CMQCC
CALIFORNIA MATERNAL
QUALITY CARE COLLABORATIVE

Overview of National OB Quality Initiatives

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Objectives:

- Describe the national initiatives to improve safety and performance in OB
- Understand the power of perinatal collaboratives
- Describe California Maternal Data Center and how it can be used for benchmarking and driving maternal QI efforts.

Presenter Disclosure(s):

- None

CPQCC and CMQCC

Mission: Improving care for moms and newborns

California Perinatal Quality Care Collaborative (CPQCC)

- Expertise in data capture from hospitals
- Established Perinatal Data Center in 1996, works with VON
- Data use agreements in place with 130 hospitals with NICUs
- Model of working with state agencies to provide data of value

California Maternal Quality Care Collaborative (CMQCC)

- Expertise in maternal data analysis
- Developer of QI toolkits: Early Elective Delivery, OB Hemorrhage, Preeclampsia, Primary Cesarean
- Host of collaborative learning sessions
- Established Maternal Data Center in 2011

CMQCC Key Partner/Stakeholders

State Agencies:

- MCAH, Dept Public Health
- OSHPD Healthcare Information Division
- Office of Vital Records (OVR)
- Regional Perinatal Programs of California (RPPC)
- DHCS, Medi-Cal

Public Groups

- California Hospital Accountability and Reporting Taskforce (CHART)
- Kaiser Family Foundation
- March of Dimes (MOD)
- Pacific Business Group on Health

Professional groups

- American College of Obstetrics and Gynecology (ACOG--District IX)
- Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN--California Section)
- American College of Nurse Midwives (ACNM-California Section),
- American Academy of Family Physicians (AAFP--CAFP)

Key Medical and Nursing Leaders

- University and Hospital Systems
- Kaisers, Sutter, Sharp, CHW, Scripps, Public hospitals,

<<Considerations>>

- Importance of including as many stakeholders as possible in the collaborative
- Creating value for each stakeholder—thinking thru “what can the collaborative do for each stakeholder category?”

National Maternal QI Projects

- Quality/Performance Measures (examples)
  - Elimination of Elective Delivery <39 weeks (TJC, Leap Frog, CMS, HENs)
  - Low-risk First birth (NTSV) Cesarean Prevention (TJC, Leap Frog, CMS, HENs)
  - Increasing Antenatal Steroids for Fetal Maturation (TJC, Leap Frog, CMS)
- National Maternal Safety Bundles (examples)
  - Obstetric Hemorrhage (ACOG/ SMFM/ AWHONN)
  - Preeclampsia (ACOG/ SMFM/ AWHONN)

<<Considerations>>

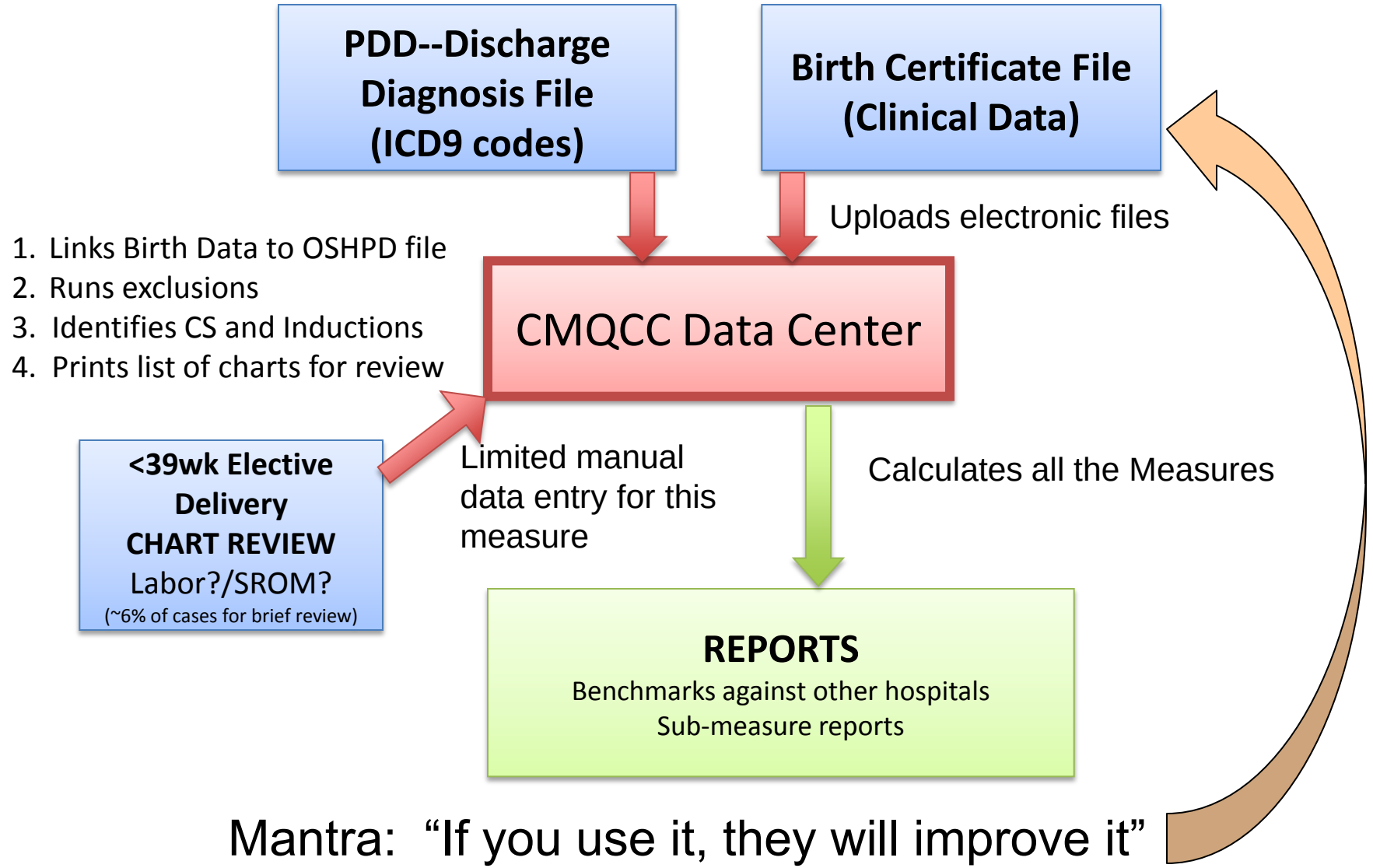
- Important for Quality Collaboratives to do BOTH performance and safety projects over time
- Maximize stakeholder engagement
- Builds recognition and respect

Early Elective Delivery- Accounting for the Success

- Strong evidence base (ACOG/ CMQCC-MOD)
- Data-driven QI capability (Quality Collab.)
- Professional leadership (ACOG)
- National Quality Measures (TJC, LF, CMS)
- Public Advocacy (March of Dimes)
- Transparency / Public reporting (CMS, LF, TJC)
- Payment reform to dis-incent activity
  (Various payers, CMS)

Success: Pressure From All Angles

CMQCC Maternal Data Center: Data Flow



Mantra: "If you use it, they will improve it"

What are some of the features of the CMDC?

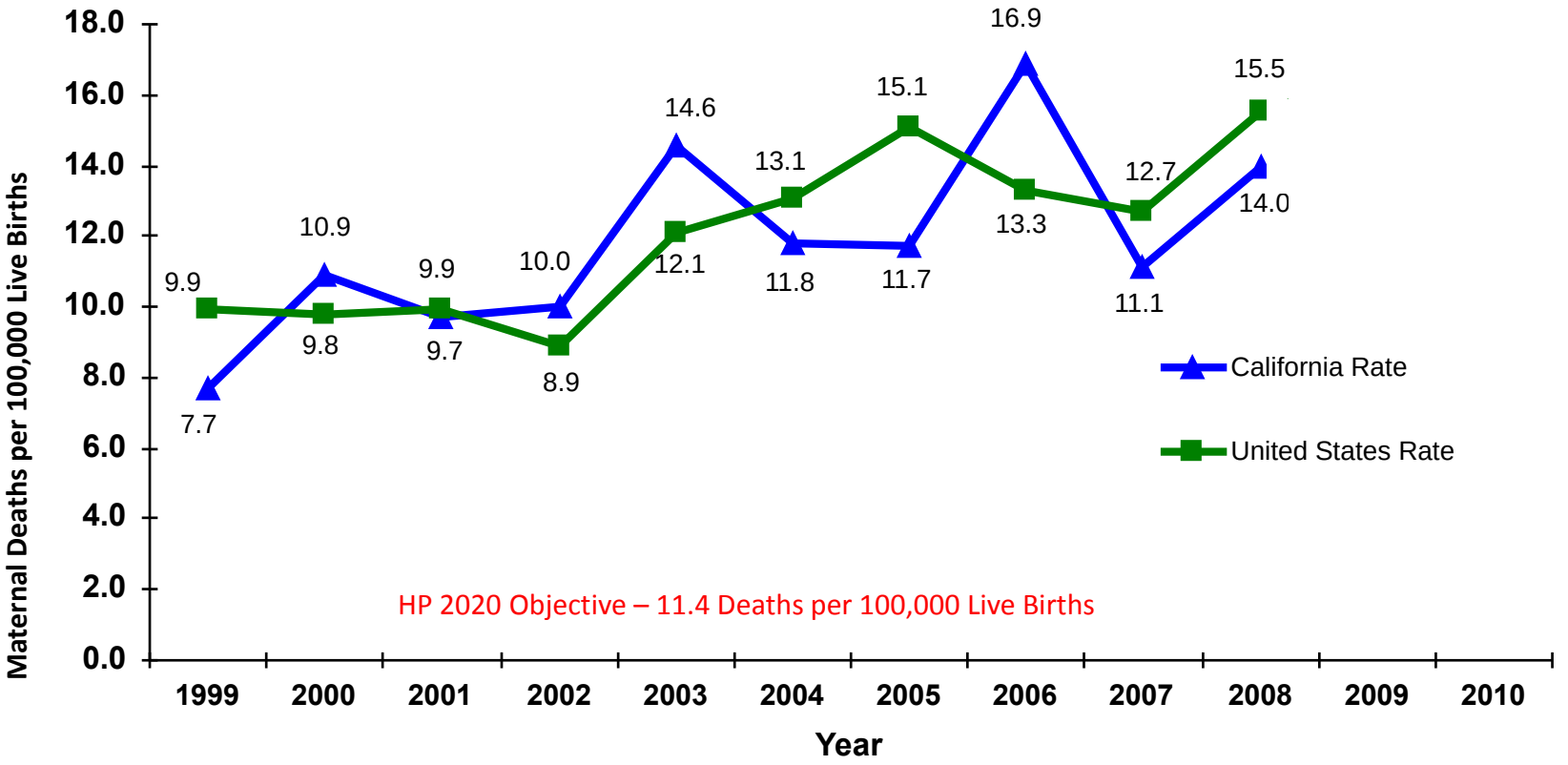
A low-cost, low-burden, web-based tool providing hospitals with:

- Overall hospital performance measures
- Drill-down statistics and case review worksheets to identify quality improvement opportunities—for both clinical quality and data quality
- Provider-level statistics—to assess variation within a hospital
- Benchmarking statistics--to compare your hospital to regional, statewide, and like-hospital peers
- Facilitating reporting to Leapfrog, Cal-HEN and PSF +

<<Considerations>>

- Important to move beyond reporting metrics to addressing WHY?
- Need to have timely data (months old rather than years old)
- Need a base of the entire population and then build projects requiring special data collection on that foundation

Maternal Mortality Rate, California and United States; 1999-2010



SOURCE: State of California, Department of Public Health, California Birth and Death Statistical Master Files, 1999-2010. Maternal mortality for California (deaths ≤ 42 days postpartum) was calculated using ICD-10 cause of death classification (codes A34, O00-O95,O98-O99) for 1999-2010. United States data and HP2020 Objective were calculated using the same methods. U.S. maternal mortality rates are published by the National Center for Health Statistics (NCHS) through 2007 only. Rates for 2008-2010 were calculated using NCHS Final Birth Data (denominator) and CDC Wonder Online Database for maternal deaths (numerator). Accessed at http://wonder.cdc.gov/ucd-icd10.html on Apr 17, 2013 8:00:39 PM. Produced by California Department of Public Health, Center for Family Health, Maternal, Child and Adolescent Health Division, April, 2013.

Maternal Mortality and Severe Morbidity

Approximate distributions, compiled from multiple studies

Cause	Mortality (1-2 per 10,000)	ICU Admit (1-2 per 1,000)	Severe Morbid (1-2 per 100)
VTE and AFE	15%	5%	2%
Infection	10%	5%	5%
Hemorrhage	15%	30%	45%
Preeclampsia	15%	30%	30%
Cardiac Disease	25%	20%	10%

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The American College of Obstetricians and Gynecologists
WOMEN'S HEALTH CARE PHYSICIANS

Society for Maternal-Fetal Medicine (SMFM)

CDC

Division of Reproductive Health

HRSA

Maternal Child Health Branch (MCH-B)

National Maternal Health Initiative: Strategies to Improve Maternal Health And Safety

May 5th 2013

New Orleans, LA

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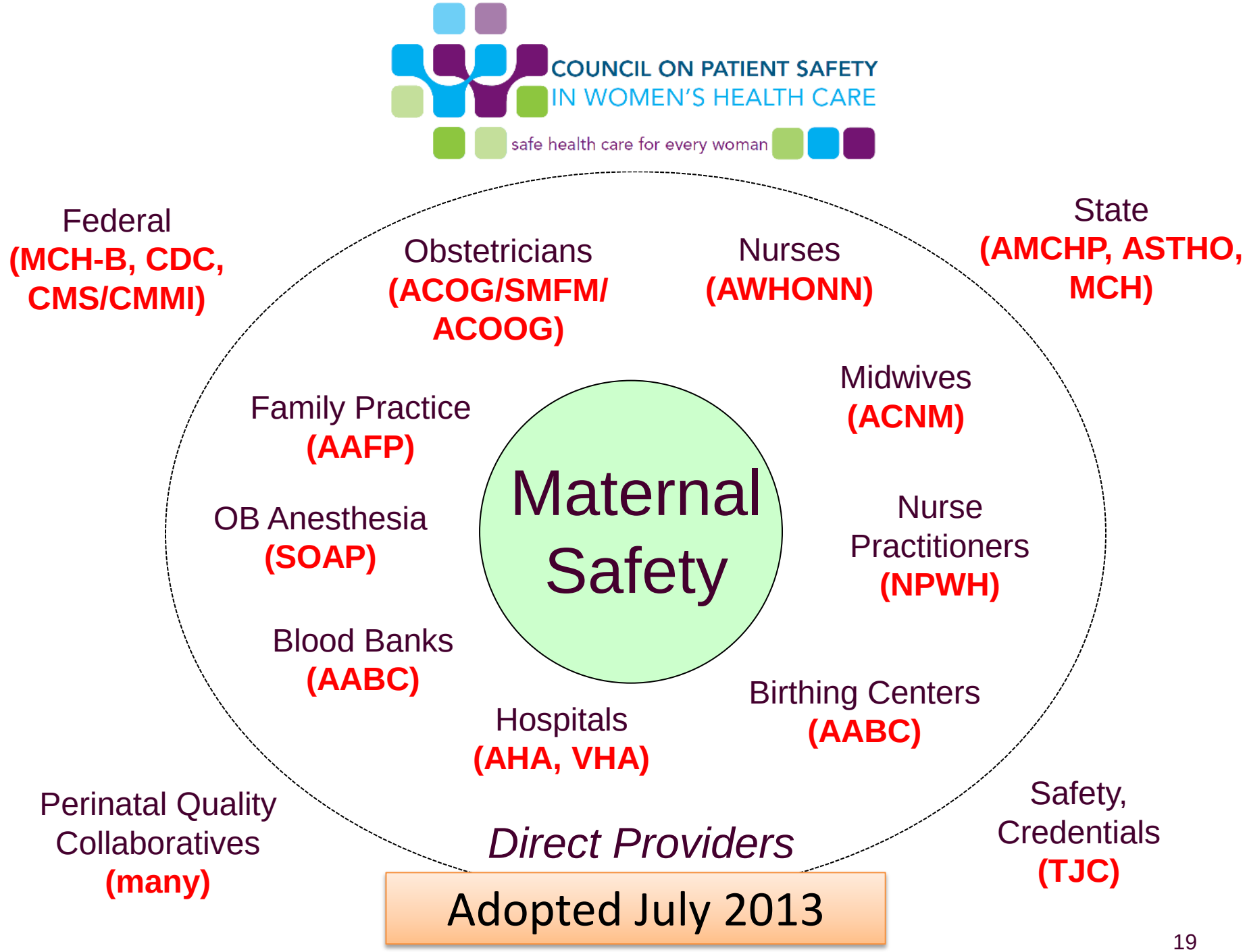
"What every birthing facility in the US should have…"

Maternity Safety Bundles:
"What every birthing facility should have…"

- Obstetric Hemorrhage Safety Bundle
- Severe Hypertension Safety Bundle
- VTE Prevention Safety Bundle

- Maternal Early Warning Criteria (triggers)
- Severe Maternal Morbidity Facility Review
- Patient, Family and Staff Support Bundle

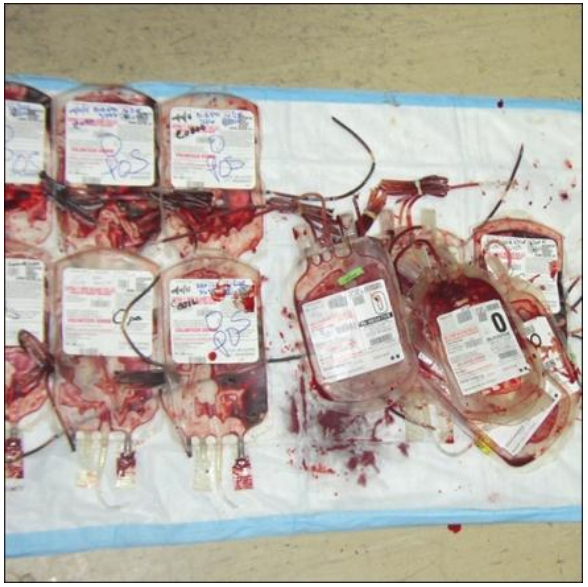

COUNCIL ON PATIENT SAFETY
IN WOMEN'S HEALTH CARE
safe health care for every woman
Federal
(MCH-B, CDC, CMS/CMMI)
Obstetricians
(ACOG/SMFM/ ACOOG)
Nurses
(AWHONN)
State
(AMCHP, ASTHO, MCH)
Midwives
(ACNM)
Family Practice
(AAFP)
Maternal Safety
OB Anesthesia
(SOAP)
Nurse Practitioners
(NPWH)
Blood Banks
(AABC)
Birthing Centers
(AABC)
Hospitals
(AHA, VHA)
Perinatal Quality Collaboratives
(many)
Safety, Credentials
(TJC)
Direct Providers
Adopted July 2013

Maternity Safety Bundles: 4 Principles

1) *Every hospital should have "A" safety bundle for these areas, we are not developing "THE" standard US bundle*
2) *"Plans are nothing; Planning is everything". --Dwight D Eisenhower*
3) *Multi-disciplinary team work is key for the development, maintenance and daily use of the bundles*
4) *KISS is critical for success*

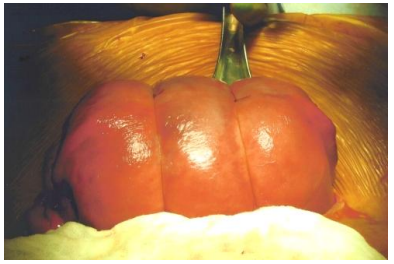
Obstetric Hemorrhage Safety Bundle

- Readiness (every unit)
- Recognition & prevention (every patient)
- Response (every hemorrhage)
- Reporting / systems learning (every unit)

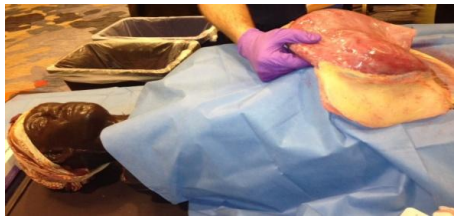


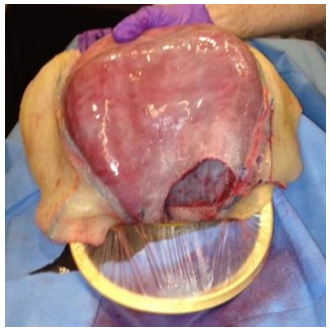
Obstetric Hemorrhage Key Elements

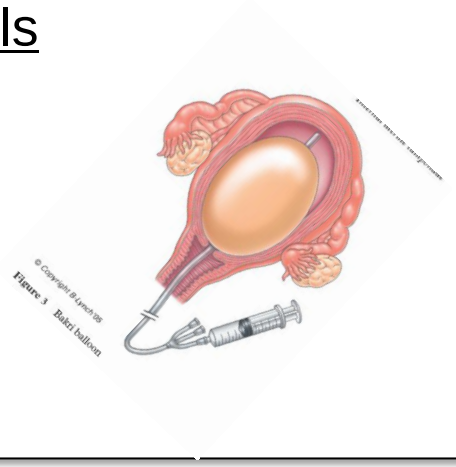
READINESS (every unit)



1. Hemorrhage Cart with procedural instructions
   - Balloons, compression stitches
2. Rapid access to hemorrhage medications
   - Medication kit or equivalent
3. Establish a response team: Blood Bank, Anesthesia, Advanced Gynecologic surgery, other support and tertiary services
   - Who to call when help is needed
4. Establish Massive and Emergency release transfusion protocols
   - O-negative/uncrossmatched
5. Unit education to protocols, regular unit-based drills
   - With post-drill debriefs
   - Include all relevant stakeholders







Obstetric Hemorrhage Key Elements

RECOGNITION & PREVENTION (every patient)

6. Assessment of hemorrhage risk
   - Prenatal
   - On admission
   - Other appropriate times
7. Measurement of Cumulative blood loss
   - Formal
   - As quantitative as possible
8. Universal active management of 3rd stage of labor

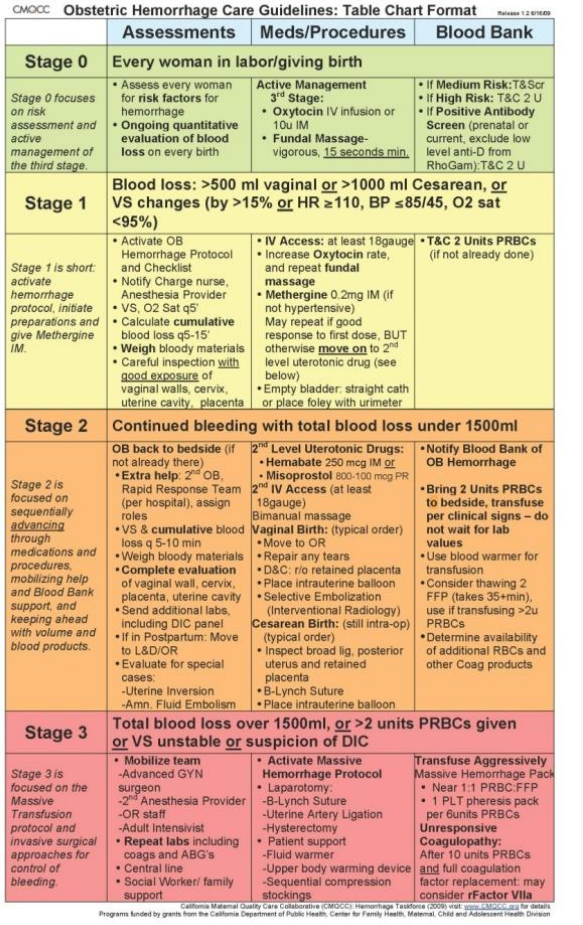
Obstetric Hemorrhage Key Elements

RESPONSE (every hemorrhage)

9. Unit-standard, stage-based OB Hemorrhage Emergency Management Plan with checklist

10. Support for patients, families and staff

    For all significant hemorrhages



CMQCC Obstetric Hemorrhage Care Guidelines: Table Chart Format

	Assessments	Meds/Procedures	Blood Bank
Stage 0	**Every woman in labor/giving birth**		
Stage 0 focuses on risk assessment and active management of the third stage.	• Assess every woman for **risk factors** for hemorrhage • **Ongoing quantitative evaluation of blood loss** on every birth	**Active Management 3rd Stage:** • **Oxytocin** IV infusion or 10u IM • **Fundal Massage-** vigorous, 15 seconds min.	• If **Medium Risk:** T&Scr • If **High Risk:** T&C 2 U • If **Positive Antibody Screen** (prenatal or current, exclude low level anti-D from RhoGam): T&C 2 U
Stage 1	**Blood loss: >500 ml vaginal or >1000 ml Cesarean, or VS changes (by >15% or HR ≥110, BP ≤85/45, O2 sat <95%)**		
Stage 1 is short: activate hemorrhage protocol, initiate preparations and give Methergine IM.	• Activate OB Hemorrhage Protocol and Checklist • Notify Charge nurse, Anesthesia Provider • VS, O2 Sat q5' • Calculate **cumulative** blood loss q5-15' • **Weigh** bloody materials • Careful inspection with good exposure of vaginal walls, cervix, uterine cavity, placenta	• **IV Access:** at least 18gauge • Increase **Oxytocin** rate, and repeat **fundal massage** • **Methergine** 0.2mg IM (if not hypertensive) May repeat if good response to first dose, BUT otherwise **move on** to 2nd level uterotonic drug (see below) • Empty bladder: straight cath or place foley with urimeter	• **T&C 2 Units PRBCs** (if not already done)
Stage 2	**Continued bleeding with total blood loss under 1500ml**		
Stage 2 is focused on sequentially advancing through medications and procedures, mobilizing help and Blood Bank support, and keeping ahead with volume and blood products.	**OB back to bedside** (if not already there) • **Extra help**: 2nd OB, Rapid Response Team (per hospital), assign roles • VS & **cumulative** blood loss q 5-10 min • Weigh bloody materials • **Complete evaluation** of vaginal wall, cervix, placenta, uterine cavity • Send additional labs, including DIC panel • If in Postpartum: Move to L&D/OR • Evaluate for special cases: -Uterine Inversion -Amn. Fluid Embolism	**2nd Level Uterotonic Drugs:** • **Hemabate** 250 mcg IM or • **Misoprostol** 800-100 mcg PR **2nd IV Access** (at least 18gauge) Bimanual massage **Vaginal Birth:** (typical order) • Move to OR • Repair any tears • D&C: r/o retained placenta • Place intrauterine balloon • Selective Embolization (Interventional Radiology) **Cesarean Birth:** (still intra-op) (typical order) • Inspect broad lig, posterior uterus and retained placenta • B-Lynch Suture • Place intrauterine balloon	• **Notify Blood Bank of OB Hemorrhage** • **Bring 2 Units PRBCs to bedside, transfuse per clinical signs – do not wait for lab values** • Use blood warmer for transfusion • Consider thawing 2 FFP (takes 35+min), use if transfusing >2u PRBCs • Determine availability of additional RBCs and other Coag products
Stage 3	**Total blood loss over 1500ml, or >2 units PRBCs given or VS unstable or suspicion of DIC**		
Stage 3 is focused on the Massive Transfusion protocol and invasive surgical approaches for control of bleeding.	• **Mobilize team** -Advanced GYN surgeon -2nd Anesthesia Provider -OR staff -Adult Intensivist • **Repeat labs** including coags and ABG's • Central line • Social Worker/ family support	• **Activate Massive Hemorrhage Protocol** • Laparotomy: -B-Lynch Suture -Uterine Artery Ligation -Hysterectomy • Patient support -Fluid warmer -Upper body warming device -Sequential compression stockings	**Transfuse Aggressively** Massive Hemorrhage Pack • Near 1:1 PRBC:FFP • 1 PLT pheresis pack per 6units PRBCs **Unresponsive Coagulopathy:** After 10 units PRBCs and full coagulation factor replacement: may consider **rFactor VIIa**

California Maternal Quality Care Collaborative (CMQCC): Hemorrhage Taskforce (2009) visit: www.CMQCC.org for details
Programs funded by grants from the California Department of Public Health, Center for Family Health, Maternal, Child and Adolescent Health Division

Obstetric Hemorrhage Key Elements

REPORTING / SYSTEMS LEARNING (every unit)

11. Establish a culture of:
    - Huddles: To anticipate and plan for high risk patients
    - Debriefs: Quick post-event reviews to identify successes and improvement opportunities

12. Multi-disciplinary review of serious hemorrhages
    - Stage 2 or 3 depending on frequency
    - To identify systems issues for improvement

13. Monitor outcomes & process metrics in perinatal QI committee

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WOMEN'S HEALTH CARE PHYSICIANS

COMMITTEE OPINION

Number 526 • May 2012

Committee on Patient Safety and Quality Improvement

This document reflects emerging concepts on patient safety and is subject to change. The information should not be construed as dictating an exclusive course of treatment or procedure to be followed.

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WOMEN'S HEALTH CARE PHYSICIANS

COMMITTEE OPINION

Number 590 • March 2014 *(Replaces Committee Opinion Number 487, April 2011)*

Committee on Patient Safety and Quality Improvement

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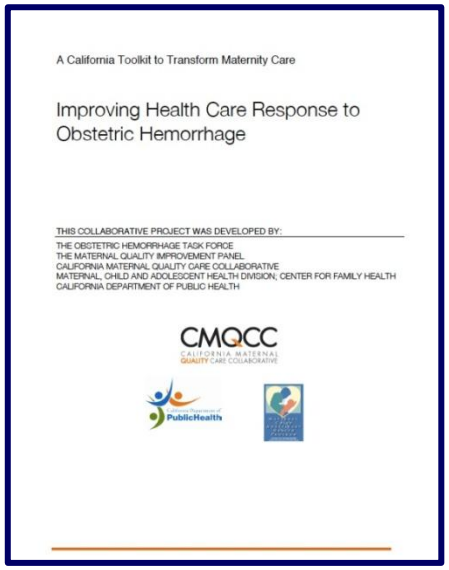
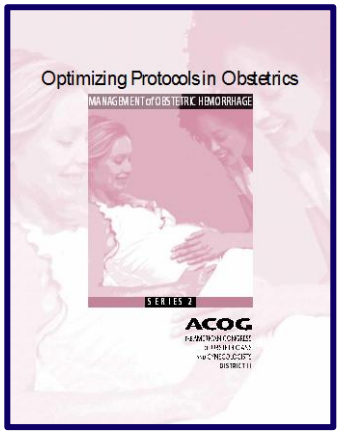
Preparing for Clinical Emergencies in Obstetrics and Gynecology

ABSTRACT: Patient care emergencies may occur at any time in any setting, particularly the inpatient setting. It iss important that obstetrician–gynecologists prepare themselves by assessing potential emergencies, establishing early warning systems, designating specialized first responders, conducting emergency drills, and debriefing staff after actual events to identify strengths and opportunities for improvement. Having such systems in place may reduce or prevent the severity of medical emergencies.

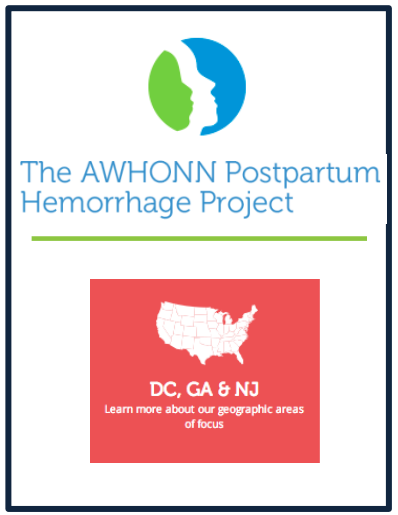
Key OB Hemorrhage QI Toolkits: *Full of Resources*



www.CMQCC.org



ACOG District II Website
(ACOG website)



www.pphproject.org

More resources are coming on-line especially from state Perinatal Collaboratives. Later in the year, the NPMS Bundle will be published with an index to resources.

Key Partner: Hospital Engagement Networks (HEN's)

- 27 HENs with over 3,700 participating hospitals focused on making hospital care safer, more reliable, and less costly
- 10 core patient safety areas, one is reduction of obstetrical adverse events with an initial primary focus: Early Elective Deliveries
- New for 2014, reduction of "OB harm" from
  - Obstetric Hemorrhage
  - Preeclampsia

The Joint Commission Sentinel Event: New Criteria for OB Beginning Jan 2015

- Intended not be punitive but educational
- Identify cases to review carefully for systems improvement opportunities
- For Obstetrics, they define severe maternal morbidity:
  - All cases with ≥4 units of blood products
  - All cases admitted to an ICU
- These cases would have a mini-RCA. ACOG has developed a package to aid reviews

A model for Rapid-cycle Improvement

- Maternity care has unusually large variation in care, even after risk adjustment
- Examine the drivers for successful projects:
  - multi-organization collaboration
  - alignment of goals
- Central role for data-driven QI / State-wide data system
  - Not just reporting hospital rates and provider rates
  - Multiple tools to allow intelligent analysis to allow providers to answer why their rate is high

Success: Pressure From Many Angles

May not need ALL angles for ALL projects

Thank You!

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