial infections	Urinary Frequency & other symptoms
Debilitating Viral Pneumonia	Other Bacterial Pneumonia	Urinary Tract Infection
Decubitus Ulcer	Other cardiac arrhythmias	Vascular Prosthetic Device/Graft Complication
Dehydration	Other cerebral complications	Ventilator Associated Pnuemonia
Delirium, Encephalopathy	Other Heart Blocks / Conduction Disorders	Ventilator Dependence
Dermatitis, Urticaria	Other lower respiratory disease	Ventricular Arrhythmias
Diabetes, poor control	other lung complications	Wound Dehiscence
dic, coagulation, hemorrhagic disorders	Other lung problems	Wound Infections
empyema, lung abscess	Other Mental Disorders	
Endocarditis	Other Phlebitis, Lymphangitis, varices	

Pacemaker/ Defibrillator (PCMDFR)

The Pacemaker/ Defibrillator Episode evaluates services that are typical/routine for the expected care, and services that are related to associated complications. Patients are defined as those with a primary procedure code of Pacemaker/ Defibrillator on an inpatient stay service or a trigger procedure code in any position on an outpatient facility/professional service, along with a qualifying diagnosis code.

Episode Length – PCMDFR



Duration Pre-Trigger Window	Duration Post-Trigger Window
7 Days	30 Days

Episode Triggers – PCMDFR

Trigger Group Name	Code Type	Codes
Insertion of Defibrillator	CPT HCPC	33240-33271 0319T, C1721-C1882, G0448
Insertion of Generator alone	CPT HCPC	33212-33231 0321T
Insertion of Leads	CPT	33224-33225
Insertion of Pacemaker	CPT HCPC	33206-33214, 71090, 0387T C178—C1786, C2619-C2621

Trigger Diagnoses – ICD-10, CPT, HCPC

Acute CHF / pulm edema	Heart Valve Disorders	Previous CABG
Acute cor pulmonale	Highgrade Heart Block	Previous Heart Lung transplant
Acute myocardial infarction	History of Sudden Death	Previous heart valve replacement
Acute pericarditis	Hypertensive Heart Disease	Previous PCI
Artificial Heart, Assist Device	Hypertensive Heart Disease w Heart Failure	Recent AMI
Atrial Flutter / Fibrillation	Hypertensive Heart Disease w Heart Failure & CKD	Resp - abnormal chest sounds
Cardiomyopathy	Hypotension / Syncope	Resp - cyanosis
Cardiovascular Syphilis	Insertion of Defibrillator	Resp - hyperventillation
Chronic Heart Failure, Degeneration	Insertion of Generator alone	Resp - shortness of breath
Chronic, adhesive, constrictive pericarditis	Insertion of leads	Respiratory Insufficiency
Cngntl - CV - other circulatory - other	Insertion of Pacemaker	Shock / Cardiac Arrest
Congenital Heart Disease w Structural Defects	Malfunction / Complication of Heart Device	Sinus Node Dysfunction
Congestive heart failure; nonhypertensive	Marfan's Syndrome	STEMI
Coronary Artery Anomaly	Myocarditis	Subendocardial Infarct
CV - abnl cv test nec nos	Orthostatic Hypotension / Dizziness	Supraventricular Tachyarrhythmias
CV - abnl ecg	Other cardiac arrhythmias	Sxs - symptoms -other - other
CV - av block - 1st degree	Other Cardiovascular Disease	Tobacco Use
CV - cardiac murmurs	Other Gonococcal Infections	Transplanted Heart
CV - edema	Other Heart Blocks / Conduction Disorders	Transplanted Heart w Angina
CV - other CV ds	Other heart disease	Transplanted heart w compl, infection, reject
CV - other heart ds	Other lung problems	Tumor of the Heart
CV - prim pulm ht	Other pericarditis	Unstable angina
CV - right bundle branch block	Pacemaker, Defibrillator in place	Vascular Prosthetic Device/Graft Complication
CV - s/p tpa rx	Poisoning by Assault	Ventricular Arrhythmias
Heart Aneurysm and other Sequelae of AMI	Premature Beats	
Heart Failure unspecified as acute or chronic	Prev Heart lung trans w compl, infect, reject	

Relevant Procedures – ICD-10, CPT, HCPC

Advance care planning	Imaging - angiography - aortogram	Lab - stat request	Other care - nutrition - education
Alcohol / Drug Use Screening	Imaging - arteriography - extremities	Lab - therapeutic drug assay	Other care - nutrition - enteral
Ancillary Services	Imaging - ct - cardiac	Lab - transfusion medicine	Other care - nutrition - parenteral - pump
Anesthesia	Imaging - ct - head / brain	Lab - tumor marker	Other care - observation
Aortic resection, replacement or anastomosis	Imaging - cta - coronary	Lab - urinalysis	Other care - other
Bleeding Status	Imaging - mri - other	Lipid Level Monitoring	Other care - other - ancillary services
Blood Count	Imaging - nuclear - lung scan	Low dose steroids	Other care - other - education
Blood Gases, Pulse Oximetry	Imaging - nuclear - radiopharmaceutical - radiopharmaceutical - other	Lung Function Tests	Other care - other - exercise classes
Blood transfusion	Imaging - other imaging	LVEF < 40% or LV systolic dysfunction	Other care - other - external defibrillator
Blood Type, Coomb's test	Imaging - other imaging - fluoroscopy	Magnetic resonance imaging	Other care - other - infection control
Bundled Payment / Medical Home	Imaging - other imaging - fluoroscopy - guidance	Markers for Inflammation	Other care - other - lead assessment
Cardiac cath & Angiogram	Imaging - pet - other	Medication Assisted Management (MAT)	Other care - other - pacemaker - monitor
Cardiac Stress Test	Imaging - supplies - contrast agent - high osmolar	Medication Therapy Management Services	Other care - other - pvd - compressor
Care Plan Oversight	Imaging - supplies - contrast agent - low osmolar	Medications (Injections, infusions and other forms)	Other care - other - weight management
Case Management Services	Imaging - supplies - ultrasound related	Metabolic Renal Hepatic Chemistry Panel	Other care - prevention - smoking cessation
Case Management Services - Behavioral	Imaging - therapeutic procedure - abscess drainage	Online Management	Other care - respiratory - equipment / supplies - apnea monitor
CHEMOTHERAPY	Imaging - therapeutic procedure - other therapeutic procedure	Opioid Administration / Dispensing (OTP)	Other care - respiratory - equipment / supplies - peak flow meter
Chest X-Ray	Imaging - us - guide - other	Other - non - covered	Other care - respiratory - other
Chronic Care Management	Imaging - us - intravascular	Other care - chronic edema - compression stocking	Other care - respiratory - rehabilitation
Coordinated Care Fees/Services	Imaging - us - other	Other care - chronic edema - surgical stockings	Other care - respiratory - ventilator management
Coronary Thrombolysis	Imaging - venography - extremities	Other care - home care - emergency response system	Other care - respiratory therapy
Diagnostic physical therapy	Imaging - venography - other	Other care - home care - home health aide	Other care - wound care
Diagnostic ultrasound of abdomen or retroperitoneum	Imaging - venography - vena cava	Other care - home care - meals	Other care - wound care - electromagnetic therapy
Diagnostic ultrasound of heart (echocardiogram)	Imaging Abdomen	Other care - home care - nursing care	Other care - wound care - growth factor
DME - safety equipment	Insertion of Defibrillator	Other care - home care - nursing care - lpn	Other care - wound care - hyperbaric oxygen
DME and supplies	Insertion of Generator alone	Other care - home care - nursing care - np	Other diagnostic cardiovascular procedures
Drug Delivery implantation	Insertion of leads	Other care - home care - nursing care - rn	Other diagnostic procedures (interview, evaluation, consultation)
E & M - consultation	Insertion of Pacemaker	Other care - home care - other care	Other diagnostic ultrasound
E & M - emergency care	Insertion, revision, replacement, removal of cardiac pacemaker or cardioverter/d	Other care - home care - other care - attendant care	Other Laboratory
E & M - home visit	Insertion; revision; replacement; removal of cardiac pacemaker or cardioverter/d	Other care - home care - other care - chore care	Other non-OR therapeutic cardiovascular procedures
E & M - hospital	Lab - chemistry	Other care - home care - other care - companion care	Other OR heart procedures
E & M - nursing home	Lab - hematology - blood count	Other care - home care - other care - day care	Pacemaker Defibrillator Check
E & M - other	Lab - hematology - blood count - eosinophil count	Other care - home care - other care - homemaker	Pathology
E & M - prevention	Lab - hematology - coagulation	Other care - home care - other care - respite care	Personal Care Services
Electrocardiogram - EKG monitoring	Lab - immunology	Other care - home care - physician supervision	Physical Therapy / Rehab
Electrographic cardiac monitoring	Lab - infectious agent dna	Other care - home care - social worker	Physician Services
Electrophysiology Studies, Cryoablation	Lab - other clinical lab	Other care - home care - specialized visit	Physician Services - Inpatient
Heart Echo / Ultrasound	Lab - other hematology	Other care - home care - training	Physician Services - Outpatient
Heart valve procedures	Lab - specimen collection - blood - arterial - arterial puncture	Other care - hospice	PQRI
High dose steroids	Lab - specimen collection - blood - venous - venipuncture	Other care - long term care - assisted living	Preventive Medicine, Care Coordination
Home Health / Hospice	Lab - specimen collection - blood - venous - venous port	Other care - long term care - residential care	Procedure - anesthesia
Home Health Services	Lab - specimen collection - specimen handling	Other care - nutrition - assessment	Procedure - artery - extremity - angioplasty - transluminal / percutaneous
Hormone Therapy	Lab - specimen collection - urine	Other care - nutrition - counseling - dietician	Procedure - artery - extremity - atherectomy - transluminal / percutaneous

Relevant Procedures – ICD-10, CPT, HCPC

Procedure - artery - extremity - exploration	Psychiatry Evaluations	Rx - diuretics, loop diuretics	Tests - cardiac - radiopharmaceuticals
Procedure - artery - extremity - injection of thrombin	Psychiatry Services	Rx - diuretics, osmotic	Tests - cardiac - swan ganz
Procedure - artery - extremity - ligation	Psychological and psychiatric evaluation and therapy	Rx - diuretics, thiazides / related	Tests - cardiac stress tests - cardiac perfusion scan - rest / exercise
Procedure - artery - iliac - repair / graft - endovascular	Risk Assessment	Rx - electrolytic, caloric, water - calcium supplements	Tests - cardiac stress tests - cardiac stress tests - other
Procedure - artery - nos - thrombolysis	Robotic Surgery	Rx - electrolytic, caloric, water - caloric rx dextrose / rel	Tests - cardiovascular - other
Procedure - artery / vein - nos - closure / closure device	Rx - administration - infusion	Rx - electrolytic, caloric, water - hydration - unspecified	Tests - neuro - sleep studies
Procedure - artery / vein - nos - other	Rx - administration - injection	Rx - electrolytic, caloric, water - multi-mineral prep	Tests - other cardiac scans
Procedure - artery / vein - nos - thrombectomy catheter	Rx - allergy - antihistamines / comb	Rx - electrolytic, caloric, water - potassium supp	Tests - other cardiac scans - infarct scan
Procedure - cardiac - other	Rx - analg/antipy/nsaids - narcotics	Rx - electrolytic, caloric, water - replacement preparations, misc	Tests - pulmonary - other
Procedure - cardiac assist device - intra - aortic balloon	Rx - analg/antipy/nsaids - nsaids	Rx - electrolytic, caloric, water - sodium chlor preps	Tests - pulmonary - peak flow
Procedure - cardiac assist device - lvad	Rx - antibiotics - aminoglycosides	Rx - gi - antichol/antispasmodics	Tests - vascular - arterial - extremity
Procedure - cardioversion	Rx - antibiotics - anti-infectives, misc	Rx - gi - antiemetics	Tests - vascular - venous
Procedure - catheter - arterial - arterial line for monitoring	Rx - antibiotics - cephalosporins	Rx - gi - h2 antagonists	Therapy - behavior - partial hospitalization
Procedure - catheter - arterial - catheter in aorta	Rx - antibiotics - macrolides	Rx - gi - ppis	Therapy - cardiac rehab
Procedure - catheter - arterial - other	Rx - antibiotics - penicillins	Rx - hematopoietic system - hematopoietic growth factors	Therapy - habilitation
Procedure - catheter - venous - other - other	Rx - antibiotics - quinolones	Rx - miscellaneous rx	Therapy - neurostimulator - tens - leads
Procedure - catheter - venous - other - vena cava or selective branch catheter	Rx - antibiotics - sulfonamides / comb	Rx - miscellaneous rx - anesthetics, local	Therapy - neurostimulator - tens - supplies
Procedure - central venous catheter - fluoroscopy - guidance	Rx - antibiotics - tetracyclines	Rx - miscellaneous rx - enzymes	Therapy - other
Procedure - central venous catheter - insertion	Rx - antibiotics, misc	Rx - other	Therapy - phlebotomy
Procedure - central venous catheter - removal	Rx - autonomic rx - nicotine preps	Rx - pharmacy fee	Therapy - pt - exercises / activities
Procedure - central venous catheter - repair / maintenance	Rx - autonomic rx - parasympathomimetics	Rx - respiratory - beta agonists	Therapy - transfusion - administration
Procedure - central venous catheter - replacement	Rx - autonomic rx - sympathomimetic rx	Rx - respiratory - methylxanthines	Therapy - transfusion - blood
Procedure - chest tube / thoracentesis - insertion of chest tube	Rx - b-lactam antibiotics	Rx - respiratory - phenylephrine	Therapy - transfusion - granulocytes
Procedure - chest tube / thoracentesis - thoracentesis	Rx - blood derivatives	Rx - serums, toxoids, vaccines - serums	Therapy - transfusion - plasma
Procedure - extracorporeal circulation	Rx - cardiovascular system - antiarrhythmic rx	Rx - vitamins - multivit prep	Therapy - transfusion - platelets
Procedure - other non - or rx - other non - or skin procedures	Rx - cardiovascular system - beta blockers	Rx - vitamins - vitamin b / b complex	Thyroid Function Tests
Procedure - pacemaker / defibrillator - other - pacemaker / defibrillator proced	Rx - cardiovascular system - cardiac drugs	Rx - vitamins - vitamin d	Traction, splints, and other wound care
Procedure - pacemaker / defibrillator - transcutaneous pacing	Rx - cardiovascular system - cardiac glycosides	Shock / Cardiac Arrest	Transitional Care Management
Procedure - pacemaker / defibrillator - transesophageal pacing	Rx - cardiovascular system - hypotensive rx	Smoking / Tobacco Cessation	Transportation - other transportation
Procedure - pericardial procedures - pericardial window / pericardiectomy	Rx - cardiovascular system - natriuretic peptides	Subsequent Physician Services Inpatient	Transportation - paramedic
Procedure - pericardiocentesis	Rx - cardiovascular system - vasodilating rx	Supplies	Transvenous Pacemaker
Procedure - peripheral venous catheter	Rx - central nervous system - antidepressants	Tests - cardiac - analysis - pace / defib	Ungrouped Codes
Procedure - related supplies - access catheter	Rx - central nervous system - anxiolytic/sedative/hypnot nec	Tests - cardiac - doppler	Urine Protein
Procedure - related supplies - catheter	Rx - central nervous system - barbiturates	Tests - cardiac - ecg - ecg - 12 lead	Vaccine for flu or Pneumonia
Procedure - related supplies - implant	Rx - central nervous system - benzodiazepines	Tests - cardiac - ecg - other	Vitamin K administration
Procedure - related supplies - retrieval - device	Rx - central nervous system - tranq/antipsychotics	Tests - cardiac - ecg monitoring - event recorder	Wellness Assessment
Procedure - sedation	Rx - central nervous system - vascular 5ht1 agonists	Tests - cardiac - echo - contrast agent	
Procedure - vascular access - port / pump - insertion	Rx - coagulation system - anticoagulants	Tests - cardiac - echo - intracardiac	
Procedure - vein - nos - angioplasty	Rx - coagulation system - antiheparin agnt	Tests - cardiac - electrophysiology - other	
Procedure - vein - vena cava - filter	Rx - coagulation system - antiplatelet rx	Tests - cardiac - electrophysiology - supplies - other	
Procedures and Reporting	Rx - coagulation system - hemostatics	Tests - cardiac - electrophysiology - tilt table evaluation	
Prosthetics - implant	Rx - coagulation system - thrombolytic rx	Tests - cardiac - monitoring - chf	
Prosthetics - other	Rx - diuretics - diuretic, carb anhydrase inhib	Tests - cardiac - other	

Relevant Diagnoses – ICD-10

Acute CHF / pulm edema	Heart Failure unspecified as acute or chronic	Previous heart valve replacement
Acute cor pulmonale	Heart Valve Disorders	Previous PCI
Acute myocardial infarction	Highgrade Heart Block	Recent AMI
Acute pericarditis	History of Sudden Death	Resp - abnormal chest sounds
Artificial Heart, Assist Device	Hypertensive Heart Disease	Resp - cyanosis
Atrial Flutter / Fibrillation	Hypertensive Heart Disease w Heart Failure	Resp - hyperventilation
Cardiomyopathy	Hypertensive Heart Disease w Heart Failure & CKD	Resp - shortness of breath
Cardiovascular Syphilis	Hypotension / Syncope	Respiratory Insufficiency
Chronic Heart Failure, Degeneration	Malfunction / Complication of Heart Device	Shock / Cardiac Arrest
Chronic, adhesive, constrictive pericarditis	Marfan's Syndrome	Sinus Node Dysfunction
Cngntl - CV - other circulatory - other	Myocarditis	STEMI
Congenital Heart Disease w Structural Defects	Orthostatic Hypotension / Dizziness	Subendocardial Infarct
Congestive heart failure; nonhypertensive	Other cardiac arrhythmias	Supraventricular Tachyarrhythmias
Coronary Artery Anomaly	Other Cardiovascular Disease	Sxs - symptoms -other - other
CV - abnl cv test nec nos	Other Gonococcal Infections	Tobacco Use
CV - abnl ecg	Other Heart Blocks / Conduction Disorders	Transplanted Heart
CV - av block - 1st degree	Other heart disease	Transplanted Heart w Angina
CV - cardiac murmurs	Other lung problems	Transplanted heart w compl, infection, reject
CV - edema	Other pericarditis	Tumor of the Heart
CV - other CV ds	Pacemaker, Defibrillator in place	Unstable angina
CV - other heart ds	Poisoning by Assault	Vascular Prosthetic Device/Graft Complication
CV - prim pulm ht	Premature Beats	Ventricular Arrhythmias
CV - right bundle branch block	Prev Heart lung trans w compl, infect, reject	
CV - s/p tpa rx	Previous CABG	
Heart Aneurysm and other Sequelae of AMI	Previous Heart Lung transplant	

Complications – ICD-10

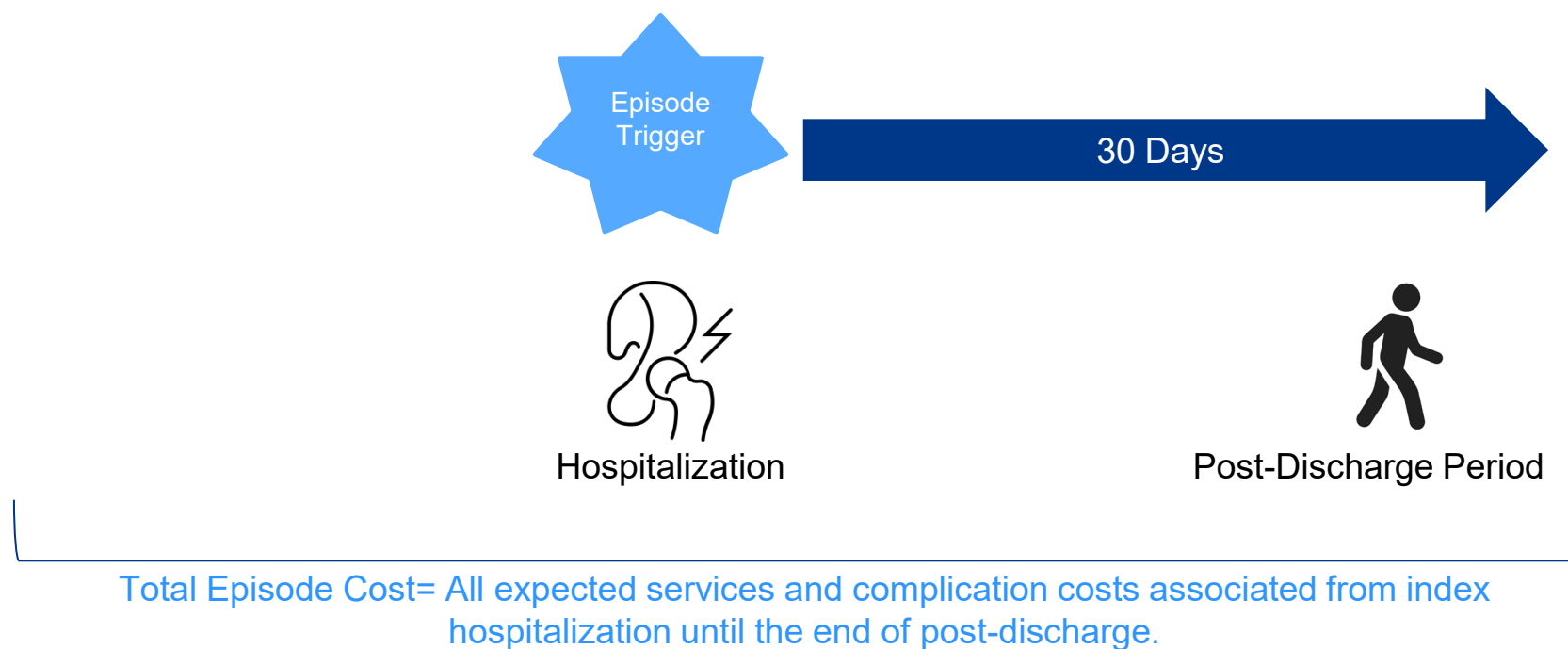
Accidental Falls	dic, coagulation, hemorrhagic disorders	Other Phlebitis, Lymphangitis, varices
Acute CHF / pulm edema	empyema, lung abscess	Other Staph Pneumonia
Acute cor pulmonale	Endocarditis	Othr - other
Acute esophagitis, acute gastritis, duodenitis	Fluid Electrolyte Acid Base Problems	Peripheral Angiopathy w Gangrene
Acute Kidney Failure	Foreign body left during procedure	Peripheral Embolism
Acute myocardial infarction	Gastroenteritis	Phlebitis, Deep vein thrombosis (DVT)
Adverse effects of drugs	GI Bleed	Pulmonary Embolism
Altered mental status	Gram Negative Pneumonia	Resp Failure following trauma / surgery
arterial thromboembolism	HAC 02: Air Embolism	Respiratory Failure
Aspiration Pneumonia	HAC 04: Stage III and IV Pressure Ulcers	Respiratory Insufficiency
Bacteremia, SIRS, no organ dysfunction	HAC 09: Manifestations of Poor Glycemic Control	rhabdomyolysis
C-Difficile Infection	Hemorrhage	Sepsis
Chronic Fungal and Other Pneumonias	Hemorrhagic Stroke	Severe Sepsis
Coma, persistent vegetative state	Hepatorenal Syndrome	Shock / Cardiac Arrest
Complication of genitourinary device	Hypertensive Urgency	Shock during or following cardiac surgery
Complication of Implanted device, graft	Hypotension / Syncope	Shock during or post-procedure
Complications after heart procedures	Influenza with Pneumonia	Skin - other
Complications from Central Line	Interstitial Emphysema	STEMI
Complications from chemotherapy	Malfunction / Complication of Heart Device	Thromboembolic Stroke
Complications of anesthesia	Meningitis / Encephalitis	Transfusion, Infusion related complications
complications of medical care	MRSA Pneumonia	Transient cerebral ischemia, TIA
complications of surgical procedures	MRSA, Drug Resistant Infections	Urethral Stricture
Complications of surgical procedures or medical care	Other bacterial infections	Urinary Frequency & other symptoms
Debilitating Viral Pneumonia	Other Bacterial Pneumonia	Urinary Tract Infection
Decubitus Ulcer	Other cerebral complications	Vascular Prosthetic Device/Graft Complication
Dehydration	Other lower respiratory disease	Ventilator Associated Pnuemonia
Delirium, Encephalopathy	other lung complications	Ventilator Dependence
Dermatitis, Urticaria	Other lung problems	Wound Dehiscence
Diabetes, poor control	Other Mental Disorders	Wound Infections



Hip/ Pelvic Fracture (HIPLFR)

The Hip/Pelvic Fracture (HIPLFR) episode is an acute episode. Services with diagnosis codes for signs and symptoms related to the episode, such as pain and swelling, have been defined as typical care for Hip/Pelvic Fracture, while secondary diagnoses on the index stay or other services for conditions such as fluid and electrolyte disturbances and infections have been labeled as complications.

Episode Length – HIPLFR



Duration Pre-Trigger Window	Duration Post-Trigger Window
N/A	30 Days

Episode Triggers – HIPLFR

Trigger Group Name	Code Type	Codes
Closed Fracture Neck of Femur Left	ICD10	M80052S-M8458S, S72002A-S7225XS
Closed Fracture Neck of Femur Right	ICD10	M80051S-M84757S, S72001A- 7224XS
Closed Fracture Neck of Femur Unsp	ICD10	M80059S-M84659S, S72009A-S7226XS
Closed Fracture of Pelvis, Right	ICD10	S32301A-S32431A
Closed Fracture of Pelvis, Unsp	ICD10	S32426A-S32811A, S3289XA, S329XXA
Closed Fracture Pelvis, Left	ICD10	S32302A-S32692A
Closed Fracture Pelvis, Right	ICD10	S32434A-S32691A
Closed Fracture Pelvis, Unsp	ICD10	S32309A-S32423A
Compl of joint prosthesis, orthopedic proced	ICD10	T84010A-T849XXA
Complication of Implanted device, graft	ICD10	T85693A, T8572XA
Open Fracture Neck of Femur Left	ICD10	S72002B-S7225XC
Open Fracture Neck of Femur Right	ICD10	S72001B-S7224XC
Open Fracture Neck of Femur Unsp	ICD10	S72009B-S7226XC

Episode Triggers – HIPLFR

Trigger Group Name	Code Type	Codes
Open Fracture of Pelvis Left	ICD10	S32302B-S32692B
Open Fracture of Pelvis Right	ICD10	S32301B-S32691B
Open Fracture of Pelvis Unsp	ICD10	S32309B-S329XXB
Other Close Fracture Femur Left	ICD10	S72302A-S7292XA
Other Close Fracture Femur Right	ICD10	S72301A-S7291XA
Other Close Fracture Femur Unsp	ICD10	S72309A-S7290XA
Pathologic, stress fracture Left Femur, Pelv	ICD10	M80052A-M84758A
Pathologic, stress fracture Right Femur, Pelv	ICD10	M80051A-M84757A
Pathologic, stress fracture Unsp Femur, Pelv	ICD10	M80059A-M84759A

Trigger Diagnoses – ICD-10

Closed Fracture Neck of Femur Left
Closed Fracture Neck of Femur Right
Closed Fracture Neck of Femur Unsp
Closed Fracture of Pelvis, Left
Closed Fracture of Pelvis, Right
Closed Fracture of Pelvis, Unsp
Compl of joint prosthesis, orthopedic proced
Complication of Implanted device, graft
Open Fracture Neck of Femur Left
Open Fracture Neck of Femur Right
Open Fracture Neck of Femur Unsp
Open Fracture of Pelvis Left
Open Fracture of Pelvis Right
Open Fracture of Pelvis Unsp
Other Close Fracture Femur Left
Other Close Fracture Femur Right
Other Close Fracture Femur Unsp
Pathologic, stress fracture Left Femur, Pelv
Pathologic, stress fracture Right Femur, Pelv
Pathologic, stress fracture Unsp Femur, Pelv

Relevant Procedures – CPT, HCPC, ICD-10

Advance care planning	E & M - hospital	Lab - immunology	Other care - chronic edema - appliance - non - segmental
Alcohol / Drug Use Screening	E & M - nursing home	Lab - infectious agent dna	Other care - chronic edema - appliance - segmental
Ancillary Services	E & M - other	Lab - microbiology	Other care - chronic edema - complex therapy
Aortic resection, replacement or anastomosis	E & M - prevention	Lab - microbiology - c & s	Other care - chronic edema - compression stocking
Bleeding Status	Electrocardiogram - EKG monitoring	Lab - microbiology - microscopic exam	Other care - chronic edema - compressor
Blood Count	HbA1C	Lab - microscopic - koh prep	Other care - chronic edema - compressor - non - segmental
Blood Gases, Pulse Oximetry	Home Health / Hospice	Lab - other clinical lab	Other care - chronic edema - compressor - segmental
Blood transfusion	Home Health Services	Lab - other hematology	Other care - chronic edema - exterior wrap
Blood Type, Coomb's test	Hormone Therapy	Lab - pathology consultation	Other care - chronic edema - sleeve
Bundled Payment / Medical Home	Imaging - ct - abdomen - pelvis	Lab - specimen collection - blood - arterial - arterial puncture	Other care - chronic edema - surgical stockings
Care Plan Oversight	Imaging - ct - follow - up	Lab - specimen collection - blood - venous - venipuncture	Other care - diabetes care - glucose monitoring
Case Management Services	Imaging - ct - guidance	Lab - specimen collection - blood - venous - venous port	Other care - diabetes care - glucose monitoring - other supplies
Case Management Services - Behavioral	Imaging - ct - other	Lab - specimen collection - specimen handling	Other care - diabetes care - insulin pump
CHEMOTHERAPY	Imaging - ct - study	Lab - specimen collection - urine	Other care - diabetes care - shoes
CHLAMYDIA SCREENING	Imaging - mra - lower extremity	Lab - stat request	Other care - home care - emergency response system
Chronic Care Management	Imaging - mra - pelvis	Lab - surgical pathology	Other care - home care - home health aide
Closed Surg for Hip socket/Pelvis w/manipulat	Imaging - mri - contrast agent	Lab - therapeutic drug assay	Other care - home care - meals
Closed Surg for Neck/Proximal Femur w/manipul	Imaging - mri - guidance	Lab - tissue typing	Other care - home care - nursing care
Closed Surg for Neck/Proximal Femur, no manip	Imaging - mri - lower extremity	Lab - transfusion medicine	Other care - home care - nursing care - lpn
Closed Surg for Shaft or Distal Femur, no man	Imaging - mri - other	Lab - urinalysis	Other care - home care - nursing care - np
Closed Surg Hip Socket or Pelvis, no manipul	Imaging - mri - pelvis	Laboratory - Chemistry and Hematology	Other care - home care - nursing care - rn
Closed Surgery Fracture Head of Femur	Imaging - nuclear - bone scan	LEAD SCREENING	Other care - home care - other care
Closed treatment of Hip Dislocation, post sur	Imaging - nuclear - localization of inflammation	Lipid Level Monitoring	Other care - home care - other care - attendant care
Closed treatment of Hip Dislocation, Spontane	Imaging - nuclear - other	Low dose steroids	Other care - home care - other care - chore care
Closed treatment of Hip Dislocation, Traumat	Imaging - nuclear - other musculoskeletal	Markers for Inflammation	Other care - home care - other care - day care
Closed treatment of Slipped Femoral Epiphysis	Imaging - other imaging	Medication Assisted Management (MAT)	Other care - home care - other care - homemaker
Colonoscopy/Sigmoidoscopy ColorectalCa Screen	Imaging - other imaging - bone density	Medication Therapy Management Services	Other care - home care - other care - respite care
Diagnostic physical therapy	Imaging - other imaging - bone density - dexta	Medications (Injections, infusions and other forms)	Other care - home care - physician supervision
DME - bath / toilet aids	Imaging - other imaging - fluoroscopy	Metabolic Renal Hepatic Chemistry Panel	Other care - home care - rehabilitation - occupational therapy
DME - beds / accessories	Imaging - supplies - contrast agent - high osmolar	Microscopic examination (bacterial smear, culture, toxicology)	Other care - home care - rehabilitation - physical therapy
DME - heat/cold application	Imaging - supplies - contrast agent - low osmolar	NewBorn Blood Tests	Other care - home care - rehabilitation - speech therapy
DME - mobility aids	Imaging - us - guide - other	Online Management	Other care - home care - social worker
DME - other	Imaging - us - other	Open Surgery for Hip socket or Pelvis	Other care - home care - specialized visit
DME - patient lifts	Imaging - venography - extremities	Open Surgery for Neck or Proximal Femur	Other care - home care - training
DME - repair / maintenance	Imaging - x-ray - hip - arthrogram	Open Surgery for Shaft or Distal Femur	Other care - hospice
DME - restraints	Imaging - x-ray - other - bone survey	Open treatment of Hip Dislocation, Spontaneous	Other care - nutrition - assessment
DME - safety equipment	Imaging - x-ray - other - joint survey	Open treatment of Hip Dislocation, Traumatic	Other care - nutrition - counseling - dietician
DME - traction	Imaging Abdomen	Open treatment of Slipped Femoral Epiphysis	Other care - nutrition - education
DME - trapeze / other orthopedic device	Joint X-Rays	Opioid Administration / Dispensing (OTP)	Other care - nutrition - enteral
DME - whirlpool - equipment	Lab - chemistry	Other - non - covered	Other care - nutrition - medical food
DME - wound therapy	Lab - chemistry and toxicology tests	Other care - bladder / bowel care - catheter	Other care - observation
DME and supplies	Lab - cytogenetics	Other care - bladder / bowel care - drainage bag	Other care - other
Drug Delivery implantation	Lab - cytology	Other care - bladder / bowel care - other supplies	Other care - other - ancillary services
E & M - consultation	Lab - hematology - blood count	Other care - bladder / bowel care - other supplies - diaper / related	Other care - other - back care
E & M - emergency care	Lab - hematology - blood count - eosinophil count	Other care - bladder / bowel care - other supplies - skin barrier	Other care - other - exercise classes
E & M - home visit	Lab - hematology - coagulation	Other care - chronic edema - appliance - limb compression	Other care - other - infection control

Relevant Procedures – CPT, HCPC, ICD-10

Other care - other - interpretation	Procedure - i&d - skin - drainage - post - op infection	Rx - antibiotics - aminoglycosides	Tests - pulmonary - co diffusing capacity
Other care - other - lodging	Procedure - i&d - skin - drainage of abscess	Rx - antibiotics - anti-infectives, misc	Tests - pulmonary - exhaled air analysis
Other care - other - meals	Procedure - i&d - skin - drainage of hematoma	Rx - antibiotics - cephalosporins	Tests - pulmonary - other
Other care - other - medical records	Procedure - injection - tendons / joints / etc.	Rx - antibiotics - chloramphenicol / comb	Tests - pulmonary - peak flow
Other care - other - pvd - compressor	Procedure - injection of skin lesion	Rx - antibiotics - macrolides	Tests - skin
Other care - other - therapeutic riding	Procedure - lymphadenectomy	Rx - antibiotics - penicillins	Tests - vascular - arterial - extremity
Other care - other - weight management	Procedure - microsurgery	Rx - antibiotics - quinolones	Tests - vascular - venous
Other care - pain management - pca / related	Procedure - neuro - other dx - other	Rx - antibiotics - sulfonamides / comb	Therapy - acupuncture
Other care - prevention - smoking cessation	Procedure - neuro - other non - or rx	Rx - antibiotics / antivirals / antifungals - infusion	Therapy - activity therapy
Other care - respiratory - equipment / supplies	Procedure - neuro - other or rx	Rx - antibiotics, misc	Therapy - allergy treatment
Other care - respiratory - equipment / supplies - nebulizer	Procedure - other dx on musculoskeletal system	Rx - b-lactam antibiotics	Therapy - behavior - other
Other care - respiratory - equipment / supplies - peak flow meter	Procedure - other non - or rx - other non - or skin procedures	Rx - blood derivatives	Therapy - biofeedback
Other care - respiratory - equipment / supplies - spirometer	Procedure - other non - or rx on musculoskeletal system	Rx - cardiovascular system - vasodilating agents, nec	Therapy - chiropractic / osteopathic manipulation
Other care - respiratory - other	Procedure - other or rx - other or skin procedures	Rx - cardiovascular system - vasodilating rx	Therapy - dialysis - supplies
Other care - respiratory - oxygen / oxygen concentrator	Procedure - other or rx - peripheral neurostimulator procedures	Rx - coagulation system - anticoagulants	Therapy - habilitation
Other care - wound care	Procedure - other or rx on bone	Rx - coagulation system - antiheparin agnt	Therapy - hyperbaric oxygen
Other care - wound care - growth factor	Procedure - other or rx on joints	Rx - coagulation system - hemostatics	Therapy - neurostimulator - muscle training
Other care - wound care - hyperbaric oxygen	Procedure - other or rx on musculoskeletal system	Rx - diagnostic rx - roentgenography	Therapy - neurostimulator - nausea / vomiting
Other diagnostic cardiovascular procedures	Procedure - other rx on muscles and tendons	Rx - diuretics, loop diuretics	Therapy - neurostimulator - tens - device
Other diagnostic procedures (interview, evaluation, consultation)	Procedure - other spine - rx / dx - injection	Rx - electrolytic, caloric, water - caloric rx dextrose / rel	Therapy - osteogenesis stimulator
Other diagnostic radiology and related techniques	Procedure - partial excision bone	Rx - electrolytic, caloric, water - hydration - unspecified	Therapy - other
Other fracture and dislocation procedure	Procedure - peripheral nerve - decompression - other	Rx - electrolytic, caloric, water - multi-mineral prep	Therapy - phlebotomy
Other Laboratory	Procedure - peripheral nerve repair / graft	Rx - electrolytic, caloric, water - potassium supp	Therapy - pt - exercises / activities
Personal Care Services	Procedure - peripheral venous catheter	Rx - electrolytic, caloric, water - sodium chlor preps	Therapy - pt - modalities
Physical Therapy / Rehab	Procedure - related supplies - ablation - catheter	Rx - gi - antiemetics	Therapy - rehabilitation - related supplies / equipment - motion device
Physician Services	Procedure - related supplies - access catheter	Rx - gi - ppis	Therapy - transfusion - administration
Physician Services - Inpatient	Procedure - related supplies - catheter	Rx - hematopoietic system - hematopoietic growth factors	Therapy - transfusion - blood
Physician Services - Outpatient	Procedure - related supplies - drainage	Rx - hematopoietic system - iron / related	Therapy - transfusion - granulocytes
Preventive Medicine, Care Coordination	Procedure - related supplies - graft / repair	Rx - miscellaneous rx	Therapy - transfusion - plasma
Procedure - anesthesia	Procedure - related supplies - other	Rx - miscellaneous rx - enzymes	Therapy - transfusion - platelets
Procedure - arthrocentesis	Procedure - removal of pins or fixation	Rx - muscle relaxants - muscle relax, skeletal central	Thyroid Function Tests
Procedure - block - nerve	Procedure - rx - fracture / dislocation - hip / femur	Rx - other	Transitional Care Management
Procedure - bone graft	Procedure - sedation	Rx - pharmacy fee	Transportation - other transportation
Procedure - casting / splinting - application	Procedure - spinal canal - catheter	Rx - serums, toxoids, vaccines - serums	Transportation - paramedic
Procedure - casting / splinting - supplies	Procedure - suture - skin - complex wound repair	Rx - vitamins - multivit prep	Ungrouped Codes
Procedure - central venous catheter - fluoroscopy - guidance	Procedure - suture - skin - delayed wound closure	Screen for amino acid disorders	Urine Protein
Procedure - central venous catheter - insertion	Procedure - vascular access - port / pump - insertion	Supplies	Vaccine for flu or Pneumonia
Procedure - central venous catheter - removal	Procedures and Reporting	Tests - cardiac - ecg - ecg - 12 lead	Wellness Assessment
Procedure - central venous catheter - repair / maintenance	Psychiatry Evaluations	Tests - cardiac - ecg - other	X-Ray Thoracolumbar Spine / Pelvis
Procedure - central venous catheter - replacement	Psychiatry Services	Tests - cardiac - echo - contrast agent	
Procedure - debridement - wound / infection / burn - debridement	Psychological and psychiatric evaluation and therapy	Tests - neuro - muscle testing	
Procedure - destruction - nerve	Risk Assessment	Tests - neuro - ncv / emg	
Procedure - excision - skin - remove subcutaneous lesion	Robotic Surgery	Tests - neuro - other	
Procedure - excision - skin - shave skin lesion	Rx - administration - infusion	Tests - neuro - sleep studies	
Procedure - graft	Rx - administration - injection		
Procedure - graft - skin - graft material	Rx - analg/antipy/nsaids - narcotics		

Relevant Diagnoses – ICD-10

Closed Fracture Neck of Femur Left	Open Fracture Neck of Femur Unsp
Closed Fracture Neck of Femur Right	Open Fracture of Pelvis Left
Closed Fracture Neck of Femur Unsp	Open Fracture of Pelvis Right
Closed Fracture of Pelvis, Left	Open Fracture of Pelvis Unsp
Closed Fracture of Pelvis, Right	Other Close Fracture Femur Left
Closed Fracture of Pelvis, Unsp	Other Close Fracture Femur Right
Compl of joint prosthesis, orthopedic proced	Other Close Fracture Femur Unsp
Complication of Implanted device, graft	Pathologic, stress fracture Left Femur, Pelv
Open Fracture Neck of Femur Left	Pathologic, stress fracture Right Femur, Pelv
Open Fracture Neck of Femur Right	Pathologic, stress fracture Unsp Femur, Pelv

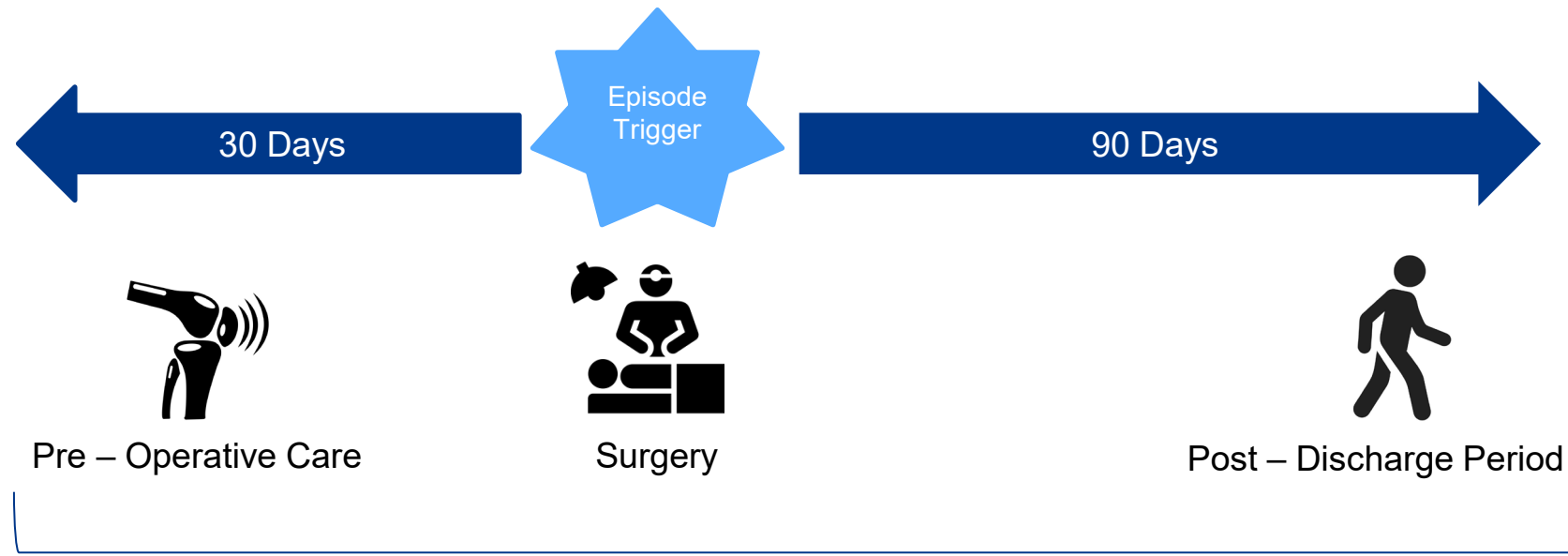
Complications – ICD-10

Accidental Falls	Decubitus Ulcer	Necrotising Fasciitis	Shock / Cardiac Arrest
Acute CHF / pulm edema	Dehydration	Opioid intoxication	Shock during or following cardiac surgery
Acute cor pulmonale	Delirium, Encephalopathy	Opportunistic Infections	Shock during or post-procedure
Acute Kidney Failure	Diabetes, poor control	Orthostatic Hypotension / Dizziness	Skin - other
Acute Osteomyelitis	dic, coagulation, hemorrhagic disorders	Other bacterial infections	STEMI
Adverse effects of drugs	Drug induced Mental Disorder	Other Bacterial Pneumonia	Stimulant intoxication
Altered mental status	empyema, lung abscess	Other cerebral complications	Stress Incontinence
arterial thromboembolism	Fluid Electrolyte Acid Base Problems	Other lower respiratory disease	Subendocardial Infarct
Aseptic Necrosis, Left	Foreign body left during procedure	other lung complications	Suicide or Self-inflicted Injury
Aseptic Necrosis, Right	Gastroenteritis	Other lung problems	Thromboembolic Stroke
Aseptic Necrosis, Unspecified	GI Bleed	Other Mental Disorders	Toxic Effects of Substances
Aspiration Pneumonia	Gram Negative Pneumonia	Other Phlebitis, Lymphangitis, varices	Tracheostomy Complications
Bacteremia, SIRS, no organ dysfunction	HAC 02: Air Embolism	Other psychoactive substance intoxication	Transfusion, Infusion related complications
C-Difficile Infection	HAC 04: Stage III and IV Pressure Ulcers	Other Staph Pneumonia	Transient cerebral ischemia, TIA
Cannabis intoxication	HAC 09: Manifestations of Poor Glycemic Control	Overdose, Poisonings	Urethral Stricture
Chronic and Unspecified Osteomyelitis	Hallucinogen intoxication	Periprosthetic fracture	Urinary Complications
Chronic Fungal and Other Pneumonias	Hemorrhage	Phlebitis, Deep vein thrombosis (DVT)	Urinary Frequency & other symptoms
Chronic Skin Ulcer	Hemorrhagic Stroke	Poisoning by Psychostimulants	Urinary Incontinence
Coma, persistent vegetative state	Hepatorenal Syndrome	Pulmonary Embolism	Urinary Retention
Compl of joint prosthesis, orthopedic proced	Hypertensive Urgency	Pyogenic Arthritis	Urinary Tract Infection
Complication of genitourinary device	Hypotension / Syncope	Recent AMI	Vascular Prosthetic Device/Graft Complication
Complication of Implanted device, graft	Infective Arthritis	Renovascular and other secondary hypertension	Ventilator Associated Pnuemonia
Complications from Central Line	Inhalant intoxication	Resp Failure following trauma / surgery	Ventilator Dependence
Complications from chemotherapy	Insulin Pump Complications	Respiratory Failure	Viral Pneumonia
Complications of anesthesia	Intestinal Obstruction	Respiratory Insufficiency	Wound Dehiscence
complications of medical care	IVC & other intra-abd venous thrombosis	rhabdomyolysis	Wound Infections
complications of surgical procedures	Meningitis / Encephalitis	Sedative, hypnotic or anxiolytic intoxication	
Complications of surgical procedures or medical care	MRSA Pneumonia	Sepsis	
Debilitating Viral Pneumonia	MRSA, Drug Resistant Infections	Severe Sepsis	

Hip Replacement & Hip Revision (HIPRPL)

The Hip Replacement & Hip Revision Episode evaluates services that are typical/routine for the expected care for hip replacement & hip revision, and services that are related to associated complications. Patients are defined as those with a primary procedure code of Hip Replacement or Hip Revision on an inpatient stay service or a trigger procedure code in any position on an outpatient facility/professional service, along with a qualifying diagnosis code. If the Hip Replacement/Hip Revision occurs during the time window of a Hip/Pelvic Fracture episode the Hip Replacement/Hip Revision is related to the Hip/Pelvic Fracture as typical care at the patient level.

Episode Length – HIPRPL



Total Episode Cost= All expected services and complication costs associated during the entire period of Hip Replacement/Hip Revision Episode

Duration Pre-Trigger Window	Duration Post-Trigger Window
30 Days	90 Days

Episode Triggers – HIPRPL

Trigger Group Name	Code Type	Codes
Partial Hip Replacement	CPT	27125
Partial Hip Revision	CPT	27137, 27138
Total Hip Replacement	CPT	27130, 27132
Total Hip Resurfacing	HCPC	S2118
Total Hip Revision	CPT	27134

Trigger Diagnoses – ICD-10

Arthropathy hip, pelvis, thigh, LEFT	Malunion, Left side	Osteoporosis, osteitis deformans, Left
Arthropathy hip, pelvis, thigh, RIGHT	Malunion, Right side	Osteoporosis, osteitis deformans, Right
Arthropathy hip, pelvis, thigh, Unspecified	Malunion, Unspecified	Osteoporosis, osteitis deformans, Unspecified
Aseptic Necrosis, Left	MS - bone - nos - chondrodystrophy	Other arthropathies
Aseptic Necrosis, Right	MS - bone - nos - nec / nos	Other arthropathies, Left side
Aseptic Necrosis, Unspecified	MS - face - acqrd defrmt	Other arthropathies, Right side
Congenital Dislocation of Hip, Bilateral	MS - hip - protrusion of acetabulum	Other Close Fracture Femur Left
Congenital Dislocation of Hip, Left	MS - hip jt replacement	Other Close Fracture Femur Right
Congenital Dislocation of Hip, Right	MS - joint - nos - effusion	Other Close Fracture Femur Unsp
Congenital Dislocation of Hip, Unspecified	MS - joint nos - difficulty walking	Other deformities, limb, other sites, Left
Deformities, Left lower limb	MS - joint nos - jnt derangmnt - loose body	Other deformities, limb, other sites, Right
Deformities, lower limb	MS - joint nos - jnt derangmnt - other	Other deformities, limb, other, Unspecified
Deformities, Right lower limb	MS - joint nos - other arthropathy	Other osteopathic disorders, Unspecified
diabetes mellitus with neurologic manifestations	MS - muscle - nos - muscle atrophy	Partial Hip Replacement
Diabetes, other manifestation	MS - muscle - nos - muscle weakness	Partial Hip Revision
Dislocation Hip, Left	MS - s / p bone transplant	Pathologic, stress fracture Left Femur, Pelv
Dislocation Hip, Right	Neoplsm - benign neoplsm - bone / cartilage - nos	Pathologic, stress fracture Right Femur, Pelv
Dislocation Hip, Unspecified	Neoplsm - benign neoplsm - femur / fibula / tibia	Pathologic, stress fracture Unsp Femur, Pelv
Fistula, Effusion in Joint	Neoplsm - benign neoplsm - lower extremity	Periprosthetic fracture
Gout and other crystal arthropathies	Nonunion, Left side	Personal history of musculoskeletal disorders
Gout and other crystal arthropathies, Left	Nonunion, Right side	Rheumatoid Arthritis and Inflammatory Con, LT
Gout and other crystal arthropathies, Right	Nonunion, Unspecified	Rheumatoid Arthritis and Inflammatory Con, RT
Hip / Pelvis deformities, Left	NS - polyneuropathy - collagen vascular disease	Rheumatoid Arthritis and Inflammatory Connective Tissue Disease
Hip / Pelvis deformities, Right	NS polyneuropathy-collagen vascul disease, LT	Rheumatoid Arthritis, Left
Hip / Pelvis deformities, Unspecified	NS polyneuropathy-collagen vascul disease, RT	Rheumatoid Arthritis, Right
Infective Arthritis	Open wounds of extremities	Rheumatoid Arthritis, Unspecified
Infective Arthritis, Left	Osteoarthritis	Total Hip Replacement
Infective Arthritis, Right	Osteoarthritis, Hip, Left	Total Hip Resurfacing
Inflammatory Arthropathies, Left	Osteoarthritis, Hip, Right	Total Hip Revision
Inflammatory Arthropathies, Right	Osteoarthritis, Hip, Unspecified	Wasting of Muscles and Neuro Muscular Dystrophy
Inflammatory Arthropathies, Unspecified	Osteoarthritis, other joints	

Relevant Procedures – CPT, HCPC, ICD-10

Advance care planning	E & M - hospital	Lab - infectious agent antigen	Other care - chronic edema - appliance - non - segmental
Alcohol / Drug Use Screening	E & M - nursing home	Lab - infectious agent dna	Other care - chronic edema - appliance - segmental
Ancillary Services	E & M - other	Lab - microbiology	Other care - chronic edema - complex therapy
Anesthesia	E & M - prevention	Lab - microbiology - c & s	Other care - chronic edema - compression stocking
Anti-TNF agents	HbA1C	Lab - microbiology - microscopic exam	Other care - chronic edema - compressor
Aortic resection, replacement or anastomosis	Hip replacement; total and partial	Lab - microbiology - other	Other care - chronic edema - compressor - non - segmental
Bleeding Status	Home Health / Hospice	Lab - other clinical lab	Other care - chronic edema - compressor - segmental
Blood Count	Home Health Services	Lab - other hematology	Other care - chronic edema - exterior wrap
Blood Gases, Pulse Oximetry	Hormone Therapy	Lab - pathology consultation	Other care - chronic edema - gauntlet
Blood transfusion	Imaging - ct - follow - up	Lab - specimen collection - blood - arterial - arterial puncture	Other care - chronic edema - sleeve
Blood Type, Coomb's test	Imaging - ct - guidance	Lab - specimen collection - blood - venous - venipuncture	Other care - chronic edema - surgical stockings
Bundled Payment / Medical Home	Imaging - ct - lower extremity	Lab - specimen collection - blood - venous - venous port	Other care - home care - emergency response system
Cardiac Stress Test	Imaging - ct - other	Lab - stat request	Other care - home care - home health aide
Care Plan Oversight	Imaging - ct - study	Lab - surgical pathology	Other care - home care - meals
Case Management Services	Imaging - mra - lower extremity	Lab - therapeutic drug assay	Other care - home care - nursing care
Case Management Services - Behavioral	Imaging - mra - pelvis	Lab - tissue typing	Other care - home care - nursing care - lpn
CHEMOTHERAPY	Imaging - mri - contrast agent	Lab - transfusion medicine	Other care - home care - nursing care - np
CHLAMYDIA SCREENING	Imaging - mri - guidance	Lab - urinalysis	Other care - home care - nursing care - rn
Chronic Care Management	Imaging - mri - other	Laboratory - Chemistry and Hematology	Other care - home care - other care
Closed Surg for Hip socket/Pelvis w/manipulat	Imaging - mri - pelvis	LEAD SCREENING	Other care - home care - other care - attendant care
Closed Surg for Neck/Proximal Femur w/manipul	Imaging - nuclear - bone scan	Lipid Level Monitoring	Other care - home care - other care - chore care
Closed Surg for Neck/Proximal Femur, no manip	Imaging - nuclear - other	Low dose steroids	Other care - home care - other care - companion care
Closed Surg for Shaft or Distal Femur, no man	Imaging - nuclear - other musculoskeletal	Markers for Inflammation	Other care - home care - other care - day care
Closed Surg Hip Socket or Pelvis, no manipul	Imaging - other imaging	Medication Therapy Management Services	Other care - home care - other care - homemaker
Closed treatment of Hip Dislocation, post sur	Imaging - other imaging - bone density	Medications (Injections, infusions and other forms)	Other care - home care - other care - respite care
Closed treatment of Hip Dislocation, Spontane	Imaging - other imaging - bone density - dexta	Metabolic Renal Hepatic Chemistry Panel	Other care - home care - physician supervision
Closed treatment of Hip Dislocation, Traumat	Imaging - other imaging - fluoroscopy	Microscopic examination (bacterial smear, culture, toxicology)	Other care - home care - rehabilitation - occupational therapy
Closed treatment of Slipped Femoral Epiphysis	Imaging - supplies - contrast agent - high osmolar	NewBorn Blood Tests	Other care - home care - rehabilitation - physical therapy
Colonoscopy/Sigmoidoscopy ColorectalCa Screen	Imaging - supplies - contrast agent - low osmolar	Online Management	Other care - home care - social worker
Diagnostic physical therapy	Imaging - us - guide - biopsy	Open Surgery for Hip socket or Pelvis	Other care - home care - specialized visit
DME - bath / toilet aids	Imaging - us - guide - other	Open Surgery for Neck or Proximal Femur	Other care - home care - training
DME - beds / accessories	Imaging - us - other	Open Surgery for Shaft or Distal Femur	Other care - hospice
DME - heat/cold application	Imaging - x-ray - hip - arthrogram	Open treatment of Hip Dislocation, Spontaneou	Other care - long term care - assisted living
DME - mobility aids	Imaging - x-ray - other - bone survey	Open treatment of Hip Dislocation, Traumatic	Other care - long term care - residential care
DME - other	Imaging - x-ray - other - joint survey	Open treatment of Slipped Femoral Epiphysis	Other care - nutrition - assessment
DME - patient lifts	Imaging - x-ray - si joints - arthrogram	Opioid Administration / Dispensing (OTP)	Other care - nutrition - counseling - dietician
DME - repair / maintenance	Imaging Abdomen	Orthotics - lower extremity	Other care - nutrition - education
DME - safety equipment	IMMUNOTHERAPY	Orthotics - orthopedic shoes	Other care - nutrition - medical food
DME - traction	Insertion of catheter or spinal stimulator and injection into spinal canal	Orthotics - other	Other care - nutrition - parenteral - all - inclusive
DME - trapeze / other orthopedic device	Joint X-Rays	Orthotics - upper extremity	Other care - nutrition - parenteral - pump
DME - whirlpool - equipment	Lab - blood gases	Other - non - covered	Other care - observation
DME - wound therapy	Lab - chemistry	Other care - bladder / bowel care - catheter	Other care - other
DME and supplies	Lab - hematology - blood count	Other care - bladder / bowel care - drainage bag	Other care - other - ancillary services
Drug Delivery implantation	Lab - hematology - blood count - eosinophil count	Other care - bladder / bowel care - other supplies	Other care - other - exercise classes
E & M - consultation	Lab - hematology - coagulation	Other care - bladder / bowel care - other supplies - diaper / related	Other care - other - infection control
E & M - emergency care	Lab - immunology	Other care - bladder / bowel care - other supplies - skin barrier	Other care - other - interpretation
E & M - home visit	Lab - infectious agent antibody	Other care - chronic edema - appliance - limb compression	Other care - other - lodging

Relevant Procedures – CPT, HCPC, ICD-10

Other care - other - meals	Procedure - injection - tendons / joints / etc.	Rx - administration - infusion	Tests - pulmonary - exhaled air analysis
Other care - other - medical records	Procedure - injection of skin lesion	Rx - administration - injection	Tests - pulmonary - other
Other care - other - pvd - compressor	Procedure - lymphadenectomy	Rx - antibiotics - aminoglycosides	Tests - pulmonary - peak flow
Other care - other - weight management	Procedure - microsurgery	Rx - antibiotics - anti-infectives, misc	Tests - skin
Other care - pain management - pca / related	Procedure - neuro - other non - or rx	Rx - antibiotics - cephalosporins	Tests - vascular - arterial - extremity
Other care - prevention - smoking cessation	Procedure - neuro - other or rx	Rx - antibiotics - chloramphenicol / comb	Tests - vascular - venous
Other care - respiratory - equipment / supplies	Procedure - other dx on musculoskeletal system	Rx - antibiotics - macrolides	Therapy - acupuncture
Other care - respiratory - equipment / supplies - nebulizer	Procedure - other fracture / dislocation - rx	Rx - antibiotics - penicillins	Therapy - activity therapy
Other care - respiratory - equipment / supplies - peak flow meter	Procedure - other non - or rx - chemodenervation of eccrine glands	Rx - antibiotics - quinolones	Therapy - behavior - partial hospitalization
Other care - respiratory - equipment / supplies - spirometer	Procedure - other non - or rx - other non - or skin procedures	Rx - antibiotics - sulfonamides / comb	Therapy - biofeedback
Other care - respiratory - other	Procedure - other non - or rx on musculoskeletal system	Rx - antibiotics - tetracyclines	Therapy - chiropractic / osteopathic manipulation
Other care - wound care	Procedure - other or rx - other or skin procedures	Rx - antibiotics / antivirals / antifungals - infusion	Therapy - habilitation
Other care - wound care - growth factor	Procedure - other or rx - peripheral neurostimulator procedures	Rx - antibiotics, misc	Therapy - hyperbaric oxygen
Other care - wound care - hyperbaric oxygen	Procedure - other or rx on bone	Rx - b-lactam antibiotics	Therapy - neurostimulator - muscle training
Other diagnostic cardiovascular procedures	Procedure - other or rx on joints	Rx - blood derivatives	Therapy - neurostimulator - nausea / vomiting
Other diagnostic procedures (interview, evaluation, consultation)	Procedure - other or rx on musculoskeletal system	Rx - cardiovascular system - vasodilating agents, nec	Therapy - neurostimulator - tens - device
Other diagnostic radiology and related techniques	Procedure - other rx on muscles and tendons	Rx - cardiovascular system - vasodilating rx	Therapy - osteogenesis stimulator
Other Laboratory	Procedure - other spine - rx / dx - injection	Rx - coagulation system - anticoagulants	Therapy - other
Partial Hip Replacement	Procedure - partial excision bone	Rx - coagulation system - antiheparin agnt	Therapy - phlebotomy
Partial Hip Resurfacing	Procedure - peripheral nerve repair / graft	Rx - coagulation system - hemostatics	Therapy - pt - exercises / activities
Partial Hip Revision	Procedure - related supplies - ablation - catheter	Rx - diagnostic rx - roentgenography	Therapy - pt - modalities
Partial Hip Revision, Left	Procedure - related supplies - access catheter	Rx - diuretics, loop diuretics	Therapy - rehabilitation - related supplies / equipment - motion device
Partial Hip Revision, Right	Procedure - related supplies - arthroplasty	Rx - electrolytic, caloric, water - caloric rx dextrose / rel	Therapy - transfusion - administration
Pathology	Procedure - related supplies - graft / repair	Rx - electrolytic, caloric, water - hydration - unspecified	Therapy - transfusion - blood
Personal Care Services	Procedure - related supplies - implant	Rx - electrolytic, caloric, water - multi-mineral prep	Therapy - transfusion - granulocytes
Physical Therapy / Rehab	Procedure - related supplies - other	Rx - electrolytic, caloric, water - potassium supp	Therapy - transfusion - plasma
Physician Services	Procedure - removal of pins or fixation	Rx - gi - antiemetics	Therapy - transfusion - platelets
Physician Services - Inpatient	Procedure - rx - fracture / dislocation - hip / femur	Rx - gi - ppis	Thyroid Function Tests
Physician Services - Outpatient	Procedure - spinal canal - catheter	Rx - hematopoietic system - hematopoietic growth factors	Total Hip Replacement
Preventive Medicine, Care Coordination	Procedure - spinal canal - injection into spinal canal	Rx - hematopoietic system - iron / related	Total Hip Replacement, Left
Procedure - anesthesia	Procedure - spinal canal - other	Rx - miscellaneous rx	Total Hip Replacement, Right
Procedure - arthroscopy - other joints	Procedure - suture - skin - complex wound repair	Rx - miscellaneous rx - enzymes	Total Hip Resurfacing
Procedure - block - nerve	Procedure - suture - skin - delayed wound closure	Rx - muscle relaxants - muscle relax, skeletal central	Total Hip Revision
Procedure - bone graft	Procedure - vascular access - port / pump - insertion	Rx - other	Total Hip Revision, Left
Procedure - casting / splinting - application	Procedures and Reporting	Rx - pharmacy fee	Total Hip Revision, Right
Procedure - casting / splinting - supplies	Prosthetic Implant	Rx - serums, toxoids, vaccines - serums	Transitional Care Management
Procedure - central venous catheter - insertion	Prosthetics - external power	Rx - vitamins - multivit prep	Transportation - other transportation
Procedure - debridement - wound / infection / burn - debridement	Prosthetics - implant	Screen for amino acid disorders	Transportation - paramedic
Procedure - destruction - nerve	Prosthetics - lower extremity	Supplies	Ungrouped Codes
Procedure - excision - skin - remove subcutaneous lesion	Prosthetics - other	Tests - cardiac - ecg - ecg - 12 lead	Urine Protein
Procedure - excision - skin - shave skin lesion	Prosthetics - repair	Tests - cardiac - ecg - other	Vaccine for flu or Pneumonia
Procedure - gastric neurostimulator - implantation	Prosthetics - upper extremity	Tests - cardiac stress tests - cardiac perfusion scan - rest / exercise	Wellness Assessment
Procedure - graft	Psychiatry Evaluations	Tests - cardiac stress tests - cardiac stress tests - other	X-Ray Thoracolumbar Spine / Pelvis
Procedure - graft - skin - graft material	Psychiatry Services	Tests - neuro - muscle testing	
Procedure - i&d - skin - drainage - post - op infection	Psychological and psychiatric evaluation and therapy	Tests - neuro - ncv / emg	
Procedure - i&d - skin - drainage of abscess	Risk Assessment	Tests - neuro - other	
Procedure - i&d - skin - drainage of hematoma	Robotic Surgery	Tests - neuro - sleep studies	

Relevant Diagnoses – ICD-10

Arthropathy hip, pelvis, thigh, LEFT	Inflammatory Arthropathies, Unspecified	Osteoarthritis, Hip, Unspecified
Arthropathy hip, pelvis, thigh, RIGHT	Malunion, Left side	Osteoarthritis, other joints
Arthropathy hip, pelvis, thigh, Unspecified	Malunion, Right side	Osteoporosis, osteitis deformans, Left
Aseptic Necrosis, Left	Malunion, Unspecified	Osteoporosis, osteitis deformans, Right
Aseptic Necrosis, Right	MS - bone - nos - chondrodystrophy	Osteoporosis, osteitis deformans, Unspecified
Aseptic Necrosis, Unspecified	MS - bone - nos - nec / nos	Other arthropathies
Congenital Dislocation of Hip, Bilateral	MS - face - acqrd defrmty	Other arthropathies, Left side
Congenital Dislocation of Hip, Left	MS - hip - protrusion of acetabulum	Other arthropathies, Right side
Congenital Dislocation of Hip, Right	MS - hip jt replacement	Other Close Fracture Femur Left
Congenital Dislocation of Hip, Unspecified	MS - joint - nos - effusion	Other Close Fracture Femur Right
Deformities, Left lower limb	MS - joint nos - difficulty walking	Other Close Fracture Femur Unsp
Deformities, lower limb	MS - joint nos - jnt derangmnt - loose body	Other deformities, limb, other sites, Left
Deformities, Right lower limb	MS - joint nos - jnt derangmnt - other	Other deformities, limb, other sites, Right
diabetes mellitus with neurologic manifestations	MS - joint nos - other arthropathy	Other deformities, limb, other, Unspecified
Diabetes, other manifestation	MS - muscle - nos - muscle atrophy	Other osteopathic disorders, Unspecified
Dislocation Hip, Left	MS - muscle - nos - muscle weakness	Pathologic, stress fracture Left Femur, Pelv
Dislocation Hip, Right	MS - s / p bone transplant	Pathologic, stress fracture Right Femur, Pelv
Dislocation Hip, Unspecified	Neoplsm - benign neoplsm - bone / cartilage - nos	Pathologic, stress fracture Unsp Femur, Pelv
Fistula, Effusion in Joint	Neoplsm - benign neoplsm - femur / fibula / tibia	Periprosthetic fracture
Gout and other crystal arthropathies	Neoplsm - benign neoplsm - lower extremity	Personal history of musculoskeletal disorders
Gout and other crystal arthropathies, Left	Nonunion, Left side	Rheumatoid Arthritis and Inflammatory Con, LT
Gout and other crystal arthropathies, Right	Nonunion, Right side	Rheumatoid Arthritis and Inflammatory Con, RT
Hip / Pelvis deformities, Left	Nonunion, Unspecified	Rheumatoid Arthritis and Inflammatory Connective Tissue Disease
Hip / Pelvis deformities, Right	NS - polyneuropathy - collagen vascular disease	Rheumatoid Arthritis, Left
Hip / Pelvis deformities, Unspecified	NS polyneuropathy-collagen vascul disease, LT	Rheumatoid Arthritis, Right
Infective Arthritis	NS polyneuropathy-collagen vascul disease, RT	Rheumatoid Arthritis, Unspecified
Infective Arthritis, Left	Open wounds of extremities	Wasting of Muscles and Neuro Muscular Dystrophy
Infective Arthritis, Right	Osteoarthritis	
Inflammatory Arthropathies, Left	Osteoarthritis, Hip, Left	
Inflammatory Arthropathies, Right	Osteoarthritis, Hip, Right	

Complications – ICD-10

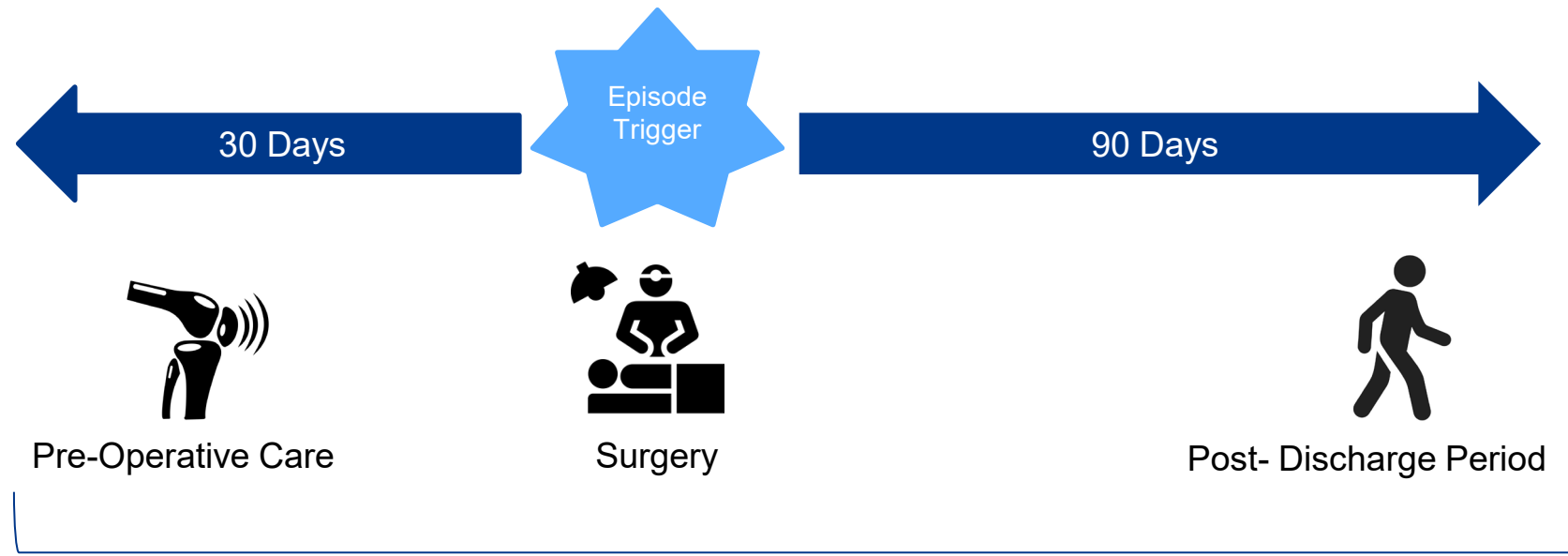
Accidental Falls	Debilitating Viral Pneumonia	Meningitis / Encephalitis	Shock / Cardiac Arrest
Acute CHF / pulm edema	Decubitus Ulcer	MRSA Pneumonia	Shock during or following cardiac surgery
Acute cor pulmonale	Dehydration	MRSA, Drug Resistant Infections	Shock during or post-procedure
Acute esophagitis, acute gastritis, duodenitis	Delirium, Encephalopathy	Opportunistic Infections	Skin - other
Acute Kidney Failure	Dermatitis, Urticaria	Other bacterial infections	Skin and subcutaneous tissue infections
Acute myocardial infarction	Diabetes, poor control	Other Bacterial Pneumonia	STEMI
Acute Osteomyelitis	dic, coagulation, hemorrhagic disorders	Other cardiac arrhythmias	Subendocardial Infarct
Adverse effects of drugs	empyema, lung abscess	Other cerebral complications	Supraventricular Tachyarrhythmias
Altered mental status	Esophageal Reflux and Other Esophagitis	Other lower respiratory disease	Thromboembolic Stroke
arterial thromboembolism	Fluid Electrolyte Acid Base Problems	other lung complications	Tracheostomy Complications
Aspiration Pneumonia	Foreign body left during procedure	Other lung problems	Transfusion, Infusion related complications
Atrial Flutter / Fibrillation	Gastroenteritis	Other Mental Disorders	Transient cerebral ischemia, TIA
Bacteremia, SIRS, no organ dysfunction	GI Bleed	Other Phlebitis, Lymphangitis, varices	Urethral Stricture
Bladder Dysfunction, hemorrhage	Gram Negative Pneumonia	Other Staph Pneumonia	Urinary Complications
C-Difficile Infection	HAC 02: Air Embolism	Perforation, Peritonitis, Abd Abscess	Urinary Frequency & other symptoms
Cellulitis, Skin Infection	HAC 04: Stage III and IV Pressure Ulcers	Periprosthetic fracture	Urinary Incontinence
Chronic and Unspecified Osteomyelitis	HAC 09: Manifestations of Poor Glycemic Control	Phlebitis, Deep vein thrombosis (DVT)	Urinary Tract Infection
Chronic Fungal and Other Pneumonias	Hemarthrosis: Bleeding into Joints	Pulmonary Embolism	Vascular Insufficiency of intestine
Chronic Skin Ulcer	Hemorrhage	Pyoderma	Vascular Prosthetic Device/Graft Complication
Coma, persistent vegetative state	Hemorrhagic Stroke	Pyogenic Arthritis	Ventilator Associated Pnuemonia
Compl of joint prosthesis, orthopedic proced	Hepatorenal Syndrome	Recent AMI	Ventilator Dependence
Complication of genitourinary device	Hypertensive Urgency	Renovascular and other secondary hypertension	Ventricular Arrhythmias
Complication of Implanted device, graft	Hypotension / Syncope	Resp Failure following trauma / surgery	Viral Pneumonia
Complications from Central Line	Infective Arthritis	Respiratory Failure	Wound Dehiscence
Complications of anesthesia	Influenza with Pneumonia	Respiratory Insufficiency	Wound Infections
complications of medical care	Intestinal Obstruction	rhabdomyolysis	
complications of surgical procedures	IVC & other intra-abd venous thrombosis	Sepsis	
Complications of surgical procedures or medical care	Lung disease from opportunistic infections	Severe Sepsis	



Knee Arthroscopy (KNARTH)

The Knee Arthroscopy Episode evaluates services that are typical/routine for the expected care and services that are related to associated complications. Patients are defined as those with a primary procedure code of Knee Arthroscopy on an inpatient stay service or a trigger procedure code in any position on an outpatient facility/professional service, along with a qualifying diagnosis code.

Episode Length – KNARTH



Total Episode Cost= All expected services and complication costs associated during the entire period of KNARTH Episode

Duration Pre-Trigger Window	Duration Post-Trigger Window
30 Days	90 Days

Episode Triggers – KNARTH

Trigger Group Name	Code Type	Codes
ACL Repair Knee	CPT	2988
Arthroscopy Knee Meniscal Transplant / Graft	CPT	29866-29868
Knee Arthroscopy without ligament repair	CPT	29870-29884
Posterior Cruciate Ligament Repair Knee	CPT	29889

Trigger Diagnoses – ICD-10, CPT

ACL Repair Knee	Knee Arthroscopy without ligament repair	MS - knee jt - replacement	Other arthropathies, Right side
Anterior Cruciate Ligament Sprain	Knee deformities, Left	MS - mscl / lgrmnt / fscia - nos - nec / nos	Other Close Fracture Femur Left
Arthroscopy Knee Meniscal Transplant / Graft	Knee deformities, Right	MS - synvm / tndn / brsa - nos - bursitis	Other Close Fracture Femur Right
Aseptic Necrosis, Left	Knee deformities, Unspecified	MS - synvm / tndn / brsa - nos - ganglion / cyst	Other Close Fracture Femur Unsp
Aseptic Necrosis, Right	Knee derangements, Left	MS - synvm / tndn / brsa - nos - nec / nos	Other deformities, limb, other sites, Left
Aseptic Necrosis, Unspecified	Knee derangements, Right	MS - synvm / tndn / brsa - nos - rupture - synovium	Other deformities, limb, other sites, Right
Compl of joint prosthesis, orthopedic proced	Knee derangements, Unspecified	MS - synvm / tndn / brsa - nos - rupture - tendon	Other deformities, limb, other, Unspecified
Contracture lower leg joint	Malunion, Left side	MS - synvm / tndn / brsa - nos - synvtis/tensyn	Other osteopathic disorders, Left
Cruciate Ligament Sprain	Malunion, Right side	MS - uppr leg - tendon rupture - quadriceps	Other osteopathic disorders, Right
Deformities, Left lower limb	Malunion, Unspecified	Necrotising Fasciitis	Other osteopathic disorders, Unspecified
Deformities, lower limb	Meniscus Injurt of Knee, Unspecified	Neoplsm - benign neoplsm - bone / cartilage - nos	Patella Injuries and Disorders
Deformities, Right lower limb	Meniscus Injurt of Left Knee	Neoplsm - benign neoplsm - femur / fibula / tibia	Patella Injuries and Disorders, Left
diabetes mellitus with neurologic manifestations	Meniscus Injurt of Right Knee	Neoplsm - benign neoplsm - lower extremity	Patella Injuries and Disorders, Right
Diabetes, other manifestation	MS - bone - nos - chondrodystrophy	Nonunion, Left side	Pathologic, stress fracture Left Femur, Pelv
Dislocation of Knee, Left	MS - bone - nos - nec / nos	Nonunion, Right side	Pathologic, stress fracture Right Femur, Pelv
Dislocation of Knee, Right	MS - bone - nos - service - other	Nonunion, Unspecified	Pathologic, stress fracture Unsp Femur, Pelv
Dislocation of Knee, Unspecified	MS - face - acqrd defrmtly	NS - polyneuropathy - collagen vascular disease	Periprosthetic fracture
Disorders of the Knee	MS - joint - nos - effusion	NS polyneuropathy-collagen vascul disease, LT	Posterior Cruciate Ligament Repair Knee
Fistula, Effusion in Joint	MS - joint nos - difficulty walking	NS polyneuropathy-collagen vascul disease, RT	Posterior Cruciate Ligament Sprain
Gout and other crystal arthropathies	MS - joint nos - jnt derangmnt - loose body	Open wounds of extremities	Pyogenic Arthritis
Gout and other crystal arthropathies, Left	MS - joint nos - jnt derangmnt - other	Osteoarthritis	Rheumatoid Arthritis and Inflammatory Con, LT
Gout and other crystal arthropathies, Right	MS - joint nos - other arthropathy	Osteoarthritis, Knee, Bilateral	Rheumatoid Arthritis and Inflammatory Con, RT
Hemarthrosis: Bleeding into Joints	MS - knee - disloc - pathologic	Osteoarthritis, Knee, Unspecified	Rheumatoid Arthritis and Inflammatory Connective Tissue Disease
Infective Arthritis	MS - knee - disloc - recurrent	Osteoarthritis, Left Knee	Rheumatoid Arthritis, Left
Infective Arthritis, Left	MS - knee - enthesopathy - nec / nos	Osteoarthritis, other joints	Rheumatoid Arthritis, Right
Infective Arthritis, Right	MS - knee - jnt derangmnt - nec / nos	Osteoarthritis, Right Knee	Rheumatoid Arthritis, Unspecified
Inflammatory Arthropathies, Left	MS - knee - other arthropathy	Osteoporosis, osetitis deformans	Sprains and Strains
Inflammatory Arthropathies, Right	MS - knee - pain	Osteoporosis, osetitis deformans, Left	Wasting of Muscles and Neuro Musc Dystro, LT
Inflammatory Arthropathies, Unspecified	MS - knee - stiffness	Osteoporosis, osetitis deformans, Right	Wasting of Muscles and Neuro Musc Dystro, RT
Injury to other ligaments, Knee, Left	MS - knee - synovium rupture	Osteoporosis, osetitis deformans, Unspecified	Wasting of Muscles and Neuro Muscular Dystrophy
Injury to other ligaments, Knee, Right	MS - knee - tendon rupture	Other arthropathies	
Injury to other ligaments, Knee, Unsp	MS - knee - tibial collateral ligament bursitis	Other arthropathies, Left side	

Relevant Procedures – CPT, HCPC, ICD-10

ACL Repair Knee	E & M - nursing home	Lab - microbiology - c & s	Other care - chronic edema - compression stocking
Advance care planning	E & M - other	Lab - microbiology - microscopic exam	Other care - chronic edema - compressor
Alcohol / Drug Use Screening	E & M - prevention	Lab - microbiology - other	Other care - chronic edema - compressor - non - segmental
Ancillary Services	Excision of semilunar cartilage of knee	Lab - other clinical lab	Other care - chronic edema - compressor - segmental
Anesthesia	HbA1C	Lab - other hematology	Other care - chronic edema - exterior wrap
Aortic resection, replacement or anastomosis	Home Health / Hospice	Lab - pathology consultation	Other care - chronic edema - gauntlet
Arthroscopy	Home Health Services	Lab - specimen collection - blood - arterial - arterial puncture	Other care - chronic edema - glove
Arthroscopy Knee Meniscal Transplant / Graft	Hormone Therapy	Lab - specimen collection - blood - venous - venipuncture	Other care - chronic edema - sleeve
Bleeding Status	Imaging - ct - follow - up	Lab - specimen collection - blood - venous - venous port	Other care - chronic edema - surgical stockings
Blood Count	Imaging - ct - guidance	Lab - specimen collection - specimen handling	Other care - home care - emergency response system
Blood Gases, Pulse Oximetry	Imaging - ct - lower extremity	Lab - stat request	Other care - home care - home health aide
Blood transfusion	Imaging - ct - other	Lab - surgical pathology	Other care - home care - meals
Blood Type, Coomb's test	Imaging - mra - lower extremity	Lab - therapeutic drug assay	Other care - home care - nursing care
Bundled Payment / Medical Home	Imaging - mri - contrast agent	Lab - tissue typing	Other care - home care - nursing care - lpn
Cardiac Stress Test	Imaging - mri - guidance	Lab - transfusion medicine	Other care - home care - nursing care - np
Care Plan Oversight	Imaging - mri - other	Lab - urinalysis	Other care - home care - nursing care - rn
Case Management Services	Imaging - other imaging	Laboratory - Chemistry and Hematology	Other care - home care - other care
CHEMOTHERAPY	Imaging - other imaging - bone density	LEAD SCREENING	Other care - home care - other care - attendant care
CHLAMYDIA SCREENING	Imaging - other imaging - fluoroscopy	Lipid Level Monitoring	Other care - home care - other care - chore care
Chronic Care Management	Imaging - supplies - contrast agent - high osmolar	Low dose steroids	Other care - home care - other care - companion care
Colonoscopy/Sigmoidoscopy ColorectalCa Screen	Imaging - supplies - contrast agent - low osmolar	Markers for Inflammation	Other care - home care - other care - day care
Diagnostic physical therapy	Imaging - us - guide - biopsy	Medication Assisted Management (MAT)	Other care - home care - other care - homemaker
Division of joint capsule, ligament or cartilage	Imaging - us - guide - other	Medication Therapy Management Services	Other care - home care - other care - respite care
DME - bath / toilet aids	Imaging - us - other	Medications (Injections, infusions and other forms)	Other care - home care - physician supervision
DME - beds / accessories	Imaging - x-ray - knee - arthrogram	Metabolic Renal Hepatic Chemistry Panel	Other care - home care - rehabilitation - occupational therapy
DME - heat/cold application	Imaging - x-ray - lower leg	Microscopic examination (bacterial smear, culture, toxicology)	Other care - home care - rehabilitation - physical therapy
DME - mobility aids	Imaging - x-ray - other - bone survey	NewBorn Blood Tests	Other care - home care - social worker
DME - other	Imaging - x-ray - other - joint survey	Online Management	Other care - home care - specialized visit
DME - patient lifts	Insertion of catheter or spinal stimulator and injection into spinal canal	Opioid Administration / Dispensing (OTP)	Other care - home care - training
DME - repair / maintenance	Joint X-Rays	Orthotics - lower extremity	Other care - hospice
DME - restraints	Knee Arthroscopy without ligament repair	Orthotics - orthopedic shoes	Other care - long term care - assisted living
DME - safety equipment	Lab - blood gases	Orthotics - other	Other care - long term care - residential care
DME - traction	Lab - chemistry	Other - non - covered	Other care - nutrition - assessment
DME - trapeze / other orthopedic device	Lab - chemistry and toxicology tests	Other care - bladder / bowel care - catheter	Other care - nutrition - counseling - dietician
DME - whirlpool - equipment	Lab - hematology - blood count	Other care - bladder / bowel care - drainage bag	Other care - nutrition - education
DME - wound therapy	Lab - hematology - blood count - eosinophil count	Other care - bladder / bowel care - other supplies	Other care - nutrition - medical food
DME and supplies	Lab - hematology - coagulation	Other care - bladder / bowel care - other supplies - diaper / related	Other care - observation
Drug Delivery implantation	Lab - immunology	Other care - bladder / bowel care - other supplies - skin barrier	Other care - other
E & M - consultation	Lab - infectious agent antibody	Other care - chronic edema - appliance - limb compression	Other care - other - ancillary services
E & M - emergency care	Lab - infectious agent antigen	Other care - chronic edema - appliance - non - segmental	Other care - other - exercise classes
E & M - home visit	Lab - infectious agent dna	Other care - chronic edema - appliance - segmental	Other care - other - infection control
E & M - hospital	Lab - microbiology	Other care - chronic edema - complex therapy	Other care - other - interpretation

Relevant Procedures – CPT, HCPC, ICD-10

Other care - other - lead assessment	Procedure - i&d - skin - drainage - post - op infection	Rx - administration - injection	Tests - neuro - other
Other care - other - lodging	Procedure - i&d - skin - drainage of abscess	Rx - antibiotics - aminoglycosides	Tests - neuro - sleep studies
Other care - other - meals	Procedure - i&d - skin - drainage of hematoma	Rx - antibiotics - anti-infectives, misc	Tests - pulmonary - exhaled air analysis
Other care - other - medical records	Procedure - injection - tendons / joints / etc.	Rx - antibiotics - cephalosporins	Tests - pulmonary - other
Other care - other - pvd - compressor	Procedure - injection of skin lesion	Rx - antibiotics - chloramphenicol / comb	Tests - pulmonary - peak flow
Other care - other - weight management	Procedure - microsurgery	Rx - antibiotics - macrolides	Tests - skin
Other care - pain management - pca / related	Procedure - neuro - other non - or rx	Rx - antibiotics - penicillins	Tests - vascular - arterial - extremity
Other care - prevention - smoking cessation	Procedure - neuro - other or rx	Rx - antibiotics - quinolones	Tests - vascular - venous
Other care - respiratory - equipment / supplies	Procedure - open excision - knee cartilage	Rx - antibiotics - sulfonamides / comb	Therapy - acupuncture
Other care - respiratory - equipment / supplies - nebulizer	Procedure - other dx on musculoskeletal system	Rx - antibiotics - tetracyclines	Therapy - activity therapy
Other care - respiratory - equipment / supplies - peak flow meter	Procedure - other non - or rx - other non - or skin procedures	Rx - antibiotics - misc	Therapy - allergy treatment
Other care - respiratory - equipment / supplies - spirometer	Procedure - other non - or rx on musculoskeletal system	Rx - b-lactam antibiotics	Therapy - behavior - partial hospitalization
Other care - respiratory - other	Procedure - other or rx on bone	Rx - blood derivatives	Therapy - biofeedback
Other care - wound care	Procedure - other or rx on joints	Rx - cardiovascular system - vasodilating agents, nec	Therapy - chiropractic / osteopathic manipulation
Other care - wound care - growth factor	Procedure - other or rx on musculoskeletal system	Rx - cardiovascular system - vasodilating rx	Therapy - habilitation
Other care - wound care - hyperbaric oxygen	Procedure - other rx on muscles and tendons	Rx - coagulation system - anticoagulants	Therapy - hyperbaric oxygen
Other diagnostic procedures (interview, evaluation, consultation)	Procedure - partial excision bone	Rx - coagulation system - antiheparin agnt	Therapy - neurostimulator - muscle training
Other diagnostic procedures on musculoskeletal system	Procedure - peripheral nerve - decompression - other	Rx - coagulation system - hemostatics	Therapy - neurostimulator - nausea / vomiting
Other Laboratory	Procedure - peripheral nerve repair / graft	Rx - diagnostic rx - roentgenography	Therapy - neurostimulator - tens - device
Other non-OR therapeutic procedures on musculoskeletal system	Procedure - related supplies - ablation - catheter	Rx - diuretics, loop diuretics	Therapy - osteogenesis stimulator
Other OR therapeutic procedures on joints	Procedure - related supplies - access catheter	Rx - electrolytic, caloric, water - caloric rx dextrose / rel	Therapy - other
Pathology	Procedure - related supplies - graft / repair	Rx - electrolytic, caloric, water - hydration - unspecified	Therapy - phlebotomy
Personal Care Services	Procedure - related supplies - implant	Rx - electrolytic, caloric, water - multi-mineral prep	Therapy - pt - exercises / activities
Physical Therapy / Rehab	Procedure - related supplies - other	Rx - electrolytic, caloric, water - potassium supp	Therapy - pt - modalities
Physician Services	Procedure - removal of pins or fixation	Rx - gi - antiemetics	Therapy - rehabilitation - related supplies / equipment - motion device
Physician Services - Inpatient	Procedure - sedation	Rx - gi - ppis	Therapy - transfusion - administration
Physician Services - Outpatient	Procedure - spinal canal - catheter	Rx - hematopoietic system - hematopoietic growth factors	Therapy - transfusion - blood
Posterior Cruciate Ligament Repair Knee	Procedure - spinal canal - injection into spinal canal	Rx - miscellaneous rx	Therapy - transfusion - granulocytes
Preventive Medicine, Care Coordination	Procedure - spinal canal - other	Rx - miscellaneous rx - enzymes	Therapy - transfusion - plasma
Procedure - anesthesia	Procedures and Reporting	Rx - muscle relaxants - muscle relax, skeletal central	Therapy - transfusion - platelets
Procedure - arthroscopy - knee - other	Prosthetic Implant	Rx - other	Thyroid Function Tests
Procedure - arthroscopy - other joints	Prosthetics - external power	Rx - pharmacy fee	Transitional Care Management
Procedure - block - nerve	Prosthetics - implant	Rx - serums, toxoids, vaccines - serums	Transportation - other transportation
Procedure - bone graft	Prosthetics - lower extremity	Rx - vitamins - multivit prep	Transportation - paramedic
Procedure - casting / splinting - application	Prosthetics - other	Screen for amino acid disorders	Ungrouped Codes
Procedure - casting / splinting - supplies	Prosthetics - repair	Supplies	Urine Protein
Procedure - central venous catheter - insertion	Prosthetics - trusses	Tests - cardiac - ecg - ecg - 12 lead	Vaccine for flu or Pneumonia
Procedure - debridement - wound / infection / burn - debridement	Psychiatry Services	Tests - cardiac - ecg - other	Wellness Assessment
Procedure - destruction - nerve	Psychological and psychiatric evaluation and therapy	Tests - cardiac stress tests - cardiac perfusion scan - rest / exercise	
Procedure - excision - skin - shave skin lesion	Risk Assessment	Tests - cardiac stress tests - cardiac stress tests - other	
Procedure - graft	Robotic Surgery	Tests - neuro - muscle testing	
Procedure - graft - skin - graft material	Rx - administration - infusion	Tests - neuro - ncv / emg	

Relevant Diagnoses – ICD-10

Anterior Cruciate Ligament Sprain	Knee deformities, Right	MS - mscl / lgmnt / fscia - nos - nec / nos	Other arthropathies, Right side
Aseptic Necrosis, Left	Knee deformities, Unspecified	MS - synvm / tndn / brsa - nos - bursitis	Other Close Fracture Femur Left
Aseptic Necrosis, Right	Knee derangements, Left	MS - synvm / tndn / brsa - nos - ganglion / cyst	Other Close Fracture Femur Right
Aseptic Necrosis, Unspecified	Knee derangements, Right	MS - synvm / tndn / brsa - nos - nec / nos	Other Close Fracture Femur Unsp
Compl of joint prosthesis, orthopedic proced	Knee derangements, Unspecified	MS - synvm / tndn / brsa - nos - rupture - synovium	Other deformities, limb, other sites, Left
Contracture lower leg joint	Malunion, Left side	MS - synvm / tndn / brsa - nos - rupture - tendon	Other deformities, limb, other sites, Right
Cruciate Ligament Sprain	Malunion, Right side	MS - synvm / tndn / brsa - nos - synvtis/tensyn	Other deformities, limb, other, Unspecified
Deformities, Left lower limb	Malunion, Unspecified	MS - uppr leg - tendon rupture - quadriceps	Other osteopathic disorders, Left
Deformities, lower limb	Meniscus Injurt of Knee, Unspecified	Necrotising Fasciitis	Other osteopathic disorders, Right
Deformities, Right lower limb	Meniscus Injurt of Left Knee	Neoplsn - benign neoplsn - bone / cartilage - nos	Other osteopathic disorders, Unspecified
diabetes mellitus with neurologic manifestations	Meniscus Injurt of Right Knee	Neoplsn - benign neoplsn - femur / fibula / tibia	Patella Injuries and Disorders
Diabetes, other manifestation	MS - bone - nos - chondrodystrophy	Neoplsn - benign neoplsn - lower extremity	Patella Injuries and Disorders, Left
Dislocation of Knee, Left	MS - bone - nos - nec / nos	Nonunion, Left side	Patella Injuries and Disorders, Right
Dislocation of Knee, Right	MS - bone - nos - service - other	Nonunion, Right side	Pathologic, stress fracture Left Femur, Pelv
Dislocation of Knee, Unspecified	MS - face - acqrd defrmt	Nonunion, Unspecified	Pathologic, stress fracture Right Femur, Pelv
Disorders of the Knee	MS - joint - nos - effusion	NS - polyneuropathy - collagen vascular disease	Pathologic, stress fracture Unsp Femur, Pelv
Fistula, Effusion in Joint	MS - joint nos - difficulty walking	NS polyneuropathy-collagen vascul disease, LT	Periprosthetic fracture
Gout and other crystal arthropathies	MS - joint nos - jnt derangmnt - loose body	NS polyneuropathy-collagen vascul disease, RT	Posterior Cruciate Ligament Sprain
Gout and other crystal arthropathies, Left	MS - joint nos - jnt derangmnt - other	Open wounds of extremities	Pyogenic Arthritis
Gout and other crystal arthropathies, Right	MS - joint nos - other arthropathy	Osteoarthritis	Rheumatoid Arthritis and Inflammatory Con, LT
Hemarthrosis: Bleeding into Joints	MS - knee - disloc - pathologic	Osteoarthritis, Knee, Bilateral	Rheumatoid Arthritis and Inflammatory Con, RT
Infective Arthritis	MS - knee - disloc - recurrent	Osteoarthritis, Knee, Unspecified	Rheumatoid Arthritis and Inflammatory Connective Tissue Disease
Infective Arthritis, Left	MS - knee - enthesopathy - nec / nos	Osteoarthritis, Left Knee	Rheumatoid Arthritis, Left
Infective Arthritis, Right	MS - knee - jnt derangmnt - nec / nos	Osteoarthritis, other joints	Rheumatoid Arthritis, Right
Inflammatory Arthropathies, Left	MS - knee - other arthropathy	Osteoarthritis, Right Knee	Rheumatoid Arthritis, Unspecified
Inflammatory Arthropathies, Right	MS - knee - pain	Osteoporosis, ostetits deformans	Sprains and Strains
Inflammatory Arthropathies, Unspecified	MS - knee - stiffness	Osteoporosis, ostetits deformans, Left	Wasting of Muscles and Neuro Musc Dystro, LT
Injury to other ligaments, Knee, Left	MS - knee - synovium rupture	Osteoporosis, ostetits deformans, Right	Wasting of Muscles and Neuro Musc Dystro, RT
Injury to other ligaments, Knee, Right	MS - knee - tendon rupture	Osteoporosis, ostetits deformans, Unspecified	Wasting of Muscles and Neuro Muscular Dystrophy
Injury to other ligaments, Knee, Unsp	MS - knee - tibial collateral ligament bursitis	Other arthropathies	
Knee deformities, Left	MS - knee jt - replacement	Other arthropathies, Left side	

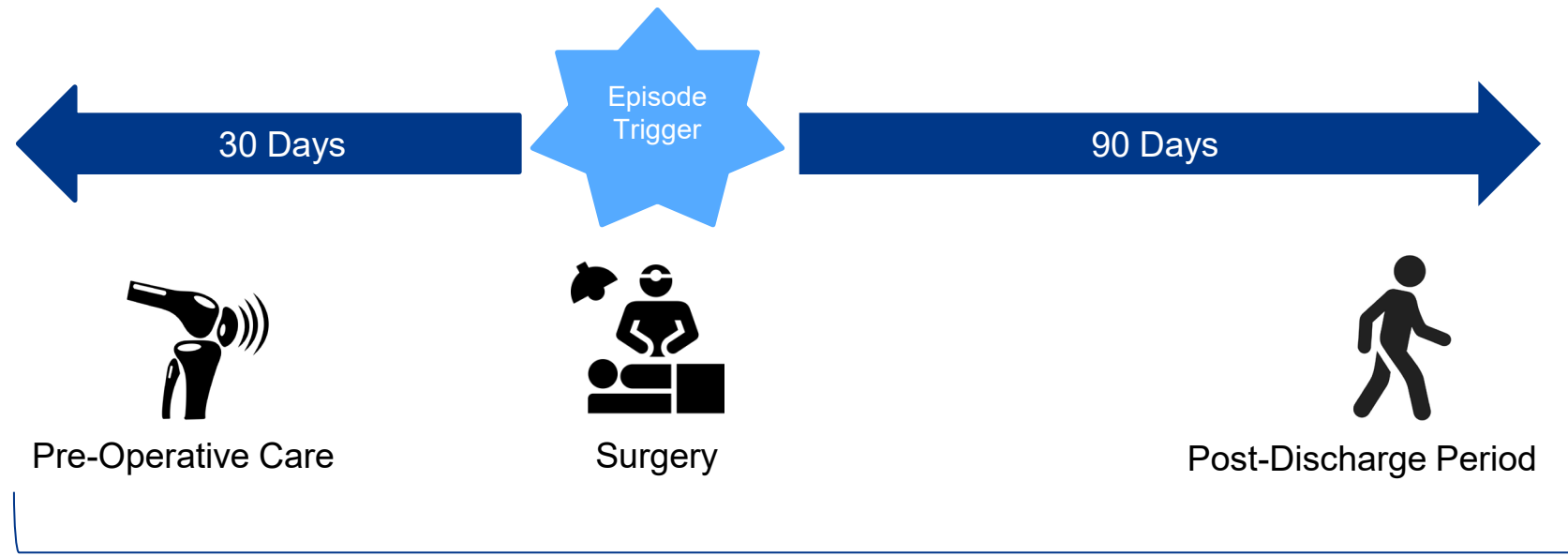
Complications – ICD-10

Accidental Falls	Dehydration	Lung disease from opportunistic infections	Shock / Cardiac Arrest
Acute CHF / pulm edema	Dermatitis, Urticaria	Malfunction / Complication of Heart Device	Shock during or following cardiac surgery
Acute cor pulmonale	Diabetes, poor control	Meningitis / Encephalitis	Shock during or post-procedure
Acute Kidney Failure	dic, coagulation, hemorrhagic disorders	MRSA Pneumonia	Skin - other
Acute Osteomyelitis	Disorders of the Knee	MRSA, Drug Resistant Infections	Skin and subcutaneous tissue infections
Adverse effects of drugs	empyema, lung abscess	Opportunistic Infections	STEMI
arterial thromboembolism	Esophageal Reflux and Other Esophagitis	Other bacterial infections	Subendocardial Infarct
Aspiration Pneumonia	Fluid Electrolyte Acid Base Problems	Other Bacterial Pneumonia	Thromboembolic Stroke
Bacteremia, SIRS, no organ dysfunction	Foreign body left during procedure	Other cerebral complications	Tracheostomy Complications
C-Difficile Infection	Gastroenteritis	Other lower respiratory disease	Transfusion, Infusion related complications
Cellulitis, Skin Infection	GI Bleed	other lung complications	Transient cerebral ischemia, TIA
Chronic and Unspecified Osteomyelitis	Gram Negative Pneumonia	Other lung problems	Urethral Stricture
Chronic Fungal and Other Pneumonias	HAC 02: Air Embolism	Other Phlebitis, Lymphangitis, varices	Urinary Complications
Chronic Skin Ulcer	HAC 04: Stage III and IV Pressure Ulcers	Other Staph Pneumonia	Urinary Frequency & other symptoms
Compl of joint prosthesis, orthopedic proced	HAC 09: Manifestations of Poor Glycemic Control	Periprosthetic fracture	Urinary Incontinence
Complication of genitourinary device	Hemorrhage	Phlebitis, Deep vein thrombosis (DVT)	Urinary Tract Infection
Complication of Implanted device, graft	Hemorrhagic Stroke	Pulmonary Embolism	Vascular Prosthetic Device/Graft Complication
Complication of nervous system device	Hepatorenal Syndrome	Pyoderma	Ventilator Associated Pnuemonia
Complications from Central Line	Hypertensive Urgency	Pyogenic Arthritis	Ventilator Dependence
Complications from chemotherapy	Hypotension / Syncope	Recent AMI	Viral Pneumonia
Complications of anesthesia	Infective Arthritis	Resp Failure following trauma / surgery	Wound Dehiscence
complications of medical care	Infective Arthritis, Left	Respiratory Failure	Wound Infections
complications of surgical procedures	Infective Arthritis, Right	Respiratory Insufficiency	
Complications of surgical procedures or medical care	Influenza with Pneumonia	rhabdomyolysis	
Debilitating Viral Pneumonia	Intestinal Obstruction	Sepsis	
Decubitus Ulcer	IVC & other intra-abd venous thrombosis	Severe Sepsis	

Knee Replacement & Knee Revision (KNRPL)

The Knee Replacement & Knee Revision Episode evaluates services that are typical/routine for the expected care and services that are related to associated complications. Patients are defined as those with a primary procedure code of Knee Replacement or Knee Revision on an inpatient stay service or a trigger procedure code in any position on an outpatient facility/professional service, along with a qualifying diagnosis code.

Episode Length – KNRPL



Total Episode Cost = All expected services and complication costs associated during the entire period of Knee Replacement/Knee Revision Episode

Duration Pre-Trigger Window	Duration Post-Trigger Window
30 Days	90 Days

Episode Triggers – KNRPL

Trigger Group Name	Code Type	Codes
Partial Knee Replacement (primary)	CPT	27446
Partial Knee Revision	CPT	27486
Total Knee Replacement (primary)	CPT	27447
Total Knee Revision	CPT	27487

Trigger Diagnoses – ICD-10, CPT

Aseptic Necrosis, Left	Knee deformities, Unspecified	MS - muscle - nos - muscle weakness	Other arthropathies
Aseptic Necrosis, Right	Knee derangements, Left	MS - muscle - nos - other ds	Other arthropathies, Left side
Aseptic Necrosis, Unspecified	Knee derangements, Right	MS - synvm / tndn / brsa - nos - bursitis	Other arthropathies, Right side
Compl of joint prosthesis, orthopedic proced	Knee derangements, Unspecified	MS - synvm / tndn / brsa - nos - ganglion / cyst	Other deformities, limb, other sites, Left
Contracture lower leg joint	Malunion, Left side	MS - synvm / tndn / brsa - nos - nec / nos	Other deformities, limb, other sites, Right
Deformities, Left lower limb	Malunion, Right side	MS - synvm / tndn / brsa - nos - rupture - synovium	Other deformities, limb, other, Unspecified
Deformities, lower limb	Malunion, Unspecified	MS - synvm / tndn / brsa - nos - rupture - tendon	Other osteopathic disorders, Left
Deformities, Right lower limb	MS - bone - nos - chondrodystrophy	MS - synvm / tndn / brsa - nos - synvtis/tensyn	Other osteopathic disorders, Right
diabetes mellitus with neurologic manifestations	MS - bone - nos - nec / nos	MS - uppr leg - tendon rupture - quadriceps	Other osteopathic disorders, Unspecified
Diabetes, other manifestation	MS - face - acqrd defrmtly	Neoplsn - benign neoplsn - bone / cartilage - nos	Partial Knee Replacement (primary)
Dislocation of Knee, Left	MS - joint - nos - effusion	Neoplsn - benign neoplsn - femur / fibula / tibia	Partial Knee Revision
Dislocation of Knee, Right	MS - joint nos - difficulty walking	Nonunion, Left side	Periprosthetic fracture
Dislocation of Knee, Unspecified	MS - joint nos - jnt derangmnt - loose body	Nonunion, Right side	Personal history of musculoskeletal disorders
Disorders of the Knee	MS - joint nos - jnt derangmnt - other	Nonunion, Unspecified	Rheumatoid Arthritis and Inflammatory Con, LT
Fistula, Effusion in Joint	MS - joint nos - other arthropathy	NS - polyneuropathy - collagen vascular disease	Rheumatoid Arthritis and Inflammatory Con, RT
Gout and other crystal arthropathies	MS - knee - disloc - pathologic	NS polyneuropathy-collagen vascul disease, LT	Rheumatoid Arthritis and Inflammatory Connective Tissue Disease
Gout and other crystal arthropathies, Left	MS - knee - disloc - recurrent	NS polyneuropathy-collagen vascul disease, RT	Rheumatoid Arthritis, Left
Gout and other crystal arthropathies, Right	MS - knee - enthesopathy - nec / nos	Osteoarthritis	Rheumatoid Arthritis, Right
Hemarthrosis: Bleeding into Joints	MS - knee - jnt derangmnt - nec / nos	Osteoarthritis, Knee, Bilateral	Rheumatoid Arthritis, Unspecified
Infective Arthritis	MS - knee - other arthropathy	Osteoarthritis, Knee, Unspecified	Total Knee Replacement (primary)
Infective Arthritis, Left	MS - knee - pain	Osteoarthritis, Left Knee	Total Knee Revision
Infective Arthritis, Right	MS - knee - stiffness	Osteoarthritis, other joints	Wasting of Muscles and Neuro Musc Dystro, LT
Inflammatory Arthropathies, Left	MS - knee - synovium rupture	Osteoarthritis, Right Knee	Wasting of Muscles and Neuro Musc Dystro, RT
Inflammatory Arthropathies, Right	MS - knee - tendon rupture	Osteoporosis, osetitis deformans	Wasting of Muscles and Neuro Muscular Dystrophy
Inflammatory Arthropathies, Unspecified	MS - knee - tibial collateral ligament bursitis	Osteoporosis, osetitis deformans, Left	
Knee deformities, Left	MS - mscl / lgmnt / fscia - nos - nec / nos	Osteoporosis, osetitis deformans, Right	
Knee deformities, Right	MS - muscle - nos - muscle atrophy	Osteoporosis, osetitis deformans, Unspecified	

Relevant Procedures – CPT, HCPC, ICD-10

Advance care planning	HbA1C	Lab - microbiology	Other care - chronic edema - compression stocking
Alcohol / Drug Use Screening	Home Health / Hospice	Lab - microbiology - c & s	Other care - chronic edema - compressor
Ancillary Services	Home Health Services	Lab - microbiology - microscopic exam	Other care - chronic edema - compressor - non - segmental
Anesthesia	Hormone Therapy	Lab - microbiology - other	Other care - chronic edema - compressor - segmental
Anti-TNF agents	Imaging - ct - cardiac	Lab - microscopic - koh prep	Other care - chronic edema - exterior wrap
Aortic resection, replacement or anastomosis	Imaging - ct - follow - up	Lab - other clinical lab	Other care - chronic edema - gauntlet
Arthroplasty knee	Imaging - ct - guidance	Lab - other hematology	Other care - chronic edema - glove
Bleeding Status	Imaging - ct - lower extremity	Lab - pathology consultation	Other care - chronic edema - sleeve
Blood Count	Imaging - ct - other	Lab - specimen collection - blood - arterial - arterial puncture	Other care - chronic edema - surgical stockings
Blood transfusion	Imaging - mra - lower extremity	Lab - specimen collection - blood - venous - venipuncture	Other care - home care - emergency response system
Blood Type, Coomb's test	Imaging - mra - pelvis	Lab - specimen collection - blood - venous - venous port	Other care - home care - home health aide
Bundled Payment / Medical Home	Imaging - mri - contrast agent	Lab - stat request	Other care - home care - meals
Cardiac Stress Test	Imaging - mri - guidance	Lab - surgical pathology	Other care - home care - nursing care
Care Plan Oversight	Imaging - mri - other	Lab - therapeutic drug assay	Other care - home care - nursing care - lpn
Case Management Services	Imaging - mri - pelvis	Lab - tissue typing	Other care - home care - nursing care - np
Case Management Services - Behavioral	Imaging - other imaging	Lab - transfusion medicine	Other care - home care - nursing care - rn
CHEMOTHERAPY	Imaging - other imaging - bone density	Lab - urinalysis	Other care - home care - other care
CHLAMYDIA SCREENING	Imaging - other imaging - fluoroscopy	LEAD SCREENING	Other care - home care - other care - attendant care
Chronic Care Management	Imaging - supplies - contrast agent - high osmolar	Lipid Level Monitoring	Other care - home care - other care - chore care
Colonoscopy/Sigmoidoscopy ColorectalCa Screen	Imaging - supplies - contrast agent - low osmolar	Low dose steroids	Other care - home care - other care - companion care
Diagnostic physical therapy	Imaging - us - guide - biopsy	Markers for Inflammation	Other care - home care - other care - day care
DME - bath / toilet aids	Imaging - us - guide - other	Medication Assisted Management (MAT)	Other care - home care - other care - homemaker
DME - beds / accessories	Imaging - us - other	Medication Therapy Management Services	Other care - home care - other care - respite care
DME - heat/cold application	Imaging - x-ray - knee - arthrogram	Medications (Injections, infusions and other forms)	Other care - home care - physician supervision
DME - mobility aids	Imaging - x-ray - lower leg	Metabolic Renal Hepatic Chemistry Panel	Other care - home care - rehabilitation - occupational therapy
DME - other	Imaging - x-ray - myelogram	Microscopic examination (bacterial smear, culture, toxicology)	Other care - home care - rehabilitation - physical therapy
DME - patient lifts	Imaging - x-ray - other - bone survey	Online Management	Other care - home care - social worker
DME - repair / maintenance	Imaging - x-ray - other - joint survey	Opioid Administration / Dispensing (OTP)	Other care - home care - specialized visit
DME - restraints	Imaging - x-ray - si joints - arthrogram	Orthotics - lower extremity	Other care - home care - training
DME - safety equipment	Imaging Abdomen	Orthotics - orthopedic shoes	Other care - hospice
DME - traction	Insertion of catheter or spinal stimulator and injection into spinal canal	Orthotics - other	Other care - long term care - assisted living
DME - trapeze / other orthopedic device	Joint X-Rays	Orthotics - spine	Other care - long term care - residential care
DME - whirlpool - equipment	Knee Arthroscopy without ligament repair	Orthotics - upper extremity	Other care - nutrition - assessment
DME - wound therapy	Lab - blood gases	Other - non - covered	Other care - nutrition - counseling - dietician
DME and supplies	Lab - chemistry	Other care - bladder / bowel care - catheter	Other care - nutrition - education
Drug Delivery implantation	Lab - chemistry and toxicology tests	Other care - bladder / bowel care - drainage bag	Other care - nutrition - medical food
E & M - consultation	Lab - hematology - blood count	Other care - bladder / bowel care - other supplies	Other care - observation
E & M - emergency care	Lab - hematology - blood count - eosinophil count	Other care - bladder / bowel care - other supplies - diaper / related	Other care - other
E & M - home visit	Lab - hematology - coagulation	Other care - bladder / bowel care - other supplies - skin barrier	Other care - other - ancillary services
E & M - hospital	Lab - immunology	Other care - chronic edema - appliance - limb compression	Other care - other - exercise classes
E & M - nursing home	Lab - infectious agent antibody	Other care - chronic edema - appliance - non - segmental	Other care - other - infection control
E & M - other	Lab - infectious agent antigen	Other care - chronic edema - appliance - segmental	Other care - other - interpretation
E & M - prevention	Lab - infectious agent dna	Other care - chronic edema - complex therapy	Other care - other - lodging

Relevant Procedures – CPT, HCPC, ICD-10

Other care - other - meals	Procedure - i&d - skin - drainage of abscess	Robotic Surgery	Tests - neuro - muscle testing
Other care - other - medical records	Procedure - i&d - skin - drainage of hematoma	Rx - administration - infusion	Tests - neuro - ncv / emg
Other care - other - pvd - compressor	Procedure - injection - tendons / joints / etc.	Rx - administration - injection	Tests - neuro - other
Other care - other - weight management	Procedure - injection of skin lesion	Rx - antibiotics - aminoglycosides	Tests - neuro - sleep studies
Other care - pain management - pca / related	Procedure - microsurgery	Rx - antibiotics - anti-infectives, misc	Tests - pulmonary - exhaled air analysis
Other care - prevention - smoking cessation	Procedure - obesity procedure - restriction	Rx - antibiotics - cephalosporins	Tests - pulmonary - other
Other care - respiratory - equipment / supplies	Procedure - open excision - knee cartilage	Rx - antibiotics - chloramphenicol / comb	Tests - pulmonary - peak flow
Other care - respiratory - equipment / supplies - nebulizer	Procedure - other dx on musculoskeletal system	Rx - antibiotics - macrolides	Tests - skin
Other care - respiratory - equipment / supplies - peak flow meter	Procedure - other knee arthroplasty	Rx - antibiotics - penicillins	Tests - vascular - arterial - extremity
Other care - respiratory - equipment / supplies - spirometer	Procedure - other non - or rx - other non - or skin procedures	Rx - antibiotics - quinolones	Tests - vascular - venous
Other care - respiratory - other	Procedure - other non - or rx on musculoskeletal system	Rx - antibiotics - sulfonamides / comb	Therapy - acupuncture
Other care - respiratory - oxygen / oxygen concentrator	Procedure - other or rx - peripheral neurostimulator procedures	Rx - antibiotics - tetracyclines	Therapy - activity therapy
Other care - wound care	Procedure - other or rx on bone	Rx - antibiotics / antivirals / antifungals - infusion	Therapy - behavior - partial hospitalization
Other care - wound care - growth factor	Procedure - other or rx on joints	Rx - antibiotics, misc	Therapy - biofeedback
Other care - wound care - hyperbaric oxygen	Procedure - other or rx on musculoskeletal system	Rx - b-lactam antibiotics	Therapy - chiropractic / osteopathic manipulation
Other diagnostic procedures (interview, evaluation, consultation)	Procedure - other rx on muscles and tendons	Rx - blood derivatives	Therapy - habilitation
Other diagnostic radiology and related techniques	Procedure - partial excision bone	Rx - cardiovascular system - vasodilating agents, nec	Therapy - hyperbaric oxygen
Other Laboratory	Procedure - related supplies - access catheter	Rx - cardiovascular system - vasodilating rx	Therapy - neurostimulator - muscle training
Partial Knee Replacement (primary)	Procedure - related supplies - arthroplasty	Rx - coagulation system - anticoagulants	Therapy - neurostimulator - nausea / vomiting
Partial Knee Revision	Procedure - related supplies - graft / repair	Rx - coagulation system - antiheparin agnt	Therapy - neurostimulator - tens - device
Partial Knee Revision, Left	Procedure - related supplies - implant	Rx - coagulation system - hemostatics	Therapy - osteogenesis stimulator
Partial Knee Revision, Right	Procedure - related supplies - other	Rx - diagnostic rx - roentgenography	Therapy - other
Pathology	Procedure - removal of pins or fixation	Rx - diuretics, loop diuretics	Therapy - phlebotomy
Personal Care Services	Procedure - rx - fracture / dislocation - lower extremity	Rx - electrolytic, caloric, water - caloric rx dextrose / rel	Therapy - pt - exercises / activities
Physical Therapy / Rehab	Procedure - spinal canal - catheter	Rx - electrolytic, caloric, water - hydration - unspecified	Therapy - pt - modalities
Physician Services	Procedure - spinal canal - injection into spinal canal	Rx - electrolytic, caloric, water - multi-mineral prep	Therapy - rehabilitation - related supplies / equipment - motion device
Physician Services - Inpatient	Procedure - spinal canal - other	Rx - electrolytic, caloric, water - potassium supp	Therapy - transfusion - administration
Physician Services - Outpatient	Procedure - suture - skin - complex wound repair	Rx - gi - antiemetics	Therapy - transfusion - blood
Preventive Medicine, Care Coordination	Procedure - suture - skin - delayed wound closure	Rx - gi - ppis	Therapy - transfusion - plasma
Procedure - anesthesia	Procedure - vascular access - port / pump - insertion	Rx - hematopoietic system - hematopoietic growth factors	Therapy - transfusion - platelets
Procedure - arthrocentesis	Procedures and Reporting	Rx - miscellaneous rx	Thyroid Function Tests
Procedure - arthroscopy - knee - other	Prosthetic Implant	Rx - miscellaneous rx - enzymes	Total Knee Replacement (primary)
Procedure - arthroscopy - other joints	Prosthetics - external power	Rx - muscle relaxants - muscle relax, skeletal central	Total Knee Revision
Procedure - block - nerve	Prosthetics - implant	Rx - other	Transitional Care Management
Procedure - bone graft	Prosthetics - lower extremity	Rx - pharmacy fee	Transportation - other transportation
Procedure - casting / splinting - application	Prosthetics - other	Rx - serums, toxoids, vaccines - serums	Transportation - paramedic
Procedure - casting / splinting - supplies	Prosthetics - repair	Rx - vitamins - multivit prep	Ungrouped Codes
Procedure - central venous catheter - insertion	Prosthetics - trusses	Screen for amino acid disorders	Urine Protein
Procedure - debridement - wound / infection / burn - debridement	Prosthetics - upper extremity	Supplies	Vaccine for flu or Pneumonia
Procedure - destruction - nerve	Psychiatry Evaluations	Tests - cardiac - ecg - ecg - 12 lead	Wellness Assessment
Procedure - excision - skin - shave skin lesion	Psychiatry Services	Tests - cardiac - ecg - other	X-Ray Thoracolumbar Spine / Pelvis
Procedure - graft - skin - graft material	Psychological and psychiatric evaluation and therapy	Tests - cardiac stress tests - cardiac perfusion scan - rest / exercise	
Procedure - i&d - skin - drainage - post - op infection	Risk Assessment	Tests - cardiac stress tests - cardiac stress tests - other	

Relevant Diagnoses – ICD-10

Aseptic Necrosis, Left	Knee deformities, Right	MS - mscl / lgmnt / fscia - nos - nec / nos	Osteoporosis, osteitis deformans, Left
Aseptic Necrosis, Right	Knee deformities, Unspecified	MS - muscle - nos - muscle atrophy	Osteoporosis, osteitis deformans, Right
Aseptic Necrosis, Unspecified	Knee derangements, Left	MS - muscle - nos - muscle weakness	Osteoporosis, osteitis deformans, Unspecified
Compl of joint prosthesis, orthopedic proced	Knee derangements, Right	MS - muscle - nos - other ds	Other arthropathies
Contracture lower leg joint	Knee derangements, Unspecified	MS - synvm / tndn / brsa - nos - bursitis	Other arthropathies, Left side
Deformities, Left lower limb	Malunion, Left side	MS - synvm / tndn / brsa - nos - ganglion / cyst	Other arthropathies, Right side
Deformities, lower limb	Malunion, Right side	MS - synvm / tndn / brsa - nos - nec / nos	Other deformities, limb, other sites, Left
Deformities, Right lower limb	Malunion, Unspecified	MS - synvm / tndn / brsa - nos - rupture - synovium	Other deformities, limb, other sites, Right
diabetes mellitus with neurologic manifestations	MS - bone - nos - chondrodystrophy	MS - synvm / tndn / brsa - nos - rupture - tendon	Other deformities, limb, other, Unspecified
Diabetes, other manifestation	MS - bone - nos - nec / nos	MS - synvm / tndn / brsa - nos - synvtis/tensyn	Other osteopathic disorders, Left
Dislocation of Knee, Left	MS - face - acqrd defrmtly	MS - uppr leg - tendon rupture - quadriceps	Other osteopathic disorders, Right
Dislocation of Knee, Right	MS - joint - nos - effusion	Neoplsm - benign neoplsm - bone / cartilage - nos	Other osteopathic disorders, Unspecified
Dislocation of Knee, Unspecified	MS - joint nos - difficulty walking	Neoplsm - benign neoplsm - femur / fibula / tibia	Periprosthetic fracture
Disorders of the Knee	MS - joint nos - jnt derangmnt - loose body	Nonunion, Left side	Personal history of musculoskeletal disorders
Fistula, Effusion in Joint	MS - joint nos - jnt derangmnt - other	Nonunion, Right side	Rheumatoid Arthritis and Inflammatory Con, LT
Gout and other crystal arthropathies	MS - joint nos - other arthropathy	Nonunion, Unspecified	Rheumatoid Arthritis and Inflammatory Con, RT
Gout and other crystal arthropathies, Left	MS - knee - disloc - pathologic	NS - polyneuropathy - collagen vascular disease	Rheumatoid Arthritis and Inflammatory Connective Tissue Disease
Gout and other crystal arthropathies, Right	MS - knee - disloc - recurrent	NS polyneuropathy-collagen vascul disease, LT	Rheumatoid Arthritis, Left
Hemarthrosis: Bleeding into Joints	MS - knee - enthesopathy - nec / nos	NS polyneuropathy-collagen vascul disease, RT	Rheumatoid Arthritis, Right
Infective Arthritis	MS - knee - jnt derangmnt - nec / nos	Osteoarthritis	Rheumatoid Arthritis, Unspecified
Infective Arthritis, Left	MS - knee - other arthropathy	Osteoarthritis, Knee, Bilateral	Wasting of Muscles and Neuro Musc Dystro, LT
Infective Arthritis, Right	MS - knee - pain	Osteoarthritis, Knee, Unspecified	Wasting of Muscles and Neuro Musc Dystro, RT
Inflammatory Arthropathies, Left	MS - knee - stiffness	Osteoarthritis, Left Knee	Wasting of Muscles and Neuro Muscular Dystrophy
Inflammatory Arthropathies, Right	MS - knee - synovium rupture	Osteoarthritis, other joints	
Inflammatory Arthropathies, Unspecified	MS - knee - tendon rupture	Osteoarthritis, Right Knee	
Knee deformities, Left	MS - knee - tibial collateral ligament bursitis	Osteoporosis, osteitis deformans	

Complications – ICD-10

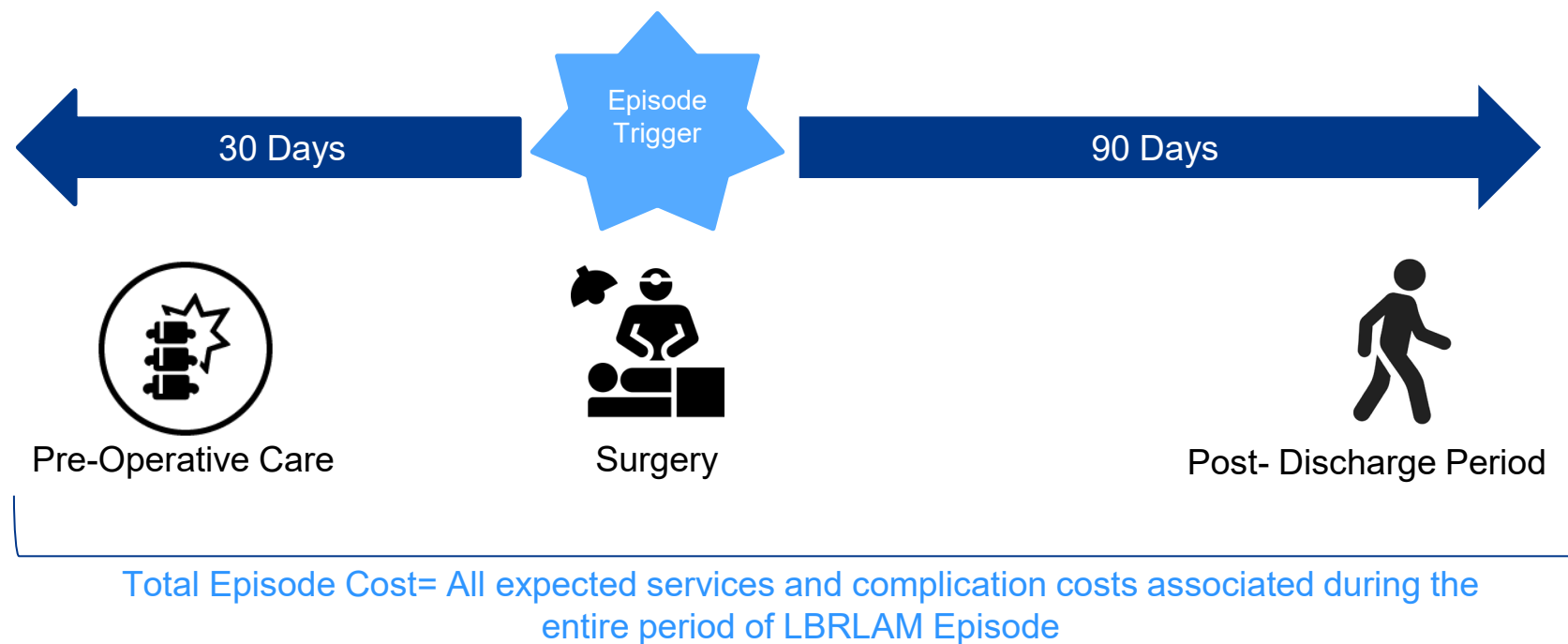
Accidental Falls	Debilitating Viral Pneumonia	Hypotension / Syncope	Respiratory Insufficiency
Acute CHF / pulm edema	Decubitus Ulcer	Influenza with Pneumonia	rhabdomyolysis
Acute cor pulmonale	Dehydration	Intestinal Obstruction	Sepsis
Acute Kidney Failure	Delirium, Encephalopathy	IVC & other intra-abd venous thrombosis	Severe Sepsis
Acute myocardial infarction	Dermatitis, Urticaria	Meningitis / Encephalitis	Shock / Cardiac Arrest
Acute Osteomyelitis	Diabetes, poor control	MRSA Pneumonia	Shock during or post-procedure
Adverse effects of drugs	dic, coagulation, hemorrhagic disorders	MRSA, Drug Resistant Infections	Skin - other
Altered mental status	Dislocation of Knee, Left	Opportunistic Infections	STEMI
arterial thromboembolism	Dislocation of Knee, Right	Orthostatic Hypotension / Dizziness	Subendocardial Infarct
Aspiration Pneumonia	Dislocation of Knee, Unspecified	Other bacterial infections	Thromboembolic Stroke
Bacteremia, SIRS, no organ dysfunction	Disorders of the Knee	Other Bacterial Pneumonia	Tracheostomy Complications
C-Difficile Infection	empyema, lung abscess	Other cerebral complications	Transfusion, Infusion related complications
Chronic and Unspecified Osteomyelitis	Fluid Electrolyte Acid Base Problems	Other lower respiratory disease	Transient cerebral ischemia, TIA
Chronic Fungal and Other Pneumonias	Foreign body left during procedure	other lung complications	Urethral Stricture
Chronic Skin Ulcer	Gastroenteritis	Other lung problems	Urinary Complications
Coma, persistent vegetative state	Gram Negative Pneumonia	Other Phlebitis, Lymphangitis, varices	Urinary Frequency & other symptoms
Compl of joint prosthesis, orthopedic proced	HAC 02: Air Embolism	Other Staph Pneumonia	Urinary Tract Infection
Complication of genitourinary device	HAC 04: Stage III and IV Pressure Ulcers	Periprosthetic fracture	Ventilator Associated Pnuemonia
Complication of Implanted device, graft	HAC 09: Manifestations of Poor Glycemic Control	Phlebitis, Deep vein thrombosis (DVT)	Ventilator Dependence
Complications from Central Line	Hemarthrosis: Bleeding into Joints	Pulmonary Embolism	Viral Pneumonia
Complications of anesthesia	Hemorrhage	Pyogenic Arthritis	Wound Dehiscence
complications of medical care	Hemorrhagic Stroke	Recent AMI	Wound Infections
complications of surgical procedures	Hepatorenal Syndrome	Resp Failure following trauma / surgery	
Complications of surgical procedures or medical care	Hypertensive Urgency	Respiratory Failure	



Lumbar Laminectomy (LBRLAM)

The Lumbar Laminectomy Episode evaluates services that are typical/routine for the expected care and services that are related to associated complications. Patients are defined as those with a primary procedure code of Lumbar Laminectomy on an inpatient stay service or a procedure code in any position on an outpatient facility/professional service, along with a qualifying diagnosis code.

Episode Length – LBRLAM



Duration Pre-Trigger Window	Duration Post-Trigger Window
30 Days	90 Days

Episode Triggers – LBRLAM

Trigger Group Name	Code Type	Codes
Decompression / Discectomy	CPT HCPC	63030-63057 S2350-S2351
Laminectomy	CPT	63005-63047

Trigger Diagnoses – ICD-10, CPT, HCPC

Backache
Decompression / Discectomy
Inflammatory spondylopathies
Laminectomy
Low Back Pain, Radiculopathy
Low Back Pain, Radiculopathy, Myelopathy
Major Neurological Deficit
MS - pelvis - sprn/strn
Other arthropathies
Other Back Pain, Radiculopathy, Myelopathy
Other bone infections
Other injuries and conditions due to external
Other Spine Problems
Post Laminectomy Syndrome
Spina Bifida
Spondylosis; intervertebral disc disorders; other back problems
Sprain Lower Back
Sprains and Strains
Stiff Spine

Relevant Procedures – CPT, HCPC, ICD-10

Advance care planning	E & M - nursing home	Lab - hematology - blood count - eosinophil count	Other care - bladder / bowel care - drainage bag
Alcohol / Drug Use Screening	E & M - other	Lab - hematology - coagulation	Other care - bladder / bowel care - other supplies
Ancillary Services	E & M - prevention	Lab - immunology	Other care - bladder / bowel care - other supplies - diaper / related
Anesthesia	Electrocardiogram - EKG monitoring	Lab - infectious agent dna	Other care - bladder / bowel care - other supplies - skin barrier
Aortic resection, replacement or anastomosis	HbA1C	Lab - microbiology	Other care - chronic edema - appliance - limb compression
Bleeding Status	Home Health / Hospice	Lab - microbiology - c & s	Other care - chronic edema - appliance - non - segmental
Blood Count	Home Health Services	Lab - microbiology - microscopic exam	Other care - chronic edema - appliance - segmental
Blood transfusion	Hormone Therapy	Lab - microscopic - koh prep	Other care - chronic edema - complex therapy
Blood Type, Coomb's test	Imaging - ct - follow - up	Lab - other hematology	Other care - chronic edema - compression stocking
Bundled Payment / Medical Home	Imaging - ct - lower extremity	Lab - pathology consultation	Other care - chronic edema - compressor
Cardiac Stress Test	Imaging - ct - other	Lab - specimen collection - blood - arterial - arterial puncture	Other care - chronic edema - compressor - non - segmental
Care Plan Oversight	Imaging - ct - study	Lab - specimen collection - blood - venous - venipuncture	Other care - chronic edema - compressor - segmental
Case Management Services	Imaging - mra - lower extremity	Lab - specimen collection - blood - venous - venous port	Other care - chronic edema - exterior wrap
Case Management Services - Behavioral	Imaging - mra - pelvis	Lab - specimen collection - specimen handling	Other care - chronic edema - gauntlet
CHEMOTHERAPY	Imaging - mri - contrast agent	Lab - stat request	Other care - chronic edema - sleeve
Chest X-Ray	Imaging - mri - lumbar spine	Lab - surgical pathology	Other care - chronic edema - surgical stockings
CHLAMYDIA SCREENING	Imaging - mri - other	Lab - therapeutic drug assay	Other care - home care - emergency response system
Chronic Care Management	Imaging - mri - pelvis	Lab - transfusion medicine	Other care - home care - home health aide
Colonoscopy/Sigmoidoscopy ColorectalCa Screen	Imaging - nuclear - bone scan	Lab - urinalysis	Other care - home care - meals
Decompression / Discectomy	Imaging - nuclear - localization of inflammation	Laboratory - Chemistry and Hematology	Other care - home care - nursing care
Diagnostic physical therapy	Imaging - nuclear - other	Laminectomy	Other care - home care - nursing care - lpn
DME - bath / toilet aids	Imaging - nuclear - other musculoskeletal	Laminectomy, excision intervertebral disc	Other care - home care - nursing care - np
DME - beds / accessories	Imaging - other imaging	LEAD SCREENING	Other care - home care - nursing care - rn
DME - heat/cold application	Imaging - other imaging - bone density - dexa	Lipid Level Monitoring	Other care - home care - other care
DME - mobility aids	Imaging - other imaging - fluoroscopy	Low dose steroids	Other care - home care - other care - attendant care
DME - other	Imaging - supplies - contrast agent - high osmolar	Lumbar Laminectomy	Other care - home care - other care - chore care
DME - patient lifts	Imaging - supplies - contrast agent - low osmolar	Markers for Inflammation	Other care - home care - other care - companion care
DME - repair / maintenance	Imaging - us - guide - other	Medication Assisted Management (MAT)	Other care - home care - other care - day care
DME - restraints	Imaging - us - other	Medication Therapy Management Services	Other care - home care - other care - homemaker
DME - safety equipment	Imaging - x-ray - chest - other	Medications (Injections, infusions and other forms)	Other care - home care - other care - respite care
DME - traction	Imaging - x-ray - discography	Metabolic Renal Hepatic Chemistry Panel	Other care - home care - physician supervision
DME - trapeze / other orthopedic device	Imaging - x-ray - myelogram	Microscopic examination (bacterial smear, culture, toxicology)	Other care - home care - rehabilitation - occupational therapy
DME - whirlpool - equipment	Imaging - x-ray - si joints - arthrogram	NewBorn Blood Tests	Other care - home care - rehabilitation - physical therapy
DME and supplies	Imaging Abdomen	Online Management	Other care - home care - rehabilitation - speech therapy
Drug Delivery implantation	Insertion of catheter or spinal stimulator and injection into spinal canal	Opioid Administration / Dispensing (OTP)	Other care - home care - social worker
E & M - consultation	Lab - blood gases	Orthotics - orthopedic shoes	Other care - home care - specialized visit
E & M - emergency care	Lab - chemistry	Orthotics - other	Other care - home care - training
E & M - home visit	Lab - chemistry and toxicology tests	Orthotics - spine	Other care - hospice
E & M - hospital	Lab - hematology - blood count	Other care - bladder / bowel care - catheter	Other care - long term care - assisted living

Relevant Procedures – CPT, HCPC, ICD-10

Other care - long term care - residential care	Physician Services - Outpatient	Procedure - spinal canal - injection into spinal canal	Spinal fusion
Other care - nutrition - assessment	Preventive Medicine, Care Coordination	Procedure - spinal canal - other	Supplies
Other care - nutrition - counseling - dietician	Procedure - anesthesia	Procedure - suture - skin - complex wound repair	Tests - cardiac - ecg - ecg - 12 lead
Other care - nutrition - education	Procedure - block - nerve	Procedure - suture - skin - delayed wound closure	Tests - cardiac - ecg - other
Other care - nutrition - enteral	Procedure - casting / splinting - application	Procedure - transplant - bone marrow - harvest stem cells	Tests - cardiac stress tests - cardiac perfusion scan - rest / exercise
Other care - nutrition - medical food	Procedure - casting / splinting - supplies	Procedure - vascular access - port / pump - insertion	Tests - cardiac stress tests - cardiac stress tests - other
Other care - nutrition - parenteral - all - inclusive	Procedure - central venous catheter - insertion	Procedures and Reporting	Tests - neuro - muscle testing
Other care - nutrition - parenteral - pump	Procedure - debridement - wound / infection / burn - debridement	Prosthetics - external power	Tests - neuro - ncv / emg
Other care - observation	Procedure - destruction - nerve	Prosthetics - implant	Tests - neuro - other
Other care - other	Procedure - excision - skin - shave skin lesion	Psychiatry Evaluations	Tests - pulmonary - peak flow
Other care - other - ancillary services	Procedure - graft	Psychiatry Services	Tests - skin
Other care - other - back care	Procedure - graft - skin - graft material	Psychological and psychiatric evaluation and therapy	Tests - vascular - arterial - extremity
Other care - other - exercise classes	Procedure - i&d - skin - drainage - post - op infection	Risk Assessment	Tests - vascular - venous
Other care - other - infection control	Procedure - i&d - skin - drainage of abscess	Robotic Surgery	Therapy - acupuncture
Other care - other - lodging	Procedure - i&d - skin - drainage of hematoma	Rx - administration - infusion	Therapy - activity therapy
Other care - other - meals	Procedure - injection - tendons / joints / etc.	Rx - administration - injection	Therapy - biofeedback
Other care - other - medical records	Procedure - injection of skin lesion	Rx - analg/antipy/nsaids - narcotics	Therapy - chiropractic / osteopathic manipulation
Other care - other - pvd - compressor	Procedure - laminectomy / related	Rx - antibiotics - anti-infectives, misc	Therapy - habilitation
Other care - other - therapeutic riding	Procedure - microsurgery	Rx - antibiotics - cephalosporins	Therapy - hyperbaric oxygen
Other care - other - weight management	Procedure - neuro - other non - or rx	Rx - antibiotics / antivirals / antifungals - infusion	Therapy - neurostimulator - muscle training
Other care - pain management - pca / related	Procedure - obesity procedure - restriction	Rx - autonomic rx - parasympathomimetics	Therapy - neurostimulator - tens - device
Other care - prevention - smoking cessation	Procedure - other dx on musculoskeletal system	Rx - central nervous system - benzodiazepines	Therapy - osteogenesis stimulator
Other care - respiratory - equipment / supplies	Procedure - other non - or rx - chemodenervation of eccrine glands	Rx - coagulation system - anticoagulants	Therapy - other
Other care - wound care	Procedure - other non - or rx - other non - or skin procedures	Rx - coagulation system - hemostatics	Therapy - pt - exercises / activities
Other care - wound care - growth factor	Procedure - other non - or rx on musculoskeletal system	Rx - diagnostic rx - roentgenography	Therapy - pt - modalities
Other care - wound care - hyperbaric oxygen	Procedure - other or rx - other or skin procedures	Rx - electrolytic, caloric, water - caloric rx dextrose / rel	Therapy - rehabilitation - related supplies / equipment - motion device
Other diagnostic cardiovascular procedures	Procedure - other or rx on bone	Rx - electrolytic, caloric, water - hydration - unspecified	Thyroid Function Tests
Other diagnostic nervous system procedures	Procedure - other or rx on joints	Rx - electrolytic, caloric, water - multi-mineral prep	Transitional Care Management
Other diagnostic procedures (interview, evaluation, consultation)	Procedure - other rx on muscles and tendons	Rx - electrolytic, caloric, water - potassium supp	Transportation - other transportation
Other diagnostic radiology and related techniques	Procedure - other spine - rx / dx - injection	Rx - gi - antiemetics	Transportation - paramedic
Other Laboratory	Procedure - partial excision bone	Rx - hematopoietic system - hematopoietic growth factors	Ungrouped Codes
Other OR therapeutic procedures on musculoskeletal system	Procedure - related supplies - ablation - catheter	Rx - miscellaneous rx	Urine Protein
Other Spine Problems	Procedure - related supplies - access catheter	Rx - miscellaneous rx - enzymes	Vaccine for flu or Pneumonia
Other therapeutic procedures	Procedure - related supplies - graft / repair	Rx - muscle relaxants - muscle relax, skeletal central	Wellness Assessment
Pathology	Procedure - related supplies - implant	Rx - other	X-Ray Thoracolumbar Spine / Pelvis
Personal Care Services	Procedure - related supplies - other	Rx - pharmacy fee	
Physical Therapy / Rehab	Procedure - removal of pins or fixation	Rx - serums, toxoids, vaccines - serums	
Physician Services	Procedure - sedation	Rx - vitamins - multivit prep	
Physician Services - Inpatient	Procedure - spinal canal - catheter	Screen for amino acid disorders	

Relevant Diagnoses – ICD-10

Backache	Other injuries and conditions due to external
Inflammatory spondylopathies	Other Spine Problems
Low Back Pain, Radiculopathy	Post Laminectomy Syndrome
Low Back Pain, Radiculopathy, Myelopathy	Spina Bifida
Major Neurological Deficit	Spondylosis; intervertebral disc disorders; other back problems
MS - pelvis - sprn/strn	Sprain Lower Back
Other arthropathies	Sprains and Strains
Other Back Pain, Radiculopathy, Myelopathy	Stiff Spine
Other bone infections	

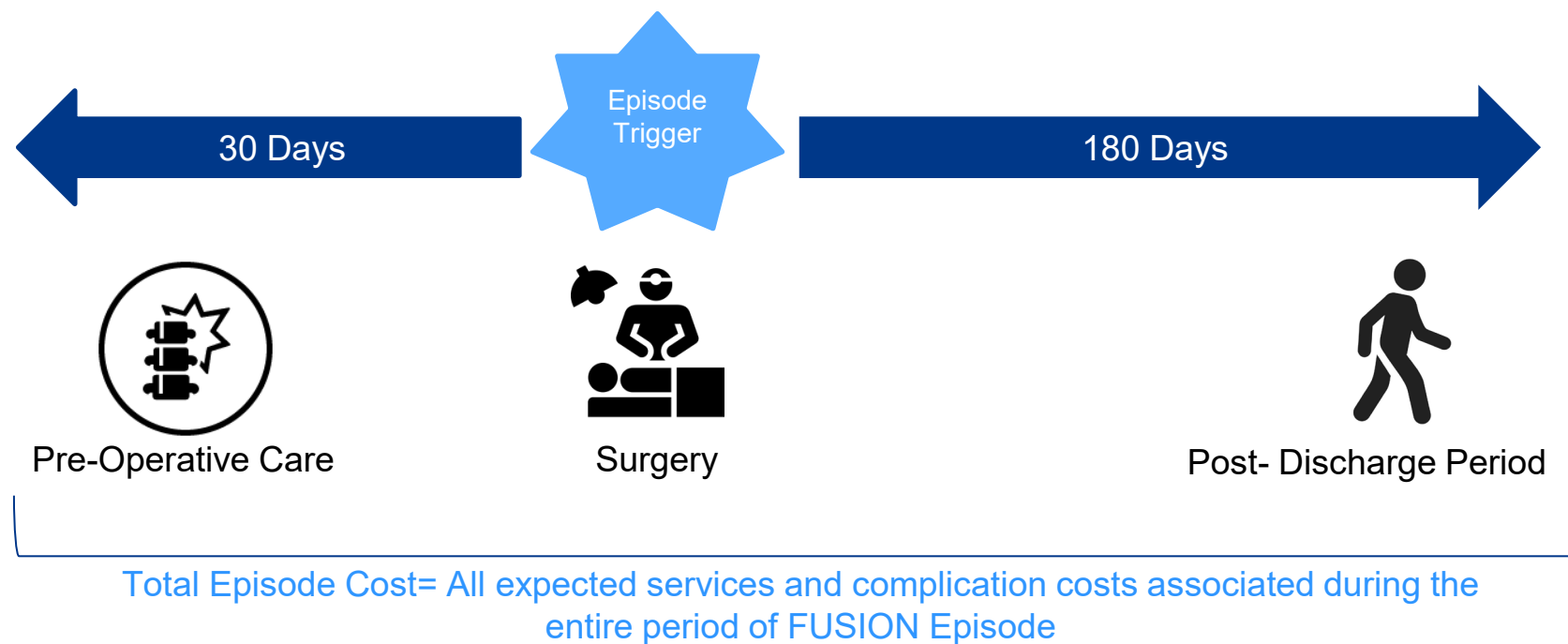
Complications – ICD-10

Accidental Falls	Decubitus Ulcer	MRSA Pneumonia	Sepsis
Acute CHF / pulm edema	Dehydration	MRSA, Drug Resistant Infections	Severe Sepsis
Acute cor pulmonale	Delirium, Encephalopathy	Opportunistic Infections	Shock / Cardiac Arrest
Acute esophagitis, acute gastritis, duodenitis	Dermatitis, Urticaria	Other bacterial infections	Shock during or following cardiac surgery
Acute Kidney Failure	Diabetes, poor control	Other Bacterial Pneumonia	Shock during or post-procedure
Acute Osteomyelitis	dic, coagulation, hemorrhagic disorders	Other bone infections	Sinus Node Dysfunction
Adverse effects of drugs	empyema, lung abscess	Other cardiac arrhythmias	Skin - other
Altered mental status	Esophageal Reflux and Other Esophagitis	Other cerebral complications	Skin and subcutaneous tissue infections
Anal and rectal conditions	Fluid Electrolyte Acid Base Problems	Other lower respiratory disease	STEMI
Aspiration Pneumonia	Foreign body left during procedure	other lung complications	Subendocardial Infarct
Atrial Flutter / Fibrillation	Gastroenteritis	Other lung problems	Suicide or Self-inflicted Injury
Bacteremia, SIRS, no organ dysfunction	GI Bleed	Other Mental Disorders	Supraventricular Tachyarrhythmias
Bladder Dysfunction, hemorrhage	Gram Negative Pneumonia	Other Phlebitis, Lymphangitis, varices	Thromboembolic Stroke
C-Difficile Infection	HAC 02: Air Embolism	Other Staph Pneumonia	Toxic Effects of Substances
Cellulitis, Skin Infection	HAC 04: Stage III and IV Pressure Ulcers	Overdose, Poisonings	Transfusion, Infusion related complications
Chronic and Unspecified Osteomyelitis	HAC 09: Manifestations of Poor Glycemic Control	Perforation, Peritonitis, Abd Abscess	Transient cerebral ischemia, TIA
Chronic Fungal and Other Pneumonias	Hemorrhage	Periprosthetic fracture	Urethral Stricture
Coma, persistent vegetative state	Hemorrhagic Stroke	Phlebitis, Deep vein thrombosis (DVT)	Urinary Complications
Compl of joint prosthesis, orthopedic proced	Hepatorenal Syndrome	Poisoning by Opiates	Urinary Frequency & other symptoms
Complication of genitourinary device	Hypertensive Urgency	Poisoning by Psychostimulants	Urinary Incontinence
Complication of Implanted device, graft	Hypotension / Syncope	Post Laminectomy Syndrome	Urinary Tract Infection
Complication of nervous system device	Infective Arthritis	Pulmonary Embolism	Vascular Insufficiency of intestine
Complications from Central Line	Influenza with Pneumonia	Pyoderma	Vascular Prosthetic Device/Graft Complication
Complications from chemotherapy	Intestinal Obstruction	Pyogenic Arthritis	Ventilator Associated Pnuemonia
Complications of anesthesia	Intraspinal abscess	Recent AMI	Ventilator Dependence
complications of medical care	IVC & other intra-abd venous thrombosis	Resp Failure following trauma / surgery	Ventricular Arrhythmias
complications of surgical procedures	Lung disease from opportunistic infections	Respiratory Failure	Viral Pneumonia
Complications of surgical procedures or medical care	Malfunction / Complication of Heart Device	Respiratory Insufficiency	Wound Dehiscence
Debilitating Viral Pneumonia	Meningitis / Encephalitis	Retroperitoneal Abscess	Wound Infections

Lumbar Spine Fusion (FUSION)

The Lumbar Spine Fusion Episode evaluates services that are typical/routine for the expected care and services that are related to associated complications. Patients are defined as those with a primary procedure code of Lumbar Spine Fusion on an inpatient stay service or a procedure code in any position on an outpatient facility/professional service, along with a qualifying diagnosis code.

Episode Length – FUSION



Duration Pre-Trigger Window	Duration Post-Trigger Window
30 Days	180 Days

Episode Triggers – FUSION

Trigger Group Name	Code Type	Codes
Spinal Fusion	CPT	23533, 22558, 22612, 22630, 22633, 22800

Trigger Diagnoses – ICD-10, CPT

Backache
Inflammatory spondylopathies
Low Back Pain, Radiculopathy
Low Back Pain, Radiculopathy, Myelopathy
Major Neurological Deficit
MS - pelvis - sprn/strn
Other arthropathies
Other Back Pain, Radiculopathy, Myelopathy
Other bone infections
Other Spine Problems
Post Laminectomy Syndrome
Spina Bifida
Spinal fusion
Spondylosis; intervertebral disc disorders; other back problems
Sprain Lower Back
Sprains and Strains
Stiff Spine

Relevant Procedures – CPT, HCPC, ICD-10

Advance care planning	E & M - nursing home	Lab - hematology - blood count - eosinophil count	Other care - bladder / bowel care - other supplies
Alcohol / Drug Use Screening	E & M - other	Lab - hematology - coagulation	Other care - bladder / bowel care - other supplies - diaper / related
Ancillary Services	E & M - prevention	Lab - immunology	Other care - bladder / bowel care - other supplies - skin barrier
Anesthesia	Electrocardiogram - EKG monitoring	Lab - infectious agent dna	Other care - chronic edema - appliance - limb compression
Aortic resection, replacement or anastomosis	HbA1C	Lab - microbiology	Other care - chronic edema - appliance - non - segmental
Bleeding Status	Home Health / Hospice	Lab - microbiology - c & s	Other care - chronic edema - appliance - segmental
Blood Count	Home Health Services	Lab - microbiology - microscopic exam	Other care - chronic edema - complex therapy
Blood transfusion	Hormone Therapy	Lab - microscopic - koh prep	Other care - chronic edema - compression stocking
Blood Type, Coomb's test	Imaging - ct - follow - up	Lab - other hematology	Other care - chronic edema - compressor
Bone Graft / Insertion of Spacers, Devices	Imaging - ct - lower extremity	Lab - pathology consultation	Other care - chronic edema - compressor - non - segmental
Bundled Payment / Medical Home	Imaging - ct - other	Lab - specimen collection - blood - arterial - arterial puncture	Other care - chronic edema - compressor - segmental
Cardiac Stress Test	Imaging - ct - study	Lab - specimen collection - blood - venous - venipuncture	Other care - chronic edema - exterior wrap
Care Plan Oversight	Imaging - mra - lower extremity	Lab - specimen collection - blood - venous - venous port	Other care - chronic edema - gauntlet
Case Management Services	Imaging - mra - pelvis	Lab - specimen collection - specimen handling	Other care - chronic edema - glove
Case Management Services - Behavioral	Imaging - mri - contrast agent	Lab - stat request	Other care - chronic edema - sleeve
CHEMOTHERAPY	Imaging - mri - lumbar spine	Lab - surgical pathology	Other care - chronic edema - surgical stockings
Chest X-Ray	Imaging - mri - other	Lab - therapeutic drug assay	Other care - home care - emergency response system
CHLAMYDIA SCREENING	Imaging - mri - pelvis	Lab - transfusion medicine	Other care - home care - home health aide
Chronic Care Management	Imaging - nuclear - bone scan	Lab - urinalysis	Other care - home care - meals
Colonoscopy/Sigmoidoscopy ColorectalCa Screen	Imaging - nuclear - localization of inflammation	Laboratory - Chemistry and Hematology	Other care - home care - nursing care
Decompression / Discectomy	Imaging - nuclear - other	Laminectomy	Other care - home care - nursing care - lpn
Diagnostic physical therapy	Imaging - nuclear - other musculoskeletal	Laminectomy, excision intervertebral disc	Other care - home care - nursing care - np
DME - bath / toilet aids	Imaging - other imaging	LEAD SCREENING	Other care - home care - nursing care - rn
DME - beds / accessories	Imaging - other imaging - bone density - dexa	Lipid Level Monitoring	Other care - home care - other care
DME - heat/cold application	Imaging - other imaging - fluoroscopy	Low dose steroids	Other care - home care - other care - attendant care
DME - mobility aids	Imaging - supplies - contrast agent - high osmolar	Markers for Inflammation	Other care - home care - other care - chore care
DME - other	Imaging - supplies - contrast agent - low osmolar	Medication Assisted Management (MAT)	Other care - home care - other care - companion care
DME - patient lifts	Imaging - us - guide - other	Medication Therapy Management Services	Other care - home care - other care - day care
DME - repair / maintenance	Imaging - us - other	Medications (Injections, infusions and other forms)	Other care - home care - other care - homemaker
DME - safety equipment	Imaging - x-ray - chest - other	Metabolic Renal Hepatic Chemistry Panel	Other care - home care - other care - respite care
DME - traction	Imaging - x-ray - discography	Microscopic examination (bacterial smear, culture, toxicology)	Other care - home care - physician supervision
DME - trapeze / other orthopedic device	Imaging - x-ray - myelogram	NewBorn Blood Tests	Other care - home care - rehabilitation - occupational therapy
DME - whirlpool - equipment	Imaging - x-ray - si joints - arthrogram	Online Management	Other care - home care - rehabilitation - physical therapy
DME and supplies	Imaging Abdomen	Opioid Administration / Dispensing (OTP)	Other care - home care - rehabilitation - speech therapy
Drug Delivery implantation	Insertion of catheter or spinal stimulator and injection into spinal canal	Orthotics - orthopedic shoes	Other care - home care - social worker
E & M - consultation	Lab - blood gases	Orthotics - other	Other care - home care - specialized visit
E & M - emergency care	Lab - chemistry	Orthotics - spine	Other care - home care - training
E & M - home visit	Lab - chemistry and toxicology tests	Other care - bladder / bowel care - catheter	Other care - hospice
E & M - hospital	Lab - hematology - blood count	Other care - bladder / bowel care - drainage bag	Other care - long term care - assisted living

Relevant Procedures – CPT, HCPC, ICD-10

Other care - long term care - residential care	Physician Services - Outpatient	Procedure - spinal canal - injection into spinal canal	Spinal fusion
Other care - nutrition - assessment	Preventive Medicine, Care Coordination	Procedure - spinal canal - other	Spinal Instrumentation / Stabilization
Other care - nutrition - counseling - dietician	Procedure - anesthesia	Procedure - suture - skin - complex wound repair	Supplies
Other care - nutrition - education	Procedure - block - nerve	Procedure - suture - skin - delayed wound closure	Tests - cardiac - ecg - ecg - 12 lead
Other care - nutrition - enteral	Procedure - casting / splinting - application	Procedure - transplant - bone marrow - harvest stem cells	Tests - cardiac - ecg - other
Other care - nutrition - medical food	Procedure - casting / splinting - supplies	Procedure - vascular access - port / pump - insertion	Tests - cardiac stress tests - cardiac perfusion scan - rest / exercise
Other care - nutrition - parenteral - all - inclusive	Procedure - central venous catheter - insertion	Procedures and Reporting	Tests - cardiac stress tests - cardiac stress tests - other
Other care - nutrition - parenteral - pump	Procedure - debridement - wound / infection / burn - debridement	Prosthetic Implant	Tests - neuro - muscle testing
Other care - observation	Procedure - destruction - nerve	Prosthetics - external power	Tests - neuro - ncv / emg
Other care - other	Procedure - excision - skin - shave skin lesion	Prosthetics - implant	Tests - neuro - other
Other care - other - ancillary services	Procedure - graft	Psychiatry Evaluations	Tests - pulmonary - peak flow
Other care - other - back care	Procedure - graft - skin - graft material	Psychiatry Services	Tests - skin
Other care - other - exercise classes	Procedure - i&d - skin - drainage - post - op infection	Psychological and psychiatric evaluation and therapy	Tests - vascular - arterial - extremity
Other care - other - infection control	Procedure - i&d - skin - drainage of abscess	Removal of Spinal Instrumentation Hardware	Tests - vascular - venous
Other care - other - lodging	Procedure - i&d - skin - drainage of hematoma	Risk Assessment	Therapy - acupuncture
Other care - other - meals	Procedure - injection - tendons / joints / etc.	Robotic Surgery	Therapy - activity therapy
Other care - other - medical records	Procedure - injection of skin lesion	Rx - administration - infusion	Therapy - biofeedback
Other care - other - pvd - compressor	Procedure - laminectomy / related	Rx - administration - injection	Therapy - chiropractic / osteopathic manipulation
Other care - other - therapeutic riding	Procedure - microsurgery	Rx - antibiotics - anti-infectives, misc	Therapy - habilitation
Other care - other - weight management	Procedure - neuro - other non - or rx	Rx - antibiotics - cephalosporins	Therapy - hyperbaric oxygen
Other care - pain management - pca / related	Procedure - obesity procedure - restriction	Rx - antibiotics / antivirals / antifungals - infusion	Therapy - neurostimulator - muscle training
Other care - prevention - smoking cessation	Procedure - other dx on musculoskeletal system	Rx - coagulation system - anticoagulants	Therapy - neurostimulator - tens - device
Other care - respiratory - equipment / supplies	Procedure - other non - or rx - chemodenervation of eccrine glands	Rx - coagulation system - hemostatics	Therapy - osteogenesis stimulator
Other care - wound care	Procedure - other non - or rx - other non - or skin procedures	Rx - diagnostic rx - roentgenography	Therapy - other
Other care - wound care - growth factor	Procedure - other non - or rx on musculoskeletal system	Rx - electrolytic, caloric, water - caloric rx dextrose / rel	Therapy - pt - exercises / activities
Other care - wound care - hyperbaric oxygen	Procedure - other or rx - other or skin procedures	Rx - electrolytic, caloric, water - hydration - unspecified	Therapy - pt - modalities
Other diagnostic cardiovascular procedures	Procedure - other or rx on bone	Rx - electrolytic, caloric, water - multi-mineral prep	Therapy - rehabilitation - related supplies / equipment - motion device
Other diagnostic nervous system procedures	Procedure - other or rx on joints	Rx - electrolytic, caloric, water - potassium supp	Thyroid Function Tests
Other diagnostic procedures (interview, evaluation, consultation)	Procedure - other rx on muscles and tendons	Rx - gi - antiemetics	Transitional Care Management
Other diagnostic radiology and related techniques	Procedure - other spine - rx / dx - injection	Rx - hematopoietic system - hematopoietic growth factors	Transportation - other transportation
Other Laboratory	Procedure - partial excision bone	Rx - hematopoietic system - iron / related	Transportation - paramedic
Other OR therapeutic procedures on musculoskeletal system	Procedure - related supplies - ablation - catheter	Rx - miscellaneous rx	Ungrouped Codes
Other Spine Problems	Procedure - related supplies - access catheter	Rx - miscellaneous rx - enzymes	Urine Protein
Other therapeutic procedures	Procedure - related supplies - graft / repair	Rx - muscle relaxants - muscle relax, skeletal central	Vaccine for flu or Pneumonia
Pathology	Procedure - related supplies - implant	Rx - other	Wellness Assessment
Personal Care Services	Procedure - related supplies - other	Rx - pharmacy fee	X-Ray Thoracolumbar Spine / Pelvis
Physical Therapy / Rehab	Procedure - removal of pins or fixation	Rx - serums, toxoids, vaccines - serums	
Physician Services	Procedure - sedation	Rx - vitamins - multivit prep	
Physician Services - Inpatient	Procedure - spinal canal - catheter	Screen for amino acid disorders	

Relevant Diagnoses – ICD-10

Backache	Other bone infections
Inflammatory spondylopathies	Other Spine Problems
Low Back Pain, Radiculopathy	Post Laminectomy Syndrome
Low Back Pain, Radiculopathy, Myelopathy	Spina Bifida
Major Neurological Deficit	Spondylosis; intervertebral disc disorders; other back problems
MS - pelvis - sprn/strn	Sprain Lower Back
Other arthropathies	Sprains and Strains
Other Back Pain, Radiculopathy, Myelopathy	Stiff Spine

Complications – ICD-10

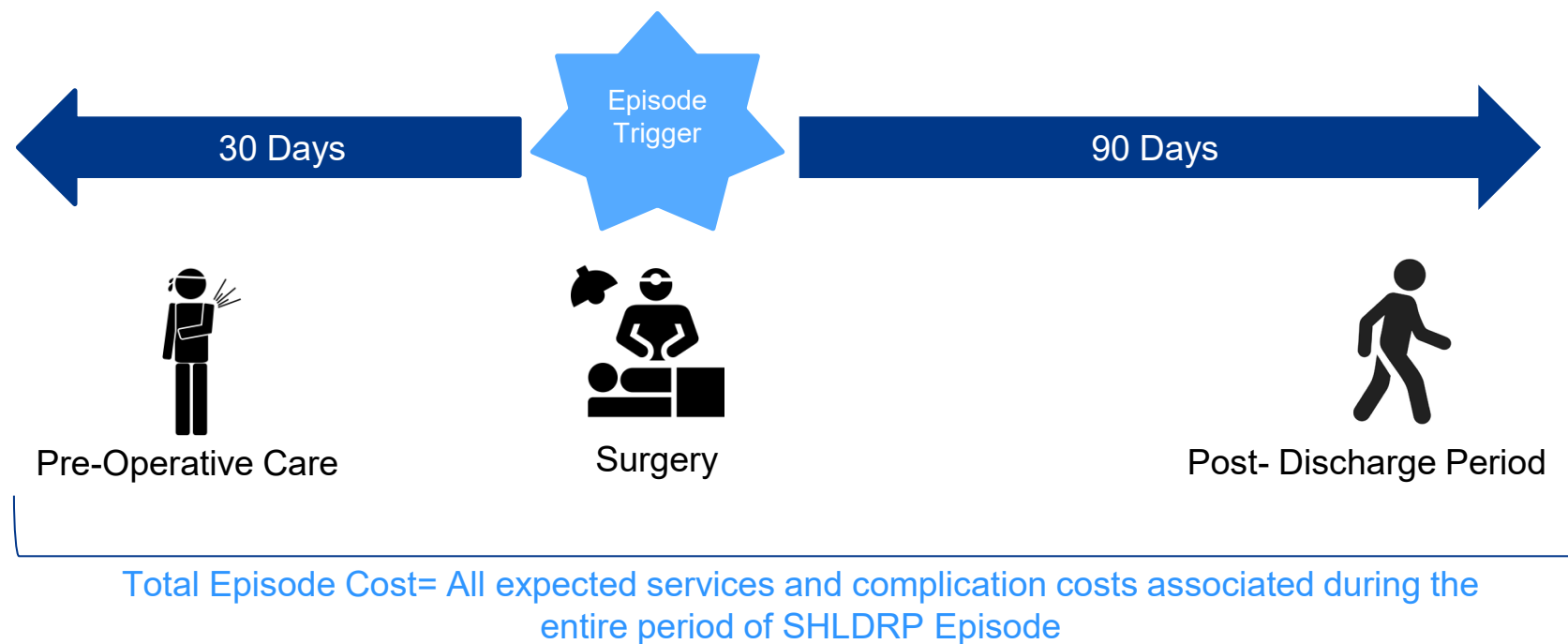
Accidental Falls	Dermatitis, Urticaria	Other bacterial infections	Shock / Cardiac Arrest
Acute cor pulmonale	Diabetes, poor control	Other Bacterial Pneumonia	Shock during or following cardiac surgery
Acute Kidney Failure	dic, coagulation, hemorrhagic disorders	Other bone infections	Shock during or post-procedure
Acute Osteomyelitis	empyema, lung abscess	Other cardiac arrhythmias	Sinus Node Dysfunction
Adverse effects of drugs	Esophageal Reflux and Other Esophagitis	Other cerebral complications	Skin - other
Altered mental status	Fluid Electrolyte Acid Base Problems	Other lower respiratory disease	Skin and subcutaneous tissue infections
Anal and rectal conditions	Foreign body left during procedure	other lung complications	STEMI
Aspiration Pneumonia	Gastroenteritis	Other lung problems	Subendocardial Infarct
Atrial Flutter / Fibrillation	GI Bleed	Other Mental Disorders	Suicide or Self-inflicted Injury
Bacteremia, SIRS, no organ dysfunction	Gram Negative Pneumonia	Other Phlebitis, Lymphangitis, varices	Supraventricular Tachyarrhythmias
Bladder Dysfunction, hemorrhage	HAC 02: Air Embolism	Other Staph Pneumonia	Thromboembolic Stroke
C-Difficile Infection	HAC 04: Stage III and IV Pressure Ulcers	Overdose, Poisonings	Toxic Effects of Substances
Cellulitis, Skin Infection	HAC 09: Manifestations of Poor Glycemic Control	Perforation, Peritonitis, Abd Abscess	Transfusion, Infusion related complications
Chronic and Unspecified Osteomyelitis	Hemorrhage	Phlebitis, Deep vein thrombosis (DVT)	Transient cerebral ischemia, TIA
Chronic Fungal and Other Pneumonias	Hemorrhagic Stroke	Poisoning by Opiates	Urethral Stricture
Coma, persistent vegetative state	Hepatorenal Syndrome	Poisoning by Psychostimulants	Urinary Complications
Compl of joint prosthesis, orthopedic proced	Hypertensive Urgency	Post Laminectomy Syndrome	Urinary Frequency & other symptoms
Complication of genitourinary device	Hypotension / Syncope	Pulmonary Embolism	Urinary Incontinence
Complication of Implanted device, graft	Infective Arthritis	Pyoderma	Urinary Tract Infection
Complications from Central Line	Influenza with Pneumonia	Pyogenic Arthritis	Vascular Insufficiency of intestine
Complications of anesthesia	Intestinal Obstruction	Recent AMI	Vascular Prosthetic Device/Graft Complication
complications of medical care	Intraspinal abscess	Renovascular and other secondary hypertension	Ventilator Associated Pnuemonia
complications of surgical procedures	IVC & other intra-abd venous thrombosis	Resp Failure following trauma / surgery	Ventilator Dependence
Complications of surgical procedures or medical care	Lung disease from opportunistic infections	Respiratory Failure	Ventricular Arrhythmias
Debilitating Viral Pneumonia	Meningitis / Encephalitis	Respiratory Insufficiency	Viral Pneumonia
Decubitus Ulcer	MRSA Pneumonia	Retroperitoneal Abscess	Wound Dehiscence
Dehydration	MRSA, Drug Resistant Infections	Sepsis	Wound Infections
Delirium, Encephalopathy	Opportunistic Infections	Severe Sepsis	



Shoulder Replacement (SHLDRP)

The Shoulder Replacement Episode evaluates services that are typical/routine for the expected care and services that are related to associated complications. Patients are defined as those with a primary procedure code of Shoulder Replacement on an inpatient stay service or a trigger procedure code in any position on an outpatient facility/professional service, along with a qualifying diagnosis code.

Episode Length – SHLDRP



Duration Pre-Trigger Window	Duration Post-Trigger Window
30 Days	90 Days

Episode Triggers – SHLDRP

Trigger Group Name	Code Type	Codes
Partial Shoulder Replacement	CPT	23470
Revision of Shoulder Replacement	CPT	23473- 23474
Total Shoulder Replacement	CPT	23472

Trigger Diagnoses – ICD-10, CPT

Aseptic Necrosis, Left	MS - extrmty - nonallo	Neoplsm - benign neoplsm - bone / cartilage - nos	Other osteopathic disorders, Left
Aseptic Necrosis, Right	MS - extrmty - other deformity	Neoplsm - benign neoplsm - humerus / radius / scapula / ulna	Other osteopathic disorders, Right
Aseptic Necrosis, Unspecified	MS - face - acqrd defrmty	Neoplsm - benign neoplsm - upper extremity	Other osteopathic disorders, Unspecified
diabetes mellitus with neurologic manifestations	MS - joint - nos - effusion	Nonunion, Left side	Other Shoulder Derangements, Left
Diabetes, other manifestation	MS - joint nos - discloc - recurrent	Nonunion, Right side	Other Shoulder Derangements, Right
Fistula, Effusion in Joint	MS - joint nos - jnt derangmnt - loose body	Nonunion, Unspecified	Other Shoulder Derangements, Unspecified
Gout and other crystal arthropathies	MS - joint nos - jnt derangmnt - other	NS - polyneuropathy - collagen vascular disease	Partial Shoulder Replacement
Gout and other crystal arthropathies, Left	MS - joint nos - other arthropathy	NS polyneuropathy-collagen vascul disease, LT	Revision of Shoulder Replacement
Gout and other crystal arthropathies, Right	MS - mscl / lgmnt / fscia - nos - nec / nos	NS polyneuropathy-collagen vascul disease, RT	Rheumatoid Arthritis and Inflammatory Con, LT
Hemarthrosis: Bleeding into Joints	MS - muscle - nos - muscle atrophy	Osteoarthritis	Rheumatoid Arthritis and Inflammatory Con, RT
Infective Arthritis	MS - muscle - nos - other ds	Osteoarthritis, other joints	Rheumatoid Arthritis and Inflammatory Connective Tissue Disease
Infective Arthritis, Left	MS - shldr jt replacement	Osteoarthritis, Shoulder	Rheumatoid Arthritis, Left
Infective Arthritis, Right	MS - synvm / tndn / brsa - nos - bursitis	Osteoporosis, ostetits deformans, Left	Rheumatoid Arthritis, Right
Inflammatory Arthropathies, Left	MS - synvm / tndn / brsa - nos - ganglion / cyst	Osteoporosis, ostetits deformans, Right	Rheumatoid Arthritis, Unspecified
Inflammatory Arthropathies, Right	MS - synvm / tndn / brsa - nos - nec / nos	Osteoporosis, ostetits deformans, Unspecified	Rotator Cuff Strain, Tear and tendonitis Unsp
Inflammatory Arthropathies, Unspecified	MS - synvm / tndn / brsa - nos - rupture - synovium	Other arthropathies	Rotator Cuff Strain, Tear and tendonitis, LT
Malunion, Left side	MS - synvm / tndn / brsa - nos - rupture - tendon	Other arthropathies, Left side	Rotator Cuff Strain, Tear and tendonitis, RT
Malunion, Right side	MS - synvm / tndn / brsa - nos - synvtis/tensyn	Other arthropathies, Right side	Total Shoulder Replacement
Malunion, Unspecified	MS - uppr arm - fx - humerus - pathologic	Other deformities, limb, other sites, Left	Wasting of Muscles and Neuro Musc Dystro, LT
MS - bone - nos - chondrodystrophy	MS - uppr extrm - nos - ostchndrpthy	Other deformities, limb, other sites, Right	Wasting of Muscles and Neuro Musc Dystro, RT
MS - bone - nos - nec / nos	MS - uppr extrm - other deformity	Other deformities, limb, other, Unspecified	Wasting of Muscles and Neuro Muscular Dystrophy

Relevant Procedures – CPT, HCPC, ICD-10

Advance care planning	E & M - nursing home	Lab - microbiology - microscopic exam	Other care - home care - home health aide
Alcohol / Drug Use Screening	E & M - other	Lab - other hematology	Other care - home care - meals
Ancillary Services	E & M - prevention	Lab - pathology consultation	Other care - home care - nursing care
Anesthesia	Electrocardiogram - EKG monitoring	Lab - specimen collection - blood - arterial - arterial puncture	Other care - home care - nursing care - lpn
Aortic resection, replacement or anastomosis	HbA1C	Lab - specimen collection - blood - venous - venipuncture	Other care - home care - nursing care - np
Bleeding Status	Home Health / Hospice	Lab - specimen collection - blood - venous - venous port	Other care - home care - nursing care - rn
Blood Count	Home Health Services	Lab - stat request	Other care - home care - other care
Blood Gases, Pulse Oximetry	Hormone Therapy	Lab - surgical pathology	Other care - home care - other care - attendant care
Blood transfusion	Imaging - ct - follow - up	Lab - therapeutic drug assay	Other care - home care - other care - chore care
Blood Type, Coomb's test	Imaging - ct - guidance	Lab - transfusion medicine	Other care - home care - other care - companion care
Bundled Payment / Medical Home	Imaging - ct - other	Lab - urinalysis	Other care - home care - other care - day care
Cardiac Stress Test	Imaging - ct - upper extremity	Laboratory - Chemistry and Hematology	Other care - home care - other care - respite care
Care Plan Oversight	Imaging - mra - upper extremity	LEAD SCREENING	Other care - home care - physician supervision
Case Management Services	Imaging - mri - contrast agent	Lipid Level Monitoring	Other care - home care - rehabilitation - occupational therapy
Case Management Services - Behavioral	Imaging - mri - guidance	Low dose steroids	Other care - home care - rehabilitation - physical therapy
CHEMOTHERAPY	Imaging - mri - other	Markers for Inflammation	Other care - home care - social worker
CHLAMYDIA SCREENING	Imaging - mri - upper extremity	Medication Assisted Management (MAT)	Other care - home care - specialized visit
Chronic Care Management	Imaging - other imaging	Medication Therapy Management Services	Other care - home care - training
Colonoscopy/Sigmoidoscopy ColorectalCa Screen	Imaging - other imaging - bone density	Medications (Injections, infusions and other forms)	Other care - hospice
Diagnostic physical therapy	Imaging - other imaging - fluoroscopy	Metabolic Renal Hepatic Chemistry Panel	Other care - long term care - assisted living
DME - bath / toilet aids	Imaging - supplies - contrast agent - high osmolar	Microscopic examination (bacterial smear, culture, toxicology)	Other care - long term care - residential care
DME - beds / accessories	Imaging - supplies - contrast agent - low osmolar	Online Management	Other care - nutrition - assessment
DME - heat/cold application	Imaging - us - guide - biopsy	Opioid Administration / Dispensing (OTP)	Other care - nutrition - counseling - dietician
DME - mobility aids	Imaging - us - guide - other	Orthotics - other	Other care - nutrition - education
DME - other	Imaging - us - other	Orthotics - upper extremity	Other care - nutrition - medical food
DME - patient lifts	Imaging - x-ray - other - joint survey	Other - non - covered	Other care - nutrition - parenteral - all - inclusive
DME - safety equipment	Imaging - x-ray - shoulder - arthrogram	Other care - bladder / bowel care - other supplies - skin barrier	Other care - nutrition - parenteral - pump
DME - traction	Imaging Abdomen	Other care - chronic edema - appliance - limb compression	Other care - observation
DME - trapeze / other orthopedic device	IMMUNOTHERAPY	Other care - chronic edema - appliance - segmental	Other care - other
DME - wound therapy	Lab - chemistry	Other care - chronic edema - compressor	Other care - other - ancillary services
DME and supplies	Lab - hematology - blood count	Other care - chronic edema - compressor - non - segmental	Other care - other - exercise classes
Drug Delivery implantation	Lab - hematology - coagulation	Other care - chronic edema - compressor - segmental	Other care - other - infection control
E & M - consultation	Lab - immunology	Other care - chronic edema - exterior wrap	Other care - other - lodging
E & M - emergency care	Lab - infectious agent dna	Other care - chronic edema - gauntlet	Other care - other - meals
E & M - home visit	Lab - microbiology	Other care - chronic edema - glove	Other care - other - medical records
E & M - hospital	Lab - microbiology - c & s	Other care - chronic edema - sleeve	Other care - other - pvd - compressor

Relevant Procedures – CPT, HCPC, ICD-10

Other care - pain management - pca / related	Procedure - indwelling catheter	Prosthetics - repair	Tests - cardiac - ecg - ecg - 12 lead
Other care - respiratory - equipment / supplies	Procedure - injection - tendons / joints / etc.	Prosthetics - upper extremity	Tests - cardiac stress tests - cardiac perfusion scan - rest / exercise
Other care - respiratory - equipment / supplies - peak flow meter	Procedure - injection of skin lesion	Psychiatry Evaluations	Tests - cardiac stress tests - cardiac stress tests - other
Other care - respiratory - equipment / supplies - spirometer	Procedure - microsurgery	Psychological and psychiatric evaluation and therapy	Tests - neuro - ncv / emg
Other care - respiratory - other	Procedure - neuro - other non - or rx	Revision of Shoulder Joint	Tests - neuro - other
Other care - wound care	Procedure - neuro - other or rx	Revision of Shoulder Replacement	Tests - pulmonary - peak flow
Other care - wound care - growth factor	Procedure - obesity procedure - restriction	Risk Assessment	Tests - vascular - arterial - extremity
Other care - wound care - hyperbaric oxygen	Procedure - other dx on musculoskeletal system	Robotic Surgery	Tests - vascular - venous
Other diagnostic cardiovascular procedures	Procedure - other fracture / dislocation - rx	Rx - administration - infusion	Therapy - acupuncture
Other diagnostic procedures (interview, evaluation, consultation)	Procedure - other non - or rx - chemodenervation of eccrine glands	Rx - administration - injection	Therapy - behavior - partial hospitalization
Other Laboratory	Procedure - other non - or rx - other non - or skin procedures	Rx - analg/antipy/nsaids - narcotics	Therapy - biofeedback
Partial Shoulder Replacement	Procedure - other non - or rx on musculoskeletal system	Rx - analg/antipy/nsaids - nsaids	Therapy - chiropractic / osteopathic manipulation
Pathology	Procedure - other or rx - peripheral neurostimulator procedures	Rx - antibiotics - anti-infectives, misc	Therapy - dialysis - supplies
Personal Care Services	Procedure - other or rx on bone	Rx - antibiotics - cephalosporins	Therapy - habilitation
Physical Therapy / Rehab	Procedure - other or rx on joints	Rx - antibiotics / antivirals / antifungals - infusion	Therapy - hyperbaric oxygen
Physician Services	Procedure - other or rx on musculoskeletal system	Rx - blood derivatives	Therapy - neurostimulator - muscle training
Physician Services - Inpatient	Procedure - other rx on muscles and tendons	Rx - coagulation system - anticoagulants	Therapy - neurostimulator - nausea / vomiting
Physician Services - Outpatient	Procedure - partial excision bone	Rx - coagulation system - antiheparin agnt	Therapy - neurostimulator - tens - device
Preventive Medicine, Care Coordination	Procedure - peripheral venous catheter	Rx - coagulation system - hemostatics	Therapy - osteogenesis stimulator
Procedure - anesthesia	Procedure - related supplies - ablation - catheter	Rx - diagnostic rx - roentgenography	Therapy - other
Procedure - arthroscopy - other joints	Procedure - related supplies - access catheter	Rx - electrolytic, caloric, water - caloric rx dextrose / rel	Therapy - phlebotomy
Procedure - block - nerve	Procedure - related supplies - arthroplasty	Rx - electrolytic, caloric, water - hydration - unspecified	Therapy - pt - exercises / activities
Procedure - bone graft	Procedure - related supplies - graft / repair	Rx - electrolytic, caloric, water - multi-mineral prep	Therapy - pt - modalities
Procedure - casting / splinting - application	Procedure - related supplies - implant	Rx - electrolytic, caloric, water - potassium supp	Therapy - rehabilitation - related supplies / equipment - motion device
Procedure - casting / splinting - supplies	Procedure - related supplies - other	Rx - gi - antiemetics	Therapy - transfusion - administration
Procedure - catheter - arterial - arterial line for monitoring	Procedure - removal of pins or fixation	Rx - gi - ppis	Therapy - transfusion - blood
Procedure - central venous catheter - insertion	Procedure - sedation	Rx - hematopoietic system - hematopoietic growth factors	Therapy - transfusion - plasma
Procedure - central venous catheter - removal	Procedure - spinal canal - catheter	Rx - miscellaneous rx	Therapy - transfusion - platelets
Procedure - debridement - wound / infection / burn - debridement	Procedure - suture - skin - delayed wound closure	Rx - miscellaneous rx - enzymes	Total Shoulder Replacement
Procedure - destruction - nerve	Procedure - suture - skin - repair of superficial wound	Rx - muscle relaxants - muscle relax, skeletal central	Transportation - other transportation
Procedure - excision - skin - shave skin lesion	Procedure - vascular access - port / pump - insertion	Rx - other	Transportation - paramedic
Procedure - graft	Procedures and Reporting	Rx - pharmacy fee	Ungrouped Codes
Procedure - graft - skin - graft material	Prosthetic Implant	Rx - serums, toxoids, vaccines - serums	Urine Protein
Procedure - i&d - skin - drainage - post - op infection	Prosthetics - external power	Rx - vitamins - multivit prep	Vaccine for flu or Pneumonia
Procedure - i&d - skin - drainage of abscess	Prosthetics - implant	Screen for amino acid disorders	Wellness Assessment
Procedure - i&d - skin - drainage of hematoma	Prosthetics - other	Supplies	X-Ray Shoulder Scapula Clavicle

Relevant Diagnoses – ICD-10

Aseptic Necrosis, Left	MS - extrmty - nonallo	Neoplsm - benign neoplsm - bone / cartilage - nos	Other osteopathic disorders, Left
Aseptic Necrosis, Right	MS - extrmty - other deformity	Neoplsm - benign neoplsm - humerus / radius / scapula / ulna	Other osteopathic disorders, Right
Aseptic Necrosis, Unspecified	MS - face - acqrd defrmty	Neoplsm - benign neoplsm - upper extremity	Other osteopathic disorders, Unspecified
diabetes mellitus with neurologic manifestations	MS - joint - nos - effusion	Nonunion, Left side	Other Shoulder Derangements, Left
Diabetes, other manifestation	MS - joint nos - discloc - recurrent	Nonunion, Right side	Other Shoulder Derangements, Right
Fistula, Effusion in Joint	MS - joint nos - jnt derangmnt - loose body	Nonunion, Unspecified	Other Shoulder Derangements, Unspecified
Gout and other crystal arthropathies	MS - joint nos - jnt derangmnt - other	NS - polyneuropathy - collagen vascular disease	Rheumatoid Arthritis and Inflammatory Con, LT
Gout and other crystal arthropathies, Left	MS - joint nos - other arthropathy	NS polyneuropathy-collagen vascul disease, LT	Rheumatoid Arthritis and Inflammatory Con, RT
Gout and other crystal arthropathies, Right	MS - mscl / lgmnt / fscia - nos - nec / nos	NS polyneuropathy-collagen vascul disease, RT	Rheumatoid Arthritis and Inflammatory Connective Tissue Disease
Hemarthrosis: Bleeding into Joints	MS - muscle - nos - muscle atrophy	Osteoarthritis	Rheumatoid Arthritis, Left
Infective Arthritis	MS - muscle - nos - other ds	Osteoarthritis, other joints	Rheumatoid Arthritis, Right
Infective Arthritis, Left	MS - shldr jt replacement	Osteoporosis, ostetits deformans, Left	Rheumatoid Arthritis, Unspecified
Infective Arthritis, Right	MS - synvm / tndn / brsa - nos - bursitis	Osteoporosis, ostetits deformans, Right	Rotator Cuff Strain, Tear and tendonitis Unsp
Inflammatory Arthropathies, Left	MS - synvm / tndn / brsa - nos - ganglion / cyst	Osteoporosis, ostetits deformans, Unspecified	Rotator Cuff Strain, Tear and tendonitis, LT
Inflammatory Arthropathies, Right	MS - synvm / tndn / brsa - nos - nec / nos	Other arthropathies	Rotator Cuff Strain, Tear and tendonitis, RT
Inflammatory Arthropathies, Unspecified	MS - synvm / tndn / brsa - nos - rupture - synovium	Other arthropathies, Left side	Wasting of Muscles and Neuro Musc Dystro, LT
Malunion, Left side	MS - synvm / tndn / brsa - nos - rupture - tendon	Other arthropathies, Right side	Wasting of Muscles and Neuro Musc Dystro, RT
Malunion, Right side	MS - synvm / tndn / brsa - nos - synvtis/tensyn	Other deformities, limb, other sites, Left	Wasting of Muscles and Neuro Muscular Dystrophy
Malunion, Unspecified	MS - uppr arm - fx - humerus - pathologic	Other deformities, limb, other sites, Right	
MS - bone - nos - chondrodystrophy	MS - uppr extrm - nos - ostchndrpthy	Other deformities, limb, other, Unspecified	
MS - bone - nos - nec / nos	MS - uppr extrm - other deformity		

Complications – ICD-10

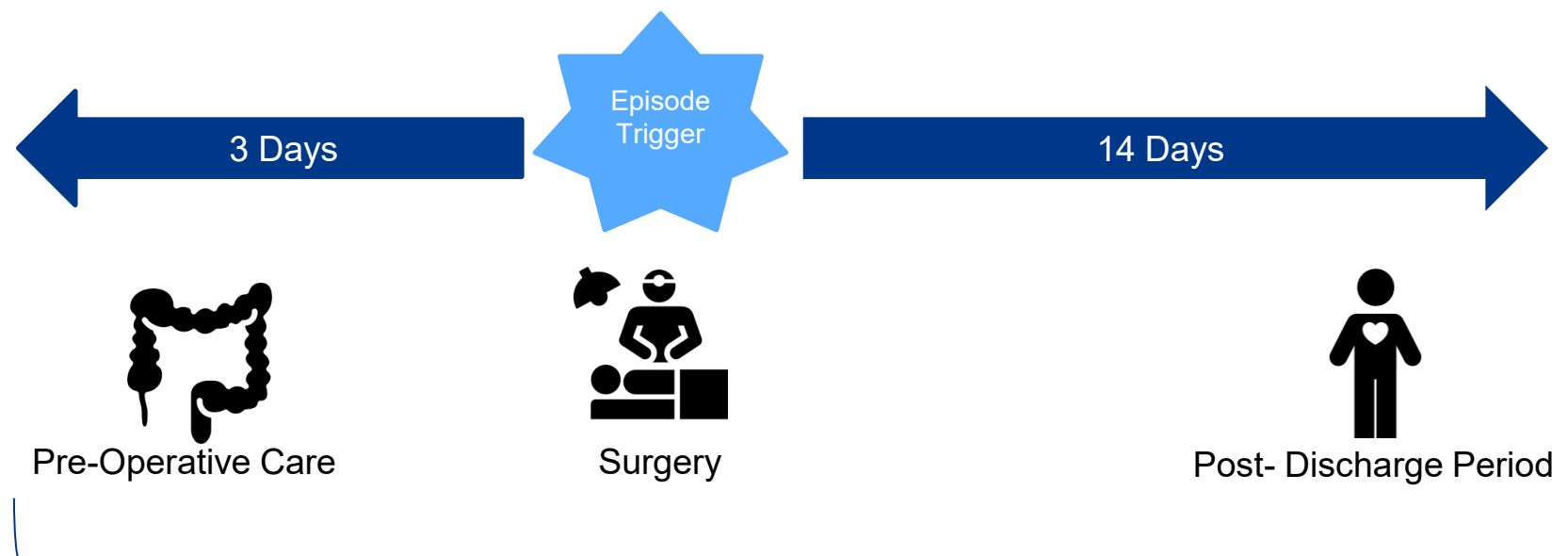
Accidental Falls	Complications of surgical procedures or medical care	Intestinal Obstruction	Respiratory Failure
Acute CHF / pulm edema	Decubitus Ulcer	Meningitis / Encephalitis	Respiratory Insufficiency
Acute cor pulmonale	Dehydration	MRSA Pneumonia	rhabdomyolysis
Acute esophagitis, acute gastritis, duodenitis	Delirium, Encephalopathy	MRSA, Drug Resistant Infections	Sepsis
Acute Kidney Failure	Dermatitis, Urticaria	Other bacterial infections	Severe Sepsis
Acute Osteomyelitis	Diabetes, poor control	Other Bacterial Pneumonia	Shock / Cardiac Arrest
Adverse effects of drugs	dic, coagulation, hemorrhagic disorders	Other cardiac arrhythmias	Shock during or post-procedure
Altered mental status	empyema, lung abscess	Other injuries and conditions due to external	Skin - other
arterial thromboembolism	Esophageal Reflux and Other Esophagitis	Other lower respiratory disease	Skin and subcutaneous tissue infections
Aspiration Pneumonia	Fluid Electrolyte Acid Base Problems	other lung complications	STEMI
Atrial Flutter / Fibrillation	Foreign body left during procedure	Other lung problems	Subendocardial Infarct
Bacteremia, SIRS, no organ dysfunction	Frostbite Chillblains	Other Phlebitis, Lymphangitis, varices	Supraventricular Tachyarrhythmias
Cellulitis, Skin Infection	GI Bleed	Other Staph Pneumonia	Thromboembolic Stroke
Chronic and Unspecified Osteomyelitis	Gram Negative Pneumonia	Overdose, Poisonings	Transfusion, Infusion related complications
Chronic Fungal and Other Pneumonias	HAC 02: Air Embolism	Periprosthetic fracture	Urethral Stricture
Chronic Skin Ulcer	HAC 04: Stage III and IV Pressure Ulcers	Phlebitis, Deep vein thrombosis (DVT)	Urinary Frequency & other symptoms
Compl of joint prosthesis, orthopedic proced	HAC 09: Manifestations of Poor Glycemic Control	Poisoning by Cannabis	Urinary Incontinence
Complication of genitourinary device	Hemorrhage	Poisoning by Opiates	Urinary Tract Infection
Complication of Implanted device, graft	Hemorrhagic Stroke	Poisoning by Psychostimulants	Ventilator Associated Pnuemonia
Complication of nervous system device	Hepatorenal Syndrome	Pulmonary Embolism	Ventilator Dependence
Complications from Central Line	Hypertensive Urgency	Pyoderma	Ventricular Arrhythmias
Complications of anesthesia	Hypotension / Syncope	Pyogenic Arthritis	Wound Dehiscence
complications of medical care	Influenza with Pneumonia	Recent AMI	Wound Infections
complications of surgical procedures	Injury to nerves, shoulder region	Resp Failure following trauma / surgery	



Colonoscopy (COLOS)

The COLOS Episode focuses on screening, surveillance and diagnostic colonoscopies. It evaluates services that are typical/routine for the expected care and services that are related to associated complications. Patients are defined as those with a procedure code of Colonoscopy on an outpatient facility/professional service, along with a qualifying diagnosis code.

Episode Length – COLOS



Total Episode Cost= All expected services and complication costs associated during the entire index period of the COLOS episode.

Duration Pre-Trigger Window	Duration Post-Trigger Window
3 Days	14 Days

Episode Triggers – COLOS

Trigger Group Name	Code Type	Codes
Colonoscopy	CPT	45378, 45381
Colonoscopy through Stoma	CPT	44388, 44403-44404
Colonoscopy thru stoma w biopsy, polypectomy	CPT	44389, 44392, 44395
Colonoscopy w biopsy, polypectomy	CPT	45380, 45384-45385
Colonoscopy/Sigmoidoscopy ColorectalCa Screen	HCPC ICD10	G0104-G0106, G120-G0122
Flexible Sigmoidoscopy /Colonoscopy	CPT	45390
Other therapeutic Sigmoidoscopy	CPT	45335
Sigmoidoscopy	CPT	45330
Sigmoidoscopy w biopsy, polypectomy	CPT	45331, 45333, 45338

Trigger Diagnoses – ICD-10

Allergic, Dietetic, Eosinophilic Gastroenteritis	Diverticulitis, colitis	Neoplsm - screening - small intestine
Angiodysplasia of intestine	Diverticulosis, Meckel's diverticulum, Angiodyspasia	Neuroendocrine, Myeloproliferative Cancers
Benign Carcinoid Tumor of the GI tract	Gastroenteritis	Nonspecific Gastroenteritis
Cancer in situ, Anorectal	GI - family hx of GI disease	Personal history of cancer
Cancer in situ, Colon	GI - flatulence / gas pain	Personal history of GI cancer
Cancer of colon	GI - personal hx of GI disease	Post GI Surgery Syndromes
Cancer of other GI organs; peritoneum	GI Bleed	Premalignancy anus/rectum
Cancer of rectum and anus	Hx of colon polyps, family Hx of colon cancer	Previous bowel surgery, ostomy status
Cancer; other and unspecified primary	Intestinal Malabsorption, Celiac Disease	Pseudopolyposis of colon
Congenital GI Problems in NB	Intestinal Obstruction	Secondary malignancies, Unspecified
Crohn's Disease	Iron deficiency and other anemias	Thyroid Cancer
Crohn's Disease w Abscess	Irritable Bowel and other functional GI disor	Toxic Effects of Radiation
Crohn's Disease w Fistula	Metastatic Cancer and Acute Leukemia	Toxic Gastroenteritis
Crohn's disease w intestinal obstruction	Neoplasms of unspecified nature or uncertain behavior	Ulc Colitis w Abscess
Crohn's disease w other complications	Neoplsm - gi - premalignant - anus / rectum	Ulc Colitis w Fistula
Crohn's disease w rectal bleeding	Neoplsm - hemangioma - gi - nos	Ulc Colitis w Obstruction
Digestive congenital anomalies	Neoplsm - lipoma - gi - nos	Ulcerative Colitis
Digestive system complications	Neoplsm - screening - colon - nos	Ulcerative colitis w other complications
Disseminated Metastatic Cancer	Neoplsm - screening - gi - nos	Ulcerative colitis w rectal bleeding
Diverticulitis w Perf, Abscess	Neoplsm - screening - nos	
Diverticulitis with hemorrhage	Neoplsm - screening - rectum	

Relevant Procedures – CPT, HCPC, ICD-10

Advance care planning	DME - repair / maintenance	Imaging - nuclear - other gi	Lab - chemistry
Alcohol / Drug Use Management	DME - restraints	Imaging - nuclear - platelet kinetics	Lab - chemistry and toxicology tests
Alcohol / Drug Use Screening	DME - safety equipment	Imaging - nuclear - radiopharmaceutical - radiopharmaceutical - other	Lab - cytogenetics
Ancillary Services	DME and supplies	Imaging - nuclear - red cell survival	Lab - cytology
Anesthesia	Drug Delivery implantation	Imaging - nuclear - shilling test	Lab - endocrine
Aortic resection, replacement or anastomosis	E & M - consultation	Imaging - nuclear - shilling test - radiopharmaceutical	Lab - endocrine response test
Bleeding Status	E & M - emergency care	Imaging - nuclear - tumor localization	Lab - genetic testing - brugada syndrome
Blood Count	E & M - home visit	Imaging - nuclear - venous thrombosis - radiopharmaceutical	Lab - genetic testing - cardiac ion channel syndrome
Blood Gases, Pulse Oximetry	E & M - hospital	Imaging - nuclear - venous thrombosis - scan	Lab - gi - fat absorption
Blood transfusion	E & M - nursing home	Imaging - other imaging	Lab - hematology - blood count
Blood Type, Coomb's test	E & M - other	Imaging - other imaging - fluoroscopy	Lab - hematology - blood count - eosinophil count
Bundled Payment / Medical Home	E & M - prevention	Imaging - other imaging - fluoroscopy - guidance	Lab - hematology - coagulation
Care Plan Oversight	Electrocardiogram - EKG monitoring	Imaging - pet - colorectal cancer - recurrence / metastasis	Lab - immunology
Case Management Services	Esophageal Motility and Diagnostic Workup	Imaging - pet - lymphoma - staging	Lab - infectious agent antibody
Case Management Services - Oncology	Flexible Sigmoidoscopy /Colonoscopy	Imaging - pet - other	Lab - infectious agent antigen
CHEMOTHERAPY	HbA1C	Imaging - pet - tumor imaging	Lab - infectious agent dna
CHLAMYDIA SCREENING	Hemorrhoid procedures	Imaging - supplies - contrast agent - high osmolar	Lab - microbiology
Chronic Care Management	Hepatitis B vaccine	Imaging - supplies - contrast agent - low osmolar	Lab - microbiology - c & s
Colon Cancer, Unknown Disease Status	High dose steroids	Imaging - supplies - ultrasound related	Lab - microbiology - microscopic exam
Colonoscopy	Home Health / Hospice	Imaging - therapeutic procedure - abscess drainage	Lab - microbiology - other
Colonoscopy - therapeutic	Home Health Services	Imaging - us - guide - biopsy	Lab - microbiology - viral culture
Colonoscopy through Stoma	Hormone Therapy	Imaging - us - guide - other	Lab - microscopic - koh prep
Colonoscopy thru stoma w biopsy, polypectomy	HPV VACCINE	Imaging - us - other	Lab - microscopic - pinworm
Colonoscopy w biopsy, polypectomy	Imaging - ct - follow - up	Imaging - us - retroperitoneum	Lab - microscopic - wet mount
Colonoscopy/Sigmoidoscopy ColorectalCa Screen	Imaging - ct - guidance	Imaging - us - transrectal	Lab - other clinical lab
Coordinated Care Fees/Services	Imaging - ct - other	Imaging - x-ray - abdomen	Lab - other hematology
Diagnostic physical therapy	Imaging - mri - contrast agent	Imaging - x-ray - lower gi - large bowel - contrast	Lab - pathology consultation
Diagnostic ultrasound of abdomen or retroperitoneum	Imaging - mri - guidance	Imaging - x-ray - other - joint survey	Lab - specimen collection - blood - venous - venipuncture
DME - bath / toilet aids	Imaging - mri - other	Imaging - x-ray - upper gi - duodenogram	Lab - specimen collection - specimen handling
DME - beds / accessories	Imaging - nuclear - blood / plasma volume - scan	Imaging - x-ray - upper gi - esophagus - contrast	Lab - specimen collection - urine
DME - heat/cold application	Imaging - nuclear - gi blood loss	Imaging - x-ray - upper gi - other	Lab - stat request
DME - mobility aids	Imaging - nuclear - localization of inflammation	Imaging - x-ray - upper gi - small bowel - contrast	Lab - surgical pathology
DME - other	Imaging - nuclear - lymphatics	Imaging Abdomen	Lab - therapeutic drug assay
DME - patient lifts	Imaging - nuclear - other - automated data add - on	Insertion of catheter or spinal stimulator and injection into spinal canal	Lab - tissue typing
DME - rehabilitation	Imaging - nuclear - other blood / related	Lab - blood gases	Lab - transfusion medicine

Relevant Procedures – CPT, HCPC, ICD-10

Lab - tumor marker	Other care - home care - nursing care - rn	Other care - other - infection control	Procedure - hemorrhoidectomy
Lab - urinalysis	Other care - home care - other care	Other care - other - irrigation	Procedure - maintenance - cns / spinal pump / port
Laboratory - Chemistry and Hematology	Other care - home care - other care - attendant care	Other care - other - lead assessment	Procedure - other anal / rectal procedures - other procedures - rectum / anus
LEAD SCREENING	Other care - home care - other care - chore care	Other care - other - lodging	Procedure - other gi dx
Lipid Level Monitoring	Other care - home care - other care - companion care	Other care - other - meals	Procedure - other hemorrhoid procedures
Low dose steroids	Other care - home care - other care - day care	Other care - other - medical records	Procedure - other lower gi procedures - other bowel dx
Lung Function Tests	Other care - home care - other care - homemaker	Other care - other - weight management	Procedure - other lower gi procedures - other non - or rx
Markers for Inflammation	Other care - home care - other care - respite care	Other care - pain management - pca / related	Procedure - other lower gi procedures - other or rx
Medication Assisted Management (MAT)	Other care - home care - physician supervision	Other care - prevention - smoking cessation	Procedure - other non - or rx - other non - or skin procedures
Medication Therapy Management Services	Other care - home care - rehabilitation - occupational therapy	Other care - respiratory - equipment / supplies	Procedure - other procedures - pancreas
Medications (Injections, infusions and other forms)	Other care - home care - rehabilitation - physical therapy	Other care - respiratory - equipment / supplies - apnea monitor	Procedure - proctoscopy - screening
Metabolic Renal Hepatic Chemistry Panel	Other care - home care - social worker	Other care - respiratory - equipment / supplies - nebulizer	Procedure - proctoscopy / anoscopy - other
NewBorn Blood Tests	Other care - home care - specialized visit	Other care - respiratory - equipment / supplies - peak flow meter	Procedure - proctosigmoidoscopy - dx
Online Management	Other care - home care - training	Other care - respiratory - equipment / supplies - spirometer	Procedure - proctosigmoidoscopy - rx
Opioid Administration / Dispensing (OTP)	Other care - hospice	Other care - respiratory - oxygen / oxygen concentrator	Procedure - related supplies - access catheter
Other - non - covered	Other care - long term care - assisted living	Other care - respiratory therapy	Procedure - related supplies - catheter
Other bowel diagnostic procedures	Other care - long term care - residential care	Other diagnostic procedures (interview, evaluation, consultation)	Procedure - related supplies - dilation / stenting
Other care - bladder / bowel care - catheter	Other care - nutrition - assessment	Other Laboratory	Procedure - related supplies - drainage
Other care - bladder / bowel care - drainage bag	Other care - nutrition - counseling - dietician	Other therapeutic Sigmoidoscopy	Procedure - related supplies - implant
Other care - bladder / bowel care - other supplies	Other care - nutrition - education	Partial Colectomy	Procedure - related supplies - other
Other care - bladder / bowel care - other supplies - diaper / related	Other care - nutrition - enteral	Pathology	Procedure - sedation
Other care - bladder / bowel care - other supplies - skin barrier	Other care - nutrition - enteral - administration	Peer Services	Procedure - ugi endoscopy - other
Other care - child care - foster care	Other care - nutrition - enteral - formula	Personal Care Services	Procedure - ugi endoscopy - small bowel endoscopy
Other care - chronic edema - appliance - segmental	Other care - nutrition - enteral - pump	Physical Therapy / Rehab	Procedure - vascular access - port / pump - insertion
Other care - chronic edema - surgical stockings	Other care - nutrition - enteral - tubing	Physician Services	Procedures and Reporting
Other care - diabetes care - glucose monitoring	Other care - nutrition - medical food	Physician Services - Inpatient	Prophylactic vaccinations and inoculations
Other care - diabetes care - glucose monitoring - lancet	Other care - nutrition - parenteral	Physician Services - Outpatient	Prosthetics - other
Other care - diabetes care - glucose monitoring - other supplies	Other care - nutrition - parenteral - all - inclusive	PQRI	Psychiatry Evaluations
Other care - diabetes care - insulin pump	Other care - nutrition - parenteral - nutrition solution	Preventive Medicine, Care Coordination	Psychiatry Services
Other care - home care - emergency response system	Other care - nutrition - parenteral - pump	Procedure - anesthesia	Psychological and psychiatric evaluation and therapy
Other care - home care - home health aide	Other care - observation	Procedure - anoscopy	Robotic Surgery
Other care - home care - meals	Other care - other	Procedure - central venous catheter - fluoroscopy - guidance	Routine Immunizations
Other care - home care - nursing care	Other care - other - ancillary services	Procedure - central venous catheter - insertion	Rx - administration - infusion
Other care - home care - nursing care - lpn	Other care - other - education	Procedure - esophageal / gastric intubation	Rx - administration - injection
Other care - home care - nursing care - np	Other care - other - exercise classes	Procedure - hemorrhoid destruction / ligation	Rx - allergy - antihistamines / comb

Relevant Procedures – CPT, HCPC, ICD-10

Rx - analg/antipy/nsaids - narcotics	Rx - diagnostic rx - gastric function	Rx - respiratory - beta agonists	Therapy - behavior - other
Rx - analg/antipy/nsaids - nsaids	Rx - diagnostic rx - roentgenography	Rx - respiratory - methylxanthines	Therapy - behavior - partial hospitalization
Rx - antibiotics - anti-infectives, misc	Rx - diagnostic rx, misc	Rx - respiratory - mucolytics/cold comb	Therapy - dialysis - supplies
Rx - antibiotics - cephalosporins	Rx - diuretics - diuretic, carb anhydrase inhib	Rx - respiratory - phenylephrine	Therapy - habilitation
Rx - antibiotics - chloramphenicol / comb	Rx - diuretics, loop diuretics	Rx - serums, toxoids, vaccines - serums	Therapy - neurostimulator - nausea / vomiting
Rx - antibiotics - macrolides	Rx - diuretics, osmotic	Rx - serums, toxoids, vaccines - toxins	Therapy - neurostimulator - tens - leads
Rx - antibiotics - penicillins	Rx - diuretics, thiazides / related	Rx - skin / mucous membrane - antiinflam s/mm agnts / comb nec	Therapy - nonoperative removal of foreign body
Rx - antibiotics - quinolones	Rx - electrolytic, caloric, water - calcium supplements	Rx - skin / mucous membrane - s/mm miscellaneous	Therapy - other
Rx - antibiotics - sulfonamides / comb	Rx - electrolytic, caloric, water - caloric rx dextrose / rel	Rx - vitamins - multivit prep	Therapy - phlebotomy
Rx - antibiotics - tetracyclines	Rx - electrolytic, caloric, water - caloric rx, amino acid prep	Rx - vitamins - vitamin b / b complex	Therapy - pt - exercises / activities
Rx - antibiotics / antivirals / antifungals - infusion	Rx - electrolytic, caloric, water - hydration - unspecified	Rx - vitamins - vitamin d	Therapy - pt - modalities
Rx - antibiotics, misc	Rx - electrolytic, caloric, water - multi-mineral prep	Screen for amino acid disorders	Therapy - rehabilitation - other
Rx - antidiabetic rx - insulins	Rx - electrolytic, caloric, water - potassium supp	Sigmoidoscopy	Therapy - transfusion - blood
Rx - antidiabetic rx, misc	Rx - electrolytic, caloric, water - replacement preparations, misc	Sigmoidoscopy w biopsy, polypectomy	Therapy - transfusion - granulocytes
Rx - antifungals	Rx - electrolytic, caloric, water - sodium chlor preps	Smoking / Tobacco Cessation	Therapy - transfusion - plasma
Rx - autonomic rx - sympathomimetic rx	Rx - endocrine - other - parathyroid hormones	Supplies	Therapy - transfusion - platelets
Rx - b-lactam antibiotics	Rx - gi - antichol/antispasmodics	Tests - allergy tests - intradermal	Therapy - vaccination - chicken pox
Rx - blood derivatives	Rx - gi - antiemetics	Tests - allergy tests - other	Therapy - vaccination - dtp / related
Rx - cardiovascular system - beta blockers	Rx - gi - h2 antagonists	Tests - allergy tests - patch	Therapy - vaccination - hepatitis a vaccine
Rx - cardiovascular system - cardiac glycosides	Rx - gi - ppis	Tests - allergy tests - percutaneous	Therapy - vaccination - hepatitis b
Rx - cardiovascular system - natriuretic peptides	Rx - gi drug misc,nec	Tests - cardiac - ecg - ecg - 12 lead	Therapy - vaccination - hib vaccine
Rx - cardiovascular system - vasodilating agents, nec	Rx - gu - other - bladder rx	Tests - cardiac - radiopharmaceuticals	Therapy - vaccination - mmr / related
Rx - cardiovascular system - vasodilating rx	Rx - hematopoietic system - hematopoietic growth factors	Tests - ent - other dx	Therapy - vaccination - other vaccine
Rx - central nervous system - amphetamines	Rx - hematopoietic system - iron / related	Tests - ent - swallowing evaluation	Therapy - vaccination - poliovirus vaccine
Rx - central nervous system - antidepressants	Rx - hematopoietic system - other	Tests - gi - duodenal motility study	Therapy - vaccination - vaccine administration
Rx - central nervous system - anxiolytic/sedative/hypnot nec	Rx - immune system - interferons	Tests - gi - esophageal balloon distension test	Thyroid Function Tests
Rx - central nervous system - barbiturates	Rx - miscellaneous rx	Tests - gi - gastric motility study	Transportation - other transportation
Rx - central nervous system - benzodiazepines	Rx - miscellaneous rx - anesthetics, local	Tests - gi - other dx	Transportation - paramedic
Rx - central nervous system - non-amphetamine stimulants	Rx - miscellaneous rx - enzymes	Tests - neuro - sleep studies	Ungrouped Codes
Rx - central nervous system - tranq/antipsychotics	Rx - miscellaneous rx - heavy metal antagonists	Tests - pulmonary - other	Upper GI endoscopy
Rx - coagulation system - anticoagulants	Rx - muscle relaxants - muscle relax, neuromusc block	Tests - pulmonary - peak flow	Urine Protein
Rx - coagulation system - antiheparin agnt	Rx - muscle relaxants - muscle relax, skeletal central	Therapy - acupuncture	Vaccine for flu or Pneumonia
Rx - coagulation system - antiplatelet rx	Rx - muscle relaxants - muscle relax, skeletal, misc	Therapy - activity therapy	Vitamin K administration
Rx - coagulation system - hemostatics	Rx - other	Therapy - allergy treatment	Wellness Assessment
Rx - coagulation system - thrombolytic rx	Rx - pharmacy fee	Therapy - behavior - evaluation and therapy	

Relevant Diagnoses – ICD-10

Allergic, Dietetic, Eosinophilic Gastroenteritis	Diverticulitis, colitis	Neoplsm - screening - small intestine
Angiodysplasia of intestine	Diverticulosis, Meckel's diverticulum, Angiodysplasia	Neuroendocrine, Myeloproliferative Cancers
Benign Carcinoid Tumor of the GI tract	Gastroenteritis	Nonspecific Gastroenteritis
Cancer in situ, Anorectal	GI - family hx of GI disease	Personal history of cancer
Cancer in situ, Colon	GI - flatulence / gas pain	Personal history of GI cancer
Cancer of colon	GI - personal hx of GI disease	Post GI Surgery Syndromes
Cancer of other GI organs; peritoneum	GI Bleed	Premalignancy anus/rectum
Cancer of rectum and anus	Hx of colon polyps, family Hx of colon cancer	Previous bowel surgery, ostomy status
Cancer; other and unspecified primary	Intestinal Malabsorption, Celiac Disease	Pseudopolyposis of colon
Congenital GI Problems in NB	Intestinal Obstruction	Secondary malignancies, Unspecified
Crohn's Disease	Iron deficiency and other anemias	Thyroid Cancer
Crohn's Disease w Abscess	Irritable Bowel and other functional GI disor	Toxic Effects of Radiation
Crohn's Disease w Fistula	Metastatic Cancer and Acute Leukemia	Toxic Gastroenteritis
Crohn's disease w intestinal obstruction	Neoplasms of unspecified nature or uncertain behavior	Ulc Colitis w Abscess
Crohn's disease w other complications	Neoplsm - gi - premalignant - anus / rectum	Ulc Colitis w Fistula
Crohn's disease w rectal bleeding	Neoplsm - hemangioma - gi - nos	Ulc Colitis w Obstruction
Digestive congenital anomalies	Neoplsm - lipoma - gi - nos	Ulcerative Colitis
Digestive system complications	Neoplsm - screening - colon - nos	Ulcerative colitis w other complications
Disseminated Metastatic Cancer	Neoplsm - screening - gi - nos	Ulcerative colitis w rectal bleeding
Diverticulitis w Perf, Abscess	Neoplsm - screening - nos	
Diverticulitis with hemorrhage	Neoplsm - screening - rectum	

Complications – ICD-10

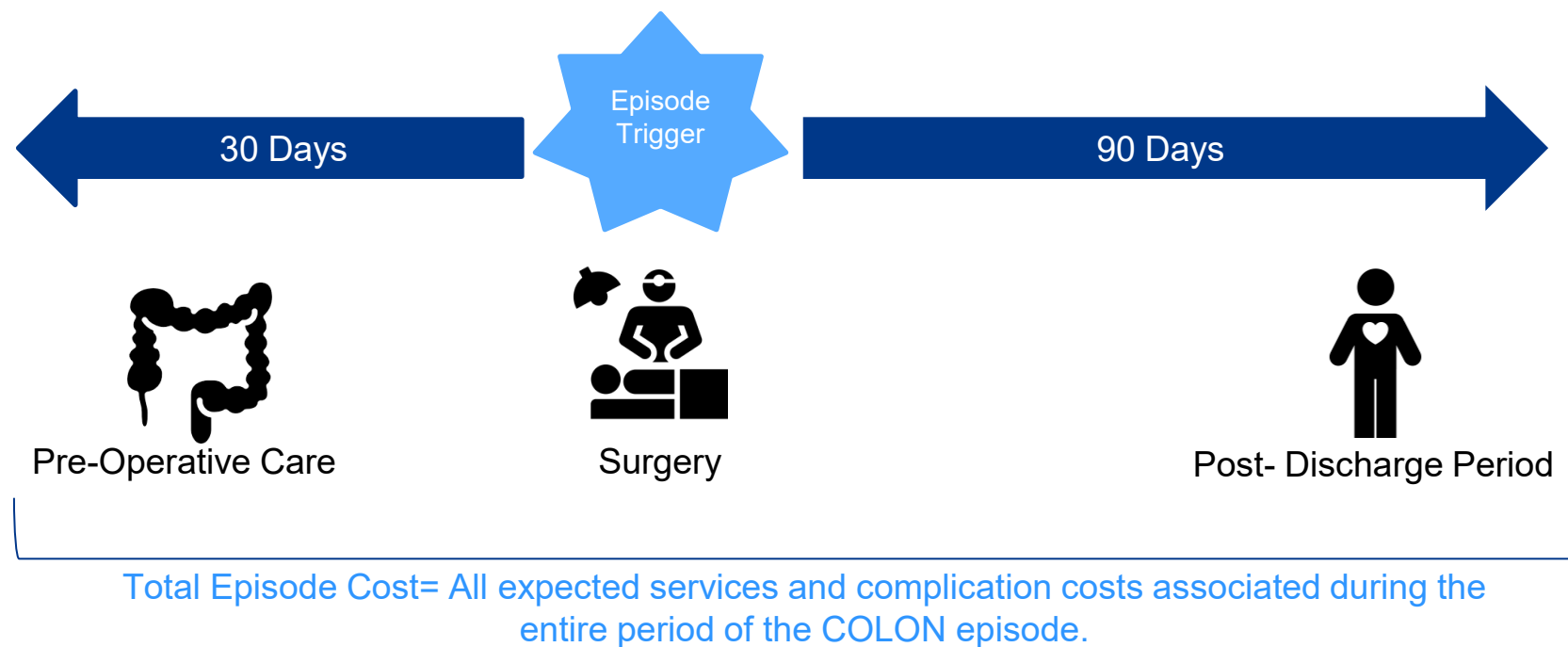
Acute cor pulmonale	HAC 02: Air Embolism	Retroperitoneal Abscess
Acute Kidney Failure	Hemoperitoneum	Sepsis
Adverse effects of drugs	Hemorrhage	Severe Sepsis
Altered mental status	Hemorrhagic Stroke	Shock / Cardiac Arrest
Aspiration Pneumonia	Hypertensive Urgency	Shock during or post-procedure
Atrial Flutter / Fibrillation	Hypotension / Syncope	Sinus Node Dysfunction
Bacteremia, SIRS, no organ dysfunction	Influenza with Pneumonia	STEMI
C-Difficile Infection	IVC & other intra-abd venous thrombosis	Subendocardial Infarct
Chronic Fungal and Other Pneumonias	Meningitis / Encephalitis	Supraventricular Tachyarrhythmias
Complications from Central Line	MRSA Pneumonia	Thromboembolic Stroke
Complications of anesthesia	MRSA, Drug Resistant Infections	Transfusion, Infusion related complications
Complications of colostomy, enterostomy	Opportunistic Infections	Transient cerebral ischemia, TIA
complications of medical care	Other bacterial infections	Urethral Stricture
complications of surgical procedures	Other Bacterial Pneumonia	Urinary Complications
Complications of surgical procedures or medical care	Other cardiac arrhythmias	Urinary Tract Infection
Debilitating Viral Pneumonia	Other lower respiratory disease	Ventilator Associated Pnuemonia
Dehydration	other lung complications	Ventilator Dependence
Delirium, Encephalopathy	Other lung problems	Ventricular Arrhythmias
Dermatitis, Urticaria	Other Phlebitis, Lymphangitis, varices	Viral Pneumonia
dic, coagulation, hemorrhagic disorders	Other Staph Pneumonia	Wound Dehiscence
Digestive system complications	Perforation, Peritonitis, Abd Abscess	Wound Infections
empyema, lung abscess	Phlebitis, Deep vein thrombosis (DVT)	
Fluid Electrolyte Acid Base Problems	Pulmonary Embolism	
Foreign body left during procedure	Recent AMI	
Gram Negative Pneumonia	Resp Failure following trauma / surgery	
	Respiratory Failure	
	Respiratory Insufficiency	



Colorectal Resection (COLON)

The COLON Episode evaluates services that are typical/routine for the expected care and services that are related to associated complications. Patients are identified as those with a primary procedure code of colon resection on an inpatient stay service or a colon resection procedure code in any position on an outpatient facility/professional service, along with a qualifying diagnosis code.

Episode Length – COLON



Duration Pre-Trigger Window	Duration Post-Trigger Window
30 Days	90 Days

Episode Triggers – COLON

Trigger Group Name	Code Type	Codes
Abdominoperineal Resection	CPT	45110-45119
Colectomy with proctectomy	CPT	44155-44158
Laparoscopic colectomy with proctectomy	CPT	44211-44212, 45395, 45397
Laparoscopic partial colectomy	CPT	44204-44208
Laparoscopic total intra-abd colectomy	CPT	44210
Partial Colectomy	CPT	44140-44160
Pelvic Exenteration	CPT	45126
Procedure - colorectal resection – other	CPT	45160
Procedure - other anal / rectal procedures - other procedures - rectum / anus	CPT	45170-45172
Rectal Resection	CPT	45111-45123
Total intra-Abdominal colectomy	CPT	44150-44151

Trigger Diagnoses – ICD-10, CPT

Abdominal mass	Diverticulitis with hemorrhage	Nonspecific Gastroenteritis
Abdominal pain	Diverticulitis, colitis	Partial Colectomy
Abdominal tenderness	Diverticulosis, Meckel's diverticulum, Angiodysplasia	Pelvic Exenteration
Abdominoperineal Resection	Gastroenteritis	Perforation, Peritonitis, Abd Abscess
Allergic, Dietetic, Eosinophilic Gastroenteritis	GI - abdominal mass	Personal history of cancer
Anal and rectal conditions	GI - abdominal pain	Personal history of GI cancer
Angiodysplasia of intestine	GI - abdominal tenderness	Previous bowel surgery, ostomy status
Cancer in situ, Anorectal	GI - abnormal abdominal imaging study	Procedure - colorectal resection - other
Cancer in situ, Colon	GI - abnormal gi imaging study	Procedure - other anal / rectal procedures - other procedures - rectum / anus
Cancer of colon	GI - constipation	Pseudopolyposis of colon
Cancer of other GI organs; peritoneum	GI - peritoneal ds - nec / nos	Rectal Resection
Cancer of rectum and anus	GI - symptoms - nec / nos	Retroperitoneal Abscess
Cancer small bowel	GI Bleed	Secondary malignancies, Unspecified
Cancer; other and unspecified primary	GI inflammation from chemotherapy	Thyroid Cancer
Colectomy with proctectomy	Hemoperitoneum	Total intra-Abdominal colectomy
Congenital GI Problems in NB	Hx of colon polyps, family Hx of colon cancer	Toxic Effects of Radiation
Crohn's Disease	Inj - anus / rectum - other	Toxic Gastroenteritis
Crohn's Disease w Abscess	Inj - gi tract - foreign body	Ulc Colitis w Abscess
Crohn's Disease w Fistula	Intestinal Malabsorption, Celiac Disease	Ulc Colitis w Fistula
Crohn's disease w intestinal obstruction	Intestinal Obstruction	Ulc Colitis w Obstruction
Crohn's disease w other complications	Irritable Bowel and other functional GI disor	Ulceration of Intestine
Crohn's disease w rectal bleeding	Laparoscopic colectomy with proctectomy	Ulcerative Colitis
Digestive congenital anomalies	Laparoscopic partial colectomy	Ulcerative colitis w other complications
Digestive system complications	Laparoscopic total intra-abd colectomy	Ulcerative colitis w rectal bleeding
Disseminated Metastatic Cancer	Neoplasms of unspecified nature or uncertain behavior	Vascular Insufficiency of intestine
Diverticulitis w Perf, Abscess	Neuroendocrine, Myeloproliferative Cancers	

Relevant Procedures – CPT, HCPC, ICD-10

Abdominoperineal Resection	DME and supplies	Imaging - therapeutic procedure - other therapeutic procedure	Medication Assisted Management (MAT)
Advance care planning	Drainage of Abdominal Abscess		Medication Therapy Management Services
Alcohol / Drug Use Screening	Drug Delivery implantation	Imaging - us - guide - biopsy	Medications (Injections, infusions and other forms)
Ancillary Services	E & M - emergency care	Imaging - us - guide - other	Metabolic Renal Hepatic Chemistry Panel
Anesthesia	E & M - home visit	Imaging - us - other	Online Management
Aortic resection, replacement or anastomosis	E & M - hospital	Imaging - us - retroperitoneum	Other care - bladder / bowel care - drainage bag
Bleeding Status	E & M - nursing home	Imaging - venography - extremities	Other care - bladder / bowel care - other supplies - diaper / related
Blood Gases, Pulse Oximetry	E & M - other	Imaging - x-ray - abdomen	Other care - bladder / bowel care - other supplies - skin barrier
Blood transfusion	E & M - prevention	Imaging - x-ray - lower gi - large bowel - contrast	Other care - chronic edema - surgical stockings
Blood Type, Coomb's test	Esophageal Motility and Diagnostic Workup	Imaging - x-ray - upper gi - duodenogram	Other care - home care - physician supervision
Bundled Payment / Medical Home	Flexible Sigmoidoscopy /Colonoscopy	Imaging - x-ray - upper gi - other	Other care - home care - specialized visit
Cardiac Stress Test	Home Health / Hospice	Imaging - x-ray - upper gi - small bowel - contrast	Other care - nutrition - assessment
Care Plan Oversight	Home Health Services	Imaging Abdomen	Other care - observation
Case Management Services	Hormone Therapy	Lab - blood gases	Other care - ostomy - nursing care
Case Management Services - Behavioral	Image guided drainage of abdominal abscess	Lab - chemistry	Other care - ostomy - supplies
Case Management Services - Oncology	Imaging - ct - follow - up	Lab - infectious agent dna	Other care - other - ancillary services
CHEMOTHERAPY	Imaging - ct - other	Lab - microbiology - c & s	Other care - respiratory - ventilator management
Chronic Care Management	Imaging - mri - other	Lab - microbiology - other	Other care - wound care
Colectomy with proctectomy	Imaging - nuclear - bladder / ureter	Lab - other clinical lab	Other care - wound care - hyperbaric oxygen
Colon Cancer, Unknown Disease Status	Imaging - nuclear - gi blood loss	Lab - pathology consultation	Other diagnostic cardiovascular procedures
Colonoscopy - therapeutic	Imaging - nuclear - localization of inflammation	Lab - specimen collection - specimen handling	Other diagnostic procedures (interview, evaluation, consultation)
Colonoscopy through Stoma	Imaging - nuclear - other	Lab - surgical pathology	Other Laboratory
Colonoscopy/Sigmoidoscopy ColorectalCa Screen	Imaging - nuclear - other gi	Lab - therapeutic drug assay	Other OR lower GI therapeutic procedures
Colorectal resection	Imaging - nuclear - radiopharmaceutical - radiopharmaceutical - other	Lab - transfusion medicine	Other therapeutic Sigmoidoscopy
Diagnostic physical therapy	Imaging - nuclear - shilling test	Lab - urinalysis	Partial Colectomy
Diagnostic ultrasound of abdomen or retroperitoneum	Imaging - nuclear - venous thrombosis - scan	Laparoscopic colectomy with proctectomy	Pathology
DME - bath / toilet aids	Imaging - other imaging	Laparoscopic partial colectomy	Pelvic Exenteration
DME - beds / accessories	Imaging - therapeutic procedure - abscess drainage	Laparoscopic total intra-abd colectomy	Personal Care Services
		Lipid Level Monitoring	

Relevant Procedures – CPT, HCPC, ICD-10

Physical Therapy / Rehab	Procedure - laparoscopy - abdomen - biopsy	Procedure - proctoscopy / anoscopy - other	Rx - hematopoietic system - hematopoietic growth factors
Physician Services	Procedure - laparoscopy - abdomen - dx	Procedure - proctosigmoidoscopy - dx	Rx - miscellaneous rx
Physician Services - Inpatient	Procedure - laparoscopy - gi - other	Procedure - proctosigmoidoscopy - rx	Rx - miscellaneous rx - enzymes
Physician Services - Outpatient	Procedure - laparotomy / related	Procedure - related supplies - graft / repair	Rx - other
Preventive Medicine, Care Coordination	Procedure - lymphadenectomy	Procedure - related supplies - implant	Rx - serums, toxoids, vaccines - serums
Procedure - anesthesia	Procedure - lysis of adhesions	Procedure - repair - cystocele / rectocele	Smoking / Tobacco Cessation
Procedure - anoscopy	Procedure - neuro - other non - or rx	Procedure - small bowel resection	Supplies
Procedure - appendectomy / related - appendectomy	Procedure - neuro - other or rx	Procedure - spinal canal - injection into spinal canal	Tests - cardiac stress tests - cardiac perfusion scan - rest / exercise
Procedure - appendectomy / related - drainage of appendiceal abscess	Procedure - obesity procedure - restriction	Procedure - spinal canal - other	Tests - cardiac stress tests - cardiac stress tests - other
Procedure - artery - extremity - injection of thrombin	Procedure - other anal / rectal procedures - other	Procedure - ugi endoscopy - other	Tests - gi - other dx
Procedure - catheter - arterial - arterial line for monitoring	procedures - rectum / anus	Procedure - ugi endoscopy - small bowel endoscopy	Therapy - acupuncture
Procedure - catheter - arterial - other	Procedure - other dx on musculoskeletal system	Procedure - vascular access - port / pump - insertion	Therapy - dialysis - supplies
Procedure - catheter - arterial - pulmonary artery catheter	Procedure - other gi dx	Procedure - vascular access - port / pump - removal	Therapy - habilitation
Procedure - catheter - arterial - selective branch catheter	Procedure - other hemorrhoid procedures	Procedure - vascular access - port / pump - revision	Therapy - nasogastric tube
Procedure - catheter - venous - other - other	Procedure - other lower gi procedures - closure of enterostomy	Procedures and Reporting	Therapy - nonoperative removal of foreign body
Procedure - catheter - venous - other - vena cava or selective branch catheter	Procedure - other lower gi procedures - other bowel dx	Psychiatry Evaluations	Therapy - other
Procedure - colorectal resection - other	Procedure - other lower gi procedures - other non - or rx	Psychiatry Services	Therapy - phlebotomy
Procedure - colorectal resection - partial w / ostomy	Procedure - other lower gi procedures - other or rx	Psychological and psychiatric evaluation and therapy	Therapy - pt - exercises / activities
Procedure - colostomy	Procedure - other non - or rx - other non - or skin procedures	RADIATION TREATMENTS	Therapy - transfusion - administration
Procedure - debridement - wound / infection / burn - debridement	Procedure - other or gi rx - excision of lesion - abdomen / retroperitoneum	Rectal Resection	Therapy - transfusion - blood
Procedure - gastrostomy	Procedure - other or gi rx - other procedure - abdomen	Risk Assessment	Total intra-Abdominal colectomy
Procedure - heme / lymph - other rx	Procedure - other or rx - drainage / excision of pilonidal cyst	Robotic Surgery	Transitional Care Management
Procedure - hemorrhoid destruction / ligation	Procedure - other or rx on musculoskeletal system	Rx - administration - infusion	Transportation - other transportation
Procedure - hemorrhoidectomy	Procedure - other procedures - pancreas	Rx - administration - injection	Ungrouped Codes
Procedure - i&d - skin - drainage - post - op infection	Procedure - other procedures - stomach	Rx - b-lactam antibiotics	Urine Protein
Procedure - ileostomy / other enterostomy	Procedure - other rx on muscles and tendons	Rx - coagulation system - anticoagulants	
Procedure - injection - tendons / joints / etc.	Procedure - paracentesis	Rx - coagulation system - hemostatics	
Procedure - laminectomy / related	Procedure - peripheral venous catheter	Rx - gi - antiemetics	
	Procedure - proctoscopy - screening		

Relevant Diagnoses – ICD-10

Abdominal mass	Disseminated Metastatic Cancer	Irritable Bowel and other functional GI disor
Abdominal pain	Diverticulitis w Perf, Abscess	Neoplasms of unspecified nature or uncertain behavior
Abdominal tenderness	Diverticulitis with hemorrhage	Neuroendocrine, Myeloproliferative Cancers
Allergic, Dietetic, Eosinophilic Gastroenteritis	Diverticulitis, colitis	Nonspecific Gastroenteritis
Anal and rectal conditions	Diverticulosis, Meckel's diverticulum, Angiodyspalsia	Perforation, Peritonitis, Abd Abscess
Angiodysplasia of intestine	Gastroenteritis	Personal history of cancer
Cancer in situ, Anorectal	GI - abdominal mass	Personal history of GI cancer
Cancer in situ, Colon	GI - abdominal pain	Previous bowel surgery, ostomy status
Cancer of colon	GI - abdominal tenderness	Pseudopolypsis of colon
Cancer of other GI organs; peritoneum	GI - abnormal abdominal imaging study	Retroperitoneal Abscess
Cancer of rectum and anus	GI - abnormal gi imaging study	Secondary malignancies, Unspecified
Cancer small bowel	GI - constipation	Thyroid Cancer
Cancer; other and unspecified primary	GI - peritoneal ds - nec / nos	Toxic Effects of Radiation
Congenital GI Problems in NB	GI - symptoms - nec / nos	Toxic Gastroenteritis
Crohn's Disease	GI Bleed	Ulc Colitis w Abscess
Crohn's Disease w Abscess	GI inflammation from chemotherapy	Ulc Colitis w Fistula
Crohn's Disease w Fistula	Hemoperitoneum	Ulc Colitis w Obstruction
Crohn's disease w intestinal obstruction	Hx of colon polyps, family Hx of colon cancer	Ulceration of Intestine
Crohn's disease w other complications	Inj - anus / rectum - other	Ulcerative Colitis
Crohn's disease w rectal bleeding	Inj - gi tract - foreign body	Ulcerative colitis w other complications
Digestive congenital anomalies	Intestinal Malabsorption, Celiac Disease	Ulcerative colitis w rectal bleeding
Digestive system complications	Intestinal Obstruction	Vascular Insufficiency of intestine

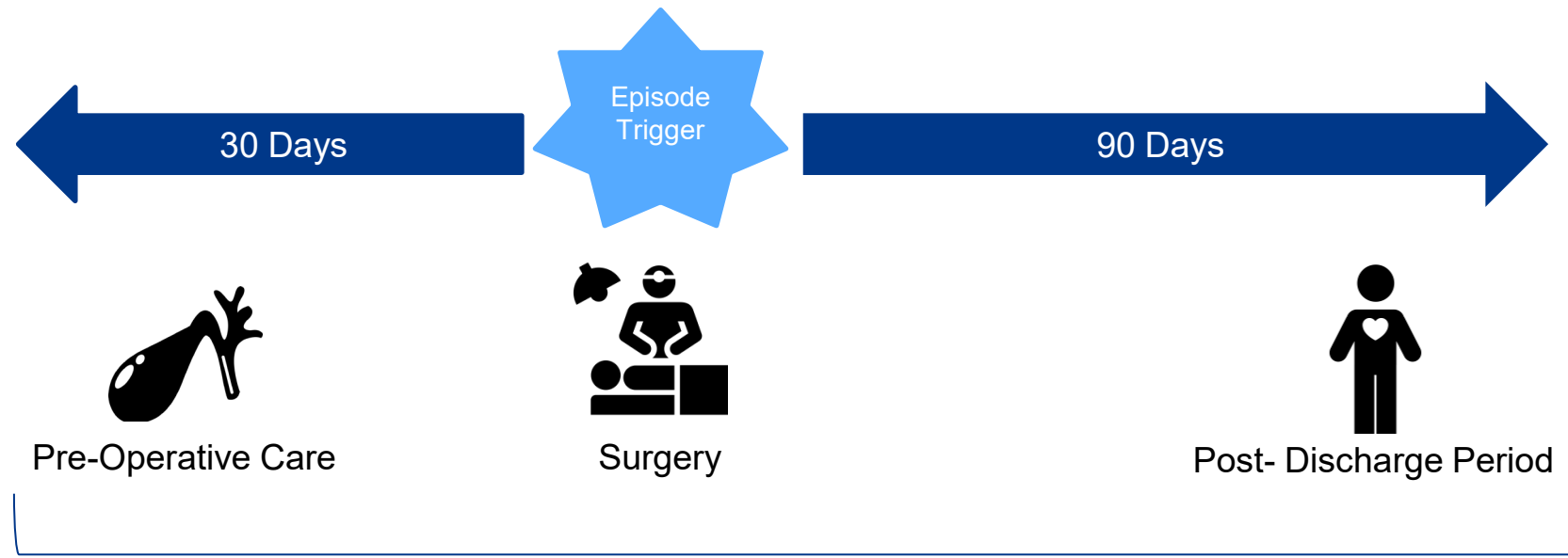
Complications – ICD-10

Abdominal Hernia w Gangrene/Obstruction	Delirium, Encephalopathy	Marginal Ulcer	Sepsis
Abdominal Hernia w/out Gangrene/Obstruction	Dermatitis, Urticaria	Marginal Ulcer w hmg / obstr / perf	Severe Sepsis
Accidental Falls	Diabetes, poor control	MRSA Pneumonia	Shock / Cardiac Arrest
Acute cor pulmonale	dic, coagulation, hemorrhagic disorders	MRSA, Drug Resistant Infections	Shock during or following cardiac surgery
Acute esophagitis, acute gastritis, duodenitis	Digestive system complications	Opportunistic Infections	Shock during or post-procedure
Acute Kidney Failure	empyema, lung abscess	Other bacterial infections	Sinus Node Dysfunction
Adverse effects of drugs	Esophageal Reflux and Other Esophagitis	Other Bacterial Pneumonia	Skin - other
Anal and rectal conditions	Fistula GI tract	Other cardiac arrhythmias	STEMI
Aspiration Pneumonia	Fluid Electrolyte Acid Base Problems	Other cerebral complications	Subendocardial Infarct
Bacteremia, SIRS, no organ dysfunction	Foreign body left during procedure	Other lower respiratory disease	Supraventricular Tachyarrhythmias
C-Difficile Infection	Gastroenteritis	other lung complications	Thromboembolic Stroke
Chronic Fungal and Other Pneumonias	GI Bleed	Other lung problems	Transfusion, Infusion related complications
Chronic Skin Ulcer	Gram Negative Pneumonia	Other Phlebitis, Lymphangitis, varices	Transient cerebral ischemia, TIA
Coma, persistent vegetative state	HAC 02: Air Embolism	Other Staph Pneumonia	Urethral Stricture
Complication of genitourinary device	HAC 04: Stage III and IV Pressure Ulcers	Perforation, Peritonitis, Abd Abscess	Urinary Complications
Complication of Implanted device, graft	HAC 09: Manifestations of Poor Glycemic Control	Perianal disease	Urinary Frequency & other symptoms
Complications from Central Line	Hemoperitoneum	Phlebitis, Deep vein thrombosis (DVT)	Urinary Tract Infection
Complications from chemotherapy	Hemorrhage	Postop adhesions	Urogenital fistula
Complications of anesthesia	Hemorrhagic Stroke	Pulmonary Embolism	Vascular Prosthetic Device/Graft Complication
Complications of colostomy, enterostomy	Hepatorenal Syndrome	Recent AMI	Ventilator Associated Pnuemonia
complications of medical care	Hypertensive Urgency	Renovascular and other secondary hypertension	Ventilator Dependence
complications of surgical procedures	Hypotension / Syncope	Resp Failure following trauma / surgery	Ventricular Arrhythmias
Complications of surgical procedures or medical care	Influenza with Pneumonia	Respiratory Failure	Viral Pneumonia
Debilitating Viral Pneumonia	Intestinal infection	Respiratory Insufficiency	Wound Dehiscence
Decubitus Ulcer	Intestinal Obstruction	Retroperitoneal Abscess	Wound Infections
Dehydration	IVC & other intra-abd venous thrombosis	rhabdomyolysis	

Gall Bladder Surgery (GBSURG)

The GBSURG Episode evaluates services that are typical/routine for the expected care and services that are related to associated complications. Patients are identified as those with a primary procedure code of Gall Bladder Surgery on an inpatient stay service or a Gall Bladder Surgery procedure code in any position on an outpatient facility/professional service, along with a qualifying diagnosis code.

Episode Length – GBSURG



Total Episode Cost= All expected services and complication costs associated during the entire period of the GBSURG episode.

Duration Pre-Trigger Window	Duration Post-Trigger Window
30 Days	90 Days

Episode Triggers – GBSURG

Trigger Group Name	Code Type	Codes
Laparoscopic Cholecystectomy	CPT	47562-47564
Open Cholecystectomy w/wout CBD expl	CPT	47600-47620

Trigger Diagnoses – ICD-10, CPT

Abdominal mass	GI - abnormal gi imaging study
Abdominal pain	GI - diarrhea
Abdominal tenderness	GI - esophagitis
Acute Cholecystitis	GI - flatulence / gas pain
Alcoholic Fatty Liver	GI - symptoms - nec / nos
Allergic, Dietetic, Eosinophilic Gastroenteritis	GI - visible peristalsis
Cancer GB, Hepatobiliary Region	Heartburn
Cholangitis, Cholelithiasis with Obstruction	Hepatitis, Cirrhosis, Other Liver Disorders
Chronic cholecystitis, other GB disease	Intestinal Malabsorption, Celiac Disease
diabetes mellitus with neurologic manifestations	Intestinal Obstruction
Diseases of GB, Biliary Tract, Pancreas	Irritable Bowel and other functional GI disor
Dyspepsia	Laparoscopic Cholecystectomy
Esophageal Reflux and Other Esophagitis	Nausea, vomiting
Gall Bladder related complications	Open Cholecystectomy w/wout CBD expl
Gastroenteritis	Other abn of GB, pancreas, liver
Gastroparesis	Other bacterial infections
GI - abnormal abdominal imaging study	Other disorders of stomach and duodenum
GI - abnormal bowel sounds	Pancreatic Disease
GI - abnormal feces	Perforation, Peritonitis, Abd Abscess

Relevant Procedures – CPT, HCPC, ICD-10

Advance care planning	E & M - nursing home	Imaging - other imaging	Lab - microbiology - other
Alcohol / Drug Use Management	E & M - other	Imaging - other imaging - fluoroscopy	Lab - microbiology - viral culture
Alcohol / Drug Use Screening	E & M - prevention	Imaging - other imaging - fluoroscopy - guidance	Lab - microscopic - koh prep
Ancillary Services	Endoscopic retrograde cannulation of pancreas (ERCP)	Imaging - supplies - contrast agent - high osmolar	Lab - microscopic - wet mount
Anesthesia	Esophageal Motility and Diagnostic Workup	Imaging - supplies - contrast agent - low osmolar	Lab - other clinical lab
Aortic resection, replacement or anastomosis	HbA1C	Imaging - supplies - ultrasound related	Lab - other hematology
Bleeding Status	Hepatitis B vaccine	Imaging - therapeutic procedure - abscess drainage	Lab - pathology consultation
Blood Count	High dose steroids	Imaging - therapeutic procedure - other therapeutic procedure	Lab - specimen collection - blood - venous - venipuncture
Blood Gases, Pulse Oximetry	Home Health / Hospice	Imaging - us - guide - biopsy	Lab - specimen collection - specimen handling
Blood transfusion	Home Health Services	Imaging - us - guide - other	Lab - specimen collection - urine
Blood Type, Coomb's test	Hormone Therapy	Imaging - us - intravascular	Lab - stat request
Bundled Payment / Medical Home	HPV VACCINE	Imaging - us - other	Lab - surgical pathology
Cardiac Stress Test	Image guided drainage of abdominal abscess	Imaging - us - retroperitoneum	Lab - therapeutic drug assay
Care Plan Oversight	Imaging - arteriography - other	Imaging - venography - other	Lab - transfusion medicine
Case Management Services	Imaging - ct - cardiac	Imaging - x-ray - abdomen	Lab - urinalysis
CHEMOTHERAPY	Imaging - ct - follow - up	Imaging - x-ray - biliary tract - cholangiogram - intraoperative	Laboratory - Chemistry and Hematology
CHLAMYDIA SCREENING	Imaging - ct - guidance	Imaging - x-ray - biliary tract - other	Laparoscopic Cholecystectomy
Chronic Care Management	Imaging - ct - other	Imaging - x-ray - lower gi - large bowel - contrast	LEAD SCREENING
Colonoscopy/Sigmoidoscopy ColorectalCa Screen	Imaging - cta - other	Imaging - x-ray - other - joint survey	Lipid Level Monitoring
Coordinated Care Fees/Services	Imaging - lymphangiography	Imaging - x-ray - upper gi - duodenogram	Low dose steroids
Counseling Services	Imaging - mra - chest	Imaging - x-ray - upper gi - esophagus - contrast	Lung Function Tests
Diagnostic physical therapy	Imaging - mri - chest	Imaging - x-ray - upper gi - other	Markers for Inflammation
Diagnostic ultrasound of abdomen or retroperitoneum	Imaging - mri - contrast agent	Imaging - x-ray - upper gi - small bowel - contrast	Medication Assisted Management (MAT)
DME - bath / toilet aids	Imaging - mri - guidance	Imaging Abdomen	Medication Therapy Management Services
DME - beds / accessories	Imaging - mri - other	Lab - blood gases	Medications (Injections, infusions and other forms)
DME - heat/cold application	Imaging - nuclear - bladder / ureter	Lab - chemistry	Metabolic Renal Hepatic Chemistry Panel
DME - mobility aids	Imaging - nuclear - gi blood loss	Lab - chemistry and toxicology tests	NewBorn Blood Tests
DME - other	Imaging - nuclear - hepatobiliary ductal scan	Lab - cytology	Online Management
DME - patient lifts	Imaging - nuclear - hepatobiliary ductal scan - radiopharmaceutical	Lab - endocrine	Open Cholecystectomy w/wout CBD expl
DME - rehabilitation	Imaging - nuclear - liver	Lab - endocrine response test	Opioid Administration / Dispensing (OTP)
DME - repair / maintenance	Imaging - nuclear - localization of inflammation	Lab - gi - fat absorption	Other - non - covered
DME - safety equipment	Imaging - nuclear - lung scan	Lab - hematology - blood count	Other care - bladder / bowel care - catheter
DME - whirlpool - equipment	Imaging - nuclear - lymphatics	Lab - hematology - blood count - eosinophil count	Other care - bladder / bowel care - drainage bag
DME - wound therapy	Imaging - nuclear - other	Lab - hematology - coagulation	Other care - bladder / bowel care - other supplies
DME and supplies	Imaging - nuclear - other - automated data add - on	Lab - immunology	Other care - bladder / bowel care - other supplies - diaper / related
Drainage of Abdominal Abscess	Imaging - nuclear - other gi	Lab - infectious agent antibody	Other care - bladder / bowel care - other supplies - skin barrier
Drug Delivery implantation	Imaging - nuclear - radiopharmaceutical - radiopharmaceutical - other	Lab - infectious agent antigen	Other care - chronic edema - appliance - segmental
E & M - consultation	Imaging - nuclear - shilling test	Lab - infectious agent dna	Other care - chronic edema - surgical stockings
E & M - emergency care	Imaging - nuclear - shilling test - radiopharmaceutical	Lab - microbiology	Other care - diabetes care - glucose monitoring
E & M - home visit	Imaging - nuclear - venous thrombosis - radiopharmaceutical	Lab - microbiology - c & s	Other care - diabetes care - glucose monitoring - lancet
E & M - hospital	Imaging - nuclear - venous thrombosis - scan	Lab - microbiology - microscopic exam	Other care - diabetes care - glucose monitoring - other supplies

Relevant Procedures – CPT, HCPC, ICD-10

Other care - diabetes care - insulin pump	Other care - other - education	Procedure - anesthesia	Procedure - other lower gi procedures - other or rx
Other care - home care - emergency response system	Other care - other - exercise classes	Procedure - artery - nos - angioplasty / stenting	Procedure - other non - or rx - other non - or skin procedures
Other care - home care - home health aide	Other care - other - infection control	Procedure - artery - nos - thrombolysis	Procedure - other or gi rx - other procedure - abdomen
Other care - home care - meals	Other care - other - irrigation	Procedure - artery / vein - nos - other	Procedure - other procedures - biliary tract
Other care - home care - nursing care	Other care - other - lead assessment	Procedure - artery / vein - nos - thrombectomy catheter	Procedure - other procedures - pancreas
Other care - home care - nursing care - lpn	Other care - other - lightbox	Procedure - biopsy - liver - needle biopsy of liver	Procedure - other procedures - stomach
Other care - home care - nursing care - np	Other care - other - lodging	Procedure - biopsy - liver - wedge biopsy of liver	Procedure - pancreas - biopsy
Other care - home care - nursing care - rn	Other care - other - meals	Procedure - central venous catheter - fluoroscopy - guidance	Procedure - pancreatectomy
Other care - home care - other care	Other care - other - medical records	Procedure - central venous catheter - insertion	Procedure - paracentesis
Other care - home care - other care - attendant care	Other care - other - weight management	Procedure - central venous catheter - repair / maintenance	Procedure - related supplies - ablation - catheter
Other care - home care - other care - chore care	Other care - pain management - pca / related	Procedure - colostomy	Procedure - related supplies - access catheter
Other care - home care - other care - companion care	Other care - prevention - smoking cessation	Procedure - debridement - wound / infection / burn - debridement	Procedure - related supplies - catheter
Other care - home care - other care - day care	Other care - respiratory - equipment / supplies	Procedure - debridement of nails	Procedure - related supplies - drainage
Other care - home care - other care - homemaker	Other care - respiratory - equipment / supplies - apnea monitor	Procedure - drainage pancreatic cyst / pseudocyst	Procedure - related supplies - graft - tendon repair
Other care - home care - other care - respite care	Other care - respiratory - equipment / supplies - nebulizer	Procedure - ercp - dx	Procedure - related supplies - graft / repair
Other care - home care - physician supervision	Other care - respiratory - equipment / supplies - peak flow meter	Procedure - ercp - other rx	Procedure - related supplies - implant
Other care - home care - rehabilitation - occupational therapy	Other care - respiratory - equipment / supplies - spirometer	Procedure - ercp - radiology component	Procedure - related supplies - other
Other care - home care - rehabilitation - physical therapy	Other care - respiratory - other	Procedure - ercp w / sphincterotomy or dilation	Procedure - sedation
Other care - home care - rehabilitation - speech therapy	Other care - respiratory - oxygen / oxygen concentrator	Procedure - ercp w / stent	Procedure - small bowel resection
Other care - home care - social worker	Other care - respiratory - ventilator management	Procedure - ercp w / stone removal / destruction	Procedure - spinal canal - catheter
Other care - home care - specialized visit	Other care - respiratory therapy	Procedure - esophageal / gastric intubation	Procedure - suture - skin - repair of superficial wound
Other care - home care - training	Other care - wound care	Procedure - eswl - biliary tract	Procedure - ugi endoscopy - other
Other care - hospice	Other care - wound care - electromagnetic therapy	Procedure - gastrostomy	Procedure - vascular - occlusion / embolization - transcatheter
Other care - long term care - assisted living	Other care - wound care - growth factor	Procedure - graft - skin - graft material	Procedure - vascular - related supplies - occlusion catheter
Other care - long term care - residential care	Other care - wound care - hyperbaric oxygen	Procedure - gu - other non - or rx	Procedure - vascular access - port / pump - insertion
Other care - nutrition - assessment	Other diagnostic cardiovascular procedures	Procedure - heme / lymph - other rx	Procedure - vein - nos - angioplasty
Other care - nutrition - counseling - dietician	Other diagnostic procedures (interview, evaluation, consultation)	Procedure - i&d - skin - drainage - post - op infection	Procedure - vein - vena cava - filter
Other care - nutrition - education	Other diagnostic radiology and related techniques	Procedure - ileostomy / other enterostomy	Procedures and Reporting
Other care - nutrition - enteral	Other gastrointestinal diagnostic procedures	Procedure - injection - tendons / joints / etc.	Prophylactic vaccinations and inoculations
Other care - nutrition - enteral - administration	Other Laboratory	Procedure - laparoscopy - abdomen - biopsy	Psychiatry Evaluations
Other care - nutrition - enteral - formula	Other non-OR gastrointestinal therapeutic procedures	Procedure - laparoscopy - abdomen - dx	Psychiatry Services
Other care - nutrition - enteral - pump	Other OR gastrointestinal therapeutic procedures	Procedure - laparoscopy - gi - other	Psychological and psychiatric evaluation and therapy
Other care - nutrition - enteral - tubing	Other OR upper GI therapeutic procedures	Procedure - laparotomy / related	Risk Assessment
Other care - nutrition - medical food	Peer Services	Procedure - lysis of adhesions	Robotic Surgery
Other care - nutrition - parenteral	Personal Care Services	Procedure - obesity procedure - restriction	Routine Immunizations
Other care - nutrition - parenteral - all - inclusive	Physical Therapy / Rehab	Procedure - other anal / rectal procedures - other procedures - rectum / anus	Rx - administration - infusion
Other care - nutrition - parenteral - nutrition solution	Physician Services	Procedure - other dx on musculoskeletal system	Rx - administration - injection
Other care - nutrition - parenteral - pump	Physician Services - Inpatient	Procedure - other gi dx	Rx - allergy - antihistamines / comb
Other care - observation	Physician Services - Outpatient	Procedure - other lower gi procedures - closure of enterostomy	Rx - analg/antipy/nsaids - narcotics
Other care - other	PQRI	Procedure - other lower gi procedures - other bowel dx	Rx - analg/antipy/nsaids - nsaids
Other care - other - ancillary services	Preventive Medicine, Care Coordination	Procedure - other lower gi procedures - other non - or rx	Rx - antibiotics - aminoglycosides

Relevant Procedures – CPT, HCPC, ICD-10

Rx - antibiotics - anti-infectives, misc	Rx - diuretics, loop diuretics	Rx - vitamins - vitamin b / b complex	Therapy - neurostimulator - incontinence
Rx - antibiotics - cephalosporins	Rx - diuretics, osmotic	Rx - vitamins - vitamin d	Therapy - neurostimulator - nausea / vomiting
Rx - antibiotics - chloramphenicol / comb	Rx - diuretics, thiazides / related	Screen for amino acid disorders	Therapy - neurostimulator - other
Rx - antibiotics - macrolides	Rx - eent - topical - eye/ear/nose/throat misc	Smoking / Tobacco Cessation	Therapy - neurostimulator - tens - device
Rx - antibiotics - penicillins	Rx - electrolytic, caloric, water - calcium supplements	Supplies	Therapy - neurostimulator - tens - leads
Rx - antibiotics - quinolones	Rx - electrolytic, caloric, water - caloric rx dextrose / rel	Tests - allergy tests - intradermal	Therapy - neurostimulator - tens - supplies
Rx - antibiotics - sulfonamides / comb	Rx - electrolytic, caloric, water - caloric rx, amino acid prep	Tests - allergy tests - other	Therapy - other
Rx - antibiotics - tetracyclines	Rx - electrolytic, caloric, water - hydration - unspecified	Tests - allergy tests - patch	Therapy - phlebotomy
Rx - antibiotics / antivirals / antifungals - infusion	Rx - electrolytic, caloric, water - multi-mineral prep	Tests - allergy tests - percutaneous	Therapy - pt - exercises / activities
Rx - antibiotics, misc	Rx - electrolytic, caloric, water - potassium supp	Tests - cardiac - echo - contrast agent	Therapy - pt - modalities
Rx - antidiabetic rx - insulins	Rx - electrolytic, caloric, water - replacement preparations, misc	Tests - cardiac - radiopharmaceuticals	Therapy - rehabilitation
Rx - antidiabetic rx, misc	Rx - electrolytic, caloric, water - sodium chlor preps	Tests - cardiac stress tests - cardiac perfusion scan - rest / exercise	Therapy - rehabilitation - other
Rx - antifungals	Rx - gi - antichol/antispasmodics	Tests - cardiac stress tests - cardiac stress tests - other	Therapy - transfusion - blood
Rx - antivirals	Rx - gi - antiemetics	Tests - cardiovascular - other	Therapy - transfusion - granulocytes
Rx - autonomic rx - parasympathomimetics	Rx - gi - h2 antagonists	Tests - ent - other dx	Therapy - transfusion - plasma
Rx - autonomic rx - sympathomimetic rx	Rx - gi - ppis	Tests - ent - swallowing evaluation	Therapy - transfusion - platelets
Rx - b-lactam antibiotics	Rx - gi drug misc,nec	Tests - gi - duodenal motility study	Therapy - vaccination - hepatitis a vaccine
Rx - blood derivatives	Rx - gu - other - bladder rx	Tests - gi - esophageal balloon distension test	Therapy - vaccination - hepatitis b
Rx - cardiovascular system - antiarrhythmic rx	Rx - hematopoietic system - hematopoietic growth factors	Tests - gi - gastric motility study	Therapy - vaccination - other vaccine
Rx - cardiovascular system - beta blockers	Rx - hematopoietic system - iron / related	Tests - gi - other dx	Therapy - vaccination - vaccine administration
Rx - cardiovascular system - cardiac drugs	Rx - hematopoietic system - other	Tests - neuro - sleep studies	Thyroid Function Tests
Rx - cardiovascular system - cardiac glycosides	Rx - immune system - interferons	Tests - pulmonary - other	Transitional Care Management
Rx - cardiovascular system - hypotensive rx	Rx - miscellaneous rx	Tests - pulmonary - peak flow	Transportation - other transportation
Rx - cardiovascular system - natriuretic peptides	Rx - miscellaneous rx - anesthetics, local	Tests - vascular - other	Transportation - paramedic
Rx - cardiovascular system - vasodilating agents, nec	Rx - miscellaneous rx - enzymes	Tests - vascular - venous	Ungrouped Codes
Rx - cardiovascular system - vasodilating rx	Rx - miscellaneous rx - heavy metal antagonists	Therapy - acupuncture	Upper GI endoscopy
Rx - central nervous system - antidepressants	Rx - muscle relaxants - muscle relax, neuromusc block	Therapy - activity therapy	Urine Protein
Rx - central nervous system - anxiolytic/sedative/hypnot nec	Rx - muscle relaxants - muscle relax, skeletal central	Therapy - apheresis	Vaccine for flu or Pneumonia
Rx - central nervous system - barbiturates	Rx - muscle relaxants - muscle relax, skeletal, misc	Therapy - behavior - evaluation and therapy	Vitamin K administration
Rx - central nervous system - benzodiazepines	Rx - other	Therapy - behavior - other	Wellness Assessment
Rx - central nervous system - tranq/antipsychotics	Rx - other anti-infectives - antimalarials	Therapy - behavior - partial hospitalization	
Rx - coagulation system - anticoagulants	Rx - pharmacy fee	Therapy - biofeedback	
Rx - coagulation system - antiheparin agnt	Rx - respiratory - beta agonists	Therapy - dialysis - supplies	
Rx - coagulation system - antiplatelet rx	Rx - respiratory - methylxanthines	Therapy - habilitation	
Rx - coagulation system - hemostatics	Rx - respiratory - mucolytics/cold comb	Therapy - hyperbaric oxygen	
Rx - coagulation system - thrombolytic rx	Rx - respiratory - phenylephrine	Therapy - nasogastric tube	
Rx - diagnostic rx - gastric function	Rx - serums, toxoids, vaccines - serums		
Rx - diagnostic rx - roentgenography	Rx - serums, toxoids, vaccines - toxins		
Rx - diagnostic rx - thyroid function	Rx - skin / mucous membrane - antiinflam s/mm agnts / comb nec		
Rx - diagnostic rx, misc	Rx - skin / mucous membrane - s/mm miscellaneous		
Rx - diuretics - diuretic, carb anhydrase inhib	Rx - vitamins - multivit prep		

Relevant Diagnoses – ICD-10

Abdominal mass	GI - abnormal feces
Abdominal pain	GI - abnormal gi imaging study
Abdominal tenderness	GI - diarrhea
Acute Cholecystitis	GI - esophagitis
Alcoholic Fatty Liver	GI - flatulence / gas pain
Allergic, Dietetic, Eosinophilic Gastroenteritis	GI - symptoms - nec / nos
Cancer GB, Hepatobiliary Region	GI - visible peristalsis
Cholangitis, Cholelithiasis with Obstruction	Heartburn
Chronic cholecystitis, other GB disease	Hepatitis, Cirrhosis, Other Liver Disorders
diabetes mellitus with neurologic manifestations	Intestinal Malabsorption, Celiac Disease
Diseases of GB, Biliary Tract, Pancreas	Intestinal Obstruction
Dyspepsia	Irritable Bowel and other functional GI disor
Esophageal Reflux and Other Esophagitis	Nausea, vomiting
Gall Bladder related complications	Other abn of GB, pancreas, liver
Gastroenteritis	Other bacterial infections
Gastroparesis	Other disorders of stomach and duodenum
GI - abnormal abdominal imaging study	Pancreatic Disease
GI - abnormal bowel sounds	Perforation, Peritonitis, Abd Abscess

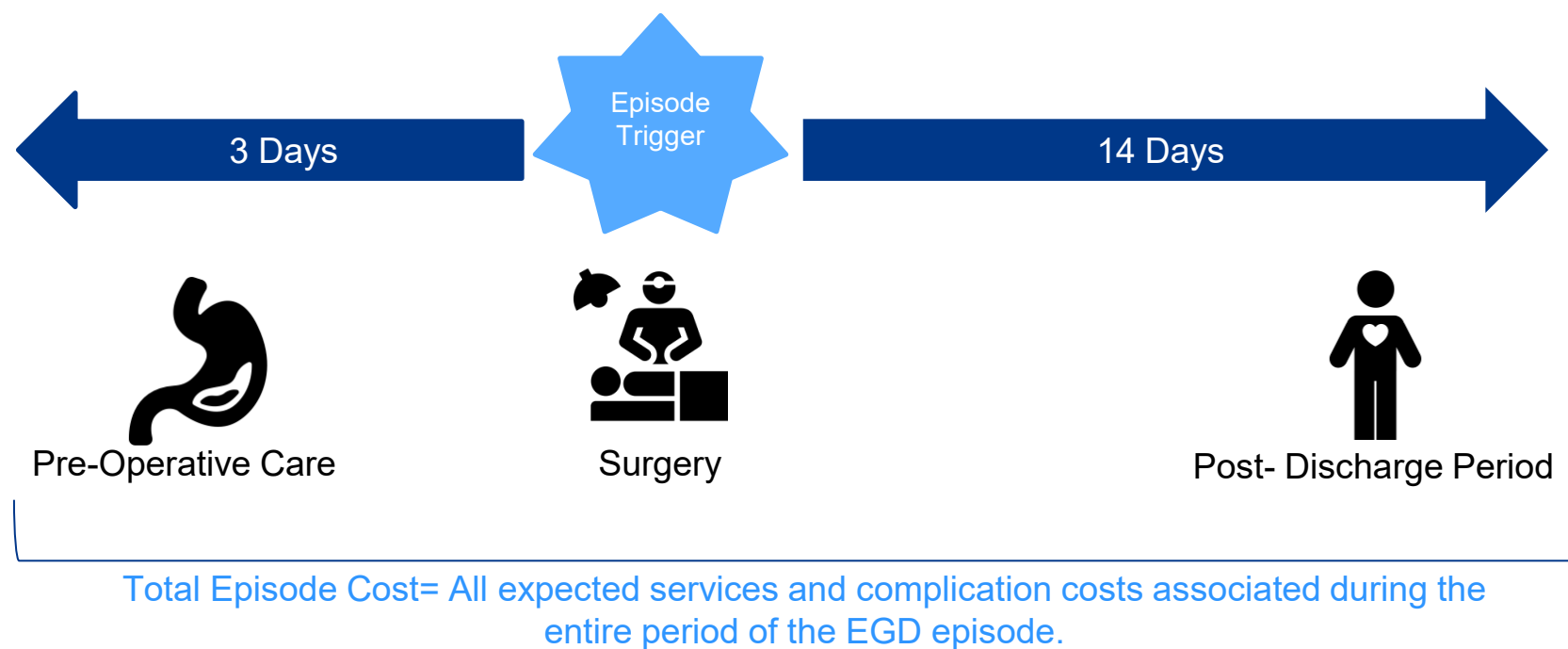
Complications – ICD-10

Abdominal Hernia w Gangrene/Obstruction	Decubitus Ulcer	Intestinal Obstruction	Severe Sepsis
Abdominal Hernia w/out Gangrene/Obstruction	Dehydration	IVC & other intra-abd venous thrombosis	Shock / Cardiac Arrest
Accidental Falls	Delirium, Encephalopathy	Malfunction / Complication of Heart Device	Shock during or following cardiac surgery
Acute CHF / pulm edema	Dermatitis, Urticaria	Meningitis / Encephalitis	Shock during or post-procedure
Acute cor pulmonale	Diabetes, poor control	MRSA Pneumonia	Skin - other
Acute esophagitis, acute gastritis, duodenitis	dic, coagulation, hemorrhagic disorders	MRSA, Drug Resistant Infections	STEMI
Acute Kidney Failure	Digestive system complications	Opportunistic Infections	Subendocardial Infarct
Acute Pancreatitis, pseudo cyst	empyema, lung abscess	Other bacterial infections	Suicide or Self-inflicted Injury
Adverse effects of drugs	Fluid Electrolyte Acid Base Problems	Other Bacterial Pneumonia	Supraventricular Tachyarrhythmias
Altered mental status	Foreign body left during procedure	Other cardiac arrhythmias	Thromboembolic Stroke
Aspiration Pneumonia	Gall Bladder related complications	Other lower respiratory disease	Transfusion, Infusion related complications
Atrial Flutter / Fibrillation	Gastroenteritis	other lung complications	Transient cerebral ischemia, TIA
Bacteremia, SIRS, no organ dysfunction	GERD, Hiatal Hernia, Other Upper GI Disorders	Other lung problems	Urethral Stricture
C-Difficile Infection	GI Bleed	Other Mental Disorders	Urinary Complications
Chronic Fungal and Other Pneumonias	Gram Negative Pneumonia	Other Phlebitis, Lymphangitis, varices	Urinary Frequency & other symptoms
Chronic Skin Ulcer	HAC 02: Air Embolism	Other Staph Pneumonia	Urinary Tract Infection
Complication of genitourinary device	HAC 04: Stage III and IV Pressure Ulcers	Perforation, Peritonitis, Abd Abscess	Vascular Insufficiency of intestine
Complication of Implanted device, graft	HAC 09: Manifestations of Poor Glycemic Control	Phlebitis, Deep vein thrombosis (DVT)	Ventilator Associated Pnuemonia
Complications from Central Line	Hemoperitoneum	Postop adhesions	Ventilator Dependence
Complications from chemotherapy	Hemorrhage	Pulmonary Embolism	Ventricular Arrhythmias
Complications of anesthesia	Hemorrhagic Stroke	Recent AMI	Viral Pneumonia
Complications of colostomy, enterostomy	Hepatorenal Syndrome	Resp Failure following trauma / surgery	Wound Dehiscence
complications of medical care	Hypertensive Urgency	Respiratory Failure	Wound Infections
complications of surgical procedures	Hypotension / Syncope	Respiratory Insufficiency	
Complications of surgical procedures or medical care	Influenza with Pneumonia	Retroperitoneal Abscess	
Debilitating Viral Pneumonia	Intestinal infection	Sepsis	

Upper GI Endoscopy (EGD)

The EGD Episode evaluates services that are typical/routine for the expected care and services that are related to associated complications. Patients are identified as those with a procedure code of endoscopy in any position on an outpatient facility/professional service, along with a qualifying diagnosis code. Upper GI Endoscopy is associated to Gall Bladder Surgery as typical when it occurs up to 30 days prior to the procedural episodes.

Episode Length – EGD



Duration Pre-Trigger Window	Duration Post-Trigger Window
3 Days	14 Days

Episode Triggers – EGD

Trigger Group Name	Code Type	Codes
Barrett's ablation	CPT	43228, 43257
EGD w biopsy	CPT	43238-43242
EGD w Dilation	CPT	43233-43248
Esophagoscopy w additional procedures	CPT	43201-43229
Esophagoscopy w Dilatation	CPT	43213-43249
Esophagoscopy w treatment of varices	CPT	43204-43244
Flexible Esophagoscopy	CPT	43200-43232
Flexible Esophagoscopy w biopsy	CPT	43202
Upper GI endoscopy	CPT	43234-43252
Upper GI endoscopy w additional procedures	CPT	43236-43270

Trigger Diagnoses – ICD-10, CPT

Abdominal Hernia w/out Gangrene/Obstruction	Congenital GI Problems in NB	Gastroparesis	Neoplasm - benign neoplasm - small intestine
Abdominal mass	Crohn's Disease w Fistula	GERD, Hiatal Hernia, Other Upper GI Disorders	Neoplasm - benign neoplasm - stomach
Abdominal pain	diabetes mellitus with neurologic manifestations	GI - abnormal abdominal imaging study	Neuroendocrine, Myeloproliferative Cancers
Abdominal tenderness	Diaphragmatic Hernia	GI - abnormal bowel sounds	Nonspecific Gastroenteritis
Abnormal weight loss	Digestive congenital anomalies	GI - abnormal gi imaging study	Observation/Examination
Achalasia, Esophageal Spasm, Stricture, Dysphagia	Digestive system complications	GI - diarrhea	Opportunistic Infections
Acute esophagitis, acute gastritis, duodenitis	Disseminated Metastatic Cancer	GI - esophagitis	Other abn of GB, pancreas, liver
Acute Gastroduodenal Ulcer	Diverticulitis, colitis	GI - flatulence / gas pain	Other bacterial infections
Acute Gastroduodenal Ulcer w Perforation / Obstruction	Diverticulosis, Meckel's diverticulum, Angiodysplasia	GI - personal hx of GI disease	Other disorders of stomach and duodenum
Acute Peptic Ulcer with Bleed	Dyspepsia	GI - symptoms - nec / nos	Other Esophageal conditions
Alcoholic Gastritis	Dysphagia	GI - visible peristalsis	Other somatoform disorders
Allergic, Dietetic, Eosinophilic Gastroenteritis	EGD w biopsy	GI Bleed	Parasitic Infections: Amebiasis, Giardiasis
Angiodysplasia of intestine	EGD w Dilation	GI inflammation from chemotherapy	Perforation, Peritonitis, Abd Abscess
Aspiration Pneumonia	empyema, lung abscess	Heartburn	Personal history of cancer
Barrett's ablation	Esophageal Complications	Hx of colon polyps, family Hx of colon cancer	Personal history of GI cancer
Barrett's Esophagus	Esophageal Reflux and Other Esophagitis	Intestinal infection	Post GI Surgery Syndromes
Cancer in situ, Esophagus	Esophageal Varices	Intestinal Malabsorption, Celiac Disease	Previous bowel surgery, ostomy status
Cancer in situ, Stomach	Esophagoscopy w additional procedures	Intestinal Obstruction	Secondary malignancies, Unspecified
Cancer of esophagus	Esophagoscopy w Dilatation	Iron deficiency and other anemias	Sxs - symptoms -other
Cancer of other GI organs; peritoneum	Esophagoscopy w treatment of varices	Irritable Bowel and other functional GI disorder	Thyroid Cancer
Cancer of stomach	Fistula GI tract	Marginal Ulcer	Toxic Effects of Radiation
Cancer small bowel	Flexible Esophagoscopy	Marginal Ulcer w hmg / obstr / perf	Toxic Gastroenteritis
Cancer; other and unspecified primary	Flexible Esophagoscopy w biopsy	Metastatic Cancer and Acute Leukemia	Ulceration of Intestine
Chronic Peptic Ulcer with Bleed	Gastroduodenal Ulcer	Nausea, vomiting	Upper GI endoscopy
Complicated Hiatal Hernia	Gastroduodenal Ulcer w Perforation / Obstruction	Neoplasms of unspecified nature or uncertain behavior	Upper GI endoscopy w additional procedures
complications of surgical procedures	Gastroenteritis	Neoplasm - benign neoplasm - esophagus	Vascular Insufficiency of intestine

Relevant Procedures – CPT, HCPC, ICD-10

Advance care planning	DME - safety equipment	Imaging - nuclear - hepatobiliary ductal scan - radiopharmaceutical	Lab - hematology - blood count
Alcohol / Drug Use Management	DME - whirlpool - equipment	Imaging - nuclear - kidney - radiopharmaceutical	Lab - hematology - blood count - eosinophil count
Alcohol / Drug Use Screening	DME and supplies	Imaging - nuclear - localization of inflammation	Lab - hematology - coagulation
Ancillary Services	Drug Delivery implantation	Imaging - nuclear - lung scan	Lab - immunology
Anesthesia	E & M - consultation	Imaging - nuclear - lymphoma - radiolabeled antibody	Lab - infectious agent antibody
Aortic resection, replacement or anastomosis	E & M - emergency care	Imaging - nuclear - other	Lab - infectious agent antigen
Azathioprine / Mercaptopurine	E & M - home visit	Imaging - nuclear - other - automated data add - on	Lab - infectious agent dna
Barrett's ablation	E & M - hospital	Imaging - nuclear - other gi	Lab - microbiology
Bleeding Status	E & M - nursing home	Imaging - nuclear - radiopharmaceutical - radiopharmaceutical - other	Lab - microbiology - c & s
Blood Count	E & M - other	Imaging - nuclear - thyroid - radiopharmaceutical	Lab - microbiology - microscopic exam
Blood Gases, Pulse Oximetry	E & M - prevention	Imaging - nuclear - tumor localization	Lab - microbiology - other
Blood transfusion	EGD w biopsy	Imaging - nuclear - venous thrombosis - radiopharmaceutical	Lab - microbiology - viral culture
Blood Type, Coomb's test	EGD w Dilation	Imaging - other imaging	Lab - microscopic - koh prep
Bundled Payment / Medical Home	Esophageal Motility and Diagnostic Workup	Imaging - other imaging - fluoroscopy	Lab - microscopic - wet mount
Care Plan Oversight	Esophagoscopy w additional procedures	Imaging - other imaging - fluoroscopy - guidance	Lab - other clinical lab
Case Management Services	Esophagoscopy w Dilatation	Imaging - pet - other	Lab - other hematology
Case Management Services - Educational	Esophagoscopy w treatment of varices	Imaging - supplies - contrast agent - high osmolar	Lab - pathology consultation
CHEMOTHERAPY	Flexible Esophagoscopy	Imaging - supplies - contrast agent - low osmolar	Lab - specimen collection - blood - venous - venipuncture
Chest X-Ray	Flexible Esophagoscopy w biopsy	Imaging - supplies - ultrasound related	Lab - specimen collection - specimen handling
CHLAMYDIA SCREENING	HbA1C	Imaging - us - guide - biopsy	Lab - specimen collection - urine
Chronic Care Management	Hepatitis B vaccine	Imaging - us - guide - other	Lab - stat request
Colonoscopy and biopsy	High dose steroids	Imaging - us - other	Lab - surgical pathology
Colonoscopy/Sigmoidoscopy ColorectalCa Screen	Home Health / Hospice	Imaging - x-ray - other - joint survey	Lab - therapeutic drug assay
Coordinated Care Fees/Services	Home Health Services	Imaging - x-ray - upper gi - duodenogram	Lab - transfusion medicine
Counseling Services	Hormone Therapy	Imaging - x-ray - upper gi - esophagus - contrast	Lab - tumor marker
Cyclosporin	HPV VACCINE	Imaging - x-ray - upper gi - other	Lab - urinalysis
Diagnostic physical therapy	Imaging - ct - follow - up	Imaging - x-ray - upper gi - small bowel - contrast	Laboratory - Chemistry and Hematology
Diagnostic ultrasound of abdomen or retroperitoneum	Imaging - ct - guidance	Imaging Abdomen	LEAD SCREENING
DME - bath / toilet aids	Imaging - ct - other	Lab - blood gases	Lipid Level Monitoring
DME - beds / accessories	Imaging - cta - chest	Lab - chemistry	Low dose steroids
DME - heat/cold application	Imaging - cta - other	Lab - chemistry and toxicology tests	Lung Function Tests
DME - mobility aids	Imaging - mra - chest	Lab - cytogenetics	Markers for Inflammation
DME - other	Imaging - mri - contrast agent	Lab - cytology	Medication Assisted Management (MAT)
DME - patient lifts	Imaging - mri - guidance	Lab - endocrine	Medication Therapy Management Services
DME - rehabilitation	Imaging - mri - other	Lab - genetic testing - brugada syndrome	Medications (Injections, infusions and other forms)
DME - repair / maintenance	Imaging - nuclear - csf - radiopharmaceutical	Lab - genetic testing - cardiac ion channel syndrome	Metabolic Renal Hepatic Chemistry Panel
DME - restraints	Imaging - nuclear - gi blood loss	Lab - gi - fat absorption	NewBorn Blood Tests

Relevant Procedures – CPT, HCPC, ICD-10

Online Management	Other care - long term care - assisted living	Other care - respiratory therapy	Procedure - related supplies - retrieval - device
Opioid Administration / Dispensing (OTP)	Other care - long term care - residential care	Other care - special needs children	Procedure - sedation
Other - non - covered	Other care - newborn - jaundice - phototherapy	Other diagnostic procedures (interview, evaluation, consultation)	Procedure - spinal canal - catheter
Other bowel diagnostic procedures	Other care - nutrition - assessment	Other gastrointestinal diagnostic procedures	Procedure - thyroid ablation - radionucleotide
Other care - bladder / bowel care - catheter	Other care - nutrition - counseling - dietician	Other Laboratory	Procedure - ugi endoscopy - other
Other care - bladder / bowel care - drainage bag	Other care - nutrition - education	Other non-OR upper GI therapeutic procedures	Procedure - ugi endoscopy - small bowel endoscopy
Other care - bladder / bowel care - other supplies	Other care - nutrition - enteral	Other OR upper GI therapeutic procedures	Procedure - vascular - related supplies - occlusion catheter
Other care - bladder / bowel care - other supplies - diaper / related	Other care - nutrition - enteral - administration	Peer Services	Procedure - vascular access - port / pump - insertion
Other care - bladder / bowel care - other supplies - skin barrier	Other care - nutrition - enteral - formula	Personal Care Services	Procedures and Reporting
Other care - child care - specialized	Other care - nutrition - enteral - pump	Physical Therapy / Rehab	Prophylactic vaccinations and inoculations
Other care - chronic edema - appliance - segmental	Other care - nutrition - enteral - tubing	Physician Services	Prosthetics - other
Other care - chronic edema - surgical stockings	Other care - nutrition - medical food	Physician Services - Inpatient	Psychiatry Evaluations
Other care - diabetes care - glucose monitoring	Other care - nutrition - parenteral	Physician Services - Outpatient	Psychiatry Services
Other care - diabetes care - glucose monitoring - lancet	Other care - nutrition - parenteral - all - inclusive	PQRI	Psychological and psychiatric evaluation and therapy
Other care - diabetes care - glucose monitoring - other supplies	Other care - nutrition - parenteral - nutrition solution	Preventive Medicine, Care Coordination	Routine Immunizations
Other care - home care - emergency response system	Other care - nutrition - parenteral - pump	Procedure - anesthesia	Rx - administration - infusion
Other care - home care - home health aide	Other care - observation	Procedure - central venous catheter - insertion	Rx - administration - injection
Other care - home care - meals	Other care - other	Procedure - dilation - esophagus	Rx - allergy - antihistamines / comb
Other care - home care - nursing care	Other care - other - ancillary services	Procedure - esophageal / gastric intubation	Rx - analg/antipy/nsaids - narcotics
Other care - home care - nursing care - lpn	Other care - other - education	Procedure - gastrostomy	Rx - analg/antipy/nsaids - nsaids
Other care - home care - nursing care - np	Other care - other - exercise classes	Procedure - graft - skin - graft material	Rx - antibiotics - aminoglycosides
Other care - home care - nursing care - rn	Other care - other - infection control	Procedure - injection / ligation - esophageal varices	Rx - antibiotics - anti-infectives, misc
Other care - home care - other care	Other care - other - irrigation	Procedure - nasopharyngoscopy - dx	Rx - antibiotics - cephalosporins
Other care - home care - other care - attendant care	Other care - other - lead assessment	Procedure - obesity procedure - restriction	Rx - antibiotics - chloramphenicol / comb
Other care - home care - other care - chore care	Other care - other - lightbox	Procedure - other lower gi procedures - other bowel dx	Rx - antibiotics - macrolides
Other care - home care - other care - companion care	Other care - other - lodging	Procedure - other lower gi procedures - other non - or rx	Rx - antibiotics - penicillins
Other care - home care - other care - day care	Other care - other - meals	Procedure - other procedures - esophagus	Rx - antibiotics - quinolones
Other care - home care - other care - homemaker	Other care - other - medical records	Procedure - peripheral nerve repair / graft - graft / guide	Rx - antibiotics - sulfonamides / comb
Other care - home care - other care - respite care	Other care - other - weight management	Procedure - related supplies - ablation - catheter	Rx - antibiotics - tetracyclines
Other care - home care - physician supervision	Other care - pain management - pca / related	Procedure - related supplies - access catheter	Rx - antibiotics / antivirals / antifungals - infusion
Other care - home care - rehabilitation - occupational therapy	Other care - prevention - smoking cessation	Procedure - related supplies - catheter	Rx - antibiotics, misc
Other care - home care - rehabilitation - physical therapy	Other care - respiratory - equipment / supplies	Procedure - related supplies - drainage	Rx - antidiabetic rx - insulins
Other care - home care - rehabilitation - speech therapy	Other care - respiratory - equipment / supplies - apnea monitor	Procedure - related supplies - graft - tendon repair	Rx - antidiabetic rx, misc
Other care - home care - social worker	Other care - respiratory - equipment / supplies - nebulizer	Procedure - related supplies - graft / repair	Rx - antifungals
Other care - home care - specialized visit	Other care - respiratory - equipment / supplies - peak flow meter	Procedure - related supplies - implant	Rx - antivirals
Other care - home care - training	Other care - respiratory - equipment / supplies - spirometer	Procedure - related supplies - other	Rx - autonomic rx - nicotine preps
Other care - hospice	Other care - respiratory - oxygen / oxygen concentrator	Procedure - related supplies - resection - morcellator	Rx - autonomic rx - parasympathomimetics

Relevant Procedures – CPT, HCPC, ICD-10

Rx - autonomic rx - sympathomimetic rx	Rx - electrolytic, caloric, water - caloric rx, amino acid prep	Rx - vitamins - multivit prep	Therapy - other
Rx - b-lactam antibiotics	Rx - electrolytic, caloric, water - hydration - unspecifed	Rx - vitamins - vitamin b / b complex	Therapy - phlebotomy
Rx - blood derivatives	Rx - electrolytic, caloric, water - multi-mineral prep	Rx - vitamins - vitamin d	Therapy - rehabilitation - other
Rx - cardiovascular system - antiarrhythmic rx	Rx - electrolytic, caloric, water - potassium supp	Screen for amino acid disorders	Therapy - transfusion - blood
Rx - cardiovascular system - beta blockers	Rx - electrolytic, caloric, water - replacement preparations, misc	Smoking / Tobacco Cessation	Therapy - transfusion - granulocytes
Rx - cardiovascular system - cardiac drugs	Rx - electrolytic, caloric, water - sodium chlor preps	Supplies	Therapy - transfusion - plasma
Rx - cardiovascular system - cardiac glycosides	Rx - endocrine - other - parathyroid hormones	Tests - cardiac - ecg - ecg - 12 lead	Therapy - transfusion - platelets
Rx - cardiovascular system - hypotensive rx	Rx - gi - antichol/antispasmodics	Tests - cardiac - echo - contrast agent	Therapy - ultraviolet light therapy
Rx - cardiovascular system - natriuretic peptides	Rx - gi - antiemetics	Tests - cardiac - radiopharmaceuticals	Therapy - vaccination - chicken pox
Rx - cardiovascular system - vasodilating agents, nec	Rx - gi - h2 antagonists	Tests - ent - swallowing evaluation	Therapy - vaccination - dtp / related
Rx - cardiovascular system - vasodilating rx	Rx - gi - ppis	Tests - gi - duodenal motility study	Therapy - vaccination - hepatitis a vaccine
Rx - central nervous system - amphetamines	Rx - gi drug misc,nec	Tests - gi - esophageal balloon distension test	Therapy - vaccination - hepatitis b
Rx - central nervous system - anticonvulsants	Rx - gu - other - bladder rx	Tests - gi - gastric motility study	Therapy - vaccination - hib vaccine
Rx - central nervous system - antidepressants	Rx - hematopoietic system - hematopoietic growth factors	Tests - gi - other dx	Therapy - vaccination - mmr / related
Rx - central nervous system - anxiolytic/sedative/hypnot nec	Rx - hematopoietic system - iron / related	Tests - neuro - sleep studies	Therapy - vaccination - other vaccine
Rx - central nervous system - barbiturates	Rx - hematopoietic system - other	Tests - pulmonary - peak flow	Therapy - vaccination - poliovirus vaccine
Rx - central nervous system - benzodiazepines	Rx - immune system - gold compounds	Therapy - acupuncture	Therapy - vaccination - vaccine administration
Rx - central nervous system - non-amphetamine stimulants	Rx - immune system - immunosuppressants	Therapy - activity therapy	Thyroid Function Tests
Rx - central nervous system - parkinson's rx	Rx - immune system - interferons	Therapy - behavior - evaluation and therapy	Transportation - other transportation
Rx - central nervous system - symnpatholytic rx	Rx - miscellaneous rx	Therapy - behavior - other	Transportation - paramedic
Rx - central nervous system - tranq/antipsychotics	Rx - miscellaneous rx - anesthetics, local	Therapy - behavior - partial hospitalization	Ungrouped Codes
Rx - coagulation system - anticoagulants	Rx - miscellaneous rx - enzymes	Therapy - dialysis - supplies	Upper gastrointestinal endoscopy, biopsy
Rx - coagulation system - antiheparin agnt	Rx - miscellaneous rx - heavy metal antagonists	Therapy - habilitation	Upper gastrointestinal endoscopy; biopsy
Rx - coagulation system - antiplatelet rx	Rx - muscle relaxants - muscle relax, neuromusc block	Therapy - hyperbaric oxygen	Upper GI endoscopy
Rx - coagulation system - hemostatics	Rx - muscle relaxants - muscle relax, skeletal central	Therapy - neurostimulator - nausea / vomiting	Upper GI endoscopy w additional procedures
Rx - coagulation system - thrombolytic rx	Rx - muscle relaxants - muscle relax, skeletal, misc	Therapy - neurostimulator - other	Urine Protein
Rx - diagnostic rx - gastric function	Rx - other	Therapy - neurostimulator - tens - device	Vaccine for flu or Pneumonia
Rx - diagnostic rx - roentgenography	Rx - other anti-infectives - antimalarials	Therapy - neurostimulator - tens - leads	Vitamin K administration
Rx - diagnostic rx - thyroid function	Rx - pharmacy fee	Therapy - neurostimulator - tens - supplies	Wellness Assessment
Rx - diagnostic rx, misc	Rx - respiratory - beta agonists		
Rx - diuretics - diuretic, carb anhydrase inhib	Rx - respiratory - methylxanthines		
Rx - diuretics, loop diuretics	Rx - respiratory - mucolytics/cold comb		
Rx - diuretics, osmotic	Rx - respiratory - phenylephrine		
Rx - diuretics, thiazides / related	Rx - serums, toxoids, vaccines - serums		
Rx - eent - topical - eye/ear/nose/throat misc	Rx - serums, toxoids, vaccines - toxins		
Rx - electrolytic, caloric, water - calcium supplements	Rx - skin / mucous membrane - antiinflam s/mm agnts / comb nec		
Rx - electrolytic, caloric, water - caloric rx dextrose / rel	Rx - skin / mucous membrane - s/mm miscellaneous		

Relevant Diagnoses – ICD-10

Abdominal Hernia w/out Gangrene/Obstruction	Diverticulitis, colitis	Irritable Bowel and other functional GI disor
Abdominal mass	Diverticulosis, Meckel's diverticulum, Angiodyspalsia	Marginal Ulcer
Abdominal pain	Dyspepsia	Marginal Ulcer w hmg / obstr / perf
Abdominal tenderness	Dysphagia	Metastatic Cancer and Acute Leukemia
Abnormal weight loss	empyema, lung abscess	Nausea, vomiting
Achalasia, Esophageal Spasm, Stricture, Dysphagia	Esophageal Complications	Neoplasms of unspecified nature or uncertain behavior
Acute esophagitis, acute gastritis, duodenitis	Esophageal Reflux and Other Esophagitis	Neoplsm - benign neoplsm - esophagus
Acute Gastroduodenal Ulcer	Esophageal Varices	Neoplsm - benign neoplsm - small intestine
Acute Gastroduodenal Ulcer w Perforation / Obstruction	Fistula GI tract	Neoplsm - benign neoplsm - stomach
Acute Peptic Ulcer with Bleed	Gastroduodenal Ulcer	Neuroendocrine, Myeloproliferative Cancers
Alcoholic Gastritis	Gastroduodenal Ulcer w Perforation / Obstruction	Nonspecific Gastroenteritis
Allergic, Dietetic, Eosinophilic Gastroenteritis	Gastroenteritis	Observation/Examination
Angiodysplasia of intestine	Gastroparesis	Opportunistic Infections
Aspiration Pneumonia	GERD, Hiatal Hernia, Other Upper GI Disorders	Other abn of GB, pancreas, liver
Barrett's Esophagus	GI - abnormal abdominal imaging study	Other bacterial infections
Cancer in situ, Esophagus	GI - abnormal bowel sounds	Other disorders of stomach and duodenum
Cancer in situ, Stomach	GI - abnormal gi imaging study	Other Esophageal conditions
Cancer of esophagus	GI - diarrhea	Other somatoform disorders
Cancer of other GI organs; peritoneum	GI - esophagitis	Parasitic Infections: Amebiasis, Giardiasis
Cancer of stomach	GI - flatulence / gas pain	Perforation, Peritonitis, Abd Abscess
Cancer small bowel	GI - personal hx of GI disease	Personal history of cancer
Cancer; other and unspecified primary	GI - symptoms - nec / nos	Personal history of GI cancer
Chronic Peptic Ulcer with Bleed	GI - visible peristalsis	Post GI Surgery Syndromes
Complicated Hiatal Hernia	GI Bleed	Previous bowel surgery, ostomy status
complications of surgical procedures	GI inflammation from chemotherapy	Secondary malignancies, Unspecified
Congenital GI Problems in NB	Heartburn	Sxs - symptoms -other
Crohn's Disease w Fistula	Hx of colon polyps, family Hx of colon cancer	Thyroid Cancer
diabetes mellitus with neurologic manifestations	Intestinal infection	Toxic Effects of Radiation
Diaphragmatic Hernia	Intestinal Malabsorption, Celiac Disease	Toxic Gastroenteritis
Digestive congenital anomalies	Intestinal Obstruction	Ulceration of Intestine
Digestive system complications	Iron deficiency and other anemias	Vascular Insufficiency of intestine
Disseminated Metastatic Cancer		

Complications – ICD-10

Acute Kidney Failure	Gram Negative Pneumonia	Recent AMI
Adverse effects of drugs	HAC 02: Air Embolism	Resp Failure following trauma / surgery
Aspiration Pneumonia	Hemoperitoneum	Respiratory Failure
Bacteremia, SIRS, no organ dysfunction	Hemorrhage	Respiratory Insufficiency
C-Difficile Infection	Hemorrhagic Stroke	Retroperitoneal Abscess
Chronic Fungal and Other Pneumonias	Hypotension / Syncope	Sepsis
Complications from Central Line	Influenza with Pneumonia	Severe Sepsis
Complications of anesthesia	Intestinal Obstruction	Shock / Cardiac Arrest
Complications of colostomy, enterostomy	Meningitis / Encephalitis	Shock during or following cardiac surgery
complications of medical care	MRSA Pneumonia	Shock during or post-procedure
complications of surgical procedures	MRSA, Drug Resistant Infections	Sinus Node Dysfunction
Complications of surgical procedures or medical care	Opportunistic Infections	STEMI
Debilitating Viral Pneumonia	Other bacterial infections	Subendocardial Infarct
Dehydration	Other Bacterial Pneumonia	Supraventricular Tachyarrhythmias
Dermatitis, Urticaria	Other cardiac arrhythmias	Thromboembolic Stroke
dic, coagulation, hemorrhagic disorders	Other lower respiratory disease	Transient cerebral ischemia, TIA
Digestive system complications	other lung complications	Urethral Stricture
empyema, lung abscess	Other lung problems	Urinary Tract Infection
Esophageal Complications	Other Phlebitis, Lymphangitis, varices	Ventilator Associated Pnuemonia
Fluid Electrolyte Acid Base Problems	Other Staph Pneumonia	Ventilator Dependence
Foreign body left during procedure	Perforation, Peritonitis, Abd Abscess	Ventricular Arrhythmias
Gastroenteritis	Phlebitis, Deep vein thrombosis (DVT)	Viral Pneumonia
		Wound Dehiscence
		Wound Infections