

OBS NOTES

Fundus height

At umbilicus = 20 weeks

20 weeks

Uterus size begins to adversely affect resus

23 and 24 weeks

Fetus may be peri-viable or viable outside womb, respectively

ABCDEFGH arrest causes

Anesthetic complications/Accidents

Bleeding

Cardiovascular

Drugs

Embolic

Fever

General non-obstetric causes of cardiac arrest (Hs and Ts)

Hypertension

Cardiac Arrest in Pregnancy (Circulation Vol. 132, No. 18)
Cardiac Arrest Associated With Pregnancy Chapter (ACLS-EP Manual)

OBS TIPS

Unstable patient

Left lateral decubitus to relieve aortocaval compression

Manual left uterine displacement (LUD) in cardiac arrest

Right side of patient: uterus pushed upward and leftward off vessels

Left side of patient: uterus is cupped and lifted up and leftward off vessels

IV above diaphragm

Obstruction of venous return in sub-diaphragmatic veins

Earlier airway protection

Oxygen reserves lower; metabolic demands higher; rapid desat if hypoxic

Progesterone decreases LES tone; more prone to regurg and aspiration

Smaller ETT (6 to 7) because of maternal laryngeal edema

Increased laryngeal blood flow increases bleeding risk

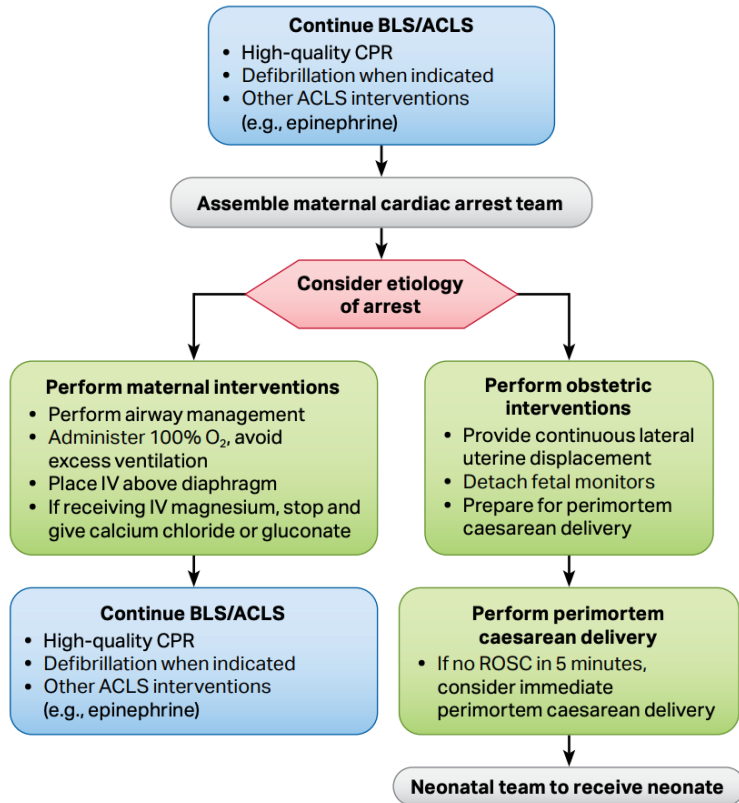
Choose experienced laryngoscopist

Peri-mortem cesarean delivery (PMCD)

Consider at 4 minutes; out by 5 minutes

Cardiac Arrest in Pregnancy (Circulation Vol. 132, No. 18)
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Figure 9. Cardiac Arrest in Pregnancy In-Hospital ACLS Algorithm.



<p>Maternal Cardiac Arrest</p> <ul style="list-style-type: none"> • Team planning should be done in collaboration with the obstetric, neonatal, emergency, anesthesiology, intensive care, and cardiac arrest services. • Priorities for pregnant women in cardiac arrest should include provision of high-quality CPR and relief of aortocaval compression with lateral uterine displacement. • The goal of perimortem caesarean delivery is to improve maternal and fetal outcomes. • Ideally, perform perimortem caesarean delivery in 5 minutes, depending on provider resources and skill sets.
<p>Advanced Airway</p> <ul style="list-style-type: none"> • In pregnancy, a difficult airway is common. Use the most experienced provider. • Provide endotracheal intubation or supraglottic advanced airway. • Perform waveform capnography or capnometry to confirm and monitor ET tube placement. • Once advanced airway is in place, give 1 breath every 6 seconds (10 breaths/min) with continuous chest compressions.
<p>Potential Etiology of Maternal Cardiac Arrest</p> <p>A Anesthetic complications B Bleeding C Cardiovascular D Drugs E Embolic F Fever G General nonobstetric causes of cardiac arrest (H's and T's) H Hypertension</p>

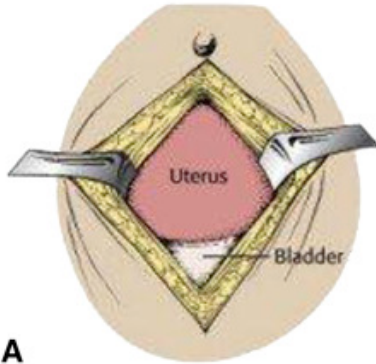
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Table 1. Most Common Etiologies of Maternal Arrest and Mortality

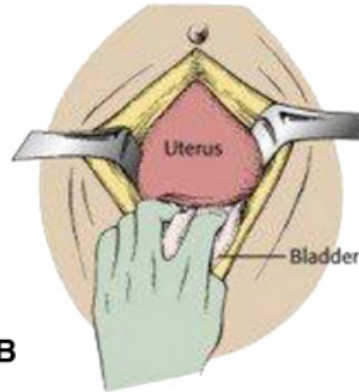
Letter	Cause	Etiology
A	Anesthetic complications	High neuraxial block
		Hypotension
		Loss of airway
		Aspiration
		Respiratory depression
	Local anesthetic systemic toxicity	
	Accidents/trauma	Trauma
		Suicide
B	Bleeding	Coagulopathy
		Uterine atony
		Placenta accreta
		Placental abruption
		Placenta previa
		Retained products of conception
		Uterine rupture
		Surgical
	Transfusion reaction	
C	Cardiovascular causes	Myocardial infarction
		Aortic dissection
		Cardiomyopathy
		Arrhythmias
		Valve disease
		Congenital heart disease
D	Drugs	Oxytocin
		Magnesium
		Drug error
		Illicit drugs
		Opioids
		Insulin
	Anaphylaxis	
E	Embolic causes	Amniotic fluid embolus
		Pulmonary embolus
		Cerebrovascular event
		Venous air embolism
F	Fever	Sepsis
		Infection
G	General	H's and T's
H	Hypertension	Preeclampsia
		Eclampsia
		HELLP syndrome, intracranial bleed

HELLP indicates hemolysis, elevated liver enzymes, and low platelet count.

PERIMORTEM CESAREAN DELIVERY



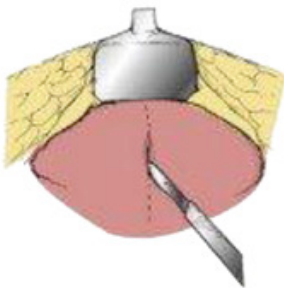
Make a vertical incision through the abdominal wall from the level of the uterine fundus to the symphysis pubis.



If available, use retractors to expose the anterior surface of the uterus and retract the bladder inferiorly.

A

B



Use a scalpel to make a small vertical incision through the lower uterine segment.



Use bandage scissors to extend the incision vertically to the fundus.

C

D



Deliver the infant, suction the nose and mouth, and clamp and cut the cord.

E