

Using CDB and ORYX® Mapping to Ensure Maximum Data Quality and Consistent Benchmarking

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Objectives

- Understand what mapping is and why it is done
- Discuss the various standard CDB and ORYX mapping terms
- Apply what has been learned to “real-world” mapping scenarios

What Is Mapping and Why Is It Necessary?



Types of Mapping

ORYX Mapping

- Used for core measures to allocate encounters to qualifying populations and inclusions and exclusion from measures

Comparative Database Dictionary Mapping

- Used to qualify encounters for distributed DataVision and CPMS measures (non-core)

Note: Both types of mapping are also used for the Readmission Penalty Forecaster (RPF)

CDB Mapping

Used to:

- Create a common language and consistent benchmark for everyone.
- Identify non-acute and behavioral health care encounters.
- Distinguish Medicare from non-Medicare payers.
- Autopopulate fields in core measure Focus Studies.
- Assign patients to the right “buckets” for DataVision and CPMS Indicators.
- Correctly assign RPF encounters.

ORYX Mapping

Match core measure requirements in order to Populate Discharge Disposition in Core Focus Studies.



Downstream Effects of Mapping

- Accurate distinction between acute care and non-acute care encounters to ensure only acute care patients qualify for core measures and other acute care populations.
- Identify other characteristics of encounters that serve as inclusion/exclusion criteria for core measures, or populate required data fields.
 - Discharge Disposition
 - Payer/Payer Type

Downstream Effects of Mapping

- Ensure that encounters are correctly populating distributed (non-core) indicators, for example:
 - Acute/Non-Acute (Service, Location, or Encounter Type)
 - Medicare/Non-Medicare (Payer or Payer Type)
 - Admission Source
 - Admit Status

Downstream Effects of Mapping

Data Quality Profile:

- Inpatients - % without Disposition
- Inpatients - % without Service
- Inpatients - % without Location
- Inpatients - % without Admit Status
- Inpatients - Volume with Unmapped Acute Care Status
- Inpatients - % without Any Diagnosis Status Code
(sometimes)
- Inpatients – Percent with Duplicate Final Diagnosis Code
(sometimes)

Downstream Effects of Mapping

If you have missing data or data quality issues, you may not be able to send your quarterly harvest file:

Description	Harvest Requirement
Inpatients - % without Disposition	<5%
Inpatients - % without Non-Acute Care Status	<5%
Inpatients - Volume with Unmapped Acute Care Status	0%

Downstream Effects of Mapping

And, possibly the most important reason of all . . .

Data quality and consistency in the comparative pool.



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Where Does the Data Come From?



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Not Always Where You'd Expect . . .

- Discharge Diagnosis Status: From DAB/ADT and/or Interface Flag
- Ethnic Group: From Patient Registration and/or Interface Flag
- Payer: From HCM Certification or the encounter record

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Possible Issues

- Unmapped terms
- Double-mapped terms
- Incorrectly designated terms in alternative data sources
- Incorrect mapping

CDB Dictionary Mapping

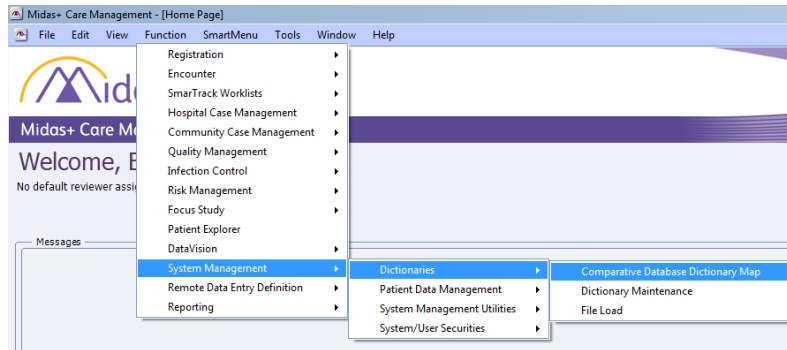


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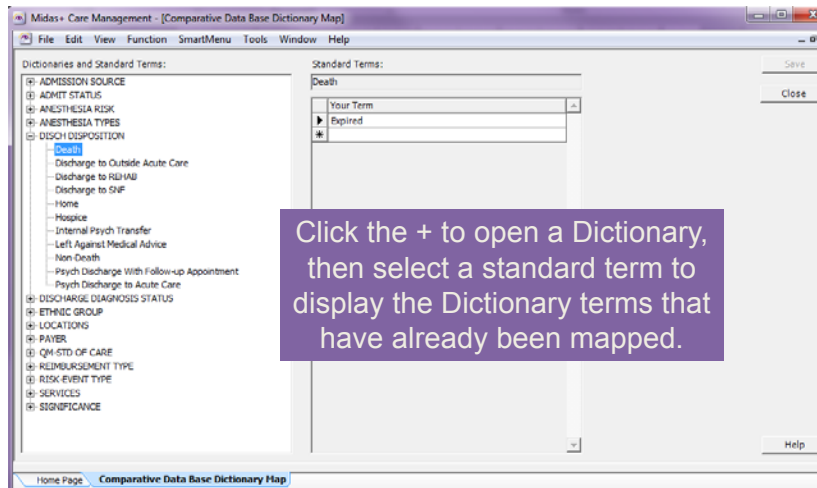


Accessing the CDB Mapping Function

Function > System Management > Dictionaries > Comparative Database Dictionary Map



Mapping Equivalent Terms



Admission Source

- Used for some AHRQ measures (PSI #03 and PDI #02, for example).
- Improve accuracy for Hip/Knee Arthroplasty 30-day Readmissions measure (CDBR:792).

Admission Source

- Emergency Department means only your hospital's own urgent care or ED. Transfers from another hospital's ED are mapped to Transfer from Another Acute Care Facility.
- Physician Referral includes transfers from clinics and ambulatory surgery centers. It does not include transfers from the ED or an urgent care setting. It also includes transfers from Home Health and "other" healthcare facilities.
- Transfer from Another Acute Care Facility includes cancer centers or children's hospitals, critical access hospitals, and federal hospitals.

Admission Source

- Long Term/Intermediate Care or Skilled Nursing Facility includes LTC, SNF, sub-acute, non-acute, residential, and ICF.
- Transfer from Another Type of Non-Acute Care Facility is used for non-acute care admissions not already mapped to Long Term/Intermediate Care, Skilled Nursing, or Rehab, such as Psych or Hospice.
- Transfer from Physical Rehab Facility is used only for physical rehab.

Admit Status

- Typically fairly straightforward to map (Elective/Urgent/Emergent).
- Emergent includes both Emergency and Trauma.
- Used as a criterion in readmission measures and the DataVision Readmission Toolpack.
- If your hospital does not bring admit status across into Midas+, you are not included in any readmission or other CPMS or DataVision measures stratified by Admit Status.

Anesthesia Risk & Anesthesia Types

- You only need to map these if your hospital uses the Midas+ Surgery Module.
- If you do not use the Surgery Module, you will not receive data for either Surgery ASA I & II Mortality Rate (CDBR: 136) or Percent Return to Surgery (CDBR: 135).



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Anesthesia Risk



- Include all terms equivalent to “normal healthy patient” and “patient with mild systemic disease.”
- Map levels 1 and 2, as well as 1E and 2E.

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Anesthesia Types

- Include all terms equivalent to General or Spinal Anesthesia, for example, Intrathecal, Spinal and General, and Epidural.
- Include terms in which general or spinal anesthesia is combined with another type of anesthesia, such as Regional with General.

Discharge Disposition

- All Discharge Dispositions in the Dictionary **must** be mapped.
- These are Midas+-defined terms. (Discharge Dispositions also need to be mapped to ORYX Equivalency Terms, which are determined by TJC and CMS.)
- Some hospitals use ER-Disposition instead of Discharge Disposition.

Discharge Disposition

Tips:

- Discharges to Home Hospice, Boarding Homes/Assisted Living, or Correctional Facilities are all mapped to Home.
- Intermediate Care Facilities (ICFs) and Swing Beds map to SNF.

Discharge Disposition

Mapping Non-death:

- Non-death is a catch-all term used to capture all patients discharged alive. A shortcut for mapping this standard term is to select all terms in the Discharge Disposition Dictionary and then de-select any that are equivalent (i.e., already mapped) to Death.
- This is also the “home” for any terms that have no equivalent standard term in order to avoid receiving missing data alerts at time of harvest.

For Behavioral Health Only

These apply only if your hospital has Dictionary terms that designate discharge dispositions specific to their psych/behavioral health patients.

- Psych Discharge with Follow-up Appointment
- Psych Patients Xfer to AC – Other Hospital
- Psych Patients Xfer to AC – This Hospital

*Note that these terms apply only to discharges **FROM** the psych setting **TO** acute care. Do not map acute care discharges to psych.*

Discharge Diagnosis Status

- If you do not have equivalent terms in your dictionary, you do not need to map these standard terms.
- Data can also come from the POA/NPOA flag.
- Often, all that you will need to map is your term (or terms) for Admitting or Working Diagnosis.
- If you do need to map POA/NPOA, the term for NPOA must begin with the word “not.”

Ethnic Group (Race in v2014)

- Populates both Hispanic Ethnicity and Race.
- You must use either the Ethnicity field or the Hispanic flag in Midas+ in order for Hispanic/Non-Hispanic to populate in your core Focus Studies.

Ethnic Group (Race in v2014)

- If you do not use the interface flag and you have a Dictionary term for Hispanic, it must be mapped to Caucasian and also to Hispanic Ethnicity.
- If you have a compound term, map to the first term in the pair, for example, Asian/Black maps to Asian.

Payer

- Populates Payment Source in Core Focus Studies if you use the Midas+ Payer Dictionary.
- If you use the Payer Type Dictionary, it might be easier to use it rather than Payer to identify Medicaid, Medicare (excluding Medicare Advantage), Medicare Advantage, and Self-pay.
- Medicare (excluding Medicare Advantage) typically includes Medicare A, Medicare A and B, and Medicare Railroad, as well as Medicare as a secondary payer.

TIP: If the patient's HIC number is used as the patient ID to bill a particular payer, that payer should be mapped to "straight" Medicare.



Payer

- Medicare Supplement (Medigap) Plans do not get mapped; they are commercial insurance.
- Medicare Advantage payers need to be mapped if you use Midas+ for Value Based Purchasing.
- We encourage non-VBP sites to also map these to help keep the integrity of the comparative pool.
- If Medicare Advantage is mapped, the terms should only be mapped once.

Risk-Event Types

- Used for Midas+-defined measures only.
- Map only if you use the Midas+ Risk Module.
- Used in two risk Indicators:
 - Falls per 1000 Acute Care Patient Days
 - Medication Errors per 1000 Acute Care Patient Days
- Also populate fall, medication error, restraint, suicide, and seclusion measures in Behavioral Health

TIP: To avoid possible over-counting, only map Medication Error terms that actually reached the patient. Do not include near-miss or good-catch occurrences or potential errors.

Services, Locations, Encounter Types

- Typically apply only to inpatient encounters.
- Include any Service, Location, or Encounter Type that could be a discharge service, location, or encounter type for an inpatient. Any others do not need to be mapped.
- If you map by Service or Encounter Type you will also have entries under Location for critical care, emergency, neonatal intensive care, and observation. All should be mapped if they apply.

Services, Locations, Encounter Types

- Unmapped discharge dispositions will show up as missing on the Core Data Quality Encounter Detail or pre-harvest report and impede your ability to send your harvest file.
- This mapping is critical to ensure that patients are assigned to the proper “buckets” to identify them for Core and Acute Care measure populations.

Services, Locations, Encounter Types

- Acute Care includes all qualifying services that are medical, surgical, or critical care in nature.
- Hospice includes only inpatient units, regardless of whether they are actually within your hospital's walls.
- Residential Psych inpatient units should be mapped to avoid counting patients as readmissions if they are transferred from psych to acute care.
- If Rehab can be a discharge location, map it to make sure it is excluded from inpatient acute care.

For Behavioral Health Only

- Residential Psychiatric Inpatient Units
- Acute Psychiatric Inpatient Units



Other Mapping Terms

QM Std of Care and Significance:

- Only needs to be mapped if your hospital uses the Midas+ Quality Module.

A Few Additional Tips

- With the exception of Dictionary #58 (Discharge Disposition) not all terms in your Midas+ Dictionaries need to be mapped.
- Deactivated terms should be left in your Dictionaries and remain mapped in order to preserve your historical data.
- As a general rule, Dictionary terms should be mapped to only one standard term. (Exceptions: terms for Hispanic and those that are mapped to Non-Death.)

What to Do After You Map

- Run the Core Data Quality Encounter Detail standard report to see if it shows mapping issues. Mapping-related messages display at the end of the report.
- Allow Indicators to run back overnight

OR

- If quicker results are needed, manually reprocess indicators using Step 1 of Core Job Processing, making sure to mark both the core and non-core Indicator check boxes.

ORYX Mapping



ORYX Equivalency Mapping

- Used to autopopulate core measure Focus Studies.
- Used with only one Dictionary for core measures: Discharge Disposition (#58).
- Found under Dictionary Maintenance in the System Management function.
- Ties directly to regulatory measure specifications and updated as specs change.
- Changes to ORYX mapping affect only unsaved Focus Studies.

ORYX Equivalency Mapping

Discharge disposition has two crosswalks: one for inpatient and one for outpatient.

Table 21 Inpatient Discharge Status Crosswalk for Core Measure Focus Studies

ORYX Core Discharge Status Term for Discharge Status (Before 7/2012)	Matching Value for Discharge Disposition (As of 7/2012) in Focus Study
01 Home care or self care (Routine Discharge)	1 Home
02 Short Term General Hospital for Inpatient Care	4 Acute Care Facility
03 Medicare Certified Skilled Nursing Facility (SNF)	5 Other Health Care Facility
04 Custodial or Supportive Care Facility	No matching term; field is not populated.
05 Designated cancer center or children's hospital	4 Acute Care Facility
06 Home with Home Health	1 Home
07 Left Against Medical Advice	7 Left Against

Table 22 Outpatient Discharge Status Crosswalk for Core Measure Focus Studies

ORYX Core Discharge Status Term for Discharge Status (Before 7/2012)	Matching Value for Discharge Code (As of 7/2012) in Focus Study
01 Home care or self care (Routine Discharge)	1 Home
02 Short Term General Hospital for Inpatient Care	4a Acute Care Facility - General Inpatient Care
03 Medicare Certified Skilled Nursing Facility (SNF)	5 Other Health Care Facility
04 Custodial or Supportive Care Facility	No matching term; field is not populated.
05 Designated cancer center or children's hospital	4c Acute Care Facility - Cancer Hospital or Children's Hospital
06 Home with Home Health	1 Home
07 Left Against Medical Advice	7 Left Against Medical Advice/AMA

Discharge Status Crosswalk

- Core measure studies use Discharge Disposition (Inpatient) or Discharge Code (Outpatient) instead of Discharge Status.
- Midas+ crosswalks these values behind the scenes.
- Discharge Disposition and Discharge Code terms are not visible in the Dictionary; you can only see the old Discharge Status terms.

TIP: Code 04 (Custodial or Supportive Care) does not have a one-to-one equivalent. You will need to enter the correct term when you complete abstraction.

Reviewing Mapping



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Comparative Database Map Report

- Accessible through Standard Reports:

Report: COMPARATIVE DATA BASE MAP
 Report Type: Text
 Output Device: Standard Window
 Selection Criteria: COMPARATIVE DATA BASE MAP
 Compile, Schedule, Close buttons are visible.

- Lists all mapped and non-mapped terms:

Standard Terms	Dictionary	Your Terms
Hospice	SERVICES	HOS HOSPICE
Rehab	SERVICES	REH REHAB
Skilled Nursing (SNF)	SERVICES	SNF SKILLED NURSING (SNF)
Other Non-Acute Care Units	SERVICES	ONA OTHER NON-ACUTE
Acute Psychiatric Inpatient Unit	SERVICES	PSY PSYCHIATRIC UNIT
Residential Psychiatric Inpatient	SERVICES	(no terms mapped)
Acute Care	SERVICES	OTR ACUTE CARE AC ACUTE CARE MAY 2010 4 CARDIOLOGY 1 CCU 7 EMERGENCY 2 ICU 10 Mental 9 Obstetrics 11 Surgery 3 Telemetry Unit

Reviewing ORYX Mapping

Run the Dictionary Data Standard Report:

The screenshot shows the 'Dictionary Data Report' configuration with 'DISCH DISPOSITION' selected. A blue callout box points to the 'Print Code and Description Only' checkbox, which is unchecked. The results pane shows a list of discharge disposition codes and their descriptions.

Code	Description
1	Pend-Home
2	Not Documented
ANA	ANA
EXP	Expired

Be sure to uncheck this box to display the ORYX equivalent mapped terms.

Troubleshooting

Here are examples of issues that *might* be related to your mapping:

- Incorrect ethnicity
- Incorrect payer type (Medicare vs. non-Medicare)
- Patients missing from Indicators
- Patients in the wrong Indicators
- Incorrect core qualification

Practical Application



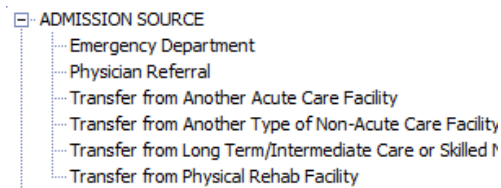
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Question: Admission Source

Your hospital has the following terms in your Dictionary. How should each of them be mapped?

- Transfer from a Hospital
- Ambulatory Surgery Center
- Transfer from Hospice



Answer

- Transfer from a Hospital typically maps to *Transfer from Another Acute Care Facility*
- Ambulatory Surgery Center maps to *Physician Referral*
- Transfer from Hospice maps to *Transfer from Another Type of Non-Acute Care Facility*

Question: Discharge Disposition

Your hospital has the following terms in your Discharge Disposition Dictionary. How would you map each of them for CDB and ORYX?

- Home Hospice
- Intermediate Care
- Discharge to Psych
- Eloped

DISCH DISPOSITION		CDB
Death		
Discharge to Outside Acute Care		
Discharge to REHAB		
Discharge to SNF		
Home		
Hospice		
Left Against Medical Advice		
Non-Death		
Psych IP Discharge w/Follow-up Appointment		
Psych Patients Xfer to AC - Other Hospital		
Psych Patients Xfer to AC - This Hospital		

Code	Description	ORYX
70	Another institution not in this code list	
21	Court/Law Enforcement (as of 10/09)	ORYX
04	Custodial or Supportive Care Facility	
05	Designated cancer center or children's hospital	
66	Discharge to Critical Access Hospital (after 1/2006 only)	
20	Expired in Acute Care	
41	Expired in med facility (before 10/08) (Medicare, CHAMPUS)	
43	Federal health care facility	
01	Home care or self care (Routine Discharge)	
06	Home with Home Health	
50	Hospice - Home Care Program	
51	Hospice certified medical facility providing hospice care	
62	Inpatient Rehab Facility (IRF)	
07	Left Against Medical Advice	
61	Medicare approved Swing Bed	
63	Medicare certified long term care hospital	
03	Medicare Certified Skilled Nursing Facility (SNF)	
64	Nursing Facility - Medicaid Only	
65	Psychiatric Hospital	
02	Short Term General Hospital for Inpatient Care	

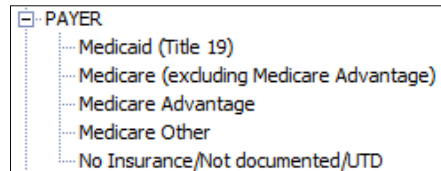
Answer

- Home Hospice maps to *Home* for CDB and *Hospice – Home Care Program* for ORYX.
- Intermediate Care maps to *Discharge to SNF* for CDB and *Custodial or Supportive Care* for ORYX.
- Discharge to Psych maps to *Psychiatric Hospital* for ORYX, but does not have an equivalent standard term for CDB.
- Eloped maps to *Left Against Medical Advice* for both CDB and ORYX.

Question: Payer

Where would you map each of the following terms?

- Medicare Railroad
- United Health Medicare Supplement
- Medicare HMO
- Aetna Medicare
- Charity Patient



Answer

- Medicare Railroad maps to *Medicare (excluding Medicare Advantage)*.
- United Health Medicare Supplement does not get mapped.
- Medicare HMO maps to *Medicare Advantage*.
- Aetna Medicare maps to *Medicare Advantage*.
- Charity Patient maps to *No Insurance/Not Documented/UTD*.

Question: Risk-Event Type/Medication Errors

Which of the following terms should be mapped to Medication errors that reached the patient (with or without ill effect) and why?

- Incorrect dose
- Other medication error
- Prescribing error
- Wrong narcotic count

Answer

- Incorrect dose maps to medication errors; it is clear it reached the patient.
- “Other medication error” is too vague to map.
- Prescribing error would be mapped only if it describes situations in which the patient was affected.
- Wrong narcotic count should not be mapped since it does not directly affect a specific patient.

Question: Service/Location/Encounter Type

What is the criterion for determining if a Service, Location, or Encounter Type should be mapped to Acute Care?

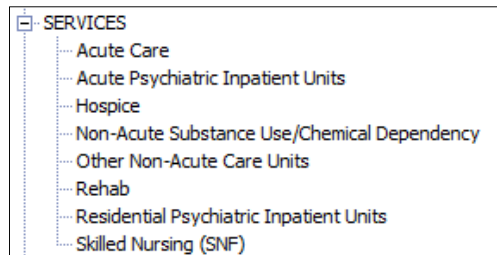
Answer

A Service, Location, or Encounter Type should be mapped to Acute Care if it is medical, surgical, or critical care in nature.

Question

Your Services Dictionary has terms for each of the following. How would you map them?

- Cardiology
- Inpatient Physical Therapy
- Transitional Care Unit
- Outpatient Surgery
- Medicine



Answer

- Cardiology maps to *Acute Care*.
- Inpatient Physical Therapy maps to *Rehab*.
- Transitional Care Unit maps to *Discharge to SNF*.
- Outpatient Surgery does not need to be mapped unless it could be a discharge service, location, or encounter type for an inpatient.
- Medicine maps to *Acute Care*.

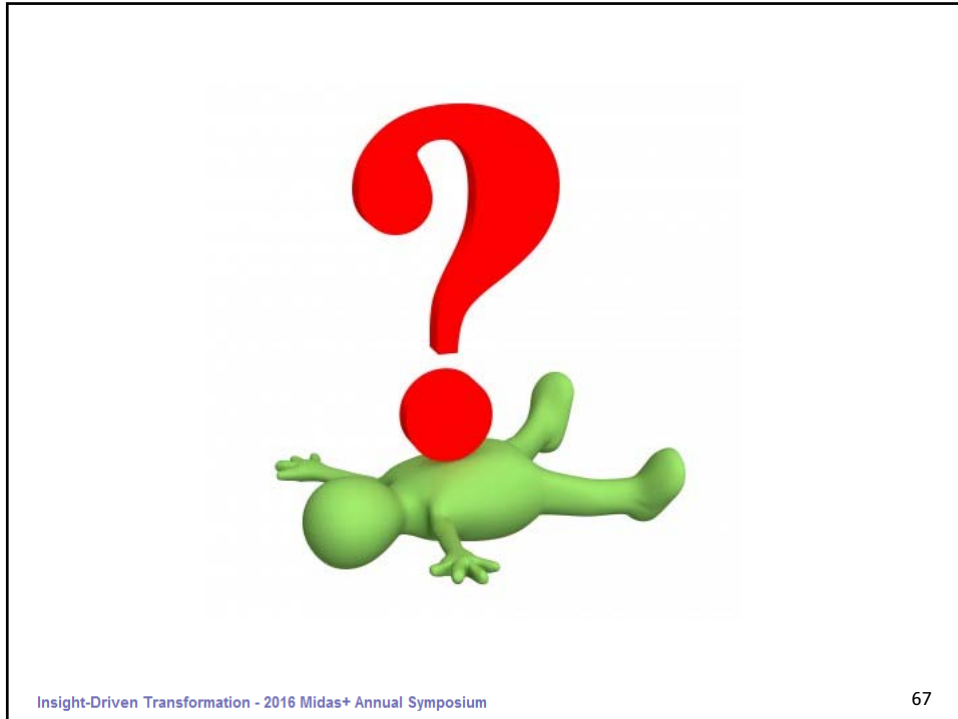
Question: Restraint

A behavioral health client has a single term for both restraint and seclusion. How should it be mapped?

- [-] RISK-EVENT TYPE
 - [-] Fall with injury
 - [-] Fall without injury
 - [-] Falls (all types)
 - [-] Medication errors that reached the patient (w/ or w/o i
 - [-] Omitted Medication
 - [-] Restraint
 - [-] Seclusion
 - [-] Suicide Attempt
 - [-] Wrong Dose
 - [-] Wrong Drug

Answer

It should be left unmapped as there is not a one-to-one match with a standard term.



Thank you for attending.
Any questions?

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