



Variable Mapping Tips

Non-Epic sites

*See the [Getting Started – Import Manager Variable Mapping](#) presentation first



Variable Mapping/Case Viewer Basics

- When concepts are mapped, they will appear in Case Viewer with details about the variable/concept
 - Concept = What MPOG concept the variable is mapped to
 - Value = text description, usually matches what is documented in the EHR
 - Observed time = time the procedure/event/care was performed (not necessarily the same as when it was documented). If observed time is not documented, MPOG will default to using the time the note was documented (entered time).

Concept	Neuraxial - spinal or epidural performed
Value	Spinal
Observed Time	

Variable Mapping/Case Viewer Basics

- Entered time = Time the variable was documented
- MPOG Concept = concept name and ID that the variable is mapped to
- AIMS Variable = the name and ID number of the variable in the EHR

Entered Time	[REDACTED]		
Variable Mappings	Note Type	MPOG Concept	AIMS Variable
		Epidural anesthesia catheter placement note	[REDACTED]
		50154	

Blocks/Spinals/Epidurals

- Blocks: search 'block' 'epidural' 'regional' and 'neuraxial' in [Concept Browser](#) for MPOG concepts.
 - Epidural
 - Block
 - Paresthesia
 - Spinal
 - Labor epidural
- Blocks should have at least these variables mapped: Type, Needle, Location, Technique, Time

*Note that there are concepts for Regional/Neuraxial blocks (which should be used if your site documents both blocks under the same variable) and separate Regional Block and Neuraxial Block concepts (which should be used if your site documents blocks under separate variables).

Blocks

- Examples of how we expect these procedures to look in Case Viewer
- Bold text means that it has a child note (Observation Type Details variable mapped)
 - Click on the bold text to open the child notes



Concept	Regional - Supraclavicular Block	
Value	[REDACTED]	
Observed Time	[REDACTED]	
Details	Concept	Original Variable
	Compliance - Attending present for anesthesia procedure	block/procedure attestation
	Procedures - Vascular Access - Ultrasound	ultrasound guided
	Patient Position	patient position
	Epidural Catheter Type	epidural catheter type
	Anesthesia Machine Checked	monitors and equipment checked
	Patient Identified	patient identified
	Pre-Incision Timeout	timeout performed
	Categorized note: Regional or neuraxial note	anesthesia block drug
	Categorized note: Regional or neuraxial note	anesthesia block drug
	Block Performed	anesthesia block type
	Peripheral IV Sites Checked	IV checked
	Consent Confirmed	anesthesia consent
	Regional Anesthesia (Misc)	block injection details
Regional Anesthesia (Misc)	anesthetic indication	
General - Preoperative evaluation date/time	pre-op evaluation	

Spinal or Epidural Examples

Concept	Neuraxial - spinal or epidural performed	
Value	Spinal	
Observed Time	[REDACTED]	
Details	Concept	Original Variable
	Vertebral Interspace Final	interspace
	Compliance - Attending present for anesthesia procedure	block/procedure attestation
	Procedures - Vascular Access - Ultrasound	ultrasound guided
	Patient Position	patient position
	Anesthesia Machine Checked	monitors and equipment checked
	Patient Identified	patient identified
	Pre-Incision Timeout	timeout performed
	Categorized note: Regional or neuraxial note	anesthesia block drug
	Peripheral IV Sites Checked	IV checked
	Consent Confirmed	anesthesia consent
	Spinal Performed	spinal
	Regional Anesthesia (Misc)	anesthetic indication
General - Preoperative evaluation date/time	pre-op evaluation	

Concept	Neuraxial technique - Combined Spinal / Epidural technique note	
Value	CSE / DPE	
Observed Time	[REDACTED]	
Details	Concept	Original Variable
	Compliance - Attending present for anesthesia procedure	block/procedure attestation
	Procedures - Vascular Access - Ultrasound	ultrasound guided
	Patient Position	patient position
	Epidural Vertebral Interspace Final	epidural location
	Epidural Needle Type	epidural needle type
	Epidural Needle Diameter (Gauge)	epidural needle gauge
	Epidural Loss of Resistance (Saline/Air)	epidural technique
	Epidural Loss of Resistance Depth (cm)	epidural needle insertion depth (cm)
	Epidural Catheter Type	epidural catheter type
	Epidural Catheter Withdrawn to Depth (cm)	catheter at skin depth (cm)
	Anesthesia Machine Checked	monitors and equipment checked
	Patient Identified	patient identified
	Pre-Incision Timeout	timeout performed
	Categorized note: Regional or neuraxial note	anesthesia block drug
	Aspiration of Blood/CSF	CSF aspirated
	Spinal/Epidural Technique	Combined Epidural Type
	Spinal/Epidural Technique	CSE
	Peripheral IV Sites Checked	IV checked
	Consent Confirmed	anesthesia consent
	Regional Anesthesia (Misc)	anesthetic indication
General - Preoperative evaluation date/time	pre-op evaluation	

Airway

- Search 'airway' 'ETT' 'Laryngeal' and 'intubation' in [Concept Browser](#) for MPOG concepts
 - ETT
 - Tube
 - Intubat
 - LMA
 - Airway
 - Mask
 - Difficult
- Concept 50074 Airway Type should be used if your site has one variable to document multiple airway types (i.e. ETT and LMA)

Airway Examples

Concept	Airway Type	
Value	Airways-airway interventions	
Observed Time	[REDACTED]	
Details	Concept	Original Variable
	Compliance - Attending present for anesthesia procedure	block/procedure attestation
	Airway Type	airway interventions
	Intubation Observed to Be Difficult	difficult airway
	Mask Ventilation Difficulty (Scaled)	mask assessment prior to intubation
	Laryngoscopy Blade Type/Size	[REDACTED] INVISIBLE LARYNGOSCOPE BLADE S
	Laryngoscopy Blade Type/Size	blade size
	Intubation Approach	endotracheal tube placement
	Intubation Number of Attempts	number of attempts
	Direct Laryngoscopy View	Cormack & Lehane grading
	Endotracheal Tube Size	tube size (mm)
	Endotracheal Tube Type	cuffed
	Endotracheal Tube Type	tube type
	Endotracheal Tube Secured Distance	ETT insertion depth
	Endotracheal Tube Secured Distance	ETT to teeth (cm)
	Tube Secured Point	ETT measured from
	Patient Position	patient position
	Breath Sounds Auscultated	auscultation
	Preoxygenation/Denitrogenation	preoxygenation performed
	Intubation Device/Adjunct (Oral)	laryngoscope type
	Intubation Device/Adjunct (Oral)	intubation method
	GA Induction Type	rapid sequence induction
	Sustained EtCO2 Observed	CO2 detection
	Intubation Comment	ET tube placement confirmed by
	Intubation Comment	ET tube placement confirmed by
	Assessment and Plan - Emergency Procedure	procedure urgency

Concept	Intubation - ETT Placed	
Value	[REDACTED]	
Observed Time	[REDACTED]	
Details	Concept	Original Variable
	Unmapped Variable	Cuffed
	Airway Verification (Chest rise, CO2, breath sounds)	Placement Verification
	Mask Ventilation Difficulty (Scaled)	Mask Ventilation
	Laryngoscopy Blade Type/Size	Blade Size
	Endotracheal Tube Size	Single Lumen Tube Size
	Endotracheal Tube Type	ETT Type
	Intubation Device/Adjunct (Oral)	Technique
	Intubation Device/Adjunct (Oral)	Laryngoscope
	Intubation View	Grade View
	Lines/Tubes/Drains (Misc)	Location

Arterial Lines

- Type “arterial line” (with quotations) in [Concept Browser](#) for MPOG concepts. Arterial line should have at least these variables mapped: insertion (50662), location (50445), size (50446)
 - Art
 - Arterial
 - Dampened
 - Transducer

Concept	Procedures - Arterial line placed	
Value	Arterial Line	
Observed Time	[REDACTED]	
Details	Concept	Original Variable
	Compliance - Attending present for anesthesia procedure	block/procedure attestation
	Procedures - Vascular Access - Ultrasound	ultrasound guided
	Anesthesia Machine Checked	monitors and equipment checked
	Patient Identified	patient identified
	Pre-Incision Timeout	timeout performed
	Arterial Line Size	numeric art line size
	Peripheral IV Sites Checked	IV checked
	Consent Confirmed	anesthesia consent
General - Preoperative evaluation date/time	pre-op evaluation	

Central Lines

- Search “Central Venous” (with quotations) in [Concept Browser](#) for MPOG concepts.

Concept	Procedures - Central Venous Access placed	
Value	Central Line-IV access type;procedural supplies	
Observed Time	[REDACTED]	
Details	Concept	Original Variable
	Unmapped Variable	additional CVC for CVP monitoring
	Compliance - Attending present for anesthesia procedure	block/procedure attestation
	Procedures - Vascular Access - Ultrasound	ultrasound guided
	Intubation Number of Attempts	number of attempts
	Patient Position	patient position
	Echocardiogram Observation	transesophageal echocardiogram
	Lines/Tubes/Drains (Misc)	IV access type
Lines/Tubes/Drains (Misc)	catheter insertion depth (cm)	

Additional Notes

- When a procedure variable has multiple uses (lines, CT, etc.) map to 50665 Procedures - Other unlisted procedure.
- Map Non-Invasive Blood Pressure location to 3266 Noninvasive blood pressure cuff location
- Map patient position to 3096 'Positioning'
- PONV assessment: If the values listed under 'Examine' are y/n, map to 90010 PONV Assessment. If the values are text, i.e. vomiting, diarrhea, etc., map to 50227 GI symptoms
- Cardiopulmonary Bypass Start should be mapped to 50410 - Cardiopulmonary bypass initiated (full/partial/left-heart) and Cardiopulmonary Bypass End should be mapped to 50409 - Cardiopulmonary bypass (full/partial/left-heart) terminated. The concepts that have 'Perfusion Start' and 'Perfusion End' are used when documented by a Perfusionist

Additional Notes continued

- Surgical Admission Type – Inpatient (500): should be used for a patient that was admitted prior to the procedure (i.e. inpatient who went to OR)
- Surgical Admission Type – Admit (502): should be used for patients that were admitted after the procedure (i.e. c-sections)
- OB Frequency of Contractions should be mapped to 3181 Frequency of Contractions
- OB Duration of Contractions should be mapped to 3188 Duration of Contractions
- Make sure that H&P variables and Review of Systems variables are included in the extract
- Preop and PACU notes should also be included in the extract and mapped