

AIM MEASURES for Obstetric Hemorrhage Bundle

Outcome Measures (O)	Description	Data Source	Reporting Frequency	Data Coordinator Options	Notes
O1: Severe Maternal Morbidity (SMM)	Denominator: All mothers during their birth admission, excluding ectopics and miscarriages Numerator: Among the denominator, all cases with any SMM code	HDD File (ICD-10)	Quarterly (if available), otherwise annual	<ul style="list-style-type: none"> •State Agency •Designated Data Coordinating Body/Hospital System 	<p><i>The SMM Outcome Measures will also be calculated on an annual basis by major race/ethnicity groups: NH white, NH black, Hispanic, NH AI/AN, NH API(NH=Non-Hispanic).</i></p> <p><i>Each state will determine which race groups to report, but the first 3 are required.</i></p>
O2: Severe Maternal Morbidity (excluding cases with only a transfusion code) among All Delivering Women	Denominator: All mothers during their birth admission, excluding ectopics and miscarriages Numerator: Among the denominator, all cases with any non-transfusion SMM code	HDD File (ICD-10)	Quarterly (if available), otherwise annual	<ul style="list-style-type: none"> •State Agency •Designated Data Coordinating Body/Hospital System 	
O3: Severe Maternal Morbidity among Hemorrhage Cases	Denominator: All mothers during their birth admission, excluding ectopics and miscarriages, meeting one of the following criteria: <ul style="list-style-type: none"> • Presence of an Abruption, Previa or Antepartum hemorrhage diagnosis code • Presence of transfusion procedure code without a sickle cell crisis diagnosis code • Presence of a Postpartum hemorrhage diagnosis code Numerator: Among the denominator, all cases with any SMM code	HDD File (ICD-10)	Quarterly (if available), otherwise annual	<ul style="list-style-type: none"> •State Agency •Designated Data Coordinating Body/Hospital System 	
O4: Severe Maternal Morbidity (excluding cases with only a transfusion code) among Hemorrhage Cases.	Denominator: All mothers during their birth admission, excluding ectopics and miscarriages, meeting one of the following criteria: <ul style="list-style-type: none"> • Presence of an Abruption, Previa or Antepartum hemorrhage diagnosis code • Presence of transfusion procedure code without a sickle cell crisis diagnosis code • Presence of a Postpartum hemorrhage diagnosis code Numerator: Among the denominator, all cases with any non-transfusion SMM code	HDD File (ICD-10)	Quarterly (if available), otherwise annual	<ul style="list-style-type: none"> •State Agency •Designated Data Coordinating Body/Hospital System 	

Process Measures (P)	Description	Data Source	Reporting Frequency	Data Coordinator Options	Notes
P1: Unit Drills	<p>Report # of drills and the drill topics</p> <p>P1a: In this quarter, how many OB drills (In Situ and/or Sim Lab) were performed on your unit for any maternal safety topic?</p> <p>P1b: In this quarter, what topics were covered in the OB drills?</p>	Hospital	Quarterly	<ul style="list-style-type: none"> ●Perinatal Nurse Manager ●Designated QI Leader 	--
P2: Provider Education	<p>Report estimate in 10% increments (round up)</p> <p>P2a: At the end of this quarter, what cumulative proportion of OB physicians and midwives has completed (within the last 2 years) an education program on Obstetric Hemorrhage?</p> <p>P2b: At the end of this quarter, what cumulative proportion of OB physicians and midwives has completed (within the last 2 years) an education program on the Obstetric Hemorrhage bundle elements and the unit-standard protocol?</p>	Hospital	Quarterly	<ul style="list-style-type: none"> ●Perinatal Nurse Manager ●Designated QI Leader 	<p><i>Meant to be informal estimates by nursing leadership similar to the CDC survey to assess breastfeeding practices.</i></p> <p><i>Cumulative means "Since the onset of the project, what proportion of the staff have completed the educational program?"</i></p>
P3: Nursing Education	<p>Report estimate in 10% increments (round up)</p> <p>P3a: At the end of this quarter, what cumulative proportion of OB nurses has completed (within the last 2 years) an education program on Obstetric Hemorrhage?</p> <p>P3b: At the end of this quarter, what cumulative proportion of OB nurses has completed (within the last 2 years) an education program on the Obstetric Hemorrhage bundle elements and the unit-standard protocol?</p>	Hospital	Quarterly	<ul style="list-style-type: none"> ●Perinatal Nurse Manager ●Designated QI Leader 	<p><i>Meant to be informal estimates by nursing leadership similar to the CDC survey to assess breastfeeding practices.</i></p>
P4: Risk Assessment	<p>Report estimate in 10% increments (round up)</p> <p>At the end of this quarter, what cumulative proportion of mothers had a hemorrhage risk assessment with risk level assigned, performed at least once between admission and birth and shared among the team?</p>	Hospital	Quarterly	<ul style="list-style-type: none"> ●Perinatal Nurse Manager ●Designated QI Leader 	<p><i>Meant to be informal estimates by nursing leadership similar to the CDC survey to assess breastfeeding practices.</i></p>
P5: Quantified	<p>Report estimate in 10% increments (round up) In</p>	Hospital	Quarterly	<ul style="list-style-type: none"> ●Perinatal Nurse 	<p><i>Meant to be</i></p>

Blood Loss	this quarter, what proportion of mothers had measurement of blood loss from birth through the recovery period using quantitative and cumulative techniques?			Manager ● Designated QI Leader	<i>informal estimates by nursing leadership similar to the CDC survey to assess breastfeeding practices.</i> <i>Formal measurement can include any method beyond visual estimate alone (eg, under-buttock drapes with gradations, weighing clots and sponges, suction canisters with gradations).</i>
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Structure Measures (S)	Description	Data Source	Reporting Frequency	Data Coordinator Options	Notes
S1: Patient, Family & Staff Support	Report Completion Date Has your hospital developed OB specific resources and protocols to support patients, family and staff through major OB complications?	Hospital	Once	● Perinatal Nurse Manager ● Designated QI Leader	--
S2: Debriefs	Report Start Date Has your hospital established a system in your hospital to perform regular formal debriefs after cases with major complications?	Hospital	Once	● Perinatal Nurse Manager ● Designated QI Leader	<i>Major complications will be defined by each facility based on volume, with a minimum being The Joint Commission Severe Maternal Morbidity Criteria</i>
S3: Multidisciplinary Case Reviews	Report Start Date Has your hospital established a process to perform multidisciplinary systems-level reviews on all cases of severe maternal morbidity (including women admitted to the ICU, receiving ≥4 units RBC transfusions, or diagnosed with a VTE)?	Hospital	Once	● Perinatal Nurse Manager ● Designated QI Leader	
S4: Hemorrhage	Report Completion Date	Hospital	Once	● Perinatal Nurse	

Cart	Does your hospital have OB hemorrhage supplies readily available, typically in a cart or mobile box?			Manager ●Designated QI Leader	
S5: Unit Policy and Procedure	Report Completion Date Does your hospital have an OB hemorrhage policy and procedure (reviewed and updated in the last 2-3 years) that provides a unit-standard approach using a stage-based management plan with checklists?	Hospital	Once	●Perinatal Nurse Manager ●Designated QI Leader	
S6: EHR Integration	Report Completion Date Were some of the recommended OB Hemorrhage bundle processes (i.e. order sets, tracking tools) integrated into your hospital's Electronic Health Record system?	Hospital	Once	●Perinatal Nurse Manager ●Designated QI Leader	<i>It can be any part of the Obstetric Hemorrhage bundle (i.e. orders, protocols, documentation)</i>

AIM MEASURES for Severe Hypertension/Preeclampsia Bundle

Outcome Measures (O)	Description	Data Source	Reporting Frequency	Data Coordinator Options	Notes
O1: Severe Maternal Morbidity (SMM)	Denominator: All mothers during their birth admission, excluding ectopics and miscarriages Numerator: Among the denominator, all cases with any SMM code	HDD File (ICD-10)	Quarterly (if available), otherwise annual	<ul style="list-style-type: none"> ●State Agency ●Designated Data Coordinating Body/Hospital System 	<i>The SMM Outcome Measures will also be calculated on an annual basis by major race/ethnicity groups: NH white, NH black, Hispanic, NH AI/AN, NH API(NH=Non-Hispanic).</i>
O2: Severe Maternal Morbidity (excluding transfusion codes)	Denominator: All mothers during their birth admission, excluding ectopics and miscarriages Numerator: Among the denominator, all cases with any non-transfusion SMM code	HDD File (ICD-10)	Quarterly (if available), otherwise annual	<ul style="list-style-type: none"> ●State Agency ●Designated Data Coordinating Body/Hospital System 	
O3: Severe Maternal Morbidity among Preeclampsia Cases	Denominator: All mothers during their birth admission, excluding ectopics and miscarriages, with one of the following diagnosis codes: <ul style="list-style-type: none"> ●Severe Preeclampsia ●Eclampsia ●Preeclampsia superimposed on pre-existing hypertension Numerator: Among the denominator, cases with any SMM code	HDD File (ICD-10)	Quarterly (if available), otherwise annual	<ul style="list-style-type: none"> ●State Agency ●Designated Data Coordinating Body/Hospital System 	<i>Each state will determine which race groups to report, but the first 3 are required.</i>
O4: Severe Maternal Morbidity (excluding transfusion codes) among Preeclampsia Cases	Denominator: All mothers during their birth admission, excluding ectopics and miscarriages, with one of the following diagnosis codes: <ul style="list-style-type: none"> ●Severe Preeclampsia ●Eclampsia ●Preeclampsia superimposed on pre-existing hypertension Numerator: Among the denominator, all cases with any non-transfusion SMM code	HDD File (ICD-10)	Quarterly (if available), otherwise annual	<ul style="list-style-type: none"> ●State Agency ●Designated Data Coordinating Body/Hospital System 	
Process Measures (P)	Description	Data Source	Reporting Frequency	Data Coordinator Options	Notes
P1: Unit Drills	Report # of Drills and the drill topics	Hospital	Quarterly	●Perinatal Nurse	--

	<p>P1a: In this quarter, how many OB drills (In Situ and/or Sim Lab) were performed on your unit for any maternal safety topic?</p> <p>P1b: In this quarter, what topics were covered in the OB drills?</p>			<p>Manager</p> <ul style="list-style-type: none"> •Designated QI Leader 	
P2: Provider Education	<p>Report estimate in 10% increments (round up)</p> <p>P2a: At the end of this quarter, what cumulative proportion of OB physicians and midwives has completed (within the last 2 years) an education program on Severe HTN/Preeclampsia?</p> <p>P2b: At the end of this quarter, what cumulative proportion of OB physicians and midwives has completed (within the last 2 years) an education program on the Severe HTN/Preeclampsia bundle elements and the unit-standard protocol?</p>	Hospital	Quarterly	<ul style="list-style-type: none"> •Perinatal Nurse Manager •Designated QI Leader 	<p><i>Meant to be informal estimates by nursing leadership similar to the CDC survey to assess breastfeeding practices.</i></p> <p><i>Cumulative means "Since the onset of the project, what proportion of the staff have completed the educational program?"</i></p>
P3: Nursing Education	<p>Report estimate in 10% increments (round up)</p> <p>P3a: At the end of this quarter, what cumulative proportion of OB nurses has completed (within the last 2 years) an education program on Severe HTN/Preeclampsia?</p> <p>P3b: At the end of this quarter, what cumulative proportion of OB nurses has completed (within the last 2 years) an education program on the Severe HTN/Preeclampsia bundle elements and the unit-standard protocol?</p>	Hospital	Quarterly	<ul style="list-style-type: none"> •Perinatal Nurse Manager •Designated QI Leader 	<p><i>"Since the onset of the project, what proportion of the staff have completed the educational program?"</i></p>
P4: Treatment of Severe HTN	<p>Report N/D</p> <p>Denominator: Women with persistent (twice within 15minutes) new-onset Severe HTN (Systolic: ≥ 160 or Diastolic: ≥ 110), excludes women with an exacerbation of chronic HTN</p> <p>Numerator: Among the denominator, cases who were treated within 1 hour with IV Labetalol, IV Hydralazine, or PO Nifedipine</p>	Hospital	Quarterly	<ul style="list-style-type: none"> •Perinatal Nurse Manager •Designated QI Leader 	<p><i>The hardest part of this measure is to identify cases with persistent Severe Hypertension. Recommended use at least 2 systems (i.e. logbooks, EHR, pharmacy records) for identification of denominator cases.</i></p>

Structure Measures (S)	Description	Data Source	Reporting Frequency	Data Coordinator Options	Notes
S1: Patient, Family & Staff Support	Report Completion Date Has your hospital developed OB specific resources and protocols to support patients, family and staff through major OB complications?	Hospital	Once	<ul style="list-style-type: none"> ●Perinatal Nurse Manager ●Designated QI Leader 	--
S2: Debriefs	Report Start Date Has your hospital established a system in your hospital to perform regular formal debriefs after cases with major complications?	Hospital	Once	<ul style="list-style-type: none"> ●Perinatal Nurse Manager ●Designated QI Leader 	<i>Major complications will be defined by each facility based on volume, with a minimum being The Joint Commission Severe Maternal Morbidity Criteria</i>
S3: Multidisciplinary Case Reviews	Report Start Date Has your hospital established a process to perform multidisciplinary systems-level reviews on all cases of severe maternal morbidity (including women admitted to the ICU, receiving ≥4 units RBC transfusions, or diagnosed with a VTE)?	Hospital	Once	<ul style="list-style-type: none"> ●Perinatal Nurse Manager ●Designated QI Leader 	
S4: Unit Policy and Procedure	Report Completion Date Does your hospital have a Severe HTN/Preeclampsia policy and procedure (reviewed and updated in the last 2-3 years) that provides a unit-standard approach to measuring blood pressure, treatment of Severe HTN/Preeclampsia, administration of Magnesium Sulfate, and treatment of Magnesium Sulfate overdose?	Hospital	Once	<ul style="list-style-type: none"> ●Perinatal Nurse Manager ●Designated QI Leader 	--
S5: EHR Integration	Report Completion Date Were some of the recommended Severe HTN/Preeclampsia bundle processes (i.e. order sets, tracking tools) integrated into your hospital's Electronic Health Record system?	Hospital	Once	<ul style="list-style-type: none"> ●Perinatal Nurse Manager ●Designated QI Leader 	<i>It can be any part of the Severe Hypertension bundle (i.e. orders, protocols, documentation)</i>