



OPTUM FORUM 2019
FORWARD



ESSENTIALS

Demystify MS-DRGs

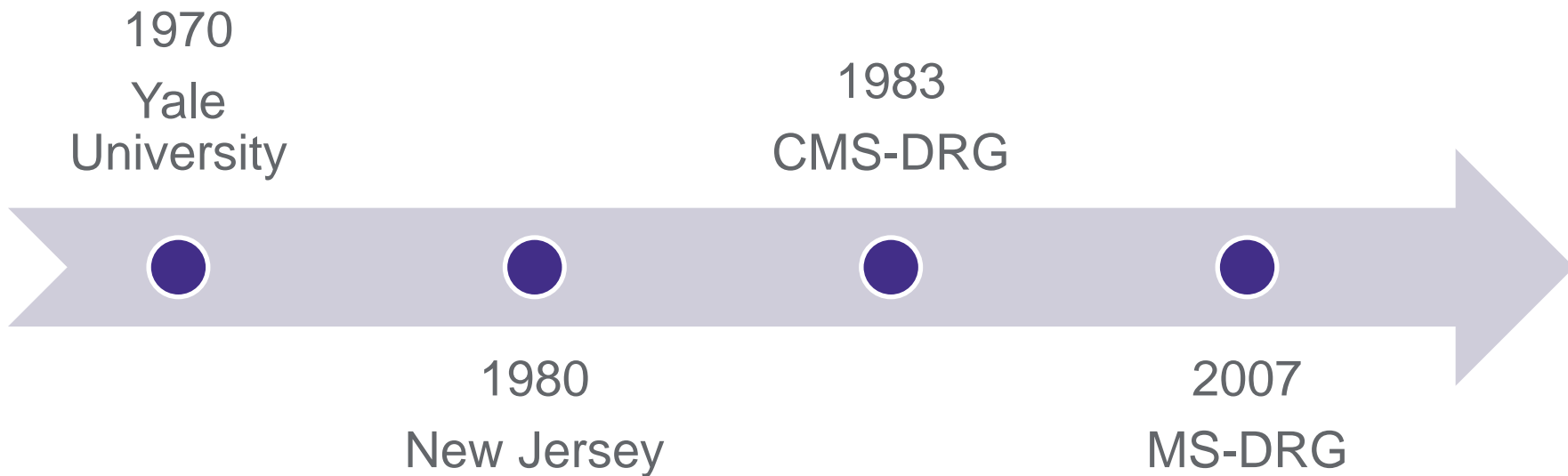
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Evolution of DRGs and IPPS

The background features a series of overlapping circles in shades of light blue and white. Overlaid on these circles are several data visualization elements: a line graph with a red line showing fluctuations, a bar chart with blue bars, and a grid of binary code (0s and 1s) in a light blue font. The overall aesthetic is clean, modern, and data-oriented.

Evolution of DRGs



What is IPPS?



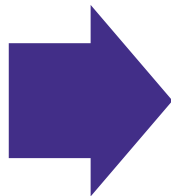
A Prospective Payment System (PPS) is a method of reimbursement in which Medicare payment is made based on a predetermined, fixed amount based on the classification system of that service.

Acute inpatient hospitals	Home health
Inpatient psychiatric facilities	Hospice
Inpatient rehabilitation facilities (IRF)	Skilled nursing facilities (SNF)
Long-term care hospitals	Hospital outpatient

MS-DRG Structure

CMS-DRG

- 538 DRGs
- Two-tiered structure
 - With complication/comorbidity (CC)
 - Without complication/comorbidity (CC)



MS-DRG

- 745 DRGs
- Three-tiered structure
 - With major complication/comorbidity (MCC)
 - With complication/comorbidity (CC)
 - Without complication/comorbidity (no MCC or CC)

MS-DRG Functions

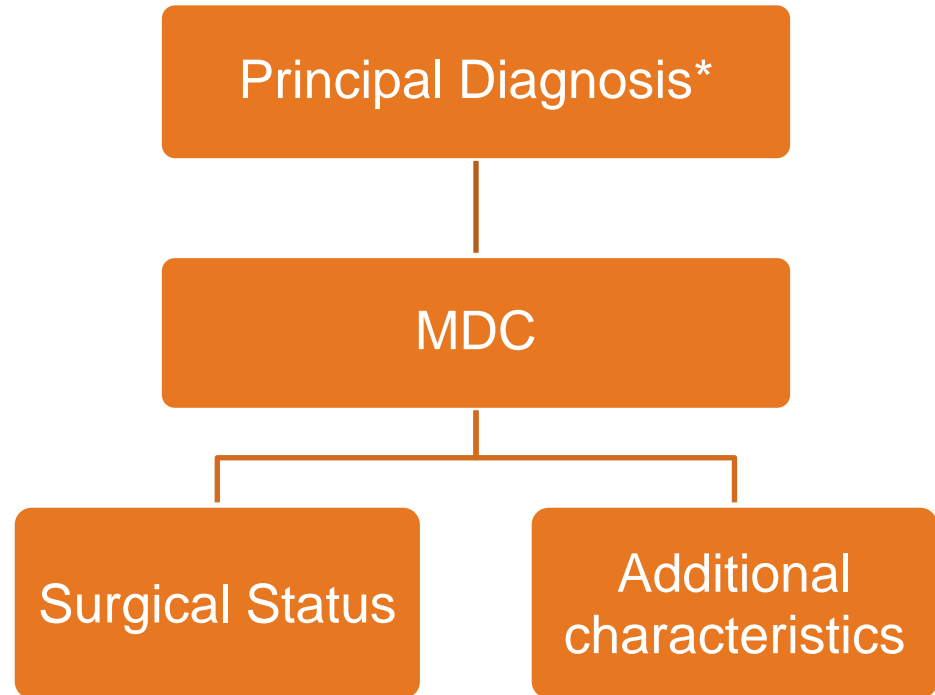


In addition to calculating reimbursement, MS-DRGs have two major functions.

- Evaluate the quality of care
- Assist in evaluating utilization of services

Assigning MS-DRGs

All possible principal diagnoses were divided into 26 mutually exclusive categories, referred to as major diagnostic categories (MDCs).



MDC Decision Tree

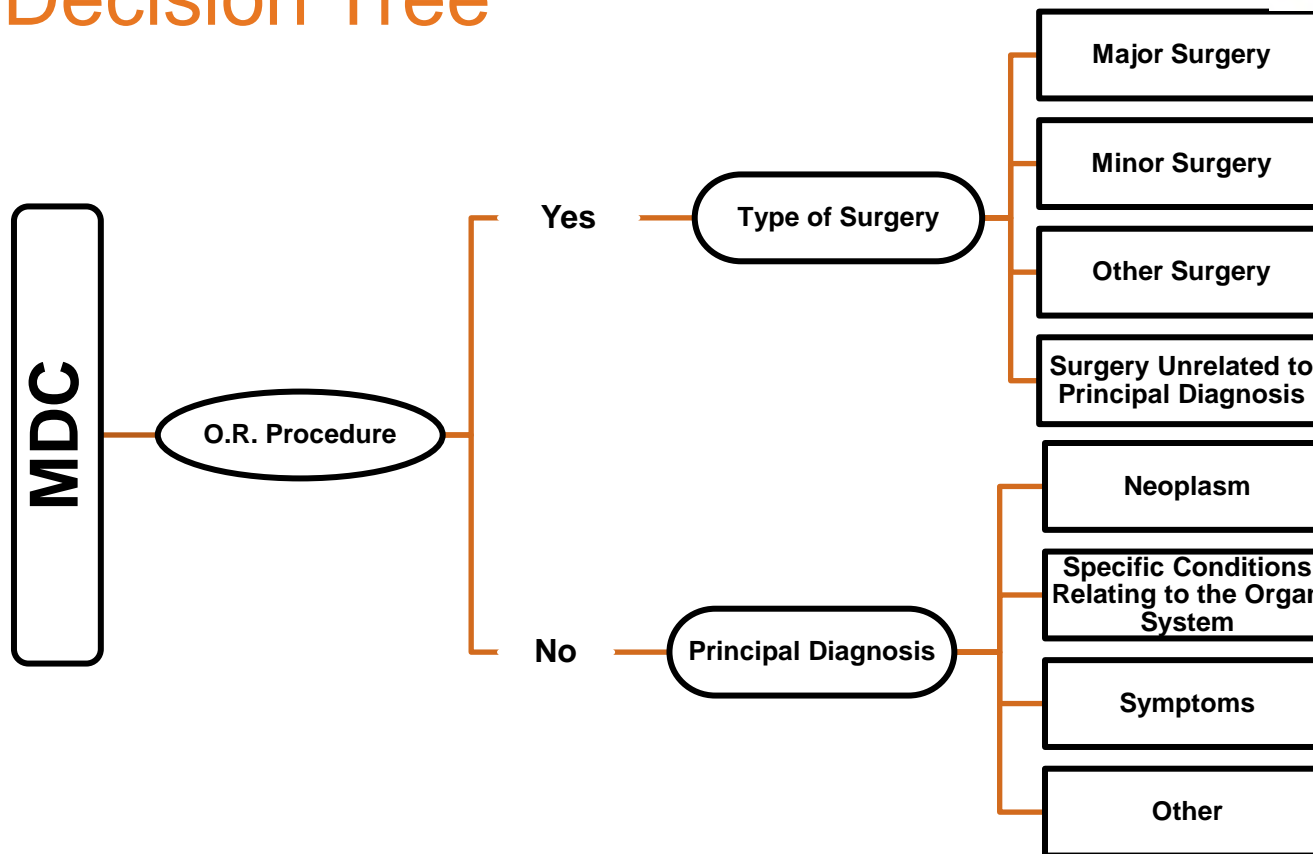


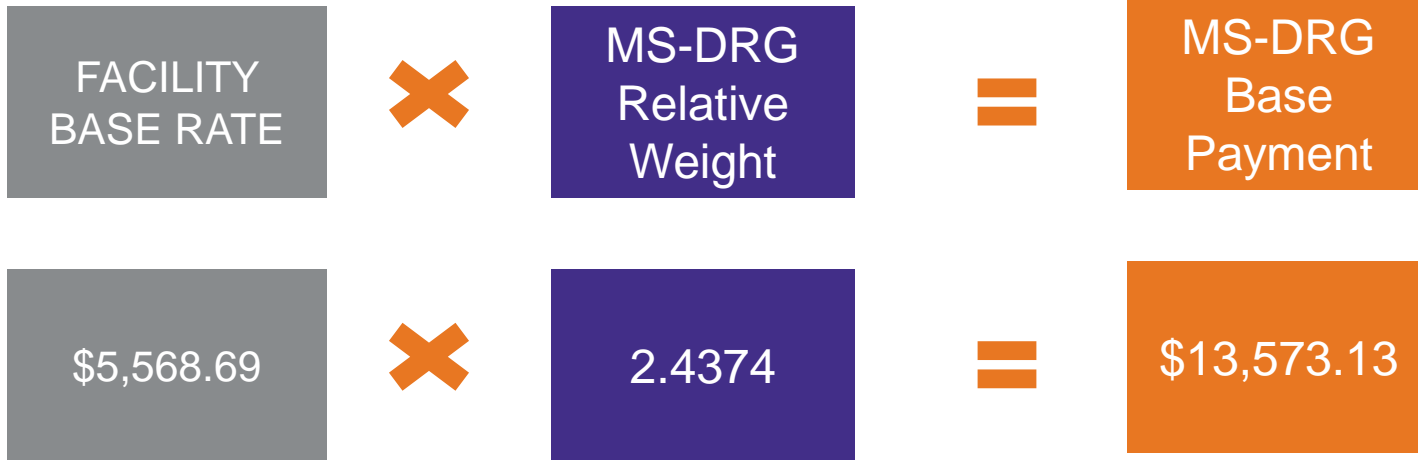
TABLE 5.—LIST OF MEDICARE SEVERITY DIAGNOSIS-RELATED GROUPS (MS-DRGS), RELATIVE WEIGHTING FACTORS, AND GEOMETRIC AND ARITHMETIC MEAN LENGTH OF STAY—FY 2019 Final Rule

MS-DRG	FY 2019 FINAL Post-Acute DRG	FY 2019 FINAL Special Pay DRG	MDC	TYPE	MS-DRG Title	Weights	Geometric mean LOS	Arithmetic mean LOS
032	Yes	No	01	SURG	VENTRICULAR SHUNT PROCEDURES W CC	2.3021	3.3	4.8
033	Yes	No	01	SURG	VENTRICULAR SHUNT PROCEDURES W/O CC/MCC	1.6877	1.8	2.3
034	No	No	01	SURG	CAROTID ARTERY STENT PROCEDURE W MCC	3.5998	4.7	6.8
035	No	No	01	SURG	CAROTID ARTERY STENT PROCEDURE W CC	2.2203	2.1	3.0
036	No	No	01	SURG	CAROTID ARTERY STENT PROCEDURE W/O CC/MCC	1.7260	1.2	1.4
037	No	No	01	SURG	EXTRACRANIAL PROCEDURES W MCC	3.2098	5.1	7.4
038	No	No	01	SURG	EXTRACRANIAL PROCEDURES W CC	1.6717	2.2	3.1
039	No	No	01	SURG	EXTRACRANIAL PROCEDURES W/O CC/MCC	1.1324	1.3	1.5
040	Yes	Yes	01	SURG	PERIPH/CRANIAL NERVE & OTHER NERV SYST PROC W MCC	3.9282	7.6	10.7
041	Yes	Yes	01	SURG	PERIPH/CRANIAL NERVE & OTHER NERV SYST PROC W CC OR PERIPH NEUROSTIM	2.3584	4.2	5.3
042	Yes	Yes	01	SURG	PERIPH/CRANIAL NERVE & OTHER NERV SYST PROC W/O CC/MCC	1.8715	2.5	3.1
052	No	No	01	MED	SPINAL DISORDERS & INJURIES W CC/MCC	1.7004	4.1	5.8
053	No	No	01	MED	SPINAL DISORDERS & INJURIES W/O CC/MCC	0.9141	2.7	3.3
054	Yes	No	01	MED	NERVOUS SYSTEM NEOPLASMS W MCC	1.3166	3.8	5.1
055	Yes	No	01	MED	NERVOUS SYSTEM NEOPLASMS W/O MCC	1.0472	3.1	4.4
056	Yes	No	01	MED	DEGENERATIVE NERVOUS SYSTEM DISORDERS W MCC	2.1245	5.5	8.1

MS-DRG – Relative Weight (RW)



Calculation example:



MS-DRG – Additional Payments



Examples:

BASE PAYMENT



High Cost Outlier

Disproportionate Share Payment
(including uncompensated care)

GME/IME Payment

New Technology Add-On

The background features a series of overlapping circles in shades of light blue and white. Overlaid on these circles are various data visualization elements: a line graph with a red line, a bar chart with blue bars, and a grid of binary code (0s and 1s) in a light blue font. The overall aesthetic is clean, modern, and data-oriented.

Post Acute Transfer MS-DRGs

Post-acute Care Transfer (PACT) Policy



PACT policy and payment methodology –
Developed to discourage early transfer of patients to post-acute levels of care (i.e. SNF, HH) by reducing hospital payments for certain inpatient stays

Post-acute Care Transfer (PACT) Policy

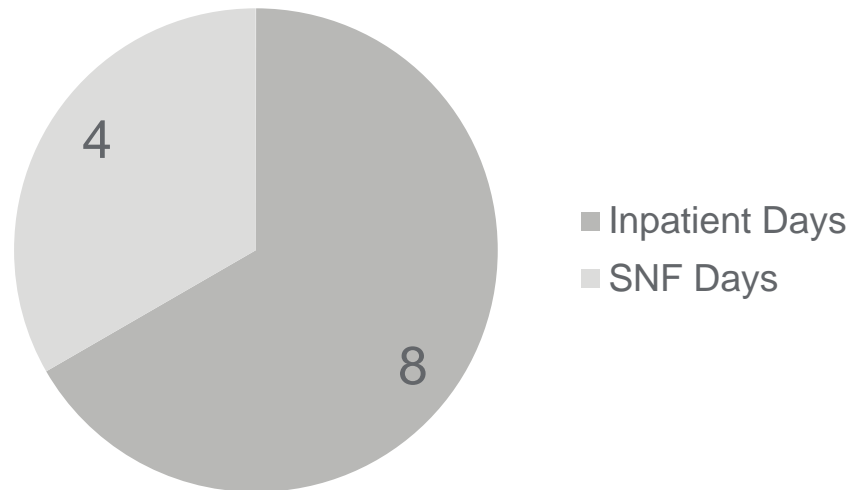


In this example, patient stayed only 8 days in the hospital and 4 days in SNF.

The full GM-LOS for this MS-DRG is 12.5.

Prior to PACT, the hospital received full MS-DRG payment even though the patient was discharged four days early.

DRG 216 CARDIAC VALVE & OTH MAJ CARDIOTHORACIC
PROC W CARD CATH W MCC
GMLOS 12.5



Post-acute Care Transfer (PACT) Policy



Discharge status code – A two-digit code that identifies where a patient is going at the conclusion of a health care facility encounter or at the time end of a billing cycle (the 'through' date of a claim).

The discharge status code is assigned by the facility based on:

- The treatment planned for the patient after discharge

And is coordinated by:

- The patient
- The patient's family
- The attending and consulting physicians discharge planning
- Case managers
- Any receiving facility or provider

Post-acute Care Transfer (PACT) Policy



Discharge Dispositions

Discharge Disposition Code	Description
03	Skilled Nursing Facility (SNF) with Medicare Certification
05	Designated Cancer Center or Children's Hospital
06	Home with a home health plan of care that begins within 3 days
50	Hospice care – home (Effective for claims with through date on or after October 1, 2018)
51	Hospice care - medical facility (Effective for claims with through date on or after October 1, 2018)
62	Inpatient Rehabilitation Facility (IRF) including Rehabilitation Distinct Part Units of a Hospital
63	Medicare Certified Long Term Care Hospital (LTCH)
65	Psychiatric Hospital or Psychiatric Distinct Part Unit of a Hospital

Post-acute Care Transfer (PACT) Policy



Under Medicare's Post-acute Care Transfer policy a discharge of a hospital inpatient is considered to be a post-acute care transfer when the patient's discharge is:

- Assigned to one of 280 Transfer MS-DRGs listed in Table 5
- The discharge is made to certain post-acute care settings and discharge statuses

Post-acute Care Transfer (PACT) Policy



Reduced Payments

MS-DRG payments for the transferring hospital are reduced when:

- The patient's length of stay is at least one day less than the geometric mean length of stay for the MS-DRG
- The patient is transferred to another acute care hospital covered by IPPS or, for certain MS-DRGs, discharged to a post-acute setting
- The patient is transferred to a hospital that does not have an agreement to participate in the Medicare Program (effective October 1, 2010)
- The patient is transferred to a Critical Access Hospital (CAH) (effective October 1, 2010)

Post-acute Care Transfer (PACT) Policy



Payment Calculations

Post Acute Transfer MS-DRG payments are calculated as follows:

- The hospital specific per diem rate is calculated by dividing the MS-DRG rate by the GMLOS for the specific MS-DRG.
 - The first day of care is paid double the per diem rate
 - The second and subsequent days are paid the per diem rate
 - Total payment cannot exceed the full MS-DRG payment rate.

- If the length of stay is at or above the GMLOS the hospital is reimbursed for the full MS-DRG.

Post-acute Care Transfer (PACT) Policy



Payment Calculations

Special Pay MS-DRGs are reimbursed as follows:

- 50 percent of the full expected MS-DRG reimbursement for the first hospital day
- 50 percent of the per diem rate for each additional day of the stay up to but not exceeding the full MS-DRG payment.

The background features a complex digital aesthetic. It includes several overlapping circular and oval shapes in shades of light blue and white. Overlaid on these are various data visualization elements: a line graph with a red line, a bar chart with blue bars, and a grid of binary code (0s and 1s) in a light blue font. The overall color palette is dominated by light blues, whites, and a touch of red and orange from the text and logo.

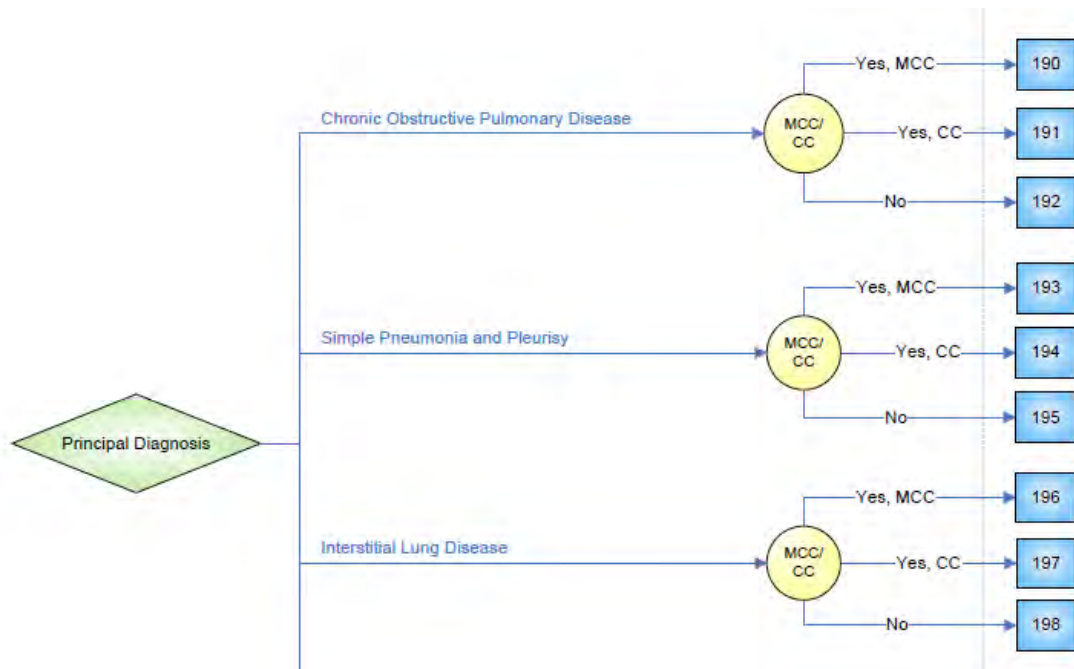
Medical vs Surgical MS-DRGs

MS-DRGs

Medical MS-DRGs

Medical MS-DRGs are assigned based upon the principal diagnosis, as in this example from MDC 04 Diseases & Disorders of the Respiratory System.

They are further refined based on the presence or absence of MCCs and/or CCs. MCCs are higher weighted – e.g. more resource intensive than CCs.



MS-DRGs

Medical MS-DRGs



Sex	Principal Diagnosis		MS-DRGs
Male Patient	N39.3 Stress incontinence (female)(male)	MDC 11 Diseases & Disorders of the Kidney & Urinary Tract	695-696 Kidney and Urinary Tract Signs and Symptoms
Female Patient	N39.3 Stress incontinence (female)(male)	MDC 13 Diseases & Disorders of the Female Reproductive System	760-761 Menstrual and Other Female Reproductive System Disorders

MS-DRGs



Surgical MS-DRGs

Surgical MS-DRGs are higher weighted than the medical MS-DRGs with the same principal diagnosis in the same MDC because Operating Room (O.R.) (and some Non O.R.) procedures result in increased reimbursement due to the assumption that these procedures add to the intensity or complexity of services and require operating room resources

Principal Diagnosis	Principal Procedure	MDC	MS-DRG	Relative Weight
J15.8 Pneumonia due to other specified bacteria	N/A	MDC 04 Diseases & Disorders of the Respiratory System	DRG 179 Respiratory Infections and Inflammations without CC/MCC	0.9215
J15.8 Pneumonia due to other specified bacteria	0B9K8ZX Drainage of Right Lung, Via Natural or Artificial Opening Endoscopic, Diagnostic	MDC 04 Diseases & Disorders of the Respiratory System	DRG 168 Other Respiratory System O.R. Procedures without CC/MCC	1.3416

MS-DRGs



Surgical MS-DRGs vs Medical MS-DRGs

Some Non O.R. procedures can also affect MS-DRG assignment of Medical MS-DRGs and may be higher weighted than an MS-DRG with an Operating Room (O.R.) procedure, resulting in increased reimbursement.

Principal Diagnosis	Principal Procedure	MDC	MS-DRG	Relative Weight
J15.8 Pneumonia due to other specified bacteria	5A1945Z Respiratory Ventilation, 24-96 Consecutive Hours	MDC 04 Diseases & Disorders of the Respiratory System	DRG 208 Respiratory System Diagnosis with Ventilator Support <= 96 HOURS	2.4374
J15.8 Pneumonia due to other specified bacteria	0B9K8ZX Drainage of Right Lung, Via Natural or Artificial Opening Endoscopic, Diagnostic	MDC 04 Diseases & Disorders of the Respiratory System	DRG 168 Other Respiratory System O.R. Procedures without CC/MCC	1.3416

MS-DRGs

Surgical MS-DRGs



There is a surgical hierarchy of the MS-DRGs within each MDC, and in most instances, patients with multiple procedures are assigned to the highest surgical class in the hierarchy, which is presumed by the logic to be the most resource-intensive MS-DRG.

Pre MDC

Heart transplant or implant of heart assist system w MCC; w/o MCC	001-002
ECMO or trach w MV 96+ hrs or PDX exc face, mouth & neck w maj O.R.; w/o maj O.R.	003-004
Liver transplant w MCC; w/o MCC or intestinal transplant	005-006
Allogeneic bone marrow transplant	014
Lung transplant	007
Simultaneous pancreas/kidney transplant	008
Autologous bone marrow transplant; or T-cell immunotherapy; w CC/MCC; w/o CC/MCC	016-017
Pancreas transplant	010
Tracheostomy for face, mouth & neck diagnoses or laryngectomy; w MCC; w CC; w/o CC/MCC	011-013

MS-DRGs

Surgical MS-DRGs

If a patient receives both a hip replacement and an excisional debridement of a toe ulcer subcutaneous tissue, the case is assigned to the excisional debridement surgical class because this procedure is grouped in MS-DRGs 463-465, which is higher in the MDC 8 surgical hierarchy than the MS-DRGs for a hip replacement, MS-DRGs 469-790

MDC 8 DISEASES & DISORDERS OF THE MUSCULOSKELETAL SYSTEM & CONNECTIVE TISSUE

Combined anterior/posterior spinal fusion w MCC; w CC; w/o CC/MCC	453-455
Spinal fus exc cerv w spinal curv/malig/infec or 9+ fus w MCC; w CC; w/o CC/MCC	456-458
Spinal fusion except cervical w MCC; w/o MCC	459-460
Bilateral or multiple major joint procs of lower extremity w MCC; w/o MCC	461-462
Wnd debrid & skn graft exc hand, for musculo-conn tiss dis w MCC; w CC; w/o CC/MCC	463-465
Revision of hip or knee replacement w MCC; w CC; w/o CC/MCC	466-468
Major joint replacement or reattachment of lower extremity w MCC; w/o MCC	469-470
Cervical spinal fusion w MCC; w CC; w/o CC/MCC	471-473
Amputation for musculoskeletal sys & conn tissue dis w MCC; w CC; w/o CC/MCC	474-476
Biopsies of musculoskeletal system & connective tissue w MCC; w CC; w/o CC/MCC	477-479
Hip & femur procedures except major joint w MCC; w CC; w/o CC/MCC	480-482
Major joint & limb reattachment procs of upper extremity	483
Knee procedures	485-489
Back & neck proc exc spinal fusion w MCC or disc device/neurostim; w CC; w/o CC/MCC	518-520

MS-DRGs

Surgical MS-DRGs



Principal Diagnosis	Secondary Diagnoses	Principal Procedure	Secondary Procedure	MDC	MS-DRG	Relative Weight
M80.051A Age-related osteoporosis with current pathological fracture, right femur, initial encounter	E11.621 Type 2 diabetes mellitus with foot ulcer L97.522 Non-pressure chronic ulcer of other part of left foot with fat layer exposed	0SR9029 Replacement of Right Hip Joint with Metal on Polyethylene Synthetic Substitute, Cemented, Open Approach	0JBR0ZZ Excision of Left Foot Subcutaneous Tissue and Fascia, Open Approach	MDC 08 Diseases & Disorders of the Musculoskeletal System & Connective Tissue	MS-DRG 465 Wound Debridement and Skin Graft Except Hand, for Musculoskeletal and Connective Tissue Disorders without CC/MCC	1.8374
M80.051A Age-related osteoporosis with current pathological fracture, right femur, initial encounter	E11.621 Type 2 diabetes mellitus with foot ulcer L97.522 Non-pressure chronic ulcer of other part of left foot with fat layer exposed	0SR9029 Replacement of Right Hip Joint with Metal on Polyethylene Synthetic Substitute, Cemented, Open Approach	0JDR0ZZ Extraction of Left Foot Subcutaneous Tissue and Fascia, Open Approach	MDC 08 Diseases & Disorders of the Musculoskeletal System & Connective Tissue	MS-DRG 470 Major Hip and Knee Joint Replacement or Reattachment of Lower Extremity without MCC	1.9898

MS-DRGs

Surgical MS-DRGs

If the patient had lumbar spinal fusion for spinal stenosis instead of hip replacement, with an excisional debridement of toe ulcer subcutaneous tissue, the case is assigned to the spinal fusion surgical class in MS-DRGs 459-460, which is higher in the MDC 8 surgical hierarchy than the MS-DRGs for excisional debridement, MS-DRGs 463-465



MDC 8 DISEASES & DISORDERS OF THE MUSCULOSKELETAL SYSTEM & CONNECTIVE TISSUE	
Combined anterior/posterior spinal fusion w MCC; w CC; w/o CC/MCC	453-455
Spinal fus exc cerv w spinal curv/malig/infec or 9+ fus w MCC; w CC; w/o CC/MCC	456-458
Spinal fusion except cervical w MCC; w/o MCC	459-460
Bilateral or multiple major joint procs of lower extremity w MCC; w/o MCC	461-462
Wnd debrid & skn graft exc hand, for musculo-conn tiss dis w MCC; w CC; w/o CC/MCC	463-465
Revision of hip or knee replacement w MCC; w CC; w/o CC/MCC	466-468
Major joint replacement or reattachment of lower extremity w MCC; w/o MCC	469-470
Cervical spinal fusion w MCC; w CC; w/o CC/MCC	471-473
Amputation for musculoskeletal sys & conn tissue dis w MCC; w CC; w/o CC/MCC	474-476
Biopsies of musculoskeletal system & connective tissue w MCC; w CC; w/o CC/MCC	477-479
Hip & femur procedures except major joint w MCC; w CC; w/o CC/MCC	480-482
Major joint & limb reattachment procs of upper extremity	483
Knee procedures	485-489
Back & neck proc exc spinal fusion w MCC or disc device/neurostim; w CC; w/o CC/MCC	518-520

MS-DRGs

Surgical MS-DRGs



Principal Diagnosis	Secondary Diagnoses	Principal Procedure	Secondary Procedure	MDC	MS-DRG	Relative Weight
M48.061 Spinal stenosis, lumbar region without neurogenic claudication	E11.621 Type 2 diabetes mellitus with foot ulcer L97.522 Non-pressure chronic ulcer of other part of left foot with fat layer exposed	0SG0070 Fusion of Lumbar Vertebral Joint with Autologous Tissue Substitute, Anterior Approach, Anterior Column, Open Approach	0JBR0ZZ Excision of Left Foot Subcutaneous Tissue and Fascia, Open Approach	MDC 08 Diseases & Disorders of the Musculoskeletal System & Connective Tissue	MS-DRG 460 Spinal fusion except fusion without MCC	4.0375

Complications and Comorbidities

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CMS developed lists of conditions that are defined as either major complications or comorbidities (MCCs) or complications or comorbidities (CCs) when used as a secondary diagnosis.

- A complication is a condition that arises during the hospital stay that affects the treatment received and/or prolongs the length of stay.
- A comorbidity is a pre-existing condition that affects the treatment received and/or prolongs the length of stay.

MCCs and CCs

Principal Diagnosis	CC	MCC	MDC	MS-DRG	Relative Weight
J15.8 Pneumonia due to other specified bacteria			MDC 04 Diseases & Disorders of the Respiratory System	DRG 179 Respiratory Infections and Inflammations without CC/MCC	0.9215
J15.8 Pneumonia due to other specified bacteria	I12.0 Hypertensive chronic kidney disease with stage 5 chronic kidney disease or end stage renal disease		MDC 04 Diseases & Disorders of the Respiratory System	DRG 178 Respiratory Infections and Inflammations with CC	1.2744
J15.8 Pneumonia due to other specified bacteria		I50.43 Acute on chronic combined systolic (congestive) and diastolic (congestive) heart failure	MDC 04 Diseases & Disorders of the Respiratory System	DRG 177 Respiratory Infections and Inflammations with MCC	1.8408

MS-DRG Updates

MS-DRG Updates

Each year, effective October 1 through September 30, MS-DRG assignments are adjusted based on relative weight (RW), arithmetic mean length of stay (AMLOS), and geometric mean length of stay (GMLOS).

Annually, new ICD-10 codes will be incorporated into the existing MS-DRGs or new MS-DRGs will be added for the next fiscal year.

MS-DRG Updates

CMS issues its Final Rule on changes to the hospital inpatient prospective payment system (IPPS) and fiscal year rates in the Federal Register, each year in August. The updated MS-DRGs are effective for discharges occurring on or after October 1 of that year.

MS-DRG Updates

Centers for Medicare and Medicaid Services (CMS) issued the FY 2020 Inpatient Prospective Payment System Rule (IPPS) Proposed Rule on April 23, 2019

MS-DRG Updates

Severity Change	# of codes
MCC to No Severity Level	17
CC to No Severity Level	1159
No Severity Level to CC	258
MCC to CC	136
CC to MCC	8
Total Changes	1570

MS-DRG Updates

207	RESPIRATORY SYSTEM DIAGNOSIS W VENTILATOR SUPPORT >96 HOURS OR PERIPHERAL EXTRACORPOREAL MEMBRANE OXYGENATION (ECMO)	Revised
291	HEART FAILURE & SHOCK W MCC OR PERIPHERAL EXTRACORPOREAL MEMBRANE OXYGENATION (ECMO)	Revised
296	CARDIAC ARREST, UNEXPLAINED W MCC OR PERIPHERAL EXTRACORPOREAL MEMBRANE OXYGENATION (ECMO)	Revised
870	SEPTICEMIA OR SEVERE SEPSIS W MV >96 HOURS OR PERIPHERAL EXTRACORPOREAL MEMBRANE OXYGENATION (ECMO)	Revised

MS-DRG Updates

691	URINARY STONES W ESW LITHOTRIPSY W CC/MCC	Deleted
692	URINARY STONES W ESW LITHOTRIPSY W/O CC/MCC	Deleted
693	URINARY STONES W/O ESW LITHOTRIPSY W MCC	Revised
694	URINARY STONES W/O ESW LITHOTRIPSY W/O MCC	Revised

MS-DRG Updates

175	PULMONARY EMBOLISM W MCC OR ACUTE COR PULMONALE	Revised
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MS-DRG Updates

266	ENDOASCULAR CARDIAC VALVE REPLACEMENT & SUPPLEMENT PROCEDURES W MCC	Revised
267	ENDOASCULAR CARDIAC VALVE REPLACEMENT & SUPPLEMENT PROCEDURES W/O MCC	Revised
319	OTHER ENDOASCULAR CARDIAC VALVE PROCEDURES W MCC	New
320	OTHER ENDOASCULAR CARDIAC VALVE PROCEDURES W/O MCC	New

MS-DRG Updates



Allogeneic Bone Marrow Transplant	Insertion of Feeding Device
Carotid Artery Stent Procedures	Basilic Vein Reposition in Chronic Kidney Disease
Revision of Pacemaker Lead	Colon Resection with Fistula
Knee Procedures with Principal Diagnosis of Infection	Stage 3 Pressure Ulcers of the Hip
Neuromuscular Scoliosis	Gastrointestinal Stromal Tumor
Secondary Scoliosis and Secondary Kyphosis	Finger Cellulitis
MDC 12 (Diseases and Disorders of the Male Reproductive System): Diagnostic Imaging of Male Anatomy	Gastric Band Procedure Complications or Infections
MDC 14 (Pregnancy, Childbirth and the Puerperium): Proposed Reassignment of Diagnosis Code O99.89	Peritoneal Dialysis Catheters
MDC 23 (Factors Influencing Health Status and Other Contacts with Health Services): Proposed Assignment of Diagnosis Code R93.89	Occlusion of Left Renal Vein
Peritoneal Dialysis Catheter Complications	Bronchoalveolar Lavage
Bone Excision with Pressure Ulcers	Percutaneous Drainage of Pelvic Cavity
Lower Extremity Muscle and Tendon Excision	Percutaneous Removal of Drainage Device
Kidney Transplantation Procedures	Percutaneous Occlusion of Gastric Artery

References

Optum360 DRG Expert (I-10 Version) 2019

Optum360 DRG Desk Reference 2019

<https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/index.html>

<https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/downloads/AcutePaymtSysfctsht.pdf>

<https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/FY2020-IPPS-Proposed-Rule-Home-Page.html>

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