

Box.

Amniotic Fluid Embolism, Checklist for Initial Management

This checklist is an sample only. Each facility should modify it to fit facility-specific circumstances

Manage circulatory collapse

- ABCs: manage Airway, Breathing, and Circulation
- Designate a timekeeper to call out times at one-minute intervals
- If no pulse, start CPR
 - Manually displace uterus or lateral tilt
 - Use backboard
- Consider move to operating room only if this can be accomplished in 2 minutes or less
- If no pulse at 4 minutes, STAT perimortem cesarean (resuscitative hysterotomy)
 - Splash prep only, do **not** wait for antibiotics
 - Goal is to improve chances of resuscitation

Anticipate uterine atony, DIC, emorrhage

- Oxytocin prophylaxis plus other uterotonics as needed
- Consider intraosseous line if needed for large-bore IV access
- Initiate massive transfusion protocol
 - Cryoprecipitate preferred over FFP to reduce volume overload
 - Consider thromboelastometry if available
- Tranexamic acid (1 gram IV over 10 minutes) if DIC or hemorrhage

Manage pulmonary hypertension and right ventricular failure (Anesthesiology, Critical Care, or Cardiology)

- Consider echocardiography (thoracic or esophageal)
- Avoid fluid overload (eg, 500 mL boluses and reassess)
- Vasopressor if needed: norepinephrine 0.05-3.3 mcg/kg/min
- Inotropes if needed:
 - Dobutamine 2.5-5 mcg/kg/min **or**
 - Milrinone 0.25-0.75 mcg/kg/min
- Pulmonary vasodilator if needed to unload right ventricle
 - Inhaled nitric oxide 5-40 ppm **or**
 - Inhaled epoprostanol 10-50 ng/kg/min) **or**
 - IV epoprostanol 1-2 ng/kg/min (via central line) **or**
 - Sildenafil 20 mg orally (if awake/alert)
- Consider ECMO if prolonged CPR or refractory right heart failure
- Wean FiO₂ to maintain O₂ saturation 94% to 98%

Postevent debrief (entire team)

- Identify opportunities for improvement including any need for revisions to checklist
- Discuss family and staff support needs
- Report case to Amniotic Fluid Embolism Registry

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Abbreviations: CPR, cardiopulmonary resuscitation; DIC; disseminated intravascular coagulation, ECMO, extracorporeal membrane oxygenation; FFP, fresh/frozen plasma; FiO₂, inhaled fraction of oxygen; IV, intravenous