

Severe Maternal Morbidity: Identifying Quality Improvement Opportunities

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Housekeeping

- Everyone is muted upon joining
- This webinar is being recorded and will be shared in the MDC Support Section
- Please utilize the Q&A function
- We are offering CEUs for those joining us in real time – please look out for the evaluation survey that will be sent tomorrow

What is Severe Maternal Morbidity (SMM)?

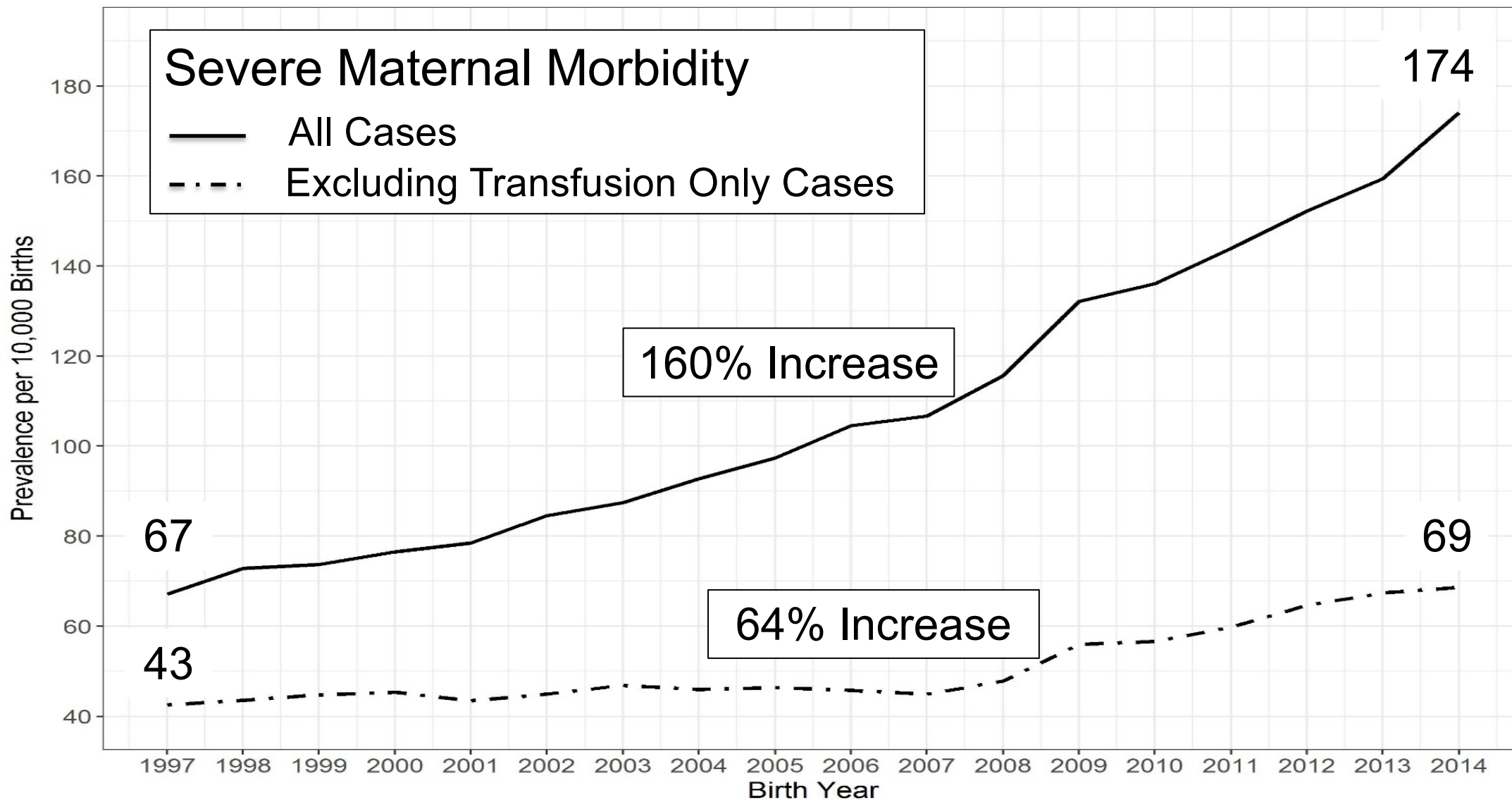
- Severe maternal morbidity (SMM) reflects unanticipated outcomes of the labor and delivery process that result in significant short- or long-term consequences to a woman's health
- Often an SMM requires transfer to intensive care or a higher level of care
- Reviewing SMM cases can help to determine whether the complication could have been prevented and whether processes need to be amended to avoid future SMMs

SMM: Brief Background on the CDC Measure

- SMM (per CDC) is comprised of 21 Indicator Groups of major complications (diagnosis and procedure codes).
- The rate of SMM is typically 1.5-2.0%.
- Transfusions alone now comprise more than half of all cases so that SMM is now divided into *Total SMM* and *SMM Excluding Transfusions*.

Callaghan WM, Creanga AA, Kuklina EV. Severe maternal morbidity among delivery and postpartum hospitalizations in the United States. *Obstet Gynecol.* 2012 Nov;120(5):1029-36.

SMM: California births, 1997-2014 (9.2 million)



Rates of Severe Morbidity Indicators (US) per 10,000 Deliveries

SMM Indicator Group	1993	2014	% Change
Blood transfusions	24.5	122.3	399.2
Hysterectomy	6.9	10.7	55.1
Ventilation/Temporary tracheostomy	4.1	7.9	92.7
Disseminated intravascular coagulation	6	7.2	20
Adult respiratory distress syndrome	2	6.1	205
Acute renal failure	1.3	5.2	300
Sepsis	2.4	4.2	75
Shock	1.1	3	172.7
Cardiac arrest, fibrillation/Conversion of cardiac rhythm	0.4	1.1	175
Air and thrombotic embolism	0.8	0.9	12.5
Acute myocardial infarction/Aneurysm	0.1	0.2	300

Note: Chart highlights top 11 indicators with an increase from 1993 to 2014.

Source: https://www.cdc.gov/reproductivehealth/maternalinfanthealth/severematernalmorbidity.html#anchor_trends

Broad National Interest in SMM (CDC)

- Used extensively in research and QI projects
- Title V: National Performance Measure
- State rates are to be released annually by AHRQ
- CMS is proposing its use as a hospital-level and plan-level Medicaid performance measure
- The Joint Commission is developing an electronic version as PC-07 (hospital-level)

Updates: SMM National Working Group—1

CDC, AHRQ, HRSA, AIM/CMQCC

- AHRQ has a contract to calculate SMM for every state
- Stratifications: Race/Ethnicity, Age, Payer, Income
- Focus on **non-Transfusion SMM**; some hospitals and some states do not code transfusion well
- Total SMM will still be useful: In the future we may only calculate and benchmark total SMM on hospitals with adequate transfusion data
- Annual code revisions are close to completion

Updates: SMM National Working Group—2

- Adjustment for Case-mix so that it can be used at the hospital and plan level
- The Joint Commission, CMCS Medicaid with Yale CORE Center, *leaning heavily on CMQCC adjustment model*
- Plan is for an eCQM (electronic quality measure): “PC-07”
- Strong interest in excluding indicators that are “Present on Admission” (POA)
- Still a ways to go....

Two Important Outstanding Issues for Using SMM for Quality Improvement

- Given that case-mix (comorbidities) strongly affect SMM rates, how should we perform risk adjustment for SMM?
- SMM represents complications, NOT the conditions that are the causes or drivers of the complications. How can we identify those?

Obstetrics and Gynecology: September 2020

Original Research

An Expanded Obstetric Comorbidity Scoring System for Predicting Severe Maternal Morbidity

Stephanie A. Leonard, PhD, Chris J. Kennedy, MA, Suzan L. Carmichael, PhD, Deirdre J. Lyell, MD, and Elliott K. Main, MD

- 27 categories of medical comorbidities, comorbidities related to the current pregnancy, previous cesarean birth, and maternal age were evaluated for their independent prediction of SMM and SMM without transfusion.
- Performance was evaluated using California data split into developmental and validation sets and confirmed using a national Optum Clinformatics data set.

Editorial

Getting Risk Prediction Right



Brian T. Bateman, MD, MSc

Comorbidity scores play an important role in health services and epidemiologic research because they can be used to summarize the burden of illness in a population or to adjust for risk. They also have potential clinical utility in identifying high-risk patients who may benefit from more intensive evaluation and monitoring or from transfer to tertiary care centers for delivery. In this issue of *Obstetrics & Gynecology* (see page 440), Leonard et al¹ elegantly derive and validate a novel scoring system for use with administrative data—the “expanded obstetric comorbidity scoring system.”

The investigators created two scores, one predicting severe maternal morbidity, as defined by the Centers for Disease Control and Prevention, and the other predicting nontransfusion-related severe maternal morbidity. To create the scores, the investigators used administrative discharge data from delivery hospitalizations in the state of California from 2016 to 2017. The assessment of 27 patient-level characteristics and comorbidities formed the basis for the scores. Comorbidities and outcomes were defined

Potential Comorbidities Considered for Index

- Conditions identified by ICD-10-CM codes (plus age) and verified by an obstetric medical billing coding expert

 Changed codes from Bateman

 New condition beyond Bateman

Chronic hypertension	Chronic renal disease
Gestational diabetes mellitus	Connective tissue or autoimmune disease
HIV/AIDS	Maternal age \geq 35 years
Placenta previa, complete or partial	Substance use disorder
Preeclampsia with severe features	Anemia, preexisting
Preeclampsia without severe features or gestational HTN	Bariatric surgery
Preexisting diabetes mellitus	Economic or housing instability
Previous cesarean birth	Gastrointestinal disease
Pulmonary hypertension	Major mental health disorder
Twin/multiple pregnancy	Neuromuscular disease
Asthma, acute or moderate/severe	Placental abruption
Bleeding disorder, preexisting	Placenta accreta spectrum
BMI \geq 40 kg/m ²	Preterm birth (< 37 weeks)
Cardiac disease, preexisting	Thyrotoxicosis

Prevalence of Comorbidities

Comorbidities	%
Maternal age \geq 35 years	22.2
Previous cesarean birth	17.9
Anemia, preexisting	11.8
Gestational diabetes mellitus	9.5
Preterm birth (< 37 weeks)	8.0
Preeclampsia without severe features or gestational hypertension	5.8
Gastrointestinal disease	5.3
Major mental health disorder	4.9
Asthma, acute or moderate/severe	4.8
BMI \geq 40 kg/m ²	4.1
Preeclampsia with severe features	2.7
Substance use disorder	2.7
Chronic hypertension	2.4
Bleeding disorder, preexisting	2.1

Comorbidities (cont.)	%
Neuromuscular disease	2.0
Twin/multiple pregnancy	1.7
Preexisting diabetes mellitus	1.4
Placental abruption	0.99
Cardiac disease, preexisting	0.85
Placenta previa (any)	0.58
Thyrotoxicosis	0.41
Bariatric surgery	0.26
Chronic renal disease	0.22
Connective tissue or autoimmune disease	0.19
Placenta accreta spectrum	0.12
Pulmonary hypertension	0.02
HIV/AIDS	0.01

Scoring System Results for **SMM** (part 1)

Risk Factor	aRR (95% CI)	aRD per 10,000 births (95% CI)	Points
Placenta accreta spectrum	30.5	4,737	59
Pulmonary hypertension	17.3	2,725	50
Chronic renal disease	9.1	1,328	38
Bleeding disorder, preexisting	6.9	879	34
Cardiac disease, preexisting	6.0	800	31
HIV/AIDS	5.6	773	30
Placenta previa, complete or partial	4.8	606	27
Preeclampsia WITH severe features	4.6	539	26
Anemia, preexisting	3.6	328	20
Twin/multiple pregnancy	3.2	351	20
Placental abruption	2.9	309	18
Preterm birth (< 37 weeks)	2.8	249	18
Gastrointestinal disease	2.0	153	12

Scoring System Results for **SMM** (part 2)

Risk Factor	aRR (95% CI)	aRD per 10,000 births (95% CI)	Points
Preeclampsia W/O severe features	1.9	140	11
Asthma, acute or moderate/severe	1.9	140	11
Substance use disorder	1.8	131	10
Connective tissue or autoimmune disease	1.8	133	10
Chronic hypertension	1.8	127	10
Preexisting diabetes mellitus	1.7	119	9
Neuromuscular disease	1.7	108	9
Major mental health disorder	1.5	76	7
Thyrotoxicosis	1.4	67	6
Delivery BMI \geq 40	1.4	57	5
Previous cesarean birth	1.3	41	4
Maternal age \geq 35 years	1.1	17	2
Gestational diabetes mellitus	1.1	10	1
Bariatric surgery	NS	NS	0

Details on the CMQCC Website

The screenshot shows the CMQCC website interface. At the top left is the CMQCC logo and the text "California Maternal Quality Care Collaborative". To the right are buttons for "FOR FAMILIES" and "CMQCC". Below these are three main navigation buttons: "ABOUT CMQCC", "MATERNAL DATA CENTER", and "QI INITIATIVES". On the left side, there is a vertical menu with the following items: "RESEARCH", "SEVERE MATERNAL MORBIDITY", "Obstetric Comorbidity Scoring System", "MATERNAL MORTALITY REVIEW (CA-PAMR)", "QUALITY MEASURES", and "CMQCC PUBLICATIONS". The "SEVERE MATERNAL MORBIDITY" item is highlighted in orange. The main content area features a large orange header for the article "Severe Maternal Morbidity: Validated Approach for Comorbidity Risk Adjustment". The article text discusses the development and use of the Severe Maternal Morbidity (SMM) measure, noting its prevalence and the challenges of comparing rates across different hospitals due to comorbidities. It mentions that researchers from CMQCC, Stanford University, and the University of California, Berkeley developed and validated an obstetric comorbidity scoring system for predicting SMM and non-transfusion SMM. At the bottom of the article, there is a blue link: "View the Obstetric Comorbidity Scoring System".

CMQCC
California Maternal
Quality Care Collaborative

FOR FAMILIES CMQCC

ABOUT CMQCC MATERNAL DATA CENTER QI INITIATIVES

RESEARCH

SEVERE MATERNAL MORBIDITY

Obstetric Comorbidity Scoring System

MATERNAL MORTALITY REVIEW (CA-PAMR)

QUALITY MEASURES

CMQCC PUBLICATIONS

Severe Maternal Morbidity: Validated Approach for Comorbidity Risk Adjustment

Severe maternal morbiditySM (SMM) was developed by the CDC to measure potentially life-threatening complications of pregnancy and childbirth. SMM is nearly 100 times more common than maternal death and has also been on the rise nationally. Because it is so much more common than maternal death and can be measured in any administrative dataset, SMM is a promising measure for providing insights about obstetric outcomes and improvement opportunities. However, comparing SMM rates between groups of patients, such as from different hospitals, is challenging because of differences in their underlying health status – referred to as comorbidities. To help overcome this issue, researchers from CMQCC, Stanford University, and the University of California, Berkeley developed and validated an [obstetric comorbidity scoring system](#) for predicting SMM and non-transfusion SMM; non-transfusion SMM includes SMM cases in which blood transfusion was not the sole indicator of a severe complication (approximately half of all SMM cases), and is now commonly reported along with SMM by the CDC and others.

[View the Obstetric Comorbidity Scoring System](#)

Face Validity: SMM Performance Among CA Hospitals (2018)

Hospital Level	Obs Rate	RA Rate
Critical Access Hospitals - All MDC	1.4%	1.4%
Nursery Level I & Not CAH - All MDC	1.5%	1.9%
Nursery Level II - All MDC	1.4%	1.5%
NICU Level III/IV - All MDC	1.8%	1.6%
Total Results	1.7%	1.6%

University	Obs Rate	RA Rate
1	3.2%	1.5%
2	4.1%	1.7%
3	4.0%	1.7%
4	4.4%	1.7%
5	5.4%	2.3%
6	1.3%	0.8%
7	2.0%	0.9%
Average	3.5%	1.5%

Co Hospital	Obs Rate	RA Rate
1	8.0%	4.0%
2	4.7%	1.7%
3	7.3%	2.3%
4	1.8%	1.1%
5	1.5%	0.9%
6	1.4%	0.8%
7	2.7%	2.0%
Average	3.9%	1.8%

Cautions about Adjusting SMM by Race

- Risk-adjusting outcomes for R/E is fraught with considerations¹
- Interpretation and framing of results is critical:
 - Blaming the patient?
 - Dismissing the role of social determinants and structural racism?
 - Reduction of provider responsibility/intervention opportunities?
- Many SMM risk factors have gradation
 - Do Black women have more severe HTN? Or is it not cared for as well?
- Different populations may have varying case to morbidity ratios
 - We know there are very different case-mortality rates by race for many maternal conditions

SMM *Underlying Cause*

- SMM is a list of 21 major complications, NOT causes
- What we want for Quality Improvement is to identify the underlying cause or “driver” for the complication
- Example: Pulmonary Edema
 - Rarely is it a primary respiratory disorder
 - Underlying causes may include: preeclampsia, severe hemorrhage, cardiac disease, sepsis

SMM: *Underlying Cause* Categories

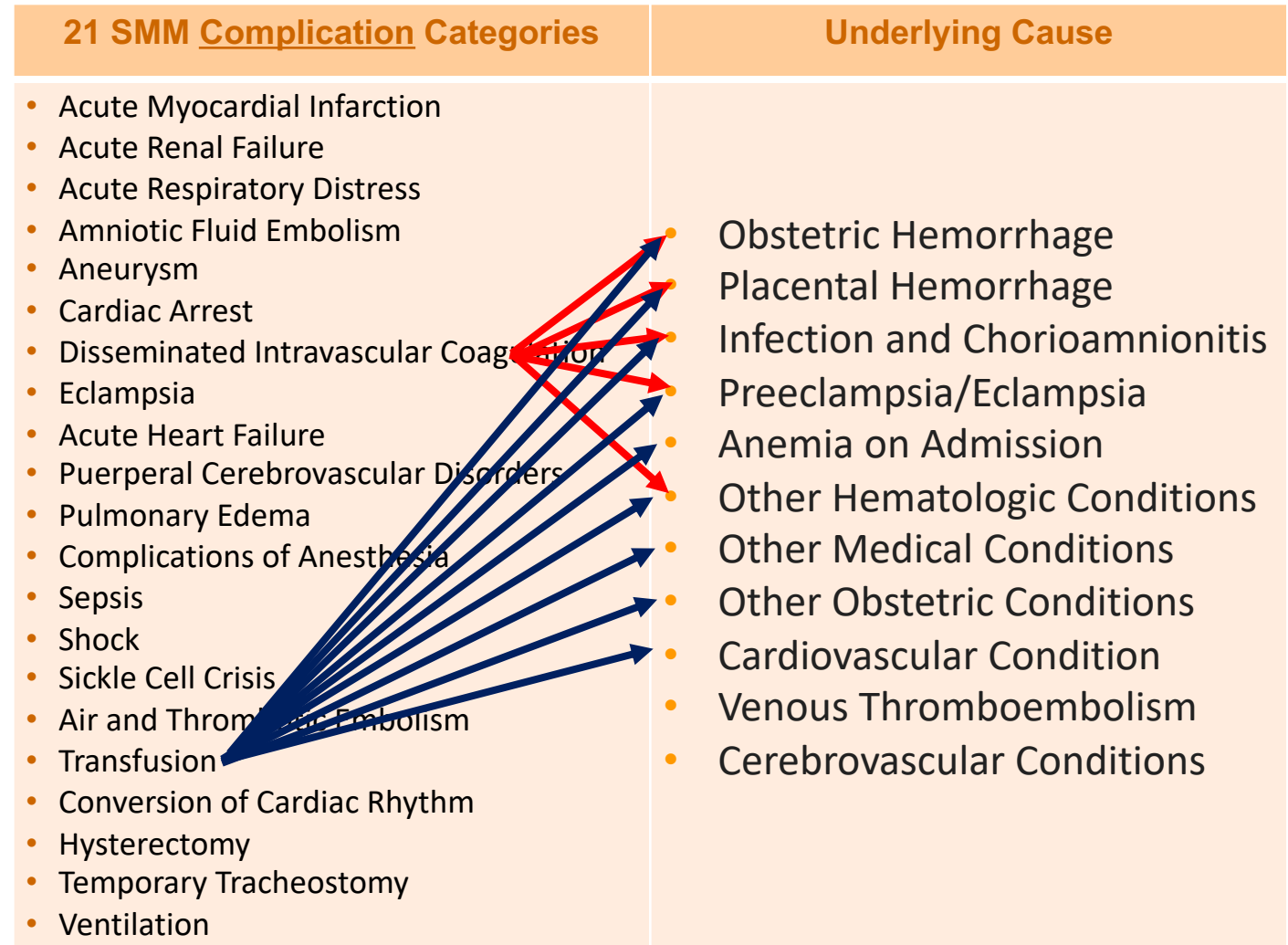
- Obstetric Hemorrhage: e.g. atony, hematomas or lacerations during any type of delivery, post-op bleeding, myomas
- Placental Hemorrhage: e.g. previa, accreta, abruption, retained placenta
- Infection and Chorio: e.g. sepsis, endometritis, pyelonephritis, pneumonia, fasciitis, and chorio leading to hemorrhage
- Preeclampsia/Eclampsia: e.g. complications from preeclampsia with severe features, eclampsia, HELLP, and hemorrhage as a result of these
- Anemia on Admission: only if anemia was present on admission – not if developed intra/postpartum

SMM: *Underlying Cause* Categories (cont.)

- Other Hematologic Conditions: e.g. ITP, TTP, hypercoagulable state, factor deficiencies, sickle cell
- Other Medical Conditions: e.g. ileus, cancer, Type I or II diabetes, other underlying medical conditions
- Other Obstetric Conditions: e.g. AFE, acute fatty liver, uterine rupture, anesthesia complications
- Cardiovascular Conditions: e.g. valvular heart disease, cardiomyopathy, arrhythmia, other cardiac conditions
- Venous Thromboembolism: e.g. pulmonary embolism, DVT
- Cerebrovascular Conditions: e.g. cerebral hemorrhage, occlusion, or infarction

SMM: *Underlying Cause* Analysis

- Key for driving QI actions
- Algorithm developed (based on ICD-10 codes) to identify “Underlying Cause” / “Driver”
- Testing against case review assessments by CA/WA/OR OB leaders (13 hospitals): 600 case of SMM in MDC
- And >100,000 in CA data set



Underlying Cause Assignment is by an Algorithm (v15)

Examples of some consensus driven assignment rules:

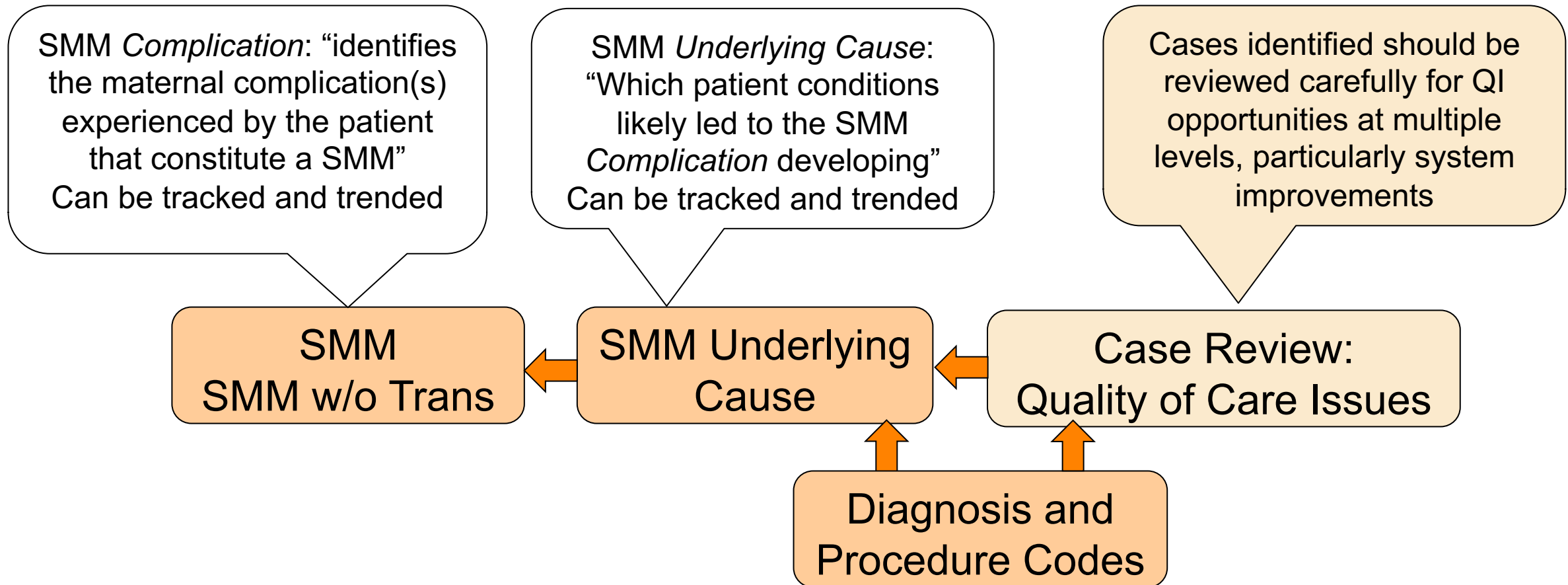
SMM Condition	Logic (simplified)	Assignment of Underlying Condition
Stroke:	if Preeclampsia with Severe Features	Preeclampsia/Eclampsia
Hysterectomy:	if Previa, accreta if Uterine rupture	Placental Hemorrhage Other OB Conditions
Transfusion:	if Previa, accreta, abruption if Hematoma, laceration, hemoperitoneum, myomas if Preeclampsia with severe features if Chorioamnionitis if Hemorrhage diagnosis if Anemia POA	Placental Hemorrhage Obstetric Hemorrhage Preeclampsia/Eclampsia Infection and Chorio Obstetric Hemorrhage Anemia on Admission

Underlying Cause Preliminary Frequency Analysis

- Based on ~24,000 California SMM cases 2016-2018 (ICD-10)
- Frequencies likely to change some with algorithm tweaks and more recent data

Underlying Cause	Frequency
Obstetric Hemorrhage	34.5%
Placental Hemorrhage	15.4%
Infection and Chorio	15.1%
Preeclampsia/Eclampsia	14.1%
Anemia on Admission	7.6%
Other Hematologic Conditions	3.3%
Other Medical Conditions	3.2%
Other Obstetric Conditions	2.1%
Cardiovascular Conditions	2.0%
Venous Thromboembolism	1.5%
Cerebrovascular Conditions	1.0%

Both SMM *Complication* and SMM *Underlying Cause* are Important for Quality Improvement



New SMM Tools in the MDC

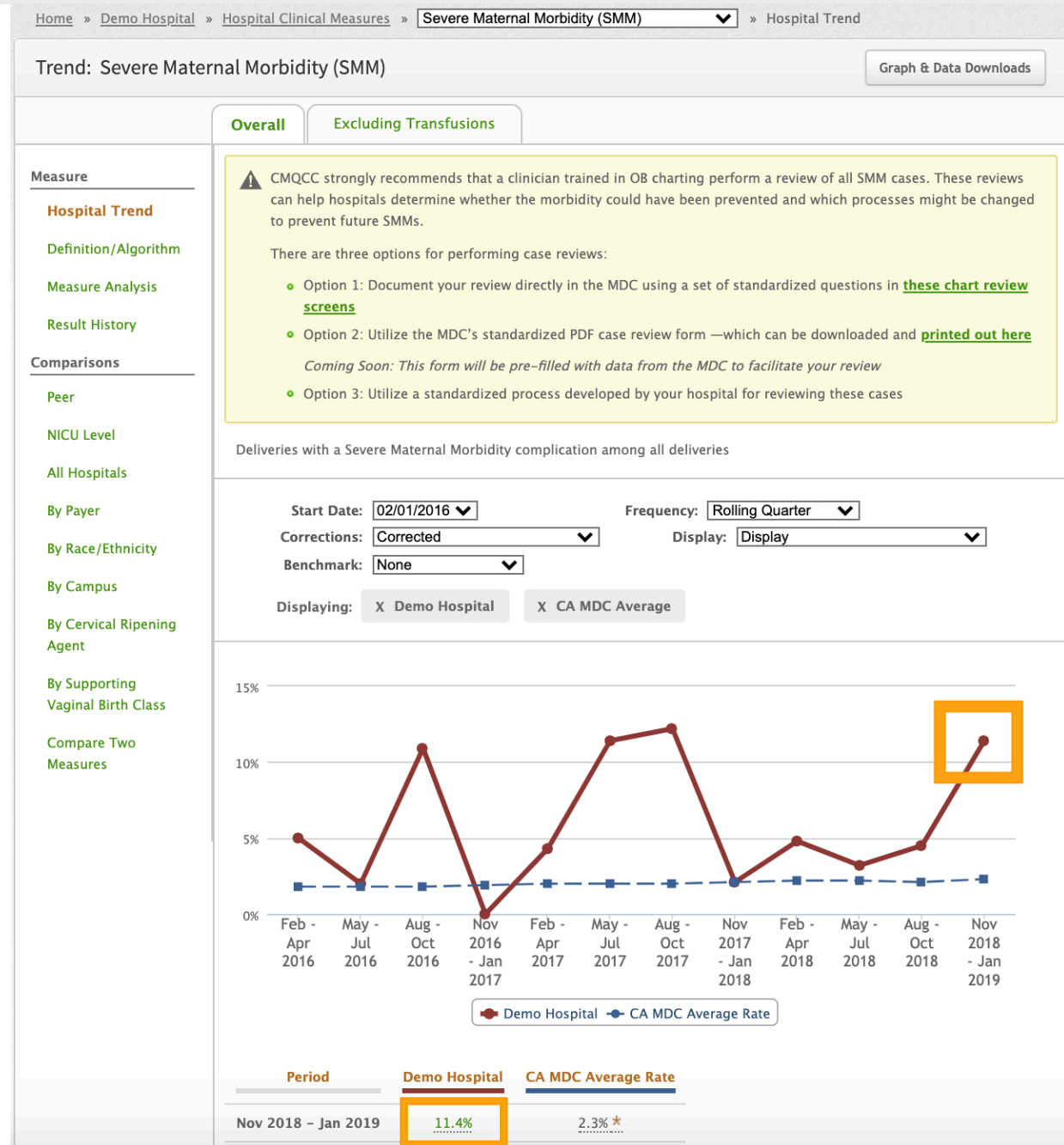
How to Navigate & Tips on Using the MDC for Quality Improvement

Overview of New SMM Enhancements in the MDC

- Updated SMM Drill-down Screens
- *NEW*: SMM Risk-Adjusted 1.0
- Updated SMM Measure Analysis
- Updated SMM Case Review Metric in the MDC
- *NEW*: SMM Case Review Measure Analysis
- Updated SMM CSV Downloads
- *NEW and Coming Soon*: SMM Case Review PDF

Severe Maternal Morbidity (SMM) in the MDC

- Drill-down to the patient level by:
 - Clicking on a point on the graph or
 - Clicking on a number in the table below the graph



Updated SMM Drill-down Screens

- New columns/headers:
 - SMM Complication(s) (formerly titled "SMM Category")
 - SMM Underlying Cause
 - Estimated Risk of SMM

Home » Demo Hospital » Hospital Clinical Measures » Severe Maternal Morbidity (SMM) » 11/01/2018 - 01/31/2019: Numerator Cases

Severe Maternal Morbidity (SMM)

Discharge Dates: 11/01/2018-01/31/2019 Add Filter Encrypted Medical Record Number Provider: Full Name

Fallout Cases (4) Denominator Cases (35) Non-Included Cases (0) ◀ Aug - Oct 2018

Print Download XLS







⚠ CMQCC strongly recommends that an RN trained in OB charting perform a review of all SMM cases. These reviews can help hospitals determine whether the morbidity could have been prevented and which processes might be changed to prevent future SMMs.

Review your fallouts below, or [document your reviews by completing the SMM Case Review list here](#).

See the following tips on using the drill-down screens in the MDC:

- Sort the list by the values within a specific column by clicking on the green header for that column
- Add comments by selecting "click to comment" or clicking the speech bubble icon if your permissions allow
- Correct case details by clicking the green pencil icon
- Understand why the patient is showing up in this part of the measure by clicking the green question mark icon

Displaying all 4 fallout cases

Encrypted Medical Record Number	Delivery Date	Gest. Age	Diagnoses	Procedures	SMM Complication(s) ?	SMM Underlying Cause ?	Estimated Risk of SMM ?	Comments
bb2437a68a	11/29/2018	40+3	O99.214, Z68.41, D62, E66.01, O61.9, O99.52, O63.0, O90.81, O76, Z3A.39, Z37.0, O85, J45.909, O32.1XX0	10D00Z1, 3E033VJ, 4A0HX CZ	Sepsis	Infection and Chorio	1.5%	Click to comment   
b6ac48bf1d	12/26/2018	38	O24.410, O99.824, O34.43, Z67.91, Z3A.39, Z37.0, Z23, O72.3	10907ZC, 3E0234Z, 10D00Z1, 10E0XZZ	Disseminated Intravascular Coagulation, Transfusion	Obstetric Hemorrhage	0.7%	Click to comment   

Updated SMM Drill-down Screens

■ New columns:

- SMM Complications (formerly titled SMM Category)
- SMM Underlying Cause
- Estimated Risk of SMM

Home » Demo Hospital » Hospital Clinical Measures » Severe Maternal Morbidity (SMM) » 11/01/2018 – 01/31/2019: Numerator Cases

[Close](#)

SMM Complication(s) Definition

- The SMM *Complication* identifies the maternal complication(s) experienced by the patient that constitute a Severe Maternal Morbidity (SMM). Per the CDC, SMMs are categorized into 21 indicators – what the MDC refers to as “Complications”. Note that patients may have multiple SMM *Complications*, and all will be listed [here](#).

Encrypted Medical Record Number	Delivery Date	Gest. Age	Diagnoses	Procedures	SMM Complication(s) ?	SMM Underlying Cause ?	Estimated Risk of SMM ?	Comments
bb2437a68a	11/29/2018	40+3	O99.214, Z68.41, D62, E66.01, O61.9, O99.52, O63.0, O90.81, O76, Z3A.39, Z37.0, O85 , J45.909, O32.1XX0	10D00Z1, 3E033VJ, 4A0HX CZ	Sepsis	Infection and Chorio	1.5%	Click to comment
b6ac48bf1d	12/26/2018	38	O24.410, O99.824, O34.43, Z67.91, Z3A.39, Z37.0, Z23, O72.3	10907ZC, 3E0234Z, 10D00Z1 , 10E0XZZ	Disseminated Intravascular Coagulation, Transfusion	Obstetric Hemorrhage	0.7%	Click to comment

Updated SMM Drill-down Screens







■ New columns:

- SMM Complications (formerly titled *SMM Category*)
- SMM Underlying Cause
- Estimated Risk of SMM

Home » Demo Hospital » Hospital Clinical Measures » Severe Maternal Morbidity (SMM) » 11/01/2018 – 01/31/2019: Numerator Cases

SMM Underlying Cause Definition [Close](#)

- The SMM *Underlying Cause* identifies which patient conditions likely led to the SMM *Complication* developing. While a patient may have several SMM *Complications*, there can only be one Underlying Cause. SMM *Underlying Cause* is assigned using an algorithm based on ICD-10 codes. If the assigned *Underlying Cause* is incorrect, it can be changed on the patient case edit screen. For more information about SMM *Underlying Cause*, click [here](#).

Encrypted Medical Record Number	Delivery Date	Gest. Age	Diagnoses	Procedures	SMM Complication(s)	SMM Underlying Cause	Estimated Risk of SMM	Comments
bb2437a68a	11/29/2018	40+3	O99.214, Z68.41, D62, E66.01, O61.9, O99.52, O63.0, O90.81, O76, Z3A.39, Z37.0, O85, J45.909, O32.1XX0	10D00Z1, 3E033VJ, 4A0HXCZ	Sepsis	Infection and Chorio	1.5%	Click to comment   
b6ac48bf1d	12/26/2018	38	O24.410, O99.824, O34.43, Z67.91, Z3A.39, Z37.0, Z23, O72.3	10907ZC, 3E0234Z, 10D00Z1, 10E0XZZ	Disseminated Intravascular Coagulation, Transfusion	Obstetric Hemorrhage	0.7%	Click to comment   

Updated SMM Drill-down Screens

■ New columns:

- SMM Complications (formerly titled SMM Category)
- SMM Underlying Cause
- Estimated Risk of SMM

The screenshot shows a web application interface for 'Severe Maternal Morbidity (SMM)'. A modal window titled 'Estimated Risk of SMM Definition' is open, providing detailed information about the 'Estimated Risk Percent' metric. The modal text explains that the risk percent reflects a patient's likelihood of developing SMM based on their underlying comorbidities, ranging from 0% to 100%. It also provides guidance on how to use this metric: for low-risk cases, investigate why patients developed SMM; for high-risk cases, consider improvement strategies like prenatal consultation. A link is provided to learn more about the calculation.

Below the modal, a table displays SMM cases. The table has been updated with new columns: 'SMM Underlying Cause', 'Estimated Risk of SMM', and 'Comments'. The 'Estimated Risk of SMM' column is highlighted with an orange box. The table shows two rows of data:

Case ID	Date	Count	ICD-10 Codes	SMM Underlying Cause	Estimated Risk of SMM	Comments
bb24				Infection and Chorio	1.5%	Click to comment
b6ac48bf1d	12/26/2018	38	O34.43, Z67.91, Z3A.39, Z37.0, Z23, O72.3	Intravascular Coagulation, Transfusion	0.7%	Click to comment

SMM Underlying Cause: Edit Function

Patient Drill Down Screen

Encrypted Medical Record Number	Delivery Date	Gest. Age	Diagnoses	Procedures	SMM Complication(s)	SMM Underlying Cause	Expected Risk of SMM	Comments
bb2437a68a	11/29/2018	40+3	O99.214, Z68.41, D62, E66.01, O61.9, O99.52, O63.0, O90.81, O76, Z3A.39, Z37.0, O85, J45.909, O32.1XX0	10D00Z1, 3E033VJ, 4A0HX CZ	Sepsis	Infection and Chorio	1.5%	Click to comment
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- If you disagree with the algorithm-assigned *Underlying Cause*, you can edit the *Underlying Cause* from the case edit screen
- If edited, it will show your newly assigned *Underlying Cause* highlighted in yellow as well as the previously algorithm-calculated *Underlying Cause*

Patient Editing Screen

enter code or keyword Add only after consulting coding staff

SMM Underlying Cause ✓

- Obstetric Hemorrhage – e.g. atony, hematomas or lacerations during any type of delivery, post-op bleeding, myomas
- Placental Hemorrhage – e.g. previa, accreta, abruption, retained placenta
- Infection and Chorio – e.g. sepsis, endometritis, pyelonephritis, pneumonia, fasciitis, chorio leading to hemorrhage
- Preeclampsia/Eclampsia – e.g. complications from severe preeclampsia, eclampsia, HELLP, hemorrhage as a result of the Anemia on Admission – only if anemia was present on admission – not if developed intra/postpartum
- Other Hematologic Conditions – e.g. ITP, TTP, hypercoagulable state, factor deficiencies, sickle cell
- Other Medical Conditions – e.g. ileus, cancer, Type I or II diabetes, other underlying medical condition
- Other Obstetric Conditions – e.g. AFE, acute fatty liver, uterine rupture, anesthesia complications
- Cardiovascular Conditions – e.g. valvular heart disease, cardiomyopathy, arrhythmia, other cardiac conditions
- Venous Thrombembolism – e.g. pulmonary embolism, DVT
- Cerebrovascular Conditions – e.g. cerebral hemorrhage, occlusion, or infarction

Units FFP Transfused

ICU Days

Labor Present

Planned/Scheduled CS

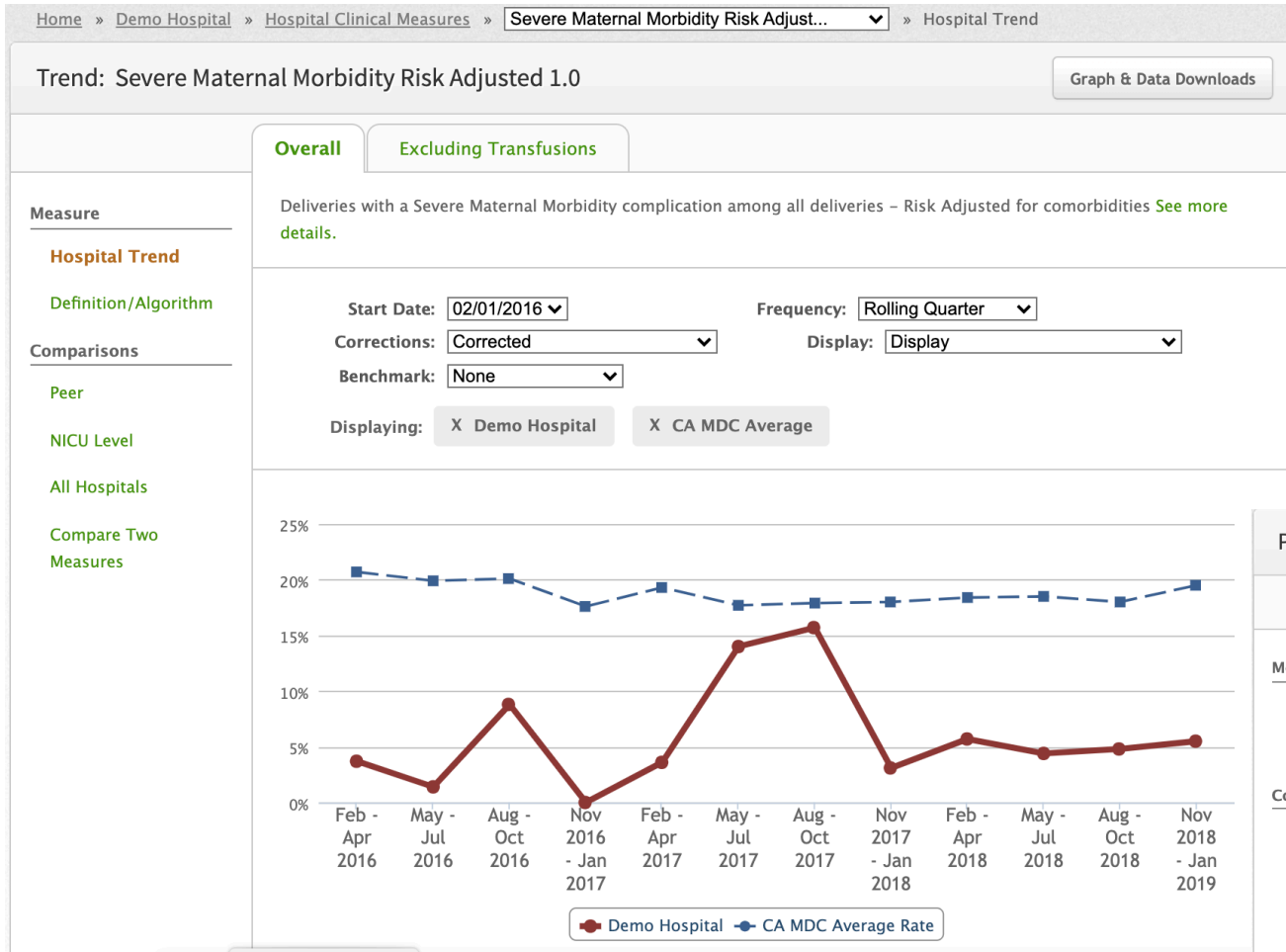
N/A Yes

Patient Drill Down Screen

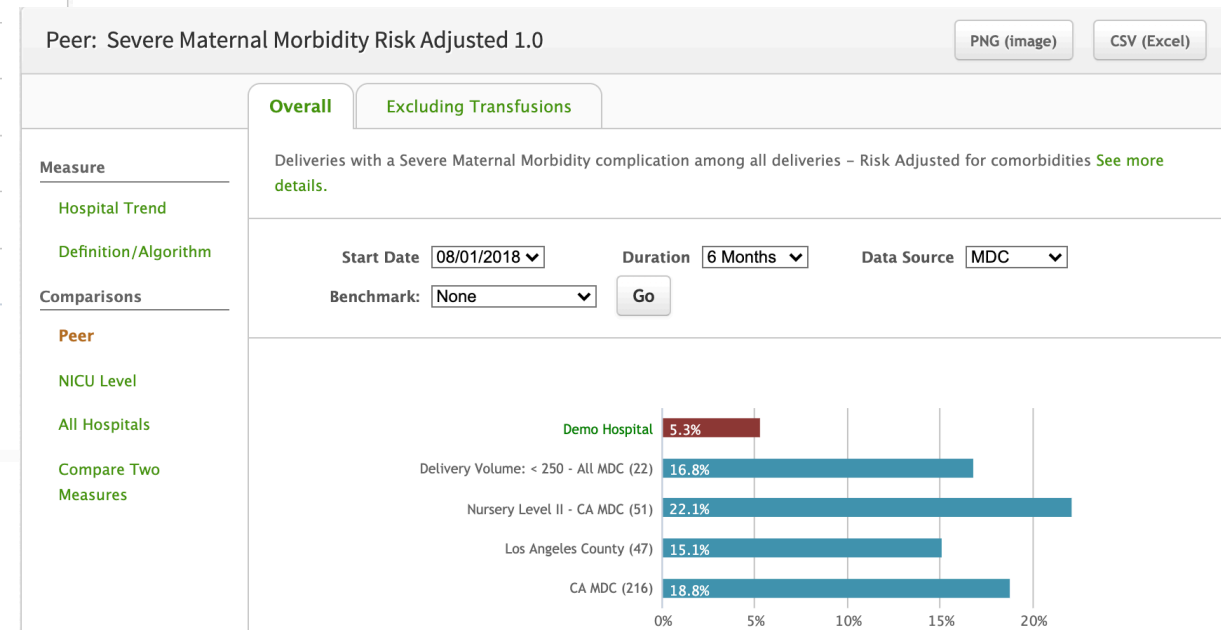
Encrypted Medical Record Number	Delivery Date	Gest. Age	Diagnoses	Procedures	SMM Complication(s)	SMM Underlying Cause	Estimated Risk of SMM	Comments
bb2437a68a	11/29/2018	40+3	O99.214, Z68.41, D62, E66.01, O61.9, O99.52, O63.0, O90.81, O76, Z3A.39, Z37.0, O85, J45.909, O32.1XX0	10D00Z1, 3E033VJ, 4A0HX CZ	Sepsis	Infection and Chorio	1.5%	Click to comment
b6ac48bf1d	12/26/2018	38	O24.410, O99.824, O34.43, Z67.91, Z3A.39, Z37.0, Z23, O72.3	10907ZC, 3E0234Z, 10D00Z1, 10E0XZZ	Disseminated Intravascular Coagulation, Transfusion	Obstetric Hemorrhage	0.7%	Click to comment
0f2968b383	01/22/2019	36	O34.21, Z37.0, Z3A.38, O85 (POA), F11.120			Infection		Click to comment

e.g. atony, hematomas or lacerations during any type of delivery, post-op bleeding, myomas
 (calculated Underlying Cause: Other Medical Conditions, e.g. ileus, cancer, Type I or II diabetes, other underlying medical condition)

New Metric: SMM Risk-Adjusted 1.0



- We encourage you to use the risk-adjusted version of SMM for making peer comparisons



SMM Measure Analysis: Updates

- **NEW:** By SMM Underlying Cause
- Hover over the *Underlying Cause* to see examples of what would be included
- Click into each *Underlying Cause* to see a trend screen for each
- Help focus your QI efforts by seeing what drives your SMM rate

By SMM Underlying Cause

- The *SMM Underlying Cause* identifies which patient condition likely led to the *SMM Complication* developing. This table shows the *Underlying Causes* of SMM for your patient population. SMM Underlying Cause is assigned using an algorithm based on ICD-10 codes. If the assigned *Underlying Cause* is incorrect, you can change it on the patient case edit screen. If you edit the patient's ICD-10 codes, the *SMM Underlying Cause* may also change.
- Regardless of how many *SMM Complications* a patient has, there can only be one *Underlying Cause*. As such, a patient is represented in only one *Underlying Cause* category, so the sum of the counts across the categories will equal the "Overall" count of SMM cases.
- To see examples of *SMM Underlying Cause*, click [here](#).

	My Hospital		CA MDC	
	Count	Rate per 1000	Count	Rate per 1000
Overall	6	75.9	4936	21.5
Obstetric Hemorrhage	0	0.0	2044	8.9
Placental Hemorrhage	1	12.7	657	2.9
Infection and Chorio	2	25.3	828	3.6
Preeclampsia/Eclampsia	1	12.7	559	2.4
Anemia on Admission	0			
Other Hematologic Conditions	0			
Other Medical Conditions	2	25.3	190	0.8
Other Obstetric Conditions	0	0.0	66	0.3
Cardiovascular Conditions	0	0.0	80	0.3
Venous Thromboembolism	0	0.0	48	0.2
Cerebrovascular Conditions	0	0.0	46	0.2

Infection and Chorio 2 25.3 828
 e.g. sepsis, endometritis, pyelonephritis, pneumonia, fasciitis, chorio leading to hemorrhage

[Download CSV \(Excel\)](#)

SMM Case Reviews in the MDC

Trend: Severe Maternal Morbidity (SMM) Graph & Data Downloads

Overall Excluding Transfusions

Measure

- Hospital Trend
- Control Chart
- Definition/Algorithm

⚠ CMQCC strongly recommends that an RN trained in OB charting perform a review of all SMM cases. These reviews can help hospitals determine whether the morbidity could have been prevented and which processes might be changed to prevent future SMMs.

You can review your fallouts by clicking into the rate for any reporting period below, or [document your reviews by completing the SMM Case Review section here.](#)

Data Entry Status

SMM Case Reviews	✓ <u>Complete</u>	✓ <u>Complete</u>	✓ <u>Complete</u>	⚠ <u>Action Needed</u>
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SMM Case Reviews in the MDC: *Old Version*

Comments	Encrypted Medical Record Number	Delivery Date	Diagnoses	Procedures	SMM Category	Which issues might have impacted the SMM?	Review Complete?
	dae32621a2	01/23/2019	O99.413, Q24.6, I48.91, O99.344, O99.824, O26.893, O99.814, Z3A.37, Z95.0, F41.9, R73.02, O70.1, O09.813, E28.2, Z88.5, Z79.82	10E0XZZ, 0KQM0ZZ, 4A1HXCZ, 30233N1	Transfusion	<ul style="list-style-type: none"> Missed warning signs Communication issues Delayed diagnosis Delayed/wrong treatment Delay in calling for assistance Missed opportunities in prenatal care Patient factors 	✓
	Of2968b383	01/22/2019	O34.21, Z37.0, Z3A.38, O85 (POA), F11.120	10D00Z1	Sepsis (POA)	<ul style="list-style-type: none"> Morbidity pre-existing at admit & no improvement opportunities 	✓

Remaining to Complete: 0/2

Close

Delivery Date 01/22/2019

Discharge Date 01/25/2019

The options below may be useful for tracking quality improvement opportunities. NOTE: Even cases with co-morbidities present on admission may have improvement opportunities.

Which, if any, issues might have impacted the SMM? The first seven options reflect improvement opportunities; among this group, you can *select all that apply*.

- Missed risk factors / warning signs
- Communication / handoff Issues
- Delayed / wrong diagnosis
- Delayed or wrong treatment (including delayed transfers)
- Delay in calling for assistance / consult
- Missed opportunities in prenatal care
- Patient factors (refusal/leaving AMA/lack of knowledge/barriers to care--including language)

Select one of the below **ONLY** if there were no improvement opportunities.

- Morbidity present at admission & no improvement opportunities
- Morbidity developed post admission & no improvement opportunities

Check "Referred to committee" when committee input is needed to identify the correct category. Ideally, the reviewer will return to this screen to designate one of the final categories above

- Referred to committee for determination

Comments

SMM Case Reviews in the MDC: *New Version*

Comments	Encrypted Medical Record Number	Delivery Date	Diagnoses	Procedures	SMM Category	Which issues might have impacted the SMM?	Review Complete?
	3cc0c035f7	09/16/2018	O14.13 , O98.52 , D62 , O41.03X0 , O99.02 , O42.913 , B00.1 , O99.89 , M54.30 , D50.0 , O99.344 , F41.9 , Z37.0 , Z3A.35 , O09.33	10D00Z1 , 30233N1	• Transfusion	click edit to assign issue <input type="button" value="Edit"/>	
	c8e6f31818	09/14/2018	O48.0 , O98.52 , O70.2 , O72.0 , B00.9 , O69.81X0 , O24.420 , O09.513 , O62.1 , Z37.0 , Z3A.41	10E0XZZ , 10D17ZZ , 0DQR0ZZ , 10907ZC	• Transfusion	click edit to assign issue <input type="button" value="Edit"/>	

Reviewing [bb2437a68a](#) [Close](#)

You have two options for using this chart review screen:

- In the first question, you can indicate that you'd like to review the case in the MDC—which brings up questions related to quality improvement opportunities. If all questions are completed, you will populate additional tools in the MDC that summarize your improvement opportunities. Click "View Measure Results" at the bottom of the page to use the additional tools.
- Alternatively, you can document that you have reviewed the case offline, and the MDC will display the case review as "Reviewed offline" and the case review will be considered complete.

Delivery Date 11/29/2018

Discharge Date 12/02/2018

Would you like to review this case in the MDC?

Yes, I'd like to review this case in the MDC

No, we reviewed this case using the SMM Case Review PDF or another formal case review tool and don't want to track improvement opportunities in the MDC

Comments

- This is useful for hospitals that want to track if the case was reviewed or not, but don't want to identify improvement opportunities in the MDC
- Can do a combination: review some in the MDC, some offline

	bb2437a68a	11/29/2018	O99.214 , Z68.41 , D62 , E66.01 , O61.9 , O99.52 , O63.0 , O90.81 , O76 , Z3A.39 , Z37.0 , O85 , J45.909 , O32.1XX0	10D00Z1 , 3E033VJ , 4A0HXCZ	• Sepsis	<i>Reviewed Offline</i> <input type="button" value="Edit"/>	<i>Reviewed Offline</i>
--	----------------------------	------------	---	---	--------------------------	--	-------------------------

SMM Case Reviews in the MDC: *New Version*

Reviewing bb2437a68a [Close](#)

Discharge Date 12/02/2018

Would you like to review this case in the MDC?
 Yes, I'd like to review this case in the MDC
 No, we reviewed this case using the SMM Case Review PDF or another formal case review tool and don't want to track improvement opportunities in the MDC

Was the case reviewed by committee?
 Yes
 No

Was the case debriefed during the hospitalization? ?
 Yes
 No

Were all SMM complications present on admission (POA)? ?
 Yes
 No

- Improvement opportunities now separate from “reviewed by committee” and “present on admission” questions
- If you select “no opportunities for improvement”, it will remove any other selections from the improvements list

Which, if any, issues might have impacted the SMM?
select all that apply

Communication Issues

- RN communication/handoff issues
- MD/CNM communication/handoff issues
- Other teamwork issues (e.g. not following chain of communication)

Patient Factors and Other Barriers to Care

- Poor staff-patient interactions (e.g. arguments, refusal of care, leaving AMA, bias)
- Other barriers to care (e.g. language)
- Social determinants of health (e.g. access, transportation)

Missed Opportunities

- Missed risk factors / warning signs
- Unit protocol(s) not followed
- Missed opportunities in prenatal care
- Other system issues (e.g. pharmacy, transport, lab)

Delays in Care

- Delayed or wrong diagnosis
- Delayed or wrong treatment
- Delay in calling for assistance / consult
- Delayed transfer to higher level of care

- No opportunities for improvement (e.g. planned hysterectomy)

Comments

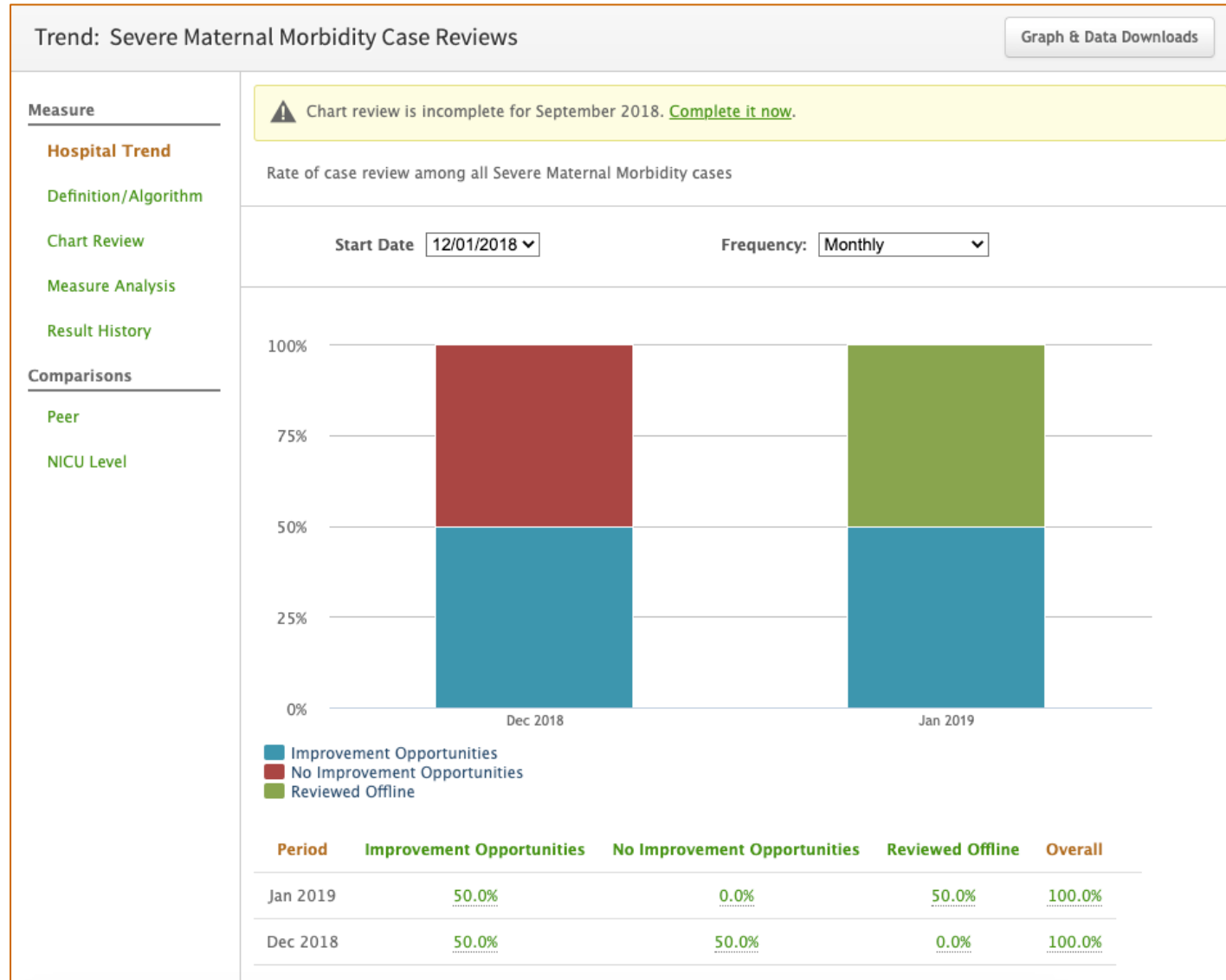
SMM Case Reviews Measure Results

- If you respond to all case review questions, the MDC will summarize your QI opportunities!

Return to Data Status Page

Proceed to Jan 2019

View Measure Results



SMM Case Reviews Measure Analysis

Measure Analysis: Severe Maternal Morbidity Case Reviews
Print Analysis

Measure

- Hospital Trend
- Definition/Algorithm
- Chart Review
- Measure Analysis**
- Result History

Comparisons

- Peer
- NICU Level

Period: Oct 2018 - Jan 2019 (4 months)

Start Date Duration SMM Underlying Cause

The analysis below summarizes potential opportunities for improvement among patients with SMM Co

- To see the list of cases in a specific category, click into the number in green for that category.
- You can change the reporting period by using the drop-down menus above.
- You can filter these summaries by SMM Underlying Cause using the filter at the top of the page.

Summary of Case Reviews

All SMM Cases:	4
Cases Reviewed in MDC:	3 (75.0%)
Cases Reviewed by Committee:	1 (33.3%) <input style="font-size: small; vertical-align: middle;" type="button" value="?"/>
Cases Debriefed During Hospitalization:	1 (33.3%) <input style="font-size: small; vertical-align: middle;" type="button" value="?"/>

- ✓ All SMM Cases
- Obstetric Hemorrhage
- Placental Hemorrhage
- Infection and Chorio
- Preeclampsia/Eclampsia
- Anemia on Admission
- Other Hematologic Conditions
- Other Medical Conditions
- Other Obstetric Conditions
- Cardiovascular Conditions
- Venous Thrombembolism
- Cerebrovascular Conditions

SMM Case Reviews Measure Analysis

SMM Complications and Present on Admission

A case is considered to have SMM "POA" only when all of the patient's SMM Complications were present on admission.

Filtered to: All SMM Cases Reviewed in MDC	Count	Percent
All SMM Cases	3	
Opportunity for Improvement	2	66.7%
No Opportunity for Improvement	1	33.3%
Cases where all SMM Complications were POA	1	
Opportunity for Improvement	1	100.0%
No Opportunity for Improvement	0	0.0%
Worsened During Hospitalization	0	0.0%
Cases where 1 or More SMM Complications not POA	2	
Opportunity for Improvement	1	50.0%
No Opportunity for Improvement	1	50.0%

- Potentially most useful for tertiary care centers that accept transfers from other facilities
- Focus your case reviews
- Keep in mind that the SMM may worsen after they are admitted at your hospital

SMM Case Reviews Measure Analysis

- Focus your QI activities based on common issues
- Filter by SMM *Underlying Cause*
 - For example, there may be more communication issues in Infection and Chorio cases vs. delayed treatment for Preeclampsia/Eclampsia cases

Improvement Opportunities

The table below shows the potential improvement opportunities in your hospital's SMM cases. Because cases may have multiple improvement opportunities, this table highlights common issues among SMM cases rather than the cases themselves. As such, the numbers are likely to sum to be greater than 100%

You can filter these improvement opportunities by SMM Underlying Cause using the filter at the top of the page, as there may be different QI opportunities depending on the Underlying Cause. For example, you may find that unit protocols are not being followed for infection cases, but there are system issues for obstetric hemorrhages. This will help direct your QI activities.

Improvement Opportunities (n=2)
Filtered to: All SMM Cases Reviewed in MDC

	Count	%
Communication Issues	2	66.7%
RN communication/handoff issues	0	0.0%
MD/CNM communication/handoff issues	0	0.0%
Other teamwork issues (e.g. not following chain of communication)	2	66.7%
Patient Factors and Other Barriers to Care	1	33.3%
Poor staff-patient interactions (e.g. arguments, refusal of care, leaving AMA, bias)	0	0.0%
Other barriers to care (e.g. language)	0	0.0%
Social determinants of health (e.g. access, transportation)	1	33.3%
Missed Opportunities	1	33.3%
Missed risk factors / warning signs	1	33.3%
Unit protocol(s) not followed	0	0.0%
Missed opportunities in prenatal care	0	0.0%
Other system issues (e.g. pharmacy, transport, lab)	0	0.0%
Delays in Care	1	33.3%
Delayed or wrong diagnosis	0	0.0%
Delayed or wrong treatment	1	33.3%
Delay in calling for assistance / consult	0	0.0%
Delayed transfer to higher level of care	0	0.0%
No Improvement Opportunities	1	33.3%

See *Underlying Cause* filter here

Updated SMM CSV Downloads

Severe Maternal Morbidity (SMM)

Discharge Dates: 11/01/2018-01/31/2019 Add Filter Encrypted Medical Record Number Provider: Full Name

[Fallout Cases \(4\)](#) [Denominator Cases \(35\)](#) [Non-Included Cases \(0\)](#) [◀ Aug - Oct 2018](#)

- *NEW* Fields in the CSV Download:
 - SMM *Complication(s)*
 - SMM *Underlying Cause*
 - *Estimated Risk of SMM*
 - Case Reviewed by Committee
 - Case Debriefed
 - All SMM Complications POA
 - SMM Complications POA Worse During Hospitalization
 - Improvement Opportunities
 - QI Domains

SMM Case Review PDFs

CONFIDENTIAL- This is a peer review document for internal QI purposes and may be protected (e.g. CA Code 1157). Please defer to your hospital's policies on patient safety documentation.

CONFIDENTIAL- This is a peer review document for internal QI purposes and may be protected (e.g. CA Code 1157). Please defer to your hospital's policies on patient safety documentation.

CMQCC SMM Case Review Worksheet - Month/Year: _____

Demographic/Prenatal Information:			
Patient ID:		Admission Date:	
Patient DOB:	Patient Age:	Discharge Date:	
Patient R/E:		Total LOS:	PP LOS:
Patient BMI:		Discharge Disposition:	
Month PNC Began:		Number of PNC Visits:	

Delivery Information:			
Delivery Date:		Gestational Age:	
Method of Delivery:		# Prior Live Births:	Plurality:
Indication for CS (if applicable):		Prior C/S: Yes <input type="radio"/> No <input checked="" type="radio"/>	Prior Uterine Surgery: Yes <input type="radio"/> No <input type="radio"/>
Delivering Provider:		Labor Care Provider:	
Transfer in? Yes <input type="radio"/> No <input type="radio"/>		Type of Anesthesia (if applicable):	
Transferring Hospital (if applicable):		Spontaneous, Induced, or No Labor:	

SMM Information:			
SMM Category(s):			
SMM Risk Score:		SMM Underlying Cause:	
ICU Admission? Yes <input checked="" type="radio"/> No <input type="radio"/>		Massive RBC Transfusion? Yes <input type="radio"/> No <input type="radio"/>	
RBCs:	FFP:	Plt Pack:	Cryo:
ICD-10 Diagnosis Codes POA:			

--	--	--	--

ICD-10 Diagnosis Codes:			

ICD-10 Procedure Codes:			

Additional Notes:			

Patient ID:	Discharge Date:
-------------	-----------------

Review:
Was the case debriefed during the hospitalization? Yes <input type="radio"/> No <input type="radio"/>
Were all SMM complication(s) present on admission? Yes <input type="radio"/> No <input type="radio"/>
If yes, did the SMM complication(s) present on admission get worse during the hospitalization? Yes <input type="radio"/> No <input type="radio"/>

Which, if any, issues that impacted the SMM? Please check ALL that apply in this case:

Communication Issues	Patient Factors and Other Barriers to Care
<input type="checkbox"/> RN communication/handoff issues	<input type="checkbox"/> Poor staff-patient interactions (e.g. arguments, refusal of care, leaving AMA, bias)
<input type="checkbox"/> MD/CNM communication/handoff issues	<input type="checkbox"/> Other barriers to care (e.g. language)
<input type="checkbox"/> Other teamwork issues (e.g. not following chain of communication)	<input type="checkbox"/> Social determinants of health (e.g. access, transportation)
Missed Opportunities	Delays in Care
<input type="checkbox"/> Missed risk factors/warning signs	<input type="checkbox"/> Delayed or wrong diagnosis
<input type="checkbox"/> Unit protocol(s) not followed	<input type="checkbox"/> Delayed or wrong treatment
<input type="checkbox"/> Missed opportunities in prenatal care	<input type="checkbox"/> Delay in calling for assistance/consult
<input type="checkbox"/> Other system issues (e.g. pharmacy, transport, lab)	<input type="checkbox"/> Delayed transfer to higher level of care
<input type="checkbox"/> No opportunities for improvement	

Review Committee Analysis:

If anything, what could have been done differently to improve the care?

Was there an opportunity to alter the outcome? (this is NOT whether the standard of care was met)

Strong <input type="radio"/>	Possible <input type="radio"/>	None <input type="radio"/>
If there was a possibility to alter the outcome, was it related to... (select all that apply)		
Provider <input type="checkbox"/>	System/Process <input type="checkbox"/>	Patient <input type="checkbox"/>
Even if the outcome was not likely to have been altered, were system improvement opportunities identified?		

What was done well and could be reinforced/acknowledged?

--

Recommendations for improvements and plan for implementation?

--

Review Information:

Individual Completing Form:
Date Form Completed:

Action Steps:	<input type="checkbox"/> Referred for RCA
	<input type="checkbox"/> Coding Issue: Discuss with coding team
	<input type="checkbox"/> Documentation Issue: Discuss with provider
	<input type="checkbox"/> System Issue: QI team to develop action plan
	<input type="checkbox"/> Provider Issue: Dept leader to work with provider
	<input type="checkbox"/> Nursing Issue: Nursing leader to work with nurse(s)
	<input type="checkbox"/> QI update communication shared with the unit
<input type="checkbox"/> Other:	

- Can help to standardize your case review process
- Whether you use the *SMM Case Reviews* tool in the MDC or not, we encourage you to review all your SMM cases

SMM Case Review PDFs

Home » Demo Hospital » Data Status » SMM Case Reviews

Chart Review: SMM Case Reviews Print Worksheet Case Review Forms (PDF)
 Coming soon!

Time Period: Discharges from January 2019 Encrypted

Remaining to Complete: 0/2

- This list displays ALL cases with a diagnosis/procedure code that represents a severe maternal morbidity (SMM) complication per the **CDC/AIM definition**. SMM case reviews can help hospitals determine whether the severe morbidity could have been prevented and which processes might be amended to prevent future SMMs.
- CMQCC recommends that a clinician trained in OB chart review perform an initial review of each SMM case (listed below) to determine if the case requires additional discussion by the health care team and/or patient safety committee.

CMDC Support

User Guides Training

Not finding the information you need?

MDC User Access and Management

Data Submissions

Using & Downloading Reports & Data

Coding and Data Corrections

Provider-Level Reports

Measures, Measure Definitions, and Chart Review Measures

Patient Safety Resources

Labor Care Provider Feature

Staff User Guides

Birth Equity

Severe Maternal Morbidity (SMM)

- SMM Case Review PDF - Blank
- Severe Maternal Morbidity (SMM) FAQs

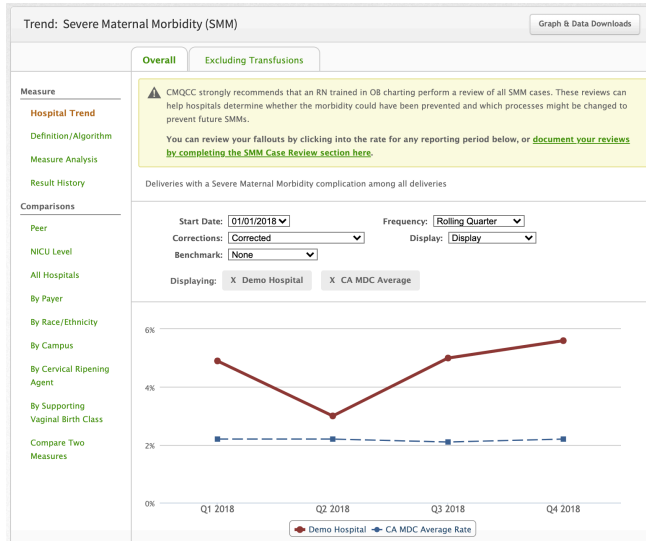
- **Now:** Download a blank fillable PDF from the *MDC Support Section*
- **Coming soon:** Download a batch of pre-filled PDFs from the *SMM Case Reviews* screen

Overview of SMM Enhancements

- Updated SMM Drill-down Screens
- *NEW*: SMM Risk-Adjusted 1.0
- Updated SMM Measure Analysis
- Updated SMM Case Review Metric in the MDC
- *NEW*: SMM Case Review Measure Analysis
- Updated SMM CSV Downloads
- *NEW and Coming Soon!:* SMM Case Review PDF

3 Places to Start Diving into SMM

#1: SMM Trend Screen



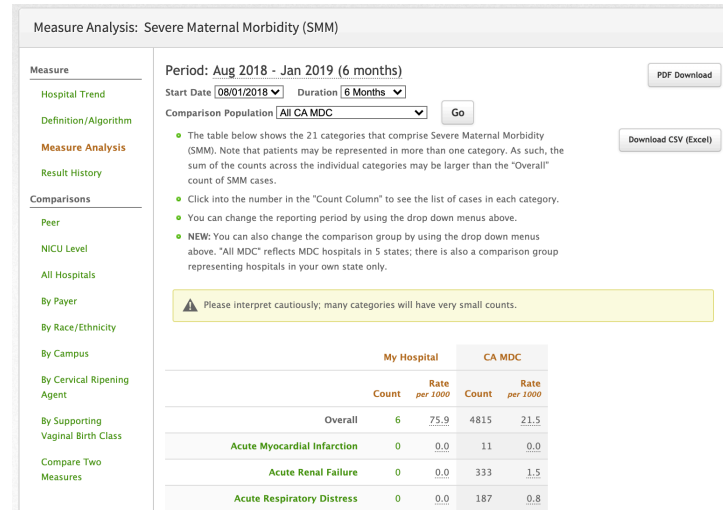
Questions to ask:

- Is my trend changing over time?
- If I change the frequency on the graph, do I see a more cohesive trend?

Also consider:

- Look at SMM without Transfusions
- Compare two measures to check for impacts on other metrics
- Peer comparisons in SMM Risk-Adjusted

#2: SMM Measure Analysis



Questions to ask:

- What SMM Complication Category is driving my SMM rate?
- What Underlying Cause is driving my SMM rate?

Also consider:

- TJC Perinatal Standards Tools if your underlying causes are primarily hemorrhages or hypertensive conditions

#3: SMM Patient Drill-Down Screen

Severe Maternal Morbidity (SMM)

Discharge Dates: 11/01/2018-01/31/2019 Add Filter Encrypted Medical Record Number Provider: Blinded

Fallout Cases (4) Denominator Cases (35) Non-Included Cases (0) Aug - Oct 2018

Print Download XLS

CMQCC strongly recommends that an RN trained in OB charting perform a review of all SMM cases. These reviews can help hospitals determine whether the morbidity could have been prevented and which processes might be changed to prevent future SMMs. Review your fallouts below, or document your reviews by completing the SMM Case Review list here.

Displaying all 4 fallout cases

Encrypted Medical Record Number	Delivery Date	Gest. Age	BW	Diagnoses	Procedures	SMM Category	Underlying Cause	Delivering Provider	Comments
bb2437a68a	11/29/2018	40+3	3984	O99.214, Z68.41, D62, E66.01, O61.9, O98.52, O63.0, O90.81, O76, Z3A.39, Z37.0, O85, J45.909, O32.1XX0	10D00Z1, 3E033V, 4A0HXZ2	Sepsis		Provider #286	d/t sepsis
b6ac48b1d	12/26/2018	38	2972	O24.410, O99.824, O34.43, Z67.91, Z3A.39, Z37.0, Z23, O72.3	10907ZC, 3E033V, 10D00Z1, 3E033V	Disseminated Intravascular Coagulation, Transfusion		Provider #327	Click to comment

Questions to ask:

- What issues drove the SMM for each case?
- Is there anything that could have been done differently to prevent the SMM?

Also consider:

- Review cases directly in MDC using "SMM Case Reviews" screens
- SMM Case Review PDFs

MDC Support Section

The screenshot shows the Maternal Data Center (MDC) Support Section interface. At the top, there is a dark navigation bar with the text "Maternal Data Center" and links for "Home", "Admin", and "Support". A search bar is located to the right of these links. On the far right of the navigation bar, it says "Hi, Emily | CMQCC Accounts | Logout". Below the navigation bar, there is a breadcrumb trail: "Home » Support". The main content area is titled "CMDC Support" and features a prominent "Contact CMDC Support" button highlighted with an orange border. Below this, there are three tabs: "User Guides", "Trainings, Webinars, & Meetings", and "Reporting and QI Programs". A search bar with the text "Search Support Documents" is positioned below the tabs. At the bottom of the section, there is a message: "Not finding the information you need? Please [Contact CMDC Support](#) and we'll get back to you."

Severe Maternal Morbidity (SMM)

- SMM Case Review PDF – Blank
- Severe Maternal Morbidity (SMM) FAQs

Questions?



Feel free to email us at datacenter@cmqcc.org

Please respond to the survey that will be sent out tomorrow!
RNs: Must fill it out in order to claim CEUs

Upcoming CEU Opportunity



SF BAY AREA AWHONN CHAPTER *invites you to a*
Three-Part Series with the
California Maternal Quality Care Collaborative
Transforming Perinatal Practice with Proven Results

CMQCC Speakers:

Elliott Main MD CMQCC Medical Director & Executive Committee Chair
Christa Sakowski MSN RN C-EFM CLE CMQCC Clinical Lead: HTN, Hemorrhage, Mentoring
Terri Deeds RN MSN NE-BC CMQCC Clinical Lead: Birth Equity, QI Academy

November 24, 2020 ~ 11:45am – 1:30pm PST

No charge for first webinar in the series!

Objectives:

1. Review key targets of CMQCC mission, multidimensional collaborative work and current focus.
2. Discuss how nurses' practice affects maternal & newborn quality outcomes.

Registration link: https://zoom.us/webinar/register/WN_kcfDIS78Sd25e3xXgMT0pg

You will receive a confirmation email from sectionsupport@awhonn.org

For questions, email awhonnssfayarea@gmail.com

Register: <https://bit.ly/2K7jcMY>