



Stanford | MEDICINE
Dunlevie Maternal-Fetal Medicine
Center for Discovery, Innovation and Clinical Impact

CMQCC
California Maternal
Quality Care Collaborative

Welcome to our
**Sepsis Collaborative
Closing Ceremony
2024!**

Closing Ceremony Agenda

- Welcome
- Hospital team live presentations!
- Mentor panel
- Sustainability Pearls
- Questions & Answers
- Closing



Welcome

- 32 hospital participants
- 22 mentors – hospital, community and patient
- 12 months
 - 5 webinars
 - 8 mentor meetings
- Look out for a survey in the next couple of weeks – once you complete the survey, you will receive your certificate!



LIVE Presentations!

- Stanford TriValley – Andrea Ofiana
- Hoag – Caitlin Soyring
- Sutter Tracey – Lissette Salas
- Eisenhower – Judy Ankney
- Sutter Amador – Jennifer Toraya
- Sutter leadership team – Jeannette Navarro- Cantoria



Stanford TriValley – Video!



Implementing Care Discussions Pre-Discharge and Post Discharge- Sutter Tracy Community Hospital

A Care Discussion workflow was designed for patients experiencing a Severe Maternal Event. We began with defining criteria to determine which patients would have the Care-Discussion workflow initiated.

Then established the Who? What? Where? When? Why? and How?, allowing us to facilitate a meaningful discussion that would have the most impact for the patient and family experiencing a Severe Maternal Event.

Who? and When?

We established who will participate in Care Discussions Pre & Post Discharge.

Pre-discharge ideally includes Patient & support person, RN, OB Doc, and optional pediatrician & Social Worker.

The Care Discussion will occur- Morning of expected Discharge when OB Doc is rounding

Post-Discharge will be completed on Post-partum follow up call by Manager or designee.

What? and How?

The Pre-Discharge Care Discussion tool from CQMCC determines the format of the Care Discussion.

The “What to Say and What Not to Say” tool from CQMCC will determine how we facilitate the discussion.

WHY?

We shared with the team the importance of the Care Discussion to ensure nurses bought into this initiative. The nursing staff was all asked to watch Maile’s story from Sepsis.org prior to training on how to facilitate a Care-Discussion.





Eisenhower Health

The Family Birth Center EPIC Workflow for Maternal Sepsis

California Maternal Quality Care Collaborative (CMQCC) Improvement Project

Veronica Williams: Director of Women's Services, Krystal Smith: Maternal/Newborn Manager,

Ursula Gainer: Nursing Professional Development Practitioner,

Judy Ankney: RN Quality Outcome Analyst for Perinatal Services,

Dr. Paul Mike: OB Hospitalist Site Director and Dr. Jaime Tannenbaum: NICU Medical Director

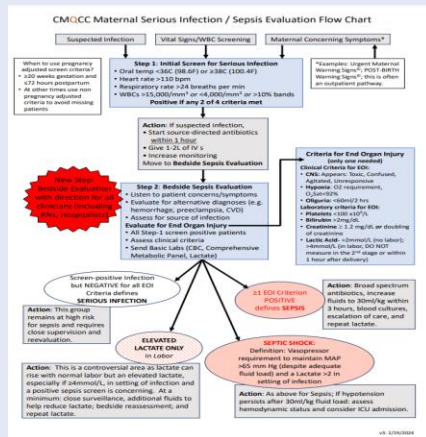
AIM: By August 30, 2024, 100% of pregnant women seen at Eisenhower Medical Center Family Birth Center OBED or admitted patients to LDRP will receive a 2-step approach to maternal sepsis screening

Evidenced Based Practice



- Sepsis occurs in about 0.04% of deliveries and is a leading cause of maternal death (12.7%)
- Most cases (63%) of maternal death from sepsis are likely to have been preventable
- For each maternal death from sepsis, there are 50 women who experience life-threatening morbidity from sepsis
- Significant racial inequities related to maternal deaths from sepsis

Standardized Algorithm



This achievement is notable because of the collaboration between disciplines and how quickly our OB EPIC IS person was able to build and implement the Maternal Sepsis Screening tool.



Key Steps to Success

- Bimonthly meetings with OB Team:** Director of Women's Services, Maternal/Newborn Manager, Nursing Professional Development Practitioner and Perinatal Quality Analyst
- Early involvement of stakeholders** in project
- EMC Hospital Sepsis Coordinator** involved with project through implementation
- OB IS EPIC project builder** was assigned to FBC and did not have competing department projects
- IS Ticket placed with OB EPIC person** to include a Best Practice Alert (BPA) hard stop for Step One when 2 out of 4 criteria are met. This will notify RN to notify OB Hospitalist and call Rapid Response Team. Time Zero.
- Education provided to stakeholders** on AIM and CMQCC Maternal Sepsis Algorithm
- Updated hospital wide Sepsis policy** to include Maternal Sepsis

Clinical Education

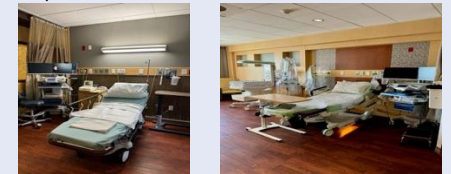


- Nurses were educated through PPP, scheduled clinical skill days, Relias education module on Maternal Sepsis, and EPIC computer training on Maternal Sepsis screening tool
- Providers were given CMQCC's provider information from toolkit. OB hospitalist site Director reviewed information with team
- Community OB's, ED providers and residents were given CMQCC's provider information from toolkit
- Maternal Sepsis drill is scheduled to include rapid response and ICU critical care teams.

Sustainability



- Integrated Sustainability:** The financial return on investment is a non-profit Integrated Strategy for Success and Sustainability that considers all the components of the project as a cohesive whole rather than singling out funding as the key to sustainability
- Sustainability meetings will be scheduled quarterly to review workflows and Maternal Sepsis Data



Resources:

- Acosta, Kurinczuk, Lucas, et al. PLoS Med 2014
- Buck, 2013
- California Pregnancy-Associated Mortality Review Report from 2002-2007
- Improving diagnosis and treatment of maternal sepsis.(2020). California Maternal Quality Care Collaborative(CMQCC). <https://www.cmqcc.org/resources-toolkits/toolkits/improving-diagnosis-and-treatment-maternal-sepsis>
- Hensley, Bauer, Admon, et al. JAMA 2019
- Kendel et al. AJOG 2019

Sepsis Screening Tool:

Can the patient be excluded from the SST?

SST: Section I: SIRS

Temp < or = 96.9F OR > or = 100.4F

HR > 110 beats/minute

RR > 24 breaths/minute

WBC < 4,000 OR > 15,000 mm3 OR > 10% Immature Granulocytes

SST: Section II: Determination:

Does the Section I score include 2 or more NEW signs?

SST: Section III: Determination:

Does Section III score reflect 1 or > 1 changes w/in 6 hrs of N.

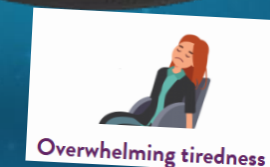
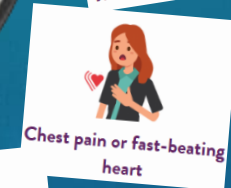
SST: Section IV: Intervention

Call Rapid Response Nurse

GET THE WORD OUT ABOUT OB SEPSIS

SUTTER AMADOR HOSPITAL OB SEPSIS COLLABORATIVE GROUP

Our team is proud of the work we have done to get the word out about OB Sepsis. With the use of the Urgent Maternal Warning Signs flyer and posters we have provided a visual reminder of what patients should be concerned about and when to seek help in pregnancy and postpartum. One of our goals was to display the UMWS posters in many different venues throughout our community.



Key Step 1: Disperse

Brainstorm Poster Locations

- FBC Patient Rooms
- ED Patient Rooms
- SMF Women's Center
- SMF Pediatric Group
- Public Health Amador and Calaveras County
- WIC office Amador and Calaveras County
- First 5 Amador and Calaveras County

*Advocacy Language printed on backside of UMWS handouts and Posters in FBC

*English & Spanish versions for our population

Key Step 2: Education

Identify Roles

1. Patients and their primary support person:
Share handout, review warning signs and when to seek help. Encourage scanning of QR code and exploring topics. Review use of Advocacy Language
2. Nurses: FBC, ED, OB & Peds Offices
Share with nurses OB Sepsis Warning Signs and current recommendations. Provide UMWS handout to patients: triage, NST's, admits
3. OB Providers
Share current OB Sepsis Recommendations and bring awareness to UMWS posters/flyers

Key Step 3: Follow Up

How Are We Doing?

Rounding back with OB office, Community groups, ED to see how it's going, answer questions, provide further assistance.

Audits of charts: Evaluating utilization of UMWS handout.

Added "Handouts Given" to our Labor Precautions smart phrase as a reminder for nurses to review handout with patients.

Keep at it

until it's habit!



Sepsis Algorithm Puzzle and Scavenger Hunt

Sutter Health OB Sepsis Leadership Team

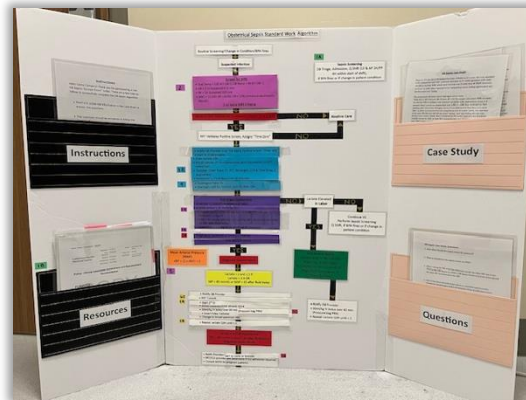
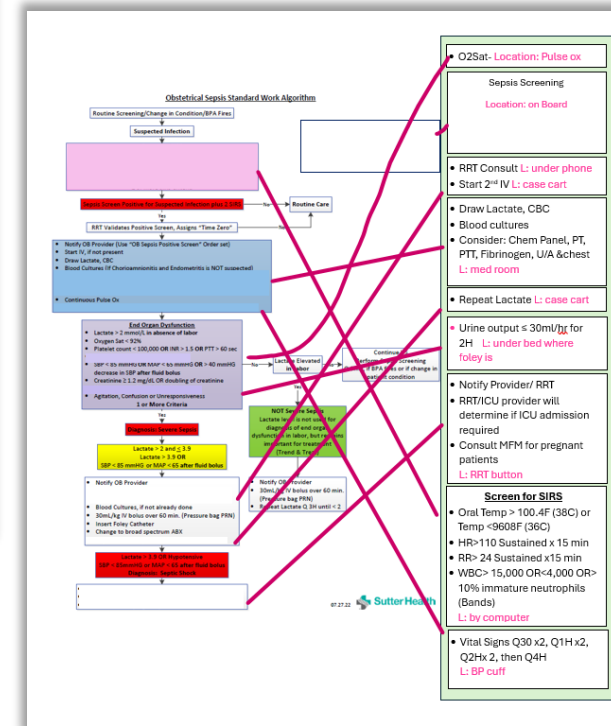
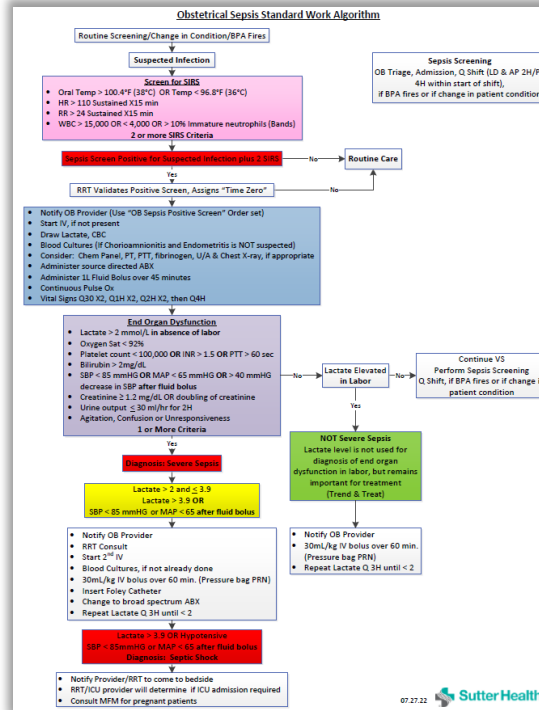


Methods

- Case study
- Questions for study guide participants search for hidden sections
- Participants rebuild algorithm

OB Sepsis Case Study Questions

1. How often should the sepsis screen be assessed?
2. What is included in the sepsis screen at CPMC?
3. When calling the OB, what key elements would the labor RN use in her SBAR to the OB? Based on CPMC's OB Sepsis Positive Screen, what should the labor RN recommend to the OB?
4. Once it has been identified that there is a positive sepsis screen, treatment should begin within 60 minutes. How would assessment frequency change?
5. How would you calculate Stacy's MAP of a BP of 88/40? 3 hours after Time-Zero at 2008, what are further indications of end organ dysfunction via Stacy's decompensation? -- 2 answers
6. How does your labor workflow adjust once Stacy meets criteria for Severe Sepsis? -- 3 answers
7. While in the OR, the lab calls with a critical 3hr Lactate value of 8.6. Stacy has persistent hypotension despite continuing a rapidly administered IV fluid bolus at 30ml/kg. Stacy is now bleeding profusely and is difficult to arouse. How do you, the labor RN, respond? -- 3 answers



Hoag – Video!



Mentor Panel

- Kairis Chiaji
- Leah Bahrencu
- Ryan Hansen
- Questions
 - What was the most encouraging takeaway about your experience participating in the collaborative?
 - What did you learn about how hospital collaboratives work that you didn't know before?
 - What was a challenge you didn't anticipate participating in the collaborative?
 - Was there anything you were able to apply or implement from collaborative to your own work?





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Using Data to Sustain Patient Safety Bundle Implementation

Christa Sakowski, MSN, RN, C-ONQS, C-EFM

You made it! Now what?



Sustainability is:



When processes or improved outcomes last within an organization after an implementation has occurred



An improvement that has become part of the organizational culture and has been maintained regardless of workforce turnover

The Work is Never “Done”

Make a plan for review of:

Outcome Measures

- Quarterly
- Biannually

Structure Measures

- Annually

Process Measures – Charts, policies, forms, education, etc.



The plan should be shared with the team so that it is clear that this work remains a priority for the organization.

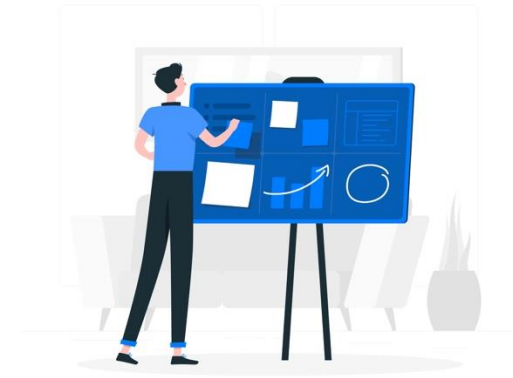
Outcome Measures

How often will you formally monitor adherence to the target goal?

- Who is responsible for this?
- Who is the rate reported to/shared with?
- How is the rate shared?
 - ✦ Quality Board
 - ✦ Formal report
 - ✦ Dashboard

What triggers action?

- Noted variation
- Rate not meeting target
 - For what duration?



Outcome Measures by Race/Ethnicity

- Look at data by race and ethnicity for additional action items
 - Have the interventions implemented benefitted ALL patients?



Structure Measures

Structure Measure data can be overlooked

- Assessment of structure measures can address a break in the system before a reflection in rates
 - Alert systems, supplies, patient education materials, etc.

Electronic Health Record (EHR)

- Often updating the EHR during the active phase of implementation is a challenge
- What can be added to reinforce changes made or processes created during implementation?
 - Order sets
 - Documentation
 - Patient Education
 - Chart review/audit capabilities – replace paper forms or manual spreadsheets

MDC Sepsis QI Initiative

Alpha Medical Center Aug - Oct 2020
Data Entry Status

★ Favorite Measures

Anemia on Admission	25.0%
Cesarean Birth: NTSV - Nullip Term Singleton Vertex (PC-02: Current)	17.2%
Chorioamnionitis Among Maternal Cases	4.0%
Early Elective Delivery (PC-01)	N/A
Hemorrhage Frequency	7.3%
Hypertension Frequency	11.1%
QBL Cumulative Value	13.5%
SMM Excluding Transfusion-Only Cases	1.0%

View all 15 Favorites: Table →
View all 15 Favorites: Graphs →

📊 Clinical Quality Measures view all 161 by name, reporting org, or topic

Early Elective Delivery (PC-01)	N/A
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Cesareans After Labor Induction: NTSV Cases	31.5%
Unexpected Newborn Complications: Severe (PC-06.1)	8.6
SMM Excluding Transfusion-Only Cases	1.0%

Compare Two Measures →

📅 October 2020 Live Births 2020 Year-to-Date Live Births

265 from 291 in 2019 ↓ 8.9% 2743 from 2753 in 2019 ↓ 0.4%

🔍 QI Initiatives view all 10 available QI Initiatives

Key Drivers of Maternal Morbidity and Mortality

- Hemorrhage ✔ Sustainability ! Action Needed
- Hypertension / Preeclampsia ✔ Sustainability ! Action Needed

Other Drivers of Maternal Morbidity and Mortality

- Sepsis 🕒 In Progress ! Action Needed

Other QI Initiatives

- Low Dose Aspirin 🕒 In Progress ! Action Needed

📄 Equity: Race & Ethnicity Reports & Tools

- Cesarean Birth: NTSV - Nullip Term Singleton Vertex (PC-02: Current)
- SMM Excluding Transfusion-Only Cases
- Race & Ethnicity Distributions
- Missing / Unknown Race & Ethnicity
- NTSV Cesarean Equity Structure Measures

Additional Equity Resources →

📄 Race & Ethnicity PDF



Sepsis Structure Measures Checklist

- 10 Structure Measures
- Used to track implementation progress
- Reaffirmed annually for sustainability

Sepsis Structure Measures Checklist		Item	Confirmed in Place on (estimated)					
1	Patient Event Debriefs - <i>Has your department established a standardized process to conduct debriefs with patients after a severe event?</i>	MM/DD/YYYY	or	In Progress	or	Not In Place		
2	Clinical Team Debriefs - <i>Has your department established a system to perform regular formal debriefs with the clinical team after cases with major complications?</i>	05/24/2024	or	In Progress	or	Not In Place		
3	Multidisciplinary Case Reviews for Obstetric Sepsis - <i>Has your hospital established a process to perform multidisciplinary systems level reviews on cases of sepsis that occur during pregnancy, birth, and the postpartum period?</i>	MM/DD/YYYY	or	In Progress	or	Not In Place		
4	Obstetric Sepsis Screening & Diagnosis System - <i>Has your facility implemented a system for screening and diagnosis of pregnant and postpartum people for sepsis?</i>	06/06/2023	or	In Progress	or	Not In Place		
5	Protocols for Management of Suspected and Confirmed Obstetric Sepsis - <i>Has your facility established standard protocols and escalation policies for management of pregnant and postpartum people with suspected sepsis and sepsis that include:</i>	MM/DD/YYYY	or	In Progress	or	Not In Place		
	Rapid response protocol for unstable patients			<input checked="" type="checkbox"/>				
	Standardized order set for sepsis evaluation/management			<input checked="" type="checkbox"/>				
	Rapid access to laboratory results to assist in identifying severity and potential source			<input type="checkbox"/>				
	Protocol for source control starting with least invasive means			<input type="checkbox"/>				
6	Patient Education Materials on Urgent Postpartum Warning Signs - <i>Has your department developed/curated patient education materials on urgent postpartum warning signs that align with culturally and linguistically appropriate standards?</i>	03/18/2024	or	In Progress	or	Not In Place		
7	Emergency Department (ED) Screening for Current or Recent Pregnancy - <i>Has your ED established or continued standardized verbal screening for current pregnancy and pregnancy in the past year as part of its triage process?</i>	01/09/2021	or	In Progress	or	Not In Place		
8	Identification of Post-Obstetric Sepsis Resources and Referral Pathways - <i>Has your facility created a comprehensive list of resources and referral pathways tailored to people who experienced obstetric sepsis?</i>	MM/DD/YYYY	or	In Progress	or	Not In Place		
9	Emergency Department (ED) Education Program on Recognition of Obstetric Emergencies - <i>Has your facility developed a process and/or program for educating ED staff on signs and symptoms of potential obstetric emergencies?</i>	MM/DD/YYYY	or	In Progress	or	Not In Place		
10	OB Provider and Nursing Education - <i>Provide education to all staff and providers who treat pregnant and postpartum patients about the hospital's sepsis procedure. At a minimum, education occurs at orientation, whenever changes to the procedure occur, or every two years.</i>	MM/DD/YYYY	or	In Progress	or	Not In Place		
	Note: Education provided should be role-specific.							
	Obstetric Sepsis			<input type="checkbox"/>				
	Respectful and Equitable Care			<input type="checkbox"/>				

Process Measures

Sepsis Edit Print Annual QI Report

QI Initiatives ✓_Hemorrhage ✓_Hypertension 🔔_Sepsis 🔔_LDA

! Action Needed: Please complete the following steps to ensure your QI Initiative's goals are met:

- [Complete all items in the bundle.](#)
- [Aug 2020: Must complete chart review in Data Entry Status section for Sepsis Case Reviews.](#)

Transition to Sustainability

Date QI Began 06/04/2024

Contacts Tamar Queen
tboyadj@stanford.edu

Outcome

Measures	Q4 2019	Q1 2020	Q2 2020	Q3 2020	Target
Sepsis ^A	0.4%	0.4%	0.3%	0.4%	N/A
End-Organ Injury Among Sepsis Cases	0.0%	33.3%	0.0%	0.0%	N/A

Process

Measures	Q4 2019	Q1 2020	Q2 2020	Q3 2020	Target
🔔 Multidisciplinary Case Review for Those with Sepsis ^A	N/A	N/A	N/A	N/A	N/A
Provider Education on Obstetric Sepsis	N/A	N/A	N/A	N/A	N/A
Nursing Education on Obstetric Sepsis	N/A	N/A	N/A	N/A	N/A

- Multidisciplinary Case Review for Those with Sepsis
- Provider Education on Obstetric Sepsis
- Nursing Education on Obstetric Sepsis



Documenting Process Measures in the MDC

Alpha Medical Center Aug - Oct 2020

➔ Data Entry Status

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Documenting Process Measures in the MDC: Case Reviews

NTSV Labor Arrest / CPD: Bundle Consistency	⚠ Action Needed	✓ Complete	✓ Complete	✓ Complete
Non-Medically Indicated Inductions	⚠ Action Needed	✓ Complete	✓ Complete	✓ Complete
Postpartum Discharge Transition: Monthly	⚠ Action Needed	⚠ Action Needed	⚠ Action Needed	⚠ Action Needed
Prenatal Care Group	⚠ Action Needed	⚠ Action Needed	⚠ Action Needed	⚠ Action Needed
SMM Case Reviews	⚠ Action Needed	⚠ Action Needed	⚠ Action Needed	✓ Complete
Timely Treatment for Severe Hypertension	✓ Complete	✓ Complete	✓ Complete	✓ Complete
Transfusions: All RBC Transfusions	✓ Complete	✓ Complete	✓ Complete	⚠ Action Needed

[MDC Support: SMM Case Review Guidance](#)

Documenting Process Measures in the MDC: Sepsis Education



	← Previous				Next >
	July '20	August '20	September '20	October '20	November '20
 Select Measures					
	Review by Patient	Review by Patient	Review by Patient	Review by Patient	
Birth Data	✓ Complete	✓ Complete	✓ Complete	✓ Complete	✓ Complete
Discharge Data	✓ Complete	✓ Complete	✓ Complete	✓ Complete	⚠ Action Needed
Data Linkage	✓ Complete	✓ Complete	✓ Complete	✓ Complete	

IAI/Chorioamnionitis: Updated ABX Recommendations

- AMP/GEN/CLIN has been the mainstay since the 1980's... (ACOG)
 - Concerns with rising resistance, administration complexity of 3 drugs
- The most important treatment of IAI is “source control” (ie delivery) making it hard to show one ABX regimen is better than another
- But there are new options with data that are of significant interest
- Fabulous expert panel:
 - Kathleen Andonian, PharmD, Sharp Mary Birch (Pharmacy-ID and OB)
 - Lauren Puckett, Pharm D, Lucille Packard-Stanford (Pharmacy-ID and OB)
 - Casey Smiley, MD, Vanderbilt (Infectious Disease specialty with focus on OB)
 - Neil Silverman, MD, UCLA (MFM with Infectious Disease training)
- New recommendations before the end of the year!



Q&A Session



In Closing

- Look forward to a follow-up meeting in 6 months!
- Look out for a survey in the next couple of weeks – once you complete the survey, you will receive your certificate!





CELEBRATE!!!