Journey to QBL – Creating a Culture Change on L&D

Melissa G Rosenstein, MD, MAS
Jennifer Airhart, RN, BSN
Marichele Punla, MSN, RN, NPD-BC, RNC-OB
Welcome and Housekeeping

- Attendees is muted upon joining.
- Continuing education contact hours are available for registered nurses through the California Board of Registered Nurses, Provider #3104, Mid-Coastal CA Perinatal Outreach Program.
- 50 minutes minimum of real-time attendance and completion of a post-event evaluation are required to obtain contact hours.
- The slides and webinar recording will be available in 2-3 days on the CMQCC website and Youtube channel.
- Please enter any questions in the Q&A box – questions will be addressed at the end of the webinar as time allows.
Introductions

Melissa Rosenstein, MD, MAS
Associate Professor, MFM, Dept of OB, GYN, and RS, UCSF
Medical Director for Quality and Patient Safety in Obstetrics
Medical Director, Maternal QI Academy, CMQCC

Jennifer Airhart BSN, RN
Clinical Nurse
UCSF Health

Marichele Punla, MSN, RN, NPD-BC, RNC-OB
Perinatal Nurse Educator – Stanford LPCH
Formerly Perinatal Educator, UCSF
Overview

- QBL – What and Why?
- Getting ready – the planning phase
- Rolling it out – the implementation phase
- We did it! – Sustainability and Implementation Pearls
<table>
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<th>Learning Objectives</th>
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<td>Identify the benefits of implementing QBL in your unit</td>
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<td>Discuss the importance of a robust planning period</td>
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<td>Review examples of how to successfully implement QBL</td>
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<td>Execute strategies of how to implement a practice change</td>
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<td>Support sustainability of a practice change</td>
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Quantitative Blood Loss – What?

- The attempt to quantify the amount of blood loss during any time during the birthing process
  - Antepartum, Delivery (Vaginal + Cesarean), Postpartum
- Can use a multitude of strategies, more than just “look and guess”
  - Calibrated drapes (volumetric), weighing (gravimetric), computer/photo AI
- ALSO – includes protocols for collecting and reporting a cumulative record of blood loss postdelivery (ACOG 2019)
Quantitative Blood Loss – Why?

- Hemorrhage is the 3rd leading cause of maternal mortality in CA (2008-2016)
- 69% of hemorrhage deaths could potentially have been prevented
- Response depends on Recognition
- Visual estimation underestimates actual blood loss by 35-50%
- Part of Joint Commission Perinatal Standards (Jan 2022)
- Becoming global standard

CA-PMSS, 2021; CA-PAMR, 2012; Patel, 2006; Dildy, 2004; Al Kadri, 2011
Evidence for QBL (as part of Hemorrhage Bundle)

- Implementation of Hemorrhage Bundle associated with:
  - 26% reduction in blood transfusions
  - 15-29% reduction in SMM
  - Decrease in racial disparities in SMM due to hemorrhage

FIGURE 2
Rates of SMM

Shields, 2015; Main, 2017; Main, 2020
QBL – Why? (Really)

- Perfect example of interdisciplinary/interprofessional communication
- Process led by RNs
- Turns blood loss into a conversation, not a one-way declaration
- Can be done by anyone who is trained – not only RN (expands the team)
Implementation Framework
Getting Ready

• Recognize prior failure
  • Honest evaluation of missteps
  • Ask doubters for suggestions
  • Get buy in from leaders willing to change

• Observe current state
  • Who is doing what?
  • What will need to change?
  • Who will need to be involved?
  • What was our process for EBL? What were we doing for PPH?

• Consult with front-line experts
  • Build team of nurses with experience
  • Ask for advice and lessons learned
  • Compile best practices
Action Plan

- Just get started
  - trying it out in cases with supportive/experienced staff
- Figure out the details
  - Get accurate wet/dry weights
  - When to start measurement?
    - after delivery, after gutters emptied of amniotic fluid
  - How to weigh laps efficiently in counter bag
  - When to stop?
    - Before irrigation, look at canister
Planning and Training

- Finalize the process
  - Write it down, make it clear
- Prepare the tools
  - Apex build for QBL calculator
  - Paper form in charts
  - Scales in every room
  - New graduated drapes
- Set the stage
  - Be transparent that change is coming
- Recruit Super Users for Roll-Out
Who is doing QBL?

- QBL is nurse driven (but can be anyone who is trained, PCA or patient tech)
- Nurses remind the team at the beginning of the case that we will be doing QBL
- Nurses are doing the calculations along the way
- Nurses are giving the QBL updates during surgery
- Nursing gives the final QBL at the end of the case
Getting team buy-in

- Needs to be done at ALL deliveries – gets everyone in the habit.
- MDs need to count laps, make sure they fish them out of the bag!
- Time-out should be done at the end of every birth, make sure that QBL is documented
- Does not need to be perfect!
Planning and Training – Annual Skills Validation

- 190 nurses
- 5 separate days spread out over 4 weeks, 4-hour sessions (total, 1 hr. of QBL, lecture and hands-on)
- Roll out happened AFTER everyone completed ASV
- Also rolled out new white boards and use of surgicount in LDRs, review of PPH cart, meds, and MTP/ER blood
NSVD
QBL

- Look at fluid level after baby is delivered (before placenta delivers)
- Call out this number and write this number down on white board.
NSVD QBL

- After placenta delivers (you can wait until after repair if bleeding is stable), look at amount of fluid in bag
Weigh your bloody laps
And anything else bloody!
NSVD QBL Calculation Worksheet

Final Fluid Level: ____________
Final amount of fluid collected in bag after delivery of baby, placenta and after repair.

Baby Delivery Fluid: ____________
Fluid collected in collection bag after baby is delivered.

Drape QBL: ____________

Wet lap weight: ____________

Dry lap weight: ____________

Lap QBL: ____________

Drape QBL: ____________

Lap Blood QBL: ____________

Total QBL: ____________

Total amount of fluid collected in bag after delivery of baby, placenta and after repair.

Total amount of fluid collected in bag after delivery of baby, placenta and after repair.

Lap Blood QBL

Drape QBL

+ Lap QBL

= Total QBL

Any other blood
After delivery of the baby, remind OB team to suction out gutters in the drape.

This can be done during delayed cord clamping.
Measuring

- Zero the Neptune suction
- Push the “Reset Volume” button
Separate bloody and non-bloody laps for weighing purposes
C-Section Quantitative Blood Loss Workflow Checklist

☐ At TIME OUT, remind team that QBL will be completed
☐ Remind team to suction drape of all amniotic fluid after delivery of the baby
☐ ZERO the NEPTUNE SUCTION after the team is done suctioning**
   THIS WILL BE YOUR BASELINE
☐ WEIGH LAPS (Place whole bag with 10 laps on scale)
☐ Prior to irrigation, note the amount in the Neptune Suction
☐ If clinically significant, measure amount expressed from fundal massage; if bleeding is minimal continue with care
☐ If there is a significant amount of blood under the patient weigh chux, etc. If minimal blood, continue transferring patient to gurney and proceed to PACU.
QBL
Documented

Example from the OR
Epic Documentation
Soft Rollout

- Soft Roll Out: Run by Super Users (front-line staff) and those with prior experience encouraged to start
- Became more familiar with range of values (higher and lower than expected)
- 2 weeks before expected Go-Live
Go-Live!

- Empowering SuperUsers and let them lead the work
- Importance of setting up expectations
- 24-hour support from leaders (MD’s & RN’s)
- Daily emails to SuperUsers and night team MDs
SuperUsers!!
Daily Huddles to troubleshoot

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Real Time Audits

- Involve SuperUsers in this process
- Empower the frontline staff to troubleshoot and give feedback
- Audits needed to be done manually to identify barriers and opportunities
Keep up the energy

- Staff was “signed off” and got QBL stickers on the badge
- Pens
- Weekly Raffles with gift cards
- Cupcakes
Opportunities

- QBL was being double charted
- Collaboration with anesthesia
- Where to chart QBL if PPH continued into the Postpartum unit
- Staff were manually calculating QBL vs. using the built-in calculator in Epic
- Be flexible with supply chain issues
- Reassurance about imperfections
Make it part of the workflow

POST DELIVERY TIME-OUT

TO BE COMPLETED AFTER EVERY BIRTH
PARTICIPANTS: OB TEAM, RN AND ANESTHESIA (as needed)

QUESTIONS TO ASK:
- WAS QBL COMPLETED? WHAT WAS THE QBL?
- WAS VAGINAL NEEDLE AND SPONGE COUNTS CORRECT?
- WAS SURGICOUNT CLOSED?
- PLACENTA TO PATHOLOGY?
- POSTPARTUM CARE?  
  (i.e. PP meds: Lovenox, Insulin)
- WHAT WENT WELL?
- ANY CONCERNS?
- DOCUMENT IN APEX TIME OUT COMPLETED (RN)
The PRIME program includes ambitious targets for hospitals. Assessing Quantitative Blood Loss (QBL) is a key component of the program. In 2016, the UCSF annual rate was 22.8%, compared to 43% in California and across the country.

In 2018, UCSF Birth Center Perinatal Services implemented a new protocol to improve patient care. The OB Hemorrhage Safety Bundle is a perinatal care metric, which requires hospitals to complete 16 elements to help ensure timely recognition of hemorrhage risk and decreased use of blood products. This has demonstrated improved outcomes such as decreased risk of maternal death.

Problems with recognition, treatment, and poor communication have been shown to contribute to postpartum hemorrhage. Solution strategies include standardized education and training, hands-on implementation, and audit protocols. A core planning group was formed to plan this huge practice change. Several barriers were identified and addressed.

Once the workflows were established, dissemination of this information was our next task. We leveraged the unit Annual Skills Days to resource nurses and drive the QBL GO LIVE. After 2 weeks, our Resource nurse (specifically QBL superusers) were assigned to resource out in L&D. We gave guided expectations on their role as QBL superusers. Their role included being present at deliveries and completing a skills audit report.

A soft roll out was implemented 4 weeks prior to the GO LIVE date. This allowed us to collect data prior to the GO LIVE to measure progress. Staff on QBL were given guided expectations on their role as QBL superusers. Their role included being present at deliveries and completing a skills audit report. The quality of hands-on is crucial in providing safe on-time care. This improvement work would be useful in other settings where blood loss can lead to delayed recognition of excessive blood loss.

For the pilot, we collected 100% of Vaginal and C-Section deliveries for QBL. A QBL flowsheet calculator and audit report was developed for APEnote as our technical analytic project components. Target: 80%.

Week 1:
- Vaginal: 24%
- C-Section: 50%

Week 2:
- Vaginal: 21%
- C-Section: 43%

Week 3:
- Vaginal: 22%
- C-Section: 46%

Week 4:
- Vaginal: 28%
- C-Section: 42%

Week 5:
- Vaginal: 98%
- C-Section: 100%

Week 6:
- Vaginal: 100%
- C-Section: 94%

Week 7:
- Vaginal: 100%
- C-Section: 93%

Week 8:
- Vaginal: 93%
- C-Section: 93%

Target: 88%
Lesson #1 - First step to sustainability is implementation!

Prior attempts at QBL implementation were flawed and incomplete
### Six Sources of Influence

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<th><strong>Ability</strong></th>
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<td><strong>Personal</strong></td>
<td>Do they want to engage in the behavior?</td>
<td>Do they have the right skills and strengths to do the right thing?</td>
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<td>Make the Undersirable, Derisible</td>
<td>Are other people encouraging and/or discouraging behaviors</td>
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<tr>
<td><strong>Social</strong></td>
<td>Helping Them Surpass Their Limits</td>
<td>Do others provide the help, information, and resources required at particular times?</td>
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<td>Harness Peer Pressure</td>
<td>Are systems rewarding the right behavior and discouraging ineffective ones?</td>
<td>Find Strength in Numbers</td>
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<tr>
<td><strong>Structural</strong></td>
<td>Design Rewards and Demand Accountability</td>
<td>Change the Environment</td>
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# Quantitative Blood Loss

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<tr>
<td>• Tell stories about unrecognized PPH</td>
<td>• Annual skills review to train all RNs</td>
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<td>• Highlight QBL as standard of care done elsewhere</td>
<td>• All providers get detailed info, refresh at rounds</td>
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<td><strong>Social</strong></td>
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<tr>
<td>• Encourage RNs and providers with prior experience with QBL to be superusers or supporters</td>
<td>• QBL superusers provider 24/7 coverage for 2 weeks to offer hands-on support</td>
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<td><strong>Structural</strong></td>
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<tr>
<td>• QBL stickers when signed off</td>
<td>• Display QBL worksheet in all OR and LDR</td>
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<td>• Dashboard with compliance levels</td>
<td>• Multiple ways to calculate QBL</td>
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<td>• Weekly emails</td>
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<td>• New graduated drapes</td>
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Lesson #2 - Share Questions and Wisdom

Gain confidence from others
- We visited UCLA to learn and view
- Could see ourselves in their locale and ask questions
- One-on-one attention

Become an expert yourself
- Invited local hospital to share our experience
- Front-line staff elevated to experts for outsiders
Lesson #3 Incorporate Team Training

- Protected Time to Plan
- Team STEPPS Change Framework
- Use SBAR for All QBL Communications
Lesson #4 - Deal with worries

- Soft Go-Live
- Don’t sweat the small (pink) stuff
- It’s only “semi”-QBL (jar of jellybeans)
- No penalty for hemorrhage
- Thermometer analogy (thanks Dr. Lagrew)
Implementation of QBL leads to interdisciplinary communication and collaboration.

Achieving a culture change requires listening, planning, adjusting, celebrating, and sustaining.

Once achieved, can be used as a model for other interventions.
Q&A
In CMQCC’s Maternal Data Center (MDC)

- For participating hospitals, several hemorrhage-specific measures tools are available in the MDC!
  - QBL Cumulative Value, Hemorrhage Risk Assessment on Admission, Severe Maternal Morbidity Among HEM Cases, Joint Commission Maternal Safety Standards for Hemorrhage, etc.

- Join the MDC team for Lightning Rounds on Tuesday, 11/8 at 12pm to go over how to use QBL Cumulative Value in the Maternal Data Center
  - Register for MDC Lightning Rounds [here](#)
Thank you!

For More Information or to Download the “Improving Healthcare Response to Obstetric Hemorrhage” Toolkit:

https://www.cmqcc.org/resources-tool-kits/toolkits

Contact us:

info@cmqcc.org