

SOAP 2019 Maternal Cardiac Disease Delivery Planning Algorithm/Framework
Marie-Louise Meng, MD and Katherine Arendt, MD

1. WHO: (patient and medical team)

A. Patient:

- Medical, surgical, obstetric (fetal), anesthetic history, medications (anticoagulation), allergies
- Modified WHO scale (mWHO II-III, III, IV consider transfer to referral hospital)
- CARPREG II Risk score (CARPREG >1 consider transfer to referral hospital)
- NYHA Class I-IV
- Other data: BNP, ECG, TTE, CT, MRI

B. Team:

- Obstetrician/Maternal Fetal Medicine
- Anesthesiologist (Obstetric and Cardiothoracic)
- Cardiologist
- Neonatologist
- Hematologist
- Cardiothoracic surgeon
- ECMO surgeon
- Perfusionist
- Intensivist
- Critical Care Obstetric Nurse
- Critical Care Nurse

2. WHAT: (Route of delivery)

- Vaginal v. Cesarean delivery v. Termination

3. WHEN: Target induction/delivery/procedure date (gestational weeks/days): _____

4. WHERE: (Type of medical center and location within medical center)

- Local v. Referral hospital
- L&D suite labor room, L&D operating room, cardiothoracic operating room, intensive care unit

5. HOW: (Peripartum plan)

A. Hemodynamic goals:

B. Peripartum risks:

C. Medications:

- Vasopressors: phenylephrine, norepinephrine, vasopressin
- Inotropes: dobutamine, dopamine, milrinone, epinephrine
- Anti-pulmonary HTN: oxygen, calcium channel blockers, prostacyclin agonists, PDE-5 inhibitors, endothelin antagonists, nitric oxide-cyclic guanosine monophosphate enhancers, nitric oxide

D. Anesthesia: spinal, combined spinal epidural, epidural, general

E. Monitoring: non-invasive blood pressure, arterial line, telemetry, central venous pressure, pulmonary artery catheter, transthoracic echocardiogram, transesophageal echocardiogram

F. Venous access: peripheral or central

G. ECMO: VV or VA, back-up, place wires, place sheaths, place cannulas

H. Hemorrhage prevention/management:

- Uterotonics: oxytocin, methergine (avoid in HTN), carboprost (avoid in lung disease), misoprostol
- Procedures: compression, suture, Bakri balloon, uterine artery embolization, hysterectomy

I. Post care:

- Recovery location: (ICU or high-risk maternal unit or post-partum unit)
- Treatment goals:
 - i. Diuresis for arrhythmia and heart failure prevention
 - ii. Anticoagulation for thrombosis prevention
 - iii. Stool softeners for prevention of Valsalva
 - iv. Sodium restriction