

Conduent Healthcare Midas Health Analytics Solutions

# Midas DataVision™

Server Application Release Notes May 2017

All Software Versions Early Adopter Edition May 1, 2017

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## **Resource Guide**

Midas<sup>™</sup> DataVision<sup>™</sup> and CPMS clients can access a number of valuable information resources in the Clients Only area of <u>www.midasplus.com</u>. If you have trouble accessing or using any of the documentation resources listed below, please submit a request through the <u>Support Center</u> or contact the Midas Hotline at 1-800-737-8835 ext. 4106.

#### Measure Definitions

Log in to the Clients Only area of the Midas website, and choose **Support > DataVision Resources > Midas Measures** to access:

- Convenient direct links to the most recently updated measure definition documents
- A Midas measure definition PDF portfolio that includes the complete set of Midas measure definition documents for DataVision and CPMS (including archived material)
- A core measure definition PDF portfolio that includes the complete set of core measures for all agencies we work with
- A measure directory worksheet that lists each measure number, along with its title, Midas products, Clinical Topic, and Profile.
- CCS ICD-9 and ICD-10 diagnosis and procedure categories
- Midas Risk Adjustment Model Clinical Clusters and Complications

#### **Release Notes and User Guides**

#### Release Notes

Quarterly server and web application updates are detailed in release note documents for DataVision, CPMS, and Behavioral Health clients. The latest edition of these release notes can be accessed in the Clients Only area of the Midas website.

In addition, a PDF portfolio containing the last 18 months of release notes for each product is also available for review. The portfolio is republished quarterly with the inclusion of the latest edition of the release notes.

#### Quick Start Guides

Numerous user guides are available via the Clients Only area of the Midas website. Each guide provides step-by-step instructions, screen shots, and other information to assist clients in performing a specific set of tasks or to provide information about a specific topic.

A Quick Start Guide Portfolio is also available, containing the complete set of CPMS and DataVision Quick Start Guides. The portfolio is updated as new editions of the Quick Start Guides are published.

To access these resources, log in to the Clients Only area of the Midas website and choose **Support** > **DataVision Resources** > **DataVision Main Page**. Links to the Release Notes and Quick Start Guides are at the top of the list of resource links on this page.

Acrobat Reader v9.0 or later is required for best use of the PDF portfolios listed above. You can download the latest version of Acrobat Reader free-of-charge from <u>www.adobe.com</u>.

## Contents

Midas Risk Adjustment Model	6
1. Site Parameter to control transition date to Midas Risk Models for Version 2.0	6
2. New Midas Risk Model Clinical Clusters and Complications	6
3. DataVision Navigator Reorganization	7
4. Report Data Transfer Compare Template	8
5. New Risk Value Storage and Display	8
6. Updated Data Quality Measures	10
7. DataVision Standard Reports and Toolpacks	10
8. Risk Model Toolpack Updated	10
New and Modified Measures and Profiles	11
9. New Acute Care Musculoskeletal Mortality Rate Measures	11
10. Correction to Readmission on the Same Server	11
11. Correction to CHF Comorbidity	11
12. Emergency Department Indicators Corrected for Negative Values	12
13. Behavioral Health Readmission Measures Corrected	12
Hospital Acquired Conditions	13
14. Modifications Made to Hospital Acquired Conditions folders	13
15. Total CMS Hospital Acquired Conditions Measures Updated	13
Leapfrog	14
16. Leapfrog Measures Added	14
17. Leapfrog Measures Archived	15
Agency for Healthcare Research and Quality (AHRQ)	16
18. PSI 09 Perioperative Hemorrhage or Hematoma	16
National Quality Improvement Projects	16
Standard Reports	16
19. FFY2018 Baseline compared to FFY2018 Performance Period Values Updated	16
Core Appropriateness of Care	16
20. Core Appropriateness of Care Indicators Retired	16
21. Measures Added to Core Appropriateness of Care Profile	17

#### Release Notes for Midas DataVision<sup>™</sup> Server Application Server Application Update for May 2017 Early Adopter Edition – Published: May 1, 2017

For the latest release notes, log in to the Clients Only area in <u>www.midasplus.com</u>.

Joint Commission Disease-Specific Care (DSC) Certification	18
22. Changes to TJC Comprehensive Stroke Focus Study Effective 7/2017	18
Hospital Inpatient Quality Measures	18
23. Changes to Core Perinatal Care Focus Study Effective 7/2017	
24. Core VTE Initial Patient Population Modified Effective 1/2017 Discharges	18
CMS Inpatient Quality Psychiatric Facility Reporting (IPFQR)	19
25. Sampling by Age Stratification Available	
Hospital Outpatient Quality Reporting	19
26. Abstraction of multiple anatomic sites available	19
27. Core HOP EBRT Changes Effective January 1, 2017	20
28. Core HOP Annual Web-Reported Measures Modified to Accrue by Outpatient Encou Arrival Date Effective 1/2017	
MassHealth	21
29. MAT-3 Elective Delivery Retired Effective 12/2016 Discharges	21
Appendix A: Midas Risk Model Version 2.0 Medical Clusters	22
Medical Clusters Added in Version 2.0	22
Version 1.0/1.1 Medical Clusters Renamed in Version 2.0	22
Version 1.0/1.1 Medical Clusters Retained in Version 2.0	
Version 1.0/1.1 Medical Clusters Retired in Version 2.0	28
Appendix B: Midas Risk Model Version 2.0 Surgical Clusters	29
Surgical Clusters Added in Version 2.0	29
Version 1.0/1.1 Surgical Clusters Renamed in Version 2.0	29
Version 1.0/1.1 Surgical Clusters Retained in Version 2.0	32
Version 1.0/1.1 Surgical Clusters Retired in Version 2.0	34
Appendix C: Midas Risk Model Version 2.0 Complications	39
Complications Added in Version 2.0	
Version 1.0/1.1 Complications Retired in Version 2.0	42

## Midas Risk Adjustment Model

Midas has released a new "gold standard" for its Risk Adjustment Methodology. Risk Model Version 2.0 will replace version 1.1, which applied to patients discharged after October 1, 2015.

#### 1. Site Parameter to control transition date to Midas Risk Models for Version 2.0

Because Midas clients use the Midas Hospital Risk Adjustment Methodology for trending longitudinal performance, establishing targets for incentive bonus payments, and reporting organizational performance relative to their unique fiscal years, it is essential that observed and expected values calculated in Midas Risk Model Version 1.0 and 1.1 be maintained for historical reference, while at the same time moving forward with Version 2.0. To accomplish this, Midas has created a site parameter that allows clients to choose the month in which they transition to Version 2.0. While the default month for most clients will be in May at the time they receive their quarterly updates, clients may, upon request, defer their transition month to later in 2017 in order to complete their end of fiscal year reporting using Version 1.0/1.1 models. All clients must transition to Version to Version 2.0 no later than December 2017.

**Important Note:** *To select an alternative transition date, please file a support ticket through the* <u>Midas Support Center</u> *no later than May 10, 2017.* 

#### 2. New Midas Risk Model Clinical Clusters and Complications

All XRA DRGs (also known as Clinical Clusters) and XRA Complications from version 1.0/1.1 have been retired. Replacing them in Version 2.0 are a series of new Clinical Clusters and Complications with a code of MRA (Midas Risk Adjustment). **See the appendices** at the end of this release note document for a complete listing of new, renamed, retained, and retired Clinical Clusters and Complications.

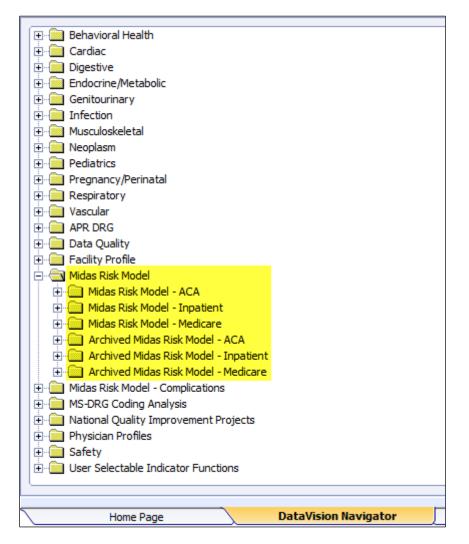
Version 1.0/1.1 XRA profiles will be retained in the system for historical reporting. Following the transition to Version 2.0 these indicators will no longer process during the nightly or weekend summary job on your server, and drill-down to encounter level detail will be blocked. (See note in item 3 following for information about how to temporarily restore encounter drill down to blocked XRA indicators.)

MRA Clusters that represent clinical populations previously supported in Version 1.0/1.1 will be summarized back to January 2015 on your server, with the exception of new clinical populations that began with the onset of ICD-10 coding on October 1, 2015. MRA Complication Clusters will only summarize back to October 1, 2015. Hospitals that wish to have their data summarized back farther than January 2015 may submit a support ticket to have their data re-summarized prior to January 2015.

Note that performance data from Version 1.0/1.1 will be retained in the DataVision Web Application for the foreseeable future. New 2.0 performance data will be updated in the DataVision Web Application in the July 2017 update.

#### 3. DataVision Navigator Reorganization

The DataVision Navigator (on the server) organizes the Midas Risk Model Clinical Cluster and Complications XRA indicators. Upon transition to Version 2.0, all XRA indicators from Version 1.0 and 1.1 will be retired and moved into folders designated as "Archived Risk Model" and "Archived Risk Model Complications" for historical reference. See illustration below.



Indicators in the Archived Risk Model folders will not support encounter drill down or be available for selection when running Standard Reports in DataVision. This change was made to conserve disc space on your Midas Server.

**Note:** Encounter drill down containing XRA values can still be obtained using the Report Data Transfer Function in Midas for CDB:933 Inpatient Mortality Denominator. In addition, a ReporTrack Template will be available for download from the Midas Clients Only Website, which will allow users to compare encounter detail using both Version 1.1 and 2.0. Clients can also request temporary access to encounter drill down for selected XRA indicators and date ranges if desired.

#### 4. Report Data Transfer Compare Template

For encounters discharged on or after October 1, 2015, clients will be able to compare encounterlevel risk values compiled using the crosswalk Version 1.1 with new values compiled using the new "gold standard" with Version 2.0. There will be three different versions available for Midas Care Management 2011, 2012 and 2014. This ReporTrack template is available on the Midas Clients Only Website. The fields available in the Midas Risk Model Compare Template are listed below.

- Account No.
- Fac Code
- Facility
- Patient Name
- Universal ID
- MRN
- DRG
- DRG Desc
- DRG Type
- Principal DX
- Principal DX Description
- PROC1
- PROC1\_DATE
- PROC1 Description
- V 1.1 XRA Clinical Cluster Code
- V 1.1 XRA Clinical Cluster Description
- V 2.0 MRA Clinical Cluster Code
- V 2.0 MRA Clinical Cluster Description
- Start Dt
- Start Tm
- End Dt

- End Tm
- Observed LOS
- V 1.1 XRA Expected LOS
- V 2.0 MRA Expected LOS
- V 1.1 XRA Expected Charges
- V 2.0 MRA Expected Charges
- V 1.1 XRA Risk of Readmission (Same Server)
- V 1.1 XRA Adjusted Risk of Readmission (Any Facility)
- V 2.0 MRA Risk of Readmission (Same Server)
- V 2.0 MRA Adjusted Risk of Readmission (Any Facility)
- V 1.1 XRA Days to Readmission
- V 2.0 MRA Days to Readmission
- V 1.1 XRA Individual Relative Weight
- V 2.0 MRA Individual Relative Weight
- V 1.1 XRA Risk of Mortality
- V 2.0 MRA Risk of Mortality
- Facility DC Disposition

#### 5. New Risk Value Storage and Display

**The Risk Model Values Focus Study** stores and displays observed and expected values for all inpatient encounters that have been assigned to a clinical cluster in either Version 1.0 or Version 2.0. Encounters discharged between January 1, <u>201x</u> and September 30, 2015 (using ICD-9 claims) will display values calculated from Version 1.0.<sup>1</sup> Encounters discharged on or after October 1, 2015,

<sup>&</sup>lt;sup>1</sup> Note: The time period for the run back is controlled by the site parameter "CDB-MONTHS FOR POST-INSTALL WEEKEND RUNBACK". If the site parameter is null (not set to any value) then we will process back to January 1, 2015 the weekend after the May general release package is installed. If that site parameter has been set to a value, we will only process back as far as that parameter is set to process. Clients can request this to go back farther than their site parameter is set if they desire.

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(using ICD-10 claims) will display values in the Focus Study calculated from Version 2.0. In addition, all fields in the Risk Model Value Focus are available to SmarTrack so that clients can create new rules to track, for example, patients with a low probability of a quality event where the quality event occurred, or patients with high readmission probabilities.

Focus: RISK MODEL VALUES		Date: 4/3/2017	Focus ID:				
RISK VALUES COMPLICATIONS	5						
Clinical Cluster							
Clinical Cluster Code:	259			MR	A DRG Type:	Medical	
Clinical Cluster Description:	Spondylosis and Interv	ertebral Disc Disorders		Ind	ividual Relative Weight:	.53	
MRA Service Line:	Orthopedic Medical						
Mortality		Readmissions					
Expected Mortality: .00	)12	Probability of Readmission 1 Hospital(s):	to Your	.067			
Observed Mortality: 0		Probability of Readmission 1 Hospital:	to Any US	0.0754			
		30-day Unplanned Readmit	c:	0			
Length of Stay		Charges					
Expected LOS: 2.8	3	Expected Charges:		31,086.95			
Observed LOS: 3		Observed Charges:					
							-
						Co	ompleted:

To view a Risk Model Values Focus Study, select an inpatient encounter and go to **Focus Study** > **Focus Study – Encounter Level** and view the **Risk Model Value Focus Study**. The following values will display in this Focus Study:

- Clinical Cluster Code
- Clinical Cluster Description
- MRA Service Line
- MRA DRG Type
- Individual Relative Weight
- Expected Mortality
- Observed Mortality
- Expected LOS
- Observed LOS
- Probability of Readmission to Your Hospital(s)
- Probability of Readmission to Any US Hospital

- 30-Day Unplanned Readmit
- Expected Charges
- Observed Charges
- Total Observed Complications
- Total Expected Complications
- Complication Cluster Code
- Complication Cluster Description
- Observed Complication
- Expected Complication
- ICD-10 Code (that qualified for the complication)
- ICD-10 Code Description

#### 6. Updated Data Quality Measures

The Data Quality Profile in DataVision includes seven measures that examine data completeness for XRA and MRA Clusters. The seven indicators below have been renamed to reflect their applicability for both XRA and MRA indicators.

- CDBR:579 Inpatients % without XRA/MRA Clinical Cluster Code
- CDBR:583 Inpatients % without XRA/MRA Expected Charges
- CDBR:582 Inpatients % without XRA/MRA Expected Length of Stay
- CDBR:584 Inpatients % without XRA/MRA Individual Relative Weight
- CDBR: 585 Inpatients % without XRA/MRA Risk of Complication
- CDBR:580 Inpatients % without XRA/MRA Risk or Mortality
- CDBR:581 Inpatients % without XRA/MRA Risk of Readmission

#### 7. DataVision Standard Reports and Toolpacks

All DataVision Standard Reports and Toolpacks will continue to run for MRA indicators. The column headers in the data detail worksheets have been relabeled as MRA values. XRA indicators will not be available for selection in the DataVision Standard Reports and Toolpacks.

#### 8. Risk Model Toolpack Updated

The following changes have been made to the Midas Risk Model Toolpack:

- Removed "Individual XRA Complications" from "Data-All" tab
- Change tab name and report name from "Complications of Care" to "Complications NPOA" on "Complications of Care" tab.
- Changed table header from "Charges" to "Costs and Charges" on "Utilization" tab
- Display values for all hours even if they have a value of zero on "Admit & Discharge Time" tab.
- Changed table headers on "Attending Provider Utilization" tab, as follows:

Old Header	New Header
Average of Observed LOS	Average Observed LOS
Average of XRA Expected LOS	Average Expected LOS
Observed/XRA Expected LOS	Observed/Expected LOS
Average of Observed Charges	Average Observed Charges
Average of Expected XRA Charges	Average Expected Charges
Observed/XRA Expected Charges	Observed/Expected Charges

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Old Header	New Header
Average of Cost	Average Cost
XRA Case Mix Index	Risk-adjusted Case Mix Index

## **New and Modified Measures and Profiles**

#### 9. New Acute Care Musculoskeletal Mortality Rate Measures

Two new acute care Musculoskeletal have been added, as follows.

- CDBR:2154 Acetabular Fracture Mortality Rate"
  To view this measure in the DataVision Navigator, select Musculoskeletal > Acetabular Fracture
  > Clinical Outcome Profile
- CDBR:2155 Pelvic Fracture Mortality Rate

To view this measure in the DataVision Navigator, select **Musculoskeletal** > **Pelvic Fracture** > **Clinical Outcome Profile.** 

For more information, refer to the measure definitions section of the Midas Clients Only website, as described on the Resources page at the front of this document. Measure definitions can also be accessed in the DataVision application by selecting the measure and clicking the Measure Definition link.

#### 10. Correction to Readmission on the Same Server

A change was made to the two measures below to correct an issue where readmissions to a different facility on the same server were not being counted. This was an issue in Midas Care Management versions 8.1r6 and 2011. Care Management versions 2012 and newer were not affected by this issue.

- CDBR:2152 Acetabular Fracture Percent Readmit within 30 Days, Same Server
- CDBR:2153 Pelvic Fracture Percent Readmit within 30 Days, Same Server

**Note**: This issue did <u>not</u> impact any other readmission measures in DataVision.

To view these measures in the DataVision Navigator, select **Musculoskeletal > Acetabular Fracture > Clinical Outcome Profile** or select **Musculoskeletal > Pelvic Fracture > Clinical Outcome Profile** 

#### **11. Correction to CHF Comorbidity**

A change was made to the CHF comorbidity measure below to correct an issue introduced in the February overlay. This issue caused a significant decrease in the count of encounters with a secondary diagnosis of congestive heart failure for this measure. **Note**: *This issue did <u>not</u> impact any other comorbidity measures in DataVision*.

CDBR:087 CHF Comorbidity – Per 1000 Acute Care Admits

To view this measure in the DataVision Navigator, select Facility Profile > Comorbidity, Major

#### 12. Emergency Department Indicators Corrected for Negative Values

An issue has been corrected in which certain Emergency Department Indicators were not correctly excluding encounters with negative length of stay values in the numerator or denominator. This was a rare data integrity issue that impacted a small number of hospitals. For those hospitals, the following ED measures were affected.

- CDBR:131 Emergency Department % Length of Stay 6 Hours or More
- CDBR:132 Emergency Department % Discharged to Outside Acute Care
- CDBR:1831 Emergency Department Average Length of Stay (hours)
- CDBR:2144 Emergency Department Mortality Rate
- CDBR:2145 Emergency Department Left Against Medical Advice

**Note:** Data will be automatically re-summarized back to January 2015 on the weekend following receipt of the quarterly update or within the time frame set by your organization's site parameter for the weekend summary job.

To view these measures in the DataVision Navigator choose Facility Profile > Emergency Department.

For more information on these measures, refer to the measure definitions section of the Midas Clients Only website, as described on the Resources page at the front of this document. Measure definitions can also be accessed in the DataVision application by selecting the measure and clicking the Measure Definition link.

#### 13. Behavioral Health Readmission Measures Corrected

An issue has been corrected in which inpatient delivery and newborn encounters were not being properly excluded for the Behavioral Health readmission measures listed below. Note that this exclusion criteria applied to the numerator (readmission event), which also requires a readmission for any cause back to an inpatient psychiatric location or service. It is highly unlikely that this correction will impact previously reported data, given that psychiatric admissions rarely deliver babies during the same encounter.

- CDBR:139 Behavioral Health, Acute Care Percent Readmit within 14 Days
  Path: Behavioral Health > General Acute Care Psych Department (Clinical Outcome Profile)
- CDBR:704 Behavioral Health Percent Readmit within 7 Days
  Path: Behavioral Health > General Psychiatric Hospital (Clinical Outcome Profile)
- CDBR:738 Depression, Recurrent, Principal Diagnosis Percent Readmit within 30 Days
  *Path:* Behavioral Health > Depression Profile (Clinical Outcome Profile)
- CDBR:745 Substance Abuse, Dependent, Principal Diagnosis Percent Readmit within 30 Days
  *Path:* Behavioral Health > Substance Abuse Profile (Clinical Outcome Profile)

- CDBR:752 Depression, Single Episode, Principal Diagnosis Percent Readmit within 30 Days
- CDBR:759 Depression, Secondary Diagnosis Percent Readmit within 30 Days
  *Path:* Behavioral Health > Depression Profile (Clinical Outcome Profile)
- CDBR:766 Substance Abuse, Dependent, Secondary Diagnosis Percent Readmit within 30 Days
- CDBR:773 Substance Abuse, Nondependent, Any Diagnosis Percent Readmit within 30 Days
  *Path:* Behavioral Health > Substance Abuse Profile (Clinical Outcome Profile)

## **Hospital Acquired Conditions**

#### 14. Modifications Made to Hospital Acquired Conditions folders

Hospital Acquired Conditions folders have been renamed and relocated as follows:

Old Folder Name	New Folder Name	Navigation Tree Location
Hospital Acquired Conditions - Per 1000 ACA	Total CMS Hospital Acquired Conditions - Per 1000 ACA	Safety > Patient Safety > CMS Hospital Acquired Conditions – ACA
Hospital Acquired Conditions - Per 1000 Inpatients	Total CMS Hospital Acquired Conditions - Per 1000 Inpatients	Safety > Patient Safety > CMS Hospital Acquired Conditions - Inpatients
Hospital Acquired Conditions - Per 1000 Medicare ACA	Total CMS Hospital Acquired Conditions - Per 1000 Medicare ACA	Safety > Patient Safety > CMS Hospital Acquired Conditions – Medicare ACA
Hospital Acquired Conditions - Per 1000 Medicare Inpatients	Total CMS Hospital Acquired Conditions - Per 1000 Medicare Inpatients	Safety > Patient Safety > CMS Hospital Acquired Conditions – Medicare Inpatients

#### 15. Total CMS Hospital Acquired Conditions Measures Updated

Measure Definitions for the Total CMS Hospital Acquired Conditions measures listed below previously stated that the numerators display a "count of encounters." These definitions have been corrected to more accurately describe what is being captured in the numerators. The four measures were not modified in any way.

- CDBR:1335 Total CMS Hospital Acquired Conditions Per 1000 Inpatients
- CDBR:1337 Total CMS Hospital Acquired Conditions Per 1000 ACA
- CDBR:1338 Total CMS Hospital Acquired Conditions Per 1000 Medicare ACA
- CDBR:1336 Total CMS Hospital Acquired Conditions Per 1000 Medicare Inpatients

The measures above are "roll up measures" that reflect the sum of the individual complication measures found in the Safety > Patient Safety > CMS Hospital Acquired Conditions folders. The

numerators are counting all encounters in the numerators for the following CMS Hospital Acquired Conditions measures:

- Air embolism Per 1000 Inpatients
- Blood Incompatibility Per 1000 Inpatients
- Catheter Associated UTI Per 1000 Inpatients
- DVT/PE Orthopedic Per 1000 Inpatients
- Foreign Body Left During Procedure Per 1000 Inpatients
- Hospital Acquired Conditions Per 1000 Inpatients
- Hospital Acquired Injuries Per 1000 Inpatients
- Iatrogenic Pneumothorax with Venous Cath Per 1000 Inpatients
- Infection from Central Venous Cath Per 1000 Inpatients
- Mediastinitis after CABG Per 1000 Inpatients
- Poor Glycemic Control Per 1000 Inpatients
- Pressure Ulcers NPOA, All Stages Per 1000 Inpatients
- Pressure Ulcers NPOA, Stage III and IV Per 1000 Inpatients
- Surgical Site Infections, Bariatric Per 1000 Inpatients
- Surgical Site Infections, CIED, Per 1000 Inpatients
- Surgical Site Infections, Orthopedic Per 1000 Inpatients

Note that an individual encounter that qualified for multiple individual conditions above would be counted each time they qualified for a given measure; thus these four roll up measures are counting complication types, rather than individual encounters with one or more conditions as previously described in the documentation.

## Leapfrog

#### **16. Leapfrog Measures Added**

The following new Leapfrog Version 7.0 Inpatient Surgery measures defined using ICD-10 Codes have been added to assist clients with their 2017 reporting requirements to The Leapfrog Group.

- CDBR:2156 Carotid endarterectomy
- CDBR:2157 Mitral valve repair and replacement
- CDBR:2158 Open aortic aneurysm repair
- CDBR:2159 Lung resection
- CDBR:2160 Esophageal resection

- CDBR:2161 Pancreatic resection
- CDBR:2162 Rectal cancer surgery
- CDBR:2163 Hip replacement
- CDBR:2164 Knee replacement
- CDBR:2165 Bariatric surgery for weight loss

To view these measures in the DataVision Navigator select > National Quality Improvement Projects > Leapfrog Group

#### **17. Leapfrog Measures Archived**

The following Leapfrog measures, discontinued for 2017 reporting and end-dated as of 10/2015, have been relocated to the archive folder at: Facility Profile > Archived Measures > Leapfrog Group > Volume/Outcome.

- Abdominal Aortic Aneurism Repair Volume (before 10/15)
- Abdominal Aortic Aneurism without Rupture Mortality Rate (before 10/15)
- Abdominal Aortic Aneurism without Rupture Volume (before10/15)
- AMI, Length of Stay, Geometric Mean (GMLOS) (before 10/15)
- AMI, Volume (before 10/15)
- Aortic Valve Replacement Mortality Rate (before 10/15)
- Aortic Valve Replacement Volume (before 10/15)
- Aortic Valve Replacement Volume, Transcatheter (before 10/15)
- Esophagectomy Volume (before 10/15)
- Esophagectomy with Cancer Diagnosis Volume (before 10/15)
- Esophagectomy with Cancer Mortality Rate (before 10/15)
- Heart Failure, Length of Stay, Geometric Mean (GMLOS) (before 10/15)
- Heart Failure, Volume (before 10/15)
- Pancreatic Resection Volume (before 10/15)
- Pancreatic Resection with Cancer Mortality Rate (before 10/15)
- Pancreatic Resection with Cancer Volume (before 10/15)
- Pneumonia, Length of Stay, Geometric Mean (GMLOS) (before 10/15)
- Pneumonia, Volume (before 10/15)

## Agency for Healthcare Research and Quality (AHRQ)

#### 18. PSI 09 Perioperative Hemorrhage or Hematoma

In the PSI 09 measures listed below, an issue with the denominator exclusion has been corrected for encounters in which the only operating room procedures were for treatment of perioperative hemorrhage or hematoma. This issue caused encounters to be incorrectly excluded from the denominator. The following measures were affected.

- CDBR:1907 PSI 09 Perioperative Hemorrhage or Hematoma Per 1000 ACA
- CDBR:1908 PSI 09 Perioperative Hemorrhage or Hematoma Per 1000 Inpatients
- CDBR:1909 PSI 09 Perioperative Hemorrhage or Hematoma Per 1000 Medicare ACA
- CDBR:1910 PSI 09 Perioperative Hemorrhage or Hematoma Per 1000 Medicare Inpatients

To view these measures in the DataVision Navigator choose **Safety** > **Patient Safety** and select one of the following profiles:

- AHRQ Patient Safety Indicators ACA
- AHRQ Patient Safety Indicators Inpatients
- AHRQ Patient Safety Indicators Medicare ACA
- AHRQ Patient Safety Indicators Medicare Inpatients

## **National Quality Improvement Projects**

#### **Standard Reports**

#### DataVision Value Based Purchasing Standard Report

#### 19. FFY2018 Baseline compared to FFY2018 Performance Period Values Updated

In May 2016 when the DataVision Value Based Purchasing Standard Report was updated to incorporate FFY2018 into the report, CMS had not released updated Hospital Compare files. They have since released their updated files and we have refreshed our data to provide the percentiles for your facility's performance..

#### Core Appropriateness of Care

#### 20. Core Appropriateness of Care Indicators Retired

Over the past two years many of the core measures that make up the Appropriateness of Care bundle measures have been retired, resulting in bundle measures having no data accruing to them.

To clarify that these core measures are retired, Midas has renamed the Indicators listed below by noting the retirement date in the name.

- All ORYX Accountability Measures All-or-None Bundle (before 1/17)
- All ORYX Accountability Measures Composite Bundle (before 1/17)
- Composite Bundle (expanded) (before 1/16)
- All Topics All-or-None Bundle (expanded) (before 1/16)
- VBP Clinical Domain FFY2013 Composite Bundle (before 1/16)
- VBP Clinical Domain FFY2013 All-or-None Bundle (before 1/16)
- VBP Clinical Domain FFY2014 Composite Bundle (before 1/16)
- VBP Clinical Domain FFY2014 All-or-None Bundle (before 1/16)
- VBP Clinical Domain FFY2015 Composite Bundle (before 1/16)
- VBP Clinical Domain FFY2015 All-or-None Bundle (before 1/16)
- VBP Clinical Domain FFY2016 Composite Bundle (before 1/16)
- VBP Clinical Domain FFY2016 All-or-None Bundle (before 1/16)
- Acute MI All-or-None Bundle (before 1/16)
- Pneumonia All-or-None Bundle (before 10/15)
- SCIP-1-2-3 All-or-None Bundle (before 10/15)
- SCIP Infection 1-10 All-or-None Bundle (before 10/15)
- SCIP ALL measures All-or-None Bundle (before 10/15)
- Custom Acute MI All-or-None Bundle (before 1/16)
- Custom Pneumonia All-or-None Bundle (before 10/15)
- Custom SCIP All-or-None Bundle (before 10/15)

## To access these measures in DataVision Navigator, select National Quality Improvement Projects > Joint Commission > Core Appropriateness of Care.

For more information, refer to the measure definitions section of the Midas Clients Only website, as described on the **Resources** page at the front of this document. Measure definitions can also be accessed in the DataVision application by selecting the measure and clicking the Measure Definition link.

#### 21. Measures Added to Core Appropriateness of Care Profile

The following measures have been added to the Core Appropriateness of Care profile.

- Substance Use All-or-None Bundle
- Tobacco Treatment All-or-None Bundle

Comprehensive Stroke - All-or-None Bundle

To access these measures in DataVision Navigator, select National Quality Improvement Projects > Joint Commission > Core Appropriateness of Care.

For more information, refer to the measure definitions section of the Midas Clients Only website, as described on the **Resources** page at the front of this document. Measure definitions can also be accessed in the DataVision application by selecting the measure and clicking the Measure Definition link.

#### Joint Commission Disease-Specific Care (DSC) Certification

#### TJC Comprehensive Stroke (CSTK)

#### 22. Changes to TJC Comprehensive Stroke Focus Study Effective 7/2017

To maintain alignment with The Joint Commission's 2017A manual, the field *IV Thrombolytic Initiation* has been added to the TJC Comprehensive Stroke Focus Study effective with July 1, 2017, discharges. Abstraction criterion information for this new field has been added via the Midas Criterion Instructions Web Application (CIWA).

#### **Hospital Inpatient Quality Measures**

#### Core Perinatal Care (PC)

#### 23. Changes to Core Perinatal Care Focus Study Effective 7/2017

To maintain alignment with The Joint Commission's 2017A manual, the field *History of Stillbirth* has been added to the Core Perinatal Care Focus Study effective with July 1, 2017 discharges. Abstraction criterion information for this new field has been added via the Midas Criterion Instructions Web Application (CIWA).

#### Core Venous Thromboembolism (VTE)

#### 24. Core VTE Initial Patient Population Modified Effective 1/2017 Discharges

VTE-5 has been retired effective with January 1, 2017, discharges, leaving VTE-6 as the only remaining measure in the VTE topic. Version 5.2a of CMS' *Hospital Inpatient Quality Reporting Manual* retires the Principal VTE sub-population to align with the retirement of VTE-5. The initial patient population for Core VTE has been modified to only include cases with an ICD-10 Other Diagnosis Code on table 7.03 or 7.04. Cases with an ICD-10 Principal Diagnosis Code of VTE are now excluded from the VTE population.

## CMS Inpatient Quality Psychiatric Facility Reporting (IPFQR)

#### Core Hospital Based Inpatient Psychiatric Service - CMS IPFQR (HBIPS-CMS IPFQR)

#### 25. Sampling by Age Stratification Available

To provide better alignment with CMS' sampling requirements as outlined in the *Inpatient Psychiatric Facility Quality Reporting Manual*, participating facilities now have two sampling options for their HBIPS-CMS IPFQR discharge population.

- Option 1: Use the sampling table provided in the *Inpatient Psychiatric Facility Quality Reporting Manual*. This option is best for facilities that treat psychiatric patients of all ages because it reduces the overall number of sampled cases.
- Option 2: Use the TJC age-stratified sampling table provided in the *Specifications Manual for Joint Commission National Quality Measures*. This option is preferred for facilities that only treat psychiatric patients in certain age groups.

To request age stratification sampling of the HBIPS-CMS IPFQR discharge population, please submit a request via the Midas Support Center on the Midas Clients Only website.

The following Profiles and Indicators have been created to provide support for sampling by age stratification.

- Core HBIPS CMS IP Psych Age Stratified
- Core HBIPS CMS IP Psych Age Stratified Detail
- Core HBIPS CMS IP Psych Age Stratified OFI Targets

#### DataVision Navigator

The following changes have been made in the DataVision Navigator.

• The profile HBIPS-CMS IP Psych Age Stratified has been added.

To view this profile select National Quality Improvement Projects > CMS Inpatient Psych Facility Quality Reporting > HBIPS-CMS IP Psych Age Stratified.

- The HBIPS CMS IPFQR profile has been renamed "HBIPS CMS IPFQR (before 1/16)"
- The profiles HBIPS-CMS IPFQR and HBIPS-CMS IP Psych Age Stratified have been added.
  To view these profiles select Physician Profile > Peer Review Profile > Core Measure OFI.

#### **Hospital Outpatient Quality Reporting**

#### Core HOP External Beam Radiotherapy (EBRT)

#### 26. Abstraction of multiple anatomic sites available

To align with CMS' requirement for abstraction of multiple anatomic sites for a single encounter, the Core HOP EBRT Focus Study has been updated.

The following fields have been added, effective 1/1/2017:

- Anatomic Site (Optional)
- EBRT Treatment of Different Anatomic Site During Encounter

Tabs have been added for abstraction of two additional anatomic treatment sites per encounter.

The Attribution tab has been modified by adding category assignment, provider, location and employee attribution fields for each of the three anatomic sites.

#### Programming changes

The programming for calculating the Core OP-33 – External Beam Radiotherapy for Bone Metastases has been modified to provide the user with the count of anatomic sites treated (denominator) and the count of treated anatomic sites receiving one of the recommended fractionation schemes (numerator)

#### 27. Core HOP EBRT Changes Effective January 1, 2017

To align with CMS' version 10.0a HOQR manual the Core HOP EBRT measure set and Focus Study have been modified to allow collection of External Beam Radiation Therapy to up to three anatomic sites.

#### Focus Study changes

CPI:047 Core HOP EBRT

For clarity purposes, the field EBRT to Soft Tissue Site Only has been renamed EBRT Used for Anything Other Than Bone Mets

The following fields have been retied effective 12/31/2016, and renamed in Focus Definition.

Old Name	New Name
Treated with Radiosurgery or SBRT	Treated with Radiosurgery or SBRT (before 1/17)
Radicular Pain	Radicular Pain (before 1/17)
Specified Patient Reason	Specified Patient Reason (before 1/17)

The following fields have been added, effective 1/1/2017:

- Cauda Equina Compression Related to Bone Mets/Treated w/EBRT
- Spinal Cord Compression Related to Bone Mets/Treated w/EBRT
- Radicular Pain Related to Bone Mets/Treated w/EBRT

Abstraction criterion information for these new fields have been added via the Midas Criterion Instructions Web Application (CIWA).

#### Core HOP Web-Reported Measures

#### 28. Core HOP Annual Web-Reported Measures Modified to Accrue by Outpatient Encounter Arrival Date Effective 1/2017

To bring the HOP annual web-reported measures into alignment with other HOP measures, the populations have been modified to summarize (accrue) by the date in the abstracted field Outpatient Encounter Arrival Date, effective with the 1/1/2017 start date.

The Outpatient Encounter Arrival Date is required for HOP core measure logic. Missing data in this field will prevent cases from being assigned to the numerator or denominator. <u>Because this change is retroactive to January 1, 2017, Focus Studies abstracted previous to this update will need this field completed.</u>

The field Outpatient Encounter Arrival Date has been added to the following Core HOP Focus Studies.

- CPI:037 Core HOP/ASC Colon Screening
- CPI:537 Core Reliability HOP/ASC Colon Screening
- CPI:038 Core HOP/ASC Colon Surveillance
- CPI:538 Core Reliability HOP/ASC Colon Surveillance
- CPI:039 Core HOP/ASC Cataracts
- CPI:539 Core Reliability HOP/ASC Cataracts
- CPI:047 Core HOP EBRT

## MassHealth

#### 29. MAT-3 Elective Delivery Retired Effective 12/2016 Discharges

In an email communication on February 27, 2017, MassHealth announced the retirement of data collection and submission requirements for MAT-3 Elective Delivery beginning with Q1 2017 discharges.

Midas has end-dated accrual of the MAT-3 population effective with December 31, 2016, discharges. This population will not be checked for data quality or missing data beginning with the Q1 2017 harvest.

In the MassHealth P4P – Detail Profile, the Indicator CPIR:10133 has been renamed.

Old Name	New Name
MH MAT-3 Elective Delivery >37 - <39	MH MAT-3 Elective Delivery >37 - <39
completed weeks gestation	completed weeks gestation (before 1/17)

## Appendix A: Midas Risk Model Version 2.0 Medical Clusters

#### Medical Clusters Added in Version 2.0

The following Medical Cluster has been added in Risk Model Version 2.0

MRA 273 Supervision and Care of High Risk Pregnancy

#### Version 1.0/1.1 Medical Clusters <u>Renamed</u> in Version 2.0

The following Medical Clusters have been renamed in Risk Model Version 2.0

Code	Version 1.0/1.1 Cluster Name	Version 2.0 Cluster Name
100	Abdominal Hernia	Abdominal, Inguinal and Other Hernia
103	Acquired Deformities	Acquired Musculoskeletal Deformities
125	Cardiac Arrest	Cardiac or Respiratory Arrest
128	Cardiomyopathy and Myocarditis	Cardiomyopathy, Myocarditis, Endocarditis and Pericarditis
129	Cellulitis and Abscess	Cellulitis, Abscess and Lymphangitis
131	Chronic Obstructive Disease	Chronic Obstructive Disease and Emphysema
137	Pregnancy, Childbirth, and the Puerperal Period	Conditions of Pregnancy, Childbirth, and the Puerperium
139	Congestive Heart Failure	Heart Failure
170	Injury-related Concussion and Intracranial Injury	Injury-related Concussion and Intracranial Injury
175	Injury-related Fractures of Upper Limb and Foot	Injury-related Fracture of Shoulder, Upper Limb and Hand
178	Injury-related Open Wounds to Head, Neck, or Trunk	Injury-related Wounds to Head, Neck, or Trunk
181	Injury-related Vertebral and Spinal Cord Injury	Vertebral Fracture and Spinal Cord Injury
198	Osteoporosis and Pathological Fracture	Osteoporosis, Stress and Pathological Fracture

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Code	Version 1.0/1.1 Cluster Name	Version 2.0 Cluster Name
237	Poisoning by Agents Other Than Medications	Toxic Effects of Agents Other Than Medications
238	Poisoning by Medications	Poisoning or Adverse Effects by Medications
248	Sexually Transmitted diseases (including HIV)	Sexually-transmitted Infections
269	Uterus, Ovarian, and Cervix Cancer	Female Reproductive Organ Cancer

#### Version 1.0/1.1 Medical Clusters Retained in Version 2.0

The following Medical Clusters from Version 1.0/1.1 have been retained in Risk Model Version 2.0

- 101 Abdominal and Thoracic Aortic Aneurysm
- 102 Abortion-related Disorders
- 104 Acute Myocardial Infarction
- 105 Acute Renal Failure
- 106 Adjustment Disorders
- 107 Alcohol-related Disorders
- 108 Anemia
- 109 Angina and Chest Pain
- 110 Anxiety Disorders
- 112 Atrial Fibrillation and Flutter
- 113 Attention Deficit-related Disorders
- 114 Bacterial Pneumonia
- 115 Benign Neoplasms
- 116 Biliary Tract Disease
- 117 Bipolar Disorders
- 118 Bone and Connective Tissue Cancer
- 119 Brain and Nervous System Cancer
- 120 Breast Cancer

#### Release Notes for Midas DataVision<sup>™</sup> Server Application Server Application Update for May 2017 Early Adopter Edition – Published: May 1, 2017

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- 121 Bronchitis and Asthma
- 122 Burns
- 123 Calculus of the Genitourinary System
- 124 Cancer of Head and Neck
- 126 Cardiac Arrhythmias and Conduction Disorders
- 127 Cardiac and Circulatory Congenital Anomalies
- 130 Chronic Kidney Disease
- 132 Coagulation and Hemostasis Disorders
- 133 Coma, Stupor, and Brain Damage
- 134 Complication of Surgical Procedure or Medical Care
- 135 Complication or Malfunction of Device, Implant, or Graft
- 136 Complications of Breast During Puerperal Period
- 138 Complications with Fetal Loss
- 140 Connective Tissue Disease
- 141 Coronary Atherosclerosis
- 142 Cystic Fibrosis
- 143 Delirium, Dementia, Amnestic, and Other Cognitive Disorders
- 144 Depressive Disorders
- 145 Developmental Disorders and Disabilities
- 146 Diabetes Mellitus and Related Disorders
- 147 Digestive Congenital Anomalies
- 148 Disorders of Mouth, Teeth, and Jaw
- 149 Disorders of the Appendix
- 150 Ear and Hearing Disorders
- 151 Eating Disorders
- 152 Epilepsy and Convulsion Disorders
- 153 Eye and Vision Disorders
- 154 Fluid and Electrolyte Disorders
- 155 Gastrointestinal Cancer

- 156 Gastrointestinal Hemorrhage
- 157 Genitourinary Congenital Anomalies
- 158 Gout and Other Crystal Arthropathies
- 159 HIV Infection
- 160 Headache and Migraine
- 161 Heart Valve Disorders
- 162 Hemolytic Jaundice and Perinatal Jaundice
- 163 Hepatitis
- 164 Hypertensive Disease
- 166 Impulse Control Disorders
- 167 Infections of the Kidney, Bladder, and Urethra
- 168 Infective Arthritis and Osteomyelitis
- 169 Influenza
- 171 Injury-related Crushing or Internal Injury
- 172 Injury-related Femur Fractures
- 173 Injury-related Fracture of Ribs, Pelvis, and Other
- 174 Injury-related Fractures of Lower Limb and Foot
- 176 Injury-related Joint Disorders and Dislocations
- 177 Injury-related Open Wounds to Extremities
- 179 Injury-related Skull and Face Fractures
- 180 Injury-related Sprains and Strains
- 182 Intestinal Infection
- 183 Intracranial Hemorrhage
- 184 Ischemic Stroke
- 185 Liveborn
- 186 Liver Disease
- 187 Lower Gastrointestinal Disorders
- 188 Lymphatic and Hematologic Cancer
- 189 Male Genital Organ Cancer

- 190 Meningitis and Encephalitis
- 191 Mycoses
- 192 Nephritis
- 193 Nonmalignant Breast Conditions
- 194 Nonmalignant Diseases and Disorders of Female Genital Organs
- 195 Nonmalignant Diseases and Disorders of Male Genital Organs
- 196 Normal Pregnancy and/or Delivery
- 197 Nutritional-related Disorders
- 199 Other Aftercare Needs
- 200 Other Bacterial Infection
- 201 Other Bone Disease and Musculoskeletal Deformities
- 202 Other Cardiopulmonary Disease and Structural Disorders
- 203 Other Central Nervous System Infection and Poliomyelitis
- 204 Other Congenital Anomalies
- 205 Other Endocrine, Nutritional, Metabolic, and Immunity Disorders
- 206 Other Hereditary and Degenerative Central Nervous System Disorders
- 207 Other Injuries
- 208 Other Lower Respiratory Diseases and Conditions
- 209 Other Miscellaneous Mental Health Disorders
- 210 Other Nervous System Disorders
- 211 Other Non-Cerebrovascular Aneurysm and Dissection
- 212 Other Non-Neoplastic Hematologic Disorders
- 213 Other Nontraumatic Joint Disorders
- 214 Other Occlusive or Transient Cerebrovascular Disease
- 215 Other Perinatal Conditions Affecting Newborn
- 217 Other Secondary and Unspecified Cancer
- 218 Other Skin Disorders
- 219 Other Specified Conditions Influencing Health Status
- 220 Other Superficial Injuries

- 221 Other Upper Respiratory Diseases and Conditions
- 222 Other Viral Infections
- 223 Other and Unspecified Circulatory Disease
- 224 Other and Unspecified Diseases of the Genitourinary System
- 225 Other and Unspecified Gastrointestinal Disorders
- 226 Other and Unspecified Metabolic Disorders
- 227 Other and Unspecified Primary Cancer
- 228 Pancreatic Disorders
- 229 Paralysis and Hemiplegia
- 230 Parasitic and Other Infections
- 231 Peripheral Nervous System Disorders
- 232 Peripheral Vascular Disease
- 233 Personality Disorders
- 234 Phlebitis
- 235 Pleurisy, Pleural Effusion, and Empyema
- 236 Pneumothorax
- 239 Psychogenic Disorders
- 242 Respiratory Failure and Pulmonary Insufficiency
- 243 Respiratory and Intrathoracic Cancer
- 244 Rheumatoid and Osteoarthritis
- 245 Schizophrenia and Other Psychotic Disorders
- 247 Sepsis Related Conditions, Including Severe Sepsis and Shock
- 249 Short Gestation, Low Birth Weight, and Fetal Growth Retardation
- 250 Signs and Symptoms of Allergic Reactions
- 252 Signs and Symptoms of Nausea, Vomiting, and Abdominal Pain
- 253 Signs and Symptoms, and ill-defined conditions
- 254 Skin Ulcers
- 255 Skin and Subcutaneous Infections
- 256 Skin and Subcutaneous Inflammatory Conditions

#### Release Notes for Midas DataVision™ Server Application Server Application Update for May 2017 Early Adopter Edition – Published: May 1, 2017

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#### Code: Retained 1.0/1.1 Medical Clusters:

- 257 Sleep Disorders
- 258 Socioeconomic Factors and Special Needs Influencing Care
- 259 Spondylosis and Intervertebral Disc Disorders
- 260 Substance-related Disorders
- 261 Thrombosis and Embolism
- 262 Thyroid Cancer
- 263 Thyroid Disorders
- 264 Tuberculosis
- 265 Unclassified
- 266 Upper Gastrointestinal Disorders
- 267 Upper Respiratory Infections and Conditions
- 268 Urinary Organ Cancer
- 270 Varicosities and Venous Disease
- 271 Viral and Other Pneumonia
- 272 Shock

#### Version 1.0/1.1 Medical Clusters <u>Retired</u> in Version 2.0

The following Medical Clusters have been retired and are not included in Risk Model Version 2.0

- XRA 111 Aspiration Pneumonitis
- XRA 165 Immunizations and Screening
- XRA 216 Other Screening for Suspected Conditions
- XRA 240 Radiation and Chemotherapy
- XRA 241 Rehabilitation and Device Factors Influencing Care
- XRA 246 Screening and History of Mental Health Disorders
- XRA 251 Signs and Symptoms of Malaise and Fatigue

## Appendix B: Midas Risk Model Version 2.0 Surgical Clusters

#### Surgical Clusters Added in Version 2.0

The following Surgical Clusters have been added in Risk Model Version 2.0

- 537 Plastic and Other Cosmetic Procedures
- 538 Musculoskeletal Other Procedures Head, Facial Bone
- 539 Musculoskeletal Other Procedures Lower Bone
- 540 Musculoskeletal Other Procedures Upper Bone

#### Version 1.0/1.1 Surgical Clusters Renamed in Version 2.0

The following Surgical Clusters have been renamed in Risk Model Version 2.0

Code	Version 1.0/1.1 Cluster Name	Version 2.0 Cluster Name
403	Aortic Resection, Replacement, or Anastomosis	Aortic Resection and Repair
409	Biopsy of Liver	Liver Biopsy
410	Blood Transfusion	Blood or Blood Product Transfusion
414	Cesarean Section	Obstetrics - Cesarean Section
415	Cholecystectomy and Common Duct Laparoscopic Procedures	Cholecystectomy and Common Duct Procedures - Laparoscopic
416	Cholecystectomy and Common Duct Procedures (Open)	Cholecystectomy and Common Duct Procedures - Open
427	Diagnostic Bronchoscopy and Biopsy of Lung and/or Bronchus	Bronchoscopy and Biopsy of Lung, Bronchus (Diagnostic)
428	Diagnostic Cardiac Catheterization; Coronary Arteriography	Cardiac Catheterization; Coronary Arteriography
432	Division of Joint Capsule, Ligament, or Cartilage	Musculoskeletal - Division of Joint Capsule, Ligament, or Cartilage
433	Embolectomy and Endarterectomy of Lower Limbs	Endarterectomy, Embolectomy of Lower Limbs
435	Excision of Skin Lesion	Excision, Biopsy and Debridement of Skin or Fascia

#### Release Notes for Midas DataVision<sup>™</sup> Server Application Server Application Update for May 2017 Early Adopter Edition – Published: May 1, 2017

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Code	Version 1.0/1.1 Cluster Name	Version 2.0 Cluster Name
444	Hemodialysis	Hemodialysis and Periotoneal Dialysis
447	Incision, Drainage, and/or Suture of Skin and Subcutaneous Tissue	Skin and Subcutaneous - Incision, Drainage, Suture
448	Inguinal and Femoral Hernia Repair	Hernia Repair
449	Injections, Aspirations of Muscles, Tendons, Bursa, Joints, Soft Tissue	Musculoskeletal - Drainage or Injection
452	Insertion/Revision/Replacement/Removal Cardiac Pacemkr/Cardiovert/Defib	Cardioversion, Defibrillation and Pacing
453	Kidney Transplant	Organ Transplant
458	Lumpectomy, Quadrantectomy of Breast	Breast - Lumpectomy, Quadrantectomy
459	Mastectomy	Breast - Mastectomy
462	Nephrotomy and Nephrostomy	Nephrotomy, Nephrostomy and Lithotripsy of the Kidney
465	Other Diagnostic Cardiovascular Procedures	Circulatory - Other Diagnostic Procedures
466	Other Diagnostic Nervous System Biopsies and Procedures	Nervous System - Other Diagnostic Procedures
468	Other Diagnostic Procedures of Respiratory Tract and Mediastinum	Respiratory and Mediastinum - Other Diagnostic Procedures
469	Other Diagnostic Procedures on Musculoskeletal System	Musculoskeletal - Other Diagnostic Procedures
470	Other Diagnostic Radiology and Related Techniques	Radiology and Related Techniques
473	Other Fracture and Dislocation Procedure	Musculoskeletal - Other Fracture and Dislocation Procedures
474	Other Gastrointestinal Diagnostic Procedures	Gastrointestinal - Other Diagnostic Procedures
475	Other Heart Procedures Performed in the O.R.	Heart - Other Procedures Performed in the O.R.
476	Other Hemic and Lymphatic Procedures	Hemic and Lymphatic - Other Procedures
478	Other Hysterectomy	Hysterectomy

#### Release Notes for Midas DataVision<sup>™</sup> Server Application Server Application Update for May 2017 Early Adopter Edition – Published: May 1, 2017

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Code	Version 1.0/1.1 Cluster Name	Version 2.0 Cluster Name
481	Other Muscle and Tendon Procedures	Musculoskeletal - Muscle and Tendon - Other Procedures
482	Other O.R. Gastrointestinal Therapeutic Procedures	Gastrointestinal - Other Procedures
483	Other O.R. Lower GI Therapeutic Procedures	Gastrointestinal, Lower - Other Procedures
484	Other O.R. Procedures of Blood Vessels	Blood Vessels - Other Procedures
485	Other O.R. Procedures on Vessels of Head and Neck	Vessels of Head and Neck - Other Procedures
486	Other O.R. Therapeutic Procedures - Female Organs	Other Gynecological Procedures
487	Other O.R. Therapeutic Procedures - Male Genital	Male Organs - Other Procedures
488	Other O.R. Therapeutic Procedures of Urinary Tract	Urinary System - Other Procedures
490	Other O.R. Therapeutic Procedures on Joints	Musculoskeletal - Other Procedures on Joints
491	Other O.R. Therapeutic Procedures on Musculoskeletal System	Musculoskeletal - Other Procedures
492	Other O.R. Therapeutic Procedures on Skin and Breast	Skin, Fascia and Breast - Other Procedures
493	Other O.R. Upper GI Therapeutic Procedures	Gastrointestinal, Upper - Other Procedures
498	Other Therapeutic Ear Procedures	Ear and Sinus - Other Procedures
499	Other Therapeutic Endocrine Procedures	Endocrine - Other Procedures
500	Other Therapeutic Nervous System Procedures Performed in O.R.	Nervous System - Other Procedures
501	Other Therapeutic Obstetrical Procedures	Obstetrics - Other Procedures
503	Other Therapeutic Procedures on Eyelids, Conjunctiva, Cornea	Eye and Ocular Procedures
504	Other Therapeutic Procedures on Nose, Mouth, Pharynx Performed in O.R.	Nose, Mouth and Throat Procedures

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Code	Version 1.0/1.1 Cluster Name	Version 2.0 Cluster Name
505	Other Therapeutic Procedures on Respiratory System Performed in O.R.	Respiratory and Mediastinum Procedures
506	Other Vascular Bypass and Shunt, Not Heart	Vascular Bypass, Not Heart
509	Other Non-O.R. Therapeutic Cardiovascular Procedures	Coronary and Vascular - Other Procedures
512	Partial Excision Bone	Musculoskeletal - Partial Excision Bone
513	Percutaneous Transluminal Coronary Angioplasty (PTCA)	Percutaneous Transluminal Coronary Angioplasty (PTCA) and Coronary Atherectomy
514	Peripheral Vascular Bypass	Vascular Bypass, Peripheral
516	Procedures on Spleen	Spleen Procedures
520	Respiratory Intubation and Mechanical Ventilation	Intubation and Mechanical Ventilation
528	Transurethral Resection of Prostate (TURP)	Prostatectomy
529	Treatment Facial Fracture or Dislocation	Musculoskeletal - Facial Fracture or Dislocation Procedures
530	Treatment Fracture or Dislocation of Hip and Femur	Musculoskeletal - Fracture or Dislocation of Hip, Femur Procedures
531	Treatment Fracture or Dislocation of Lower Extremity (Not Hip or Femur)	Musculoskeletal - Fracture or Dislocation of Lower Extremity (Not Hip or Femur) Procedures
532	Treatment Fracture or Dislocation of Radius and Ulna	Musculoskeletal - Fracture or Dislocation of Upper Limb Procedures

#### Version 1.0/1.1 Surgical Clusters Retained in Version 2.0

The following Surgical Clusters from Version 1.0/1.1 have been retained in Version 2.0

- 401 Abdominal Paracentesis
- 402 Amputation of Lower Extremity

- 404 Appendectomy
- 405 Arthroplasty Other Than Hip or Knee
- 406 Arthroplasty Procedures of Hip
- 407 Arthroplasty Procedures of Knee
- 412 Cardiac Stress Tests, EKGs, and Electrographic Monitoring
- 413 Carpal Tunnel Release and Decompression of Peripheral Nerve
- 417 Colonoscopy, Proctoscopy, and Biopsy Procedures
- 418 Colorectal Resection
- 419 Colostomy Procedures
- 421 Coronary Artery Bypass Graft and Revascularization Procedures
- 422 Craniotomy and Craniectomy
- 424 Cystoscopy and Other Transurethral Procedures
- 426 Dental Procedures
- 434 Endarterectomy of Vessel of Head and Neck
- 436 Excision, Lysis of Peritoneal Adhesions
- 437 Exploratory Laparotomy
- 439 Gastrectomy
- 442 Heart Valve Procedures
- 446 Ileostomy and Other Enterostomy Procedures
- 451 Insertion, Replacement, or Removal of Extracranial Ventricular Shunt
- 454 Laminectomy, Excision of Intervertebral Disc
- 457 Lobectomy or Pneumonectomy
- 460 Miscellaneous Diagnostic and Therapeutic Procedures
- 461 Nephrectomy
- 521 Skin Graft
- 522 Small Bowel Resection
- 523 Spinal Fusion
- 524 Thoracentesis and/or Open or Closed Chest Drainage

#### Code: Retained 1.0/1.1 Surgical Clusters:

- 525 Thyroidectomy, Partial or Complete
- 526 Tonsillectomy and/or Adenoidectomy

#### Version 1.0/1.1 Surgical Clusters <u>Retired</u> in Version 2.0

The following Surgical Clusters have been retired. These clusters have been end-dated (before 10/2015). The table below describes where these cases will now be found in Version 2.0 MRA clusters.

Retired 1.0 /1.1 XRA Cluster	2.0 MRA Cluster (where similar cases will be found)	Comments
XRA 400 Abdominal Hysterectomy	MRA 478 Hysterectomy	New cluster combines both vaginal and abdominal procedures
XRA 408 Arthroscopy	MRA 469 Musculoskeletal - Other Diagnostic Procedures	XRA 408 was retired due to extreme low volumes of inpatients with these primary procedure codes. Majority of patients undergoing these procedures will be outpatient or these codes will be secondary codes.
XRA 411 Bone Marrow Transplant	MRA 476 Hemic and Lymphatic - Other Procedures	Retired due to having no cases with a principle diagnosis. Moved 88 codes.
XRA 420 Conversion of Cardiac Rhythm	MRA 452 Cardioversion, Defibrillation and Pacing	Retired due to only having one code and because it was a better fit in MRA 452.
XRA 423 Creation/Revision/Removal Arterioven Fistula or Vessel- Vessel Cannula		Retired because there were zero ICD-10 codes in this cluster.
XRA 425 Debridement of Wound, Infection, or Burn		Cluster is retired. PCS doesn't specify if these debridements are repairs of wounds, infections or burns and there were therefore no ICD-10 codes.
XRA 429 Diagnostic Ultrasound	MRA 470 Radiology and Related Techniques	Combined radiology clusters. Moved 242 codes.

#### Release Notes for Midas DataVision<sup>™</sup> Server Application Server Application Update for May 2017 Early Adopter Edition – Published: May 1, 2017

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Retired 1.0 /1.1 XRA Cluster	2.0 MRA Cluster (where similar cases will be found)	Comments
XRA 430 Diagnostic and Therapeutic Radioisotopic Procedures	MRA 470 Radiology and Related Techniques	Combined radiology clusters. Moved all codes to MRA 470.
XRA 431 Dilatation and Curettage (D&C)	MRA 486 Other Gynecological Procedures	Combined some gynecology clusters.
XRA 438 Extracorporeal Circulation Auxiliary to Open Heart Procedures	MRA 452 Cardioversion, Defibrillation and Pacing MRA 475 Heart - Other Procedures Performed in the O.R.	Cluster is retired. Moved 3 codes to MRA 452. Moved 1 code to MRA 475
XRA 440 Gastrostomy Procedures	MRA 493 Gastrointestinal, Upper - Other Procedures	Cluster is retired due to low volume. Moved 16 codes.
XRA 441 Genitourinary Incontinence Procedures	MRA 488 Urinary System - Other Procedures	Cluster is retired. Moved 12 codes.
XRA 443 Heart and/or Lung Transplant	MRA 453 Organ Transplant	Merged the codes from this cluster with the codes in the kidney transplant cluster and renamed it "Organ Transplant".
XRA 445 Hemorrhoid Procedures	MRA 483 Gastrointestinal, Lower - Other Procedures	Cluster is retired due to low volume. Moved 6 codes.
XRA 450 Insertion Catheter/Spinal Stimulator & Injection into Spinal Canal	MRA 500 Nervous System - Other Procedures	Cluster is retired. Moved 45 codes.
XRA 455 Laparoscopy	MRA 474 Gastrointestinal – Other Diagnostic Procedures MRA 417 Colonoscopy, Proctoscopy, and Biopsy Procedures	Cluster is retired. Moved 3 codes to MRA 474 and 1 code to MRA 417.
XRA 456 Ligation of Fallopian Tubes	MRA 486 Other Gynecological Procedures	Retired due to the lack of clinical need to separate fallopian tubes from other female organ procedures. Moved 39 codes.
XRA 463 Oophorectomy, Unilateral and Bilateral	MRA 486 Other Gynecological Procedures	Retired due to the lack of clinical need to separate oophorectomies from other female organ procedures. Moved 15 codes.

#### Release Notes for Midas DataVision<sup>™</sup> Server Application Server Application Update for May 2017 Early Adopter Edition – Published: May 1, 2017

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Retired 1.0 /1.1 XRA Cluster	2.0 MRA Cluster (where similar cases will be found)	Comments
XRA 464 Open Prostatectomy	MRA 528 Prostatectomy	Merged prostatectomy clusters. Moved 8 codes.
XRA 467 Other Diagnostic Procedures on Female Organs	MRA 486 Other Gynecological Procedures	Cluster is retired due to merging most female organ procedures into one cluster. Moved 220 codes.
XRA 471 Other Excision of Cervix and Uterus	MRA 486 Other Gynecological Procedures MRA 478 Hysterectomy	Cluster is retired. Moved 33 codes to MRA 486 and 4 codes to MRA 478.
XRA 472 Other Extraocular Muscle and Orbit Therapeutic Procedures	MRA 503 Eye and Ocular Procedures	Cluster is retired due to low volume because mainly outpatient procedures. Moved 230 codes.
XRA 477 Other Hernia Repair	MRA 448 Hernia Repair	Cluster is retired to create a more clinically homogeneous cluster. Moved 12 codes to renamed cluster.
XRA 479 Other Incision and Excision of Central Nervous System	MRA 500 Nervous System - Other Procedures	Retired due to merge of nervous system clusters. 331 codes moved.
XRA 480 Other Intraocular Therapeutic Procedures	MRA 503 Eye and Ocular Procedures	Merged these codes with other eye cluster. Moved 193 codes.
XRA 489 Other O.R. Therapeutic Procedures on Bone	MRA 538 Musculoskeletal - Other Procedures Head, Facial Bone MRA 539 Musculoskeletal - Other Procedures Lower Bone MRA 540 Musculoskeletal - Other Procedures Upper Bone MRA 422 Craniotomy and Craniectomy MRA 537 Plastic and Other Cosmetic Procedures	Cluster is retired due to having too many codes (4564). 1101 codes moved to MRA 538. 1653 codes moved to MRA 539. 1759 codes moved to MRA 540. 3 codes to MRA 422. 48 codes moved to MRA 537.
XRA 494 Other Operations on Fallopian Tubes	MRA 486 Other Gynecological Procedures	Cluster retired due to the lack of clinical need to separate fallopian tubes from other female organ procedures. Moved 337 codes.

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Retired 1.0 /1.1 XRA Cluster	2.0 MRA Cluster (where similar cases will be found)	Comments
XRA 495 Other Operations on Ovary	MRA 486 Other Gynecological Procedures	Cluster retired due to the lack of clinical need to separate ovary operations from other female organ procedures. Moved 111 codes.
XRA 496 Other Organ Transplant	MRA 453 Organ Transplant	Retired this cluster due to merging all organ transplants into a new combined cluster. Moved 40 codes.
XRA 497 Other Procedures to Assist Delivery	MRA 501 Obstetrics - Other Procedures	Cluster is retired because there were codes included in this cluster that could be present in a non- delivery situation, and because this cluster was very small. Moved 11 codes.
XRA 502 Other Therapeutic Procedures	Distributed across 18 new clusters	Cluster is retired. Codes were moved to 18 various clusters. 1183 codes were placed in clusters that were a better fit. 1797 codes were moved to MRA 460 some of which were moved because they did not require incisions. 4 codes were moved to MRA 492.
XRA 507 Other Non-O.R. Gastrointestinal Therapeutic Procedures	MRA 470 Radiology and Related Techniques MRA 482 Gastrointestinal - Other Procedures	Moved 351 codes. 9 to MRA 470 and 342 to MRA 482.
XRA 508 Other Non-O.R. Lower GI Therapeutic Procedures	MRA 417 Colonoscopy, Proctoscopy, and Biopsy Procedures MRA 418 Colorectal Resection MRA 483 Gastrointestinal, Lower - Other Procedures	Moved 229 codes. Moved 9 codes to MRA 417 Moved 24 codes to MRA 418 Moved 196 codes to MRA 483
XRA 510 Other Non-O.R. Therapeutic Procedures on Skin and Breast	MRA 435 Excision, Biopsy and Debridement of Skin or Fascia MRA 470 Radiology and Related Techniques	Moved 625 codes. Moved 27 codes to MRA 435. Moved 30 codes to MRA 470.

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Retired 1.0 /1.1 XRA Cluster	2.0 MRA Cluster (where similar cases will be found)	Comments
	MRA 492 Skin, Fascia and Breast - Other Procedures	Moved 568 codes to MRA 492.
XRA 511 Other Non-O.R. Upper GI Therapeutic Procedures	MRA 493 Gastrointestinal, Upper - Other Procedures	134 codes moved.
XRA 515 Plastic Procedures on Nose	MRA 537 Plastic and Other Cosmetic Procedures	Cluster is retired due to low volumes. Moved 53 codes.
XRA 517 Procedures on the Urethra	MRA 488 Urinary System - Other Procedures MRA 501 - Obstetrics - Other Procedures	Cluster is retired. Moved 221 codes to MRA 488. Moved 6 codes to MRA 501.
XRA 518 Repair of Cystocele and Rectocele, Obliteration of Vaginal Vault	MRA 486 Other Gynecological Procedures	Cluster is retired due to merging gynecological clusters. Moved 4 codes.
XRA 519 Repair of Obstetric Laceration		Cluster is retired. There were no ICD-10 codes to move.
XRA 527 Tracheostomy, Temporal and Permanent	MRA 468 Respiratory and Medistinum - Other Diagnostic Procedures MRA 505 Respiratory and Medistinum Procedures	Retired because after removing all of the non-tracheostomy related codes, we had zero volume due to them being non-principle codes. Moved 40 codes to MRA 468. Moved 42 codes to MRA 505.
XRA 533 Tympanoplasty and Myringtomy	MRA 498 Ear and Sinus - Other Procedures	Cluster is retired due to merging all ear codes to an ear and sinus cluster. Moved 78 codes.
XRA 534 Upper Gastrointestinal Endoscopy, Biopsy	MRA 417 Colonoscopy, Proctoscopy, and Biopsy Procedures MRA 474 Gastrointestinal - Other Diagnostic Procedures	Cluster is retired to create a more homogeneous risk group. Moved 9 codes to MRA 417. Moved 32 codes to MRA 474.
XRA 535 Vaginal Hysterectomy		New cluster combines both vaginal and abdominal procedures.
XRA 536 Vascular Catheterization	MRA 484 Blood Vessels - Other Procedures	Cluster is retired. 248 codes moved.

# Appendix C: Midas Risk Model Version 2.0 Complications

# Complications Added in Version 2.0

The following Complications have been added in Risk Model Version 2.0.

### Code: Added Complication Name:

- 563 Acid-base imbalance
- 564 Acute and sub-acute hepatic failure
- 565 Acute pancreatitis, unspecified
- 566 Acute posthemorrhagic anemia
- 567 Acute pulmonary edema
- 568 Acute respiratory distress syndrome
- 569 Adrenocortical insufficiencies
- 570 Anoxic Brain Damage, not elsewhere classified
- 571 Aphasia
- 572 Apnea of newborn
- 573 Atelectasis
- 574 Atrial fibrillation/flutter
- 575 Bacteremia
- 576 Bloodstream infection due to central venous catheter
- 577 Brain death
- 578 Candidal infection
- 579 Cardiac arrest, procedure related
- 580 Cardiac or vascular device or graft complication
- 581 Cardiac procedure complication
- 582 Cardiac tamponade
- 583 Cellulitis
- 584 Cerebral compression and edema
- 585 Cerebral infarction
- 586 Coagulation defect, unspecified
- 587 Coma

#### Code: Added Complication Name:

- 588 Critical illness myopathy
- 589 Delirium due to known physiological condition
- 590 Disseminated intravascular coagulation
- 591 Encephalopathy
- 592 Endometritis following delivery
- 593 Enterocolitis due to Clostridium difficile
- 594 Food or foreign object causing asphyxiation
- 595 Gastrointestinal hemorrhage
- 596 Gastrointestinal system procedure complication
- 597 Genitourinary system procedure complication
- 598 Hallucinations, unspecified
- 599 Heart failure, acute
- 600 Hemiplegia
- 601 Hemoperitoneum
- 602 Hemorrhage or skin hematoma, procedure complication
- 603 Hemothorax
- 604 Hydronephrosis
- 605 Ileus
- 606 Infection following a procedure
- 607 Intestinal obstruction
- 608 Intestinal perforation
- 609 Ischemic heart disease, acute
- 610 Kidney failure, acute
- 611 Musculoskeletal system procedure complication
- 612 Nervous system procedure complication
- 613 Non-ST elevation (NSTEMI) myocardial infarction
- 614 Nontraumatic cerebral hemorrhage
- 615 Obstetric injury pelvis
- 616 Obstetrical hemorrhage
- 617 Osmolality and natremia imbalance

#### Code: Added Complication Name:

- 618 Ostomy complication
- 619 Pancytopenia, drug-induced
- 620 Pericardial effusion (noninflammatory)
- 621 Perineal and obstetrical lacerations
- 622 Peritoneal abscess and peritonitis
- 623 Pleural effusion
- 624 Pneumonia, bacterial and unspecified
- 625 Pneumonitis
- 626 Pneumothorax and air leak
- 627 Protein-calorie malnutrition
- 628 Pulmonary embolism
- 629 Respiratory and cardiac arrest
- 630 Respiratory failure
- 631 Respiratory system procedure complication
- 632 Rhabdomyolysis
- 633 Sepsis
- 634 Sepsis, newborn
- 635 Severe sepsis with septic shock
- 636 Severe sepsis without septic shock
- 637 Shock, cardiogenic
- 638 Shock, hypovolemic and other
- 639 Shock, postprocedural
- 640 ST elevation (STEMI) myocardial infarction
- 641 Supraventricular tachycardia
- 642 Surgical wound dehiscence
- 643 Toxic gastroenteritis and colitis
- 644 Transient cerebral ischemic attack
- 645 Urinary tract infection
- 646 Venous embolism and thrombosis, acute
- 647 Ventilator-associated pneumonia

#### Code: Added Complication Name:

- 648 Ventricular fibrillation/flutter
- 649 Ventricular tachycardia

# Version 1.0/1.1 Complications <u>Retired</u> in Version 2.0

The following Complications have been retired and are not included in Risk Model Version 2.0

- 400 Abnormal Reaction to Artificial Implant, Surgical Operation
- 401 Abnormal Reaction, Other Specified Procedure
- 402 Abnormal Reaction, Surgical Operation, with External Stoma
- 403 Acidosis
- 404 Acute and Subacute Forms of Ischemic Heart Disease NEC
- 405 Acute Myocardial Infarction NOS, Initial
- 406 Adverse Effect, Anticoagulants
- 407 Adverse Effect, Antineoplastic/Immunosuppressive Drugs
- 408 Adverse Effects, Other Drugs/Medicinal Substances
- 409 Alcohol Withdrawal Delirium
- 410 Alkalosis
- 411 Anemia of Prematurity
- 412 Anemia/Other Chronic Disease
- 413 Anorexia
- 414 Anoxic Brain Damage
- 415 Ascites NEC
- 416 Bacteremia
- 417 Bronchitis NOS
- 418 Bronchitis, Acute
- 419 Candidiasis Urogenital NEC
- 420 Candidiasis, Other NEC
- 421 Candidiasis, Skin and Nails

- 422 Cardiac Arrest
- 423 Cardiac Dysrhythmias NEC
- 424 Cardiac Murmurs NEC
- 425 Cerebral Artery Occlusion NOS with Cerebral Infarction
- 426 Cerebral Embolism with Cerebral Infarction
- 427 Cerebral Ischemia, Transient NOS
- 428 Coagulation Defects NEC/NOS
- 429 Coagulation Profile, Normal
- 430 Coma
- 431 Complication, Mechanical, Other Vascular Device/Implant/Graft
- 432 Complications of Medical Care, Other NOS, NEC
- 433 Complications of Procedures, Other Specified, NEC
- 434 Complications, Other Due to Other Vascular Device/Implant/Graft
- 435 Conjunctivitis NOS
- 436 Convulsions NEC
- 437 Critical Illness Myopathy
- 438 Debility NOS
- 439 Defibrination Syndrome
- 440 Depressive Disorder NEC
- 441 Diaper or Napkin Rash
- 442 Diseases of Trachea and Bronchus NEC
- 443 Disorders of Plasma-protein Metabolism NEC
- 444 Disruption, Operation Wound, External
- 445 Disruption, Operation Wound, Internal
- 446 DVT/Embolism, Acute, Axillary Veins
- 447 DVT/Embolism, Acute, Deep Veins, Upper Extremity
- 448 DVT/Embolism, Acute, Deep Vessels, Distal Lower Extremity
- 449 DVT/Embolism, Acute, Deep Vessels, Lower Extremity
- 450 DVT/Embolism, Acute, Deep Vessels, Proximal Lower Extremity
- 451 DVT/Embolism, Acute, Subclavian Veins

- 452 DVT/Embolism, Acute, Superficial Veins, Upper Extremity
- 453 Dysphagia NOS
- 454 Dysphagia, Oropharyngeal Phase
- 455 Effusion NEC, except Tuberculosis
- 456 Electrolyte and Fluid Disorders NEC
- 457 Elevation of Transluminase or LDH
- 458 Encephalopathy, Hepatic
- 459 Encephalopathy, Metabolic
- 460 Encephalopathy, Other
- 461 Encephalopathy, Unspecified
- 462 End-stage Renal Disease
- 463 Esophageal Reflux
- 464 Flatulence, Eructation, and Gas Pain
- 465 Foreign Body Accidentally Entering Other Orifice
- 466 Foreign Body in Larynx
- 467 Foreign Body, Bronchus/Lung NEC
- 468 Gastritis and Gastroduodenitis, NOS, without Hemorrhage
- 469 Glucocorticoid Deficient
- 470 Gross Hematuria
- 471 Heart Failure, Diastolic NOS
- 472 Hematemesis
- 474 Hemoptysis NOS
- 475 Intraop/Post Procedural Hemorrhage/Hematoma
- 476 Hemorrhage NOS
- 477 Hemorrhage, Gastrointestinal NOS
- 478 Heparin-induced Thrombocytopenia
- 479 Hydronephrosis
- 480 Hypercalcemia
- 481 Hyperosmolarity and/or Hypernatremia
- 482 Hyperpotassemia

- 483 Hypertension NOS
- 484 Hypocalcemia
- 485 Hypoglycemia NOS
- 486 Infection, Bloodstream, Due to Central Venous Catheter
- 487 Infection, Enterococcus Group D
- 488 Infection, Intestinal, Due to Clostridium difficile
- 489 Infection, Pseudomonas, Other NOS
- 490 Infection, Staphylococcus, Other NOS
- 491 Infection/Inflammatory Reaction Due to Indwelling Urinary Catheter
- 492 Infections, Specified Bacterial, Other Gram-negative Organisms NOS
- 493 Infections, Upper Respiratory, Acute NOS
- 494 Intestinal Obstruction NOS
- 495 Intestinal Perforation
- 496 Jaundice, Not Newborn NOS
- 497 Kidney Failure, Acute with Lesion of Tubular Necrosis
- 498 Klebsiella pneumoniae
- 499 Malnutrition, Moderate Degree
- 500 Malnutrition, Protein-Calorie NOS
- 501 Malnutrition, Protein-Calorie, Other Severe
- 502 Methicillin-resistant Pneumonia Due to Staphylococcus aureus
- 503 Methicillin-resistant Staphylococcus aureus, Classified Elsewhere NOS
- 504 Methicillin-susceptible Staphylococcus aureus, Classified Elsewhere NOS
- 505 Mixed Acid-base Balance Disorder
- 506 Mycoses NEC/NOS
- 507 Necrosis of Liver, Acute and Subacute
- 508 Neonatal Bradycardia
- 509 Neonatal Candida Infection
- 510 Neonatal Electrolyte Disturbances, Transitory, Other
- 511 Neonatal Thrombocytopenia, Transient
- 512 Newborn Feeding Problems

- 513 Newborn Septicemia [Sepsis]
- 514 Nutritional Marasmus
- 515 Oliguria and Anuria
- 516 Pain in Joint, Pelvic Region and Thigh
- 517 Pain in Joint, Shoulder Region
- 518 Pancytopenia, Other
- 519 Paroxysmal Ventricular Tachycardia
- 520 Perinatal Conditions, Other NEC
- 521 Phlebitis/Thrombophlebitis, Superficial Veins of Upper Extremities
- 522 Pleural Effusion NOS
- 523 Pneumonia Due to Klebsiella pneumoniae
- 524 Pneumonia Due to Other Gram-negative Bacteria
- 525 Pneumonia Due to Pseudomonas
- 526 Pneumonia, Organism NOS
- 527 Pneumonitis Due to Inhalation of Food or Vomitus
- 528 Pressure Ulcer, Buttock
- 529 Pressure Ulcer, Lower Back
- 530 Pressure Ulcer, Stage I
- 531 Pressure Ulcer, Stage II
- 532 Pressure Ulcer, Unspecified Stage
- 533 Pulmonary Collapse
- 534 Pulmonary Congestion and Hypostasis
- 535 Pulmonary Embolism/Infarction, latrogenic
- 536 Pulmonary Embolism/Infarction, Other
- 537 Pulmonary Insufficiency, Other NEC
- 538 Respiratory Arrest
- 539 Respiratory Complications, Other
- 540 Respiratory Failure Following Trauma or Surgery
- 541 Respiratory Failure, Acute
- 542 Respiratory Failure, Acute and Chronic

- 543 Respiratory Obstruction/Suffocation Due to Inhaled/Ingested Object NEC
- 544 Rhabdomyolysis
- 545 Sepsis, Severe
- 546 Septicemia Due to Escherichia coli [E. coli]
- 547 Septicemia NOS
- 548 Septicemia, Other Due to Gram-negative Organisms
- 549 Serum Enzyme Levels, Abnormal, NEC
- 550 Shock NOS
- 551 Shock, Cardiogenic
- 552 Shock, Other, without Mention of Trauma
- 553 Shock, Postoperative, Other
- 554 Shock, Septic
- 555 Special Symptoms/Syndromes NEC/NOS
- 556 Subendocardial Infarction, Initial
- 557 Systemic Inflammatory Response Syndrome NOS
- 558 Tachypnea
- 559 Urinary Incontinence NOS
- 560 Urinary Tract Infection NOS
- 561 Ventilator-associated Pneumonia
- 562 Ventricular Fibrillation