

Emergency Response for the Critically Ill Obstetrical Patient Critical Care Trauma Center, Victoria Hospital

A separate Code OB – University Hospital is under development and will be based on site specific resources. The process for obstetrical response is currently in the process of review and is subject to change. To ensure the most up-to-date information, always obtain the guidelines and checklists from the CCTC website; the last date of revision is identified on the bottom of the page. The link is located under “P” for Pregnancy on the Protocols page:
http://www.lhsc.on.ca/Health_Professionals/CCTC/protocols/index.htm

Maternal Cardiac Arrest:

In maternal cardiac arrest where there is a “visibly gravid uterus” that is large enough to potentially cause vena caval compression (with viable or non-viable), emergency cesarean section should be performed within 4 minutes if there is no return of circulation. The primary purpose is to facilitate effective maternal CPR/circulation.

CPR should be performed with hands positioned mid sternal (more cephalic than conventional CPR), with uterine displacement position (wedge under right hip, tilted toward left). If the patient is receiving magnesium sulphate at the time of cardiac arrest, the infusion should be stopped and 10 ml of calcium chloride 10% or 20 ml calcium gluconate 10% administered.

Causes for the cardiac arrest should be sought out and treated, using the BEAU-CHOPS mnemonic: (**B**leeding, **E**mbolism (coronary/pulmonary/amniotic), **A**nesthetic complications, **U**terine atony, **C**ardiac disease (MI/ischmia/aortic dissection/cardiomyopathy), **H**ypertension/preeclampsia/eclampsia, **O**ther: differential diagnosis per standard ACLS guidelines, **P**lacenta (abruption/previa), or **S**epsis.

Emergency responses are divided into 3 situations below:

1. Code OB: where both maternal and neonatal resuscitation/emergency response is needed.
2. Emergency obstetrical response where neonatal resuscitation is not a consideration.
3. Massive Transfusion Pathway (may require activation in either situation 1 or 2 above).

1. CODE OB:

Code OB is indicated when a multidisciplinary team is needed urgently, to respond to a life-threatening maternal event with high likelihood of risk to, or imminent delivery of a potentially viable fetus. Code OB should not be used if neonatal resuscitation is not desired (see #2).

Indications: Maternal Cardiac Arrest, or if there is IMMEDIATE or unplanned birth of a viable fetus.

In CCTC, emergency delivery (vaginal and C-Section) and neonatal resuscitation equipment will be maintained at the bedside at all times for gestational age > 23 weeks or those deemed viable.

Emergency Response:

- a. Continue maternal CPR and ACLS protocol (hand position mid sternum, abdomen displaced to left). Review modifications above.
- b. Dial 55555 and request “**CODE OB**”
“Code OB” will activate the following pagers:
 - Obstetrical resident
 - OB/GYN Consultant on-call
 - OB Anaesthesia Resident on-call
 - OB Anaesthesia Consultant on-call
 - Obstetrical Care Unit Charge Nurse
 - NICU senior resident or nurse practitioner

- NICU RN
 - NICU RRT
 - NICU Charge Nurse
 - PCCU resident
 - Pediatric Rapid Response Team (PCCOT)
 - Adult Code Blue
 - CCOT
- c. Turn on infant warmer and suction.
 - d. Ensure someone is stationed at **both** locked doors to provide access by emergency teams
 - e. The NICU team will take over the neonatal resuscitation upon their arrival. CCOT role to include releasing team members when their support is no longer required (e.g., CCU resident, PCCU upon arrival of NICU team). This will prevent unnecessary congestion at bedside.

2. **EMERGENCY OBSTETRICAL RESPONSE WHERE FETUS IS NOT VIABLE:**

This includes any maternal emergency where an obstetrician's support is required urgently, but neonatal resuscitation is not desired. This could include antenatal hemorrhage with a non-viable fetus or post partum hemorrhage.

- a. Continue maternal resuscitation
- b. Dial 55555 and request **all** of the following individuals STAT (**do not use OB STAT if a decision has been made not to offer neonatal resuscitation**).
 - i. STAT OB Resident
 - ii. STAT OB Consultant
 - iii. STAT OB Anaesthesia Resident
 - iv. STAT OB Anaesthesia Consultant
 - v. STAT OBCU Charge Nurse
- c. Ensure someone is stationed at both locked doors to provide access to emergency teams

3. **MATERNAL HEMORRHAGE:**

A physician must contact the Blood Transfusion Lab to activate the Massive Transfusion Pathway. Be sure to identify this as an obstetrical bleed to trigger the need for fibrinogen replacement early.

Unlike the Trauma Pathway, blood transfusion lab will ensure products are available and keep up with your needs, but each product will require a physician order (in Trauma Pathway, BTL automatically releases them per protocol).

It is essential to assign a "runner" who will run to the BTL for blood products once the pathway is activated. It can be viewed at:

<http://www.lhsc.on.ca/lab/bldbank/btm/mtprotocol.pdf>

4. **Neonatal Delivery, Fetal Death or Stillbirth**

The determination of stillbirth is based on a combination of gestational age and the presence or absence of breathing. The Obstetrical Care Unit (OBCU) will look after all of the requirements (including: paper work, memory box, contact of on-call photographer, baby presentation to family etc). This may include notification of NICU.