

Fetal Surgery During the COVID-19 Pandemic: A Decision Support Algorithm for Managing Ethical and Clinical Conundrums

Claire A. Naus, MD, Caitlin D. Sutton, MD

Let's consider...

SARS-CoV2 infection & perioperative risk?

- Major elective surgery performed soon after SARS-CoV2 is associated with increased risk of perioperative complications
- APSF and ASA: postpone elective surgery 4-12 weeks

Fetal surgery & potential risks for the pregnant patient?

- Performed when prenatal intervention expected to improve neonatal mortality or morbidity
- Both patients have surgical & anesthetic risks
- No physiologic benefit for pregnant patient

Ethical considerations for risks of fetal surgery + COVID?

- Balancing risks with a new & evolving disease
- Minimal data
- Competing approaches to optimizing maternal and neonatal outcome
- Conflicts between beneficence-based obligations to fetal & pregnant patients
- Role of autonomy & shared decision making

References:

1. COVIDSurg Collaborative, Br J Surg 2020.
2. Knisely A, Ann Surg 2021.
3. ASA/APSF Statement, Dec 2020.

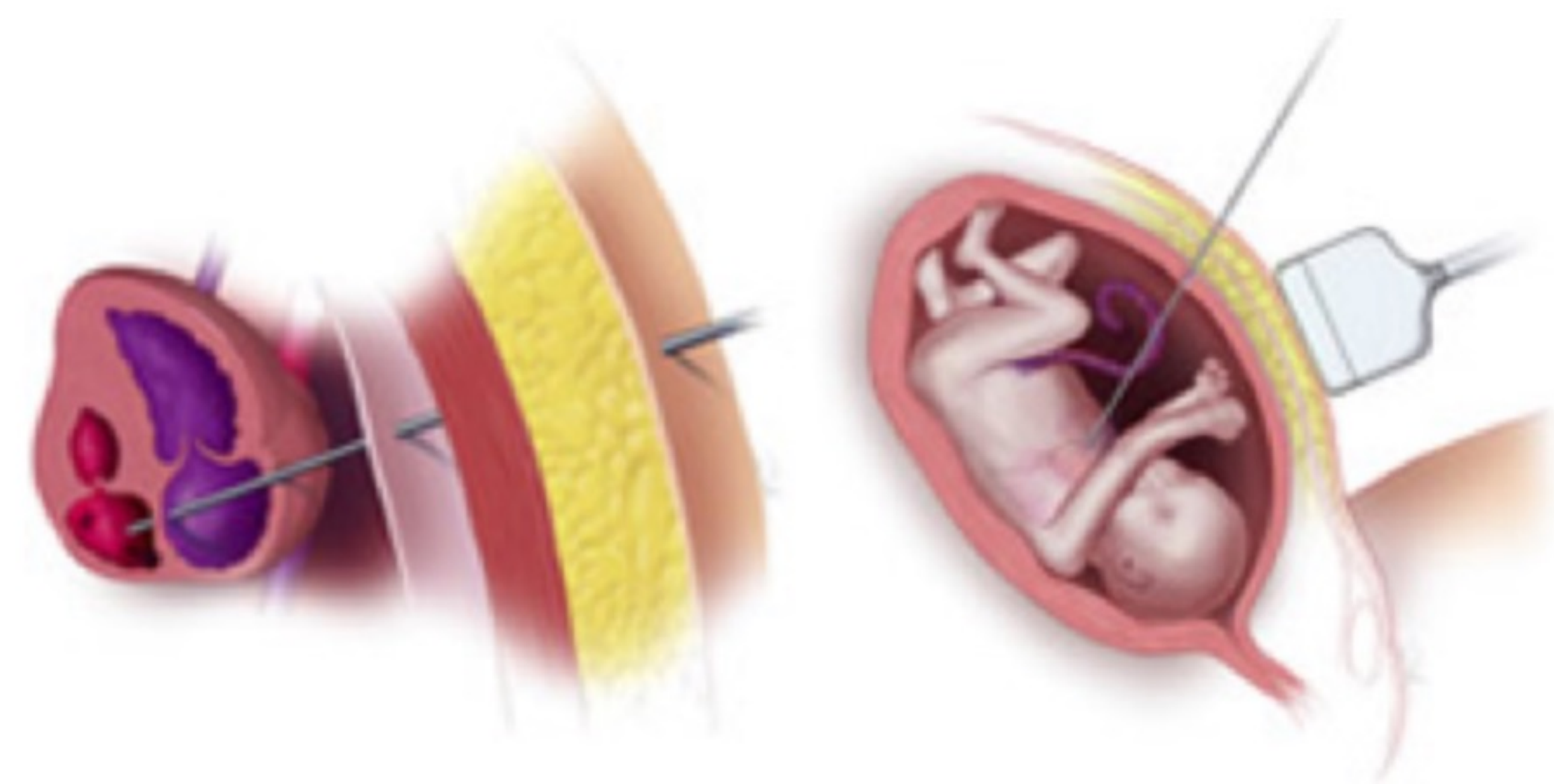
Fetal Surgery During the COVID-19 Pandemic: A Decision Support Algorithm for Managing Ethical and Clinical Conundrums

Claire A. Naus, MD, Caitlin D. Sutton, MD

3 Hypothetical Cases...

28y/o G2P1 at 29w with fetal hypoplastic left heart with restrictive atrial septum

- Minimally invasive ultrasound-guided atrial septostomy and stent placement
- COVID+ night before surgery
- Dry cough
- Unvaccinated



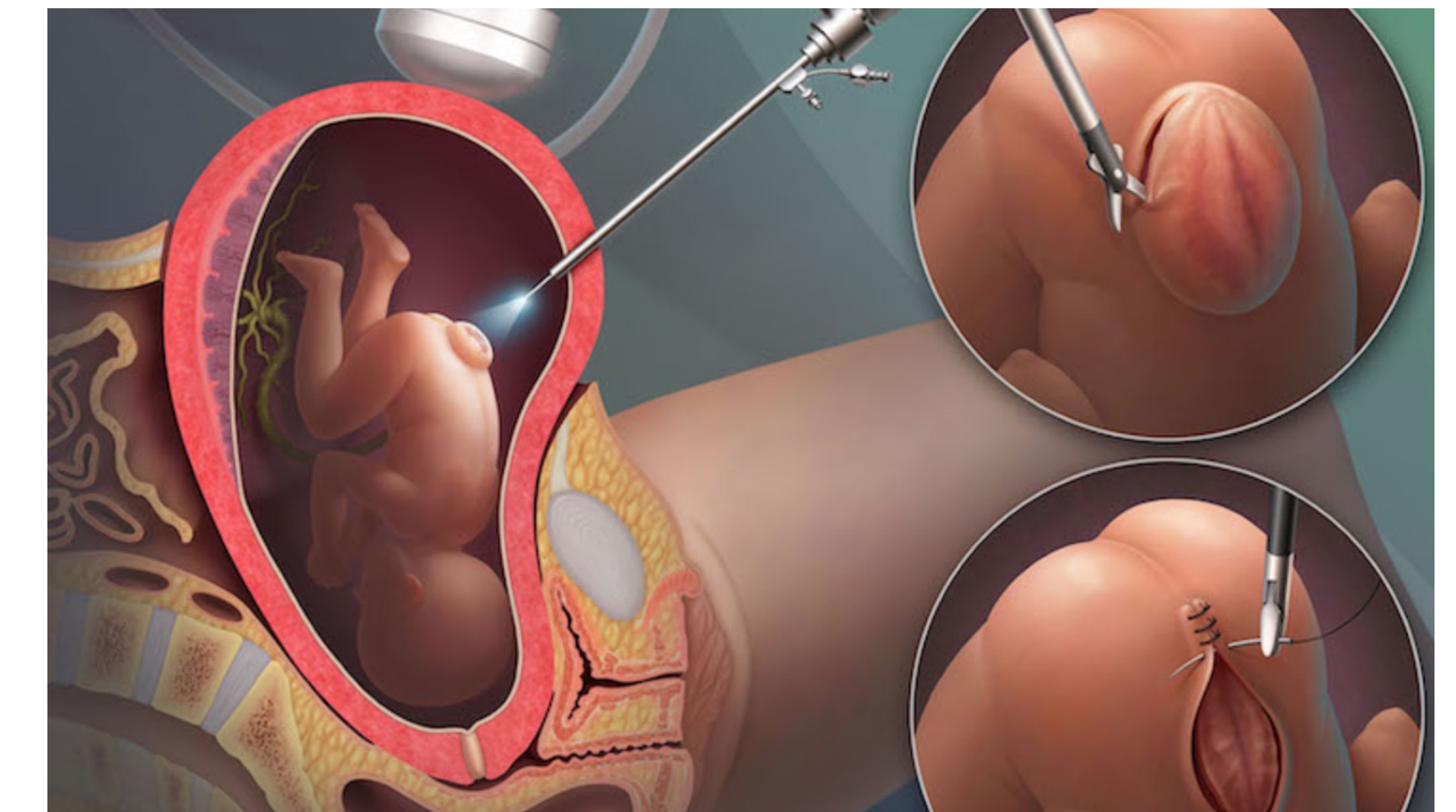
36y/o G1P0 at 27w with fetal congenital diaphragmatic hernia

- Fetoscopic endotracheal occlusion (FETO) balloon placement
- COVID+ on preop labs
- Asymptomatic
- Vaccinated + boosted



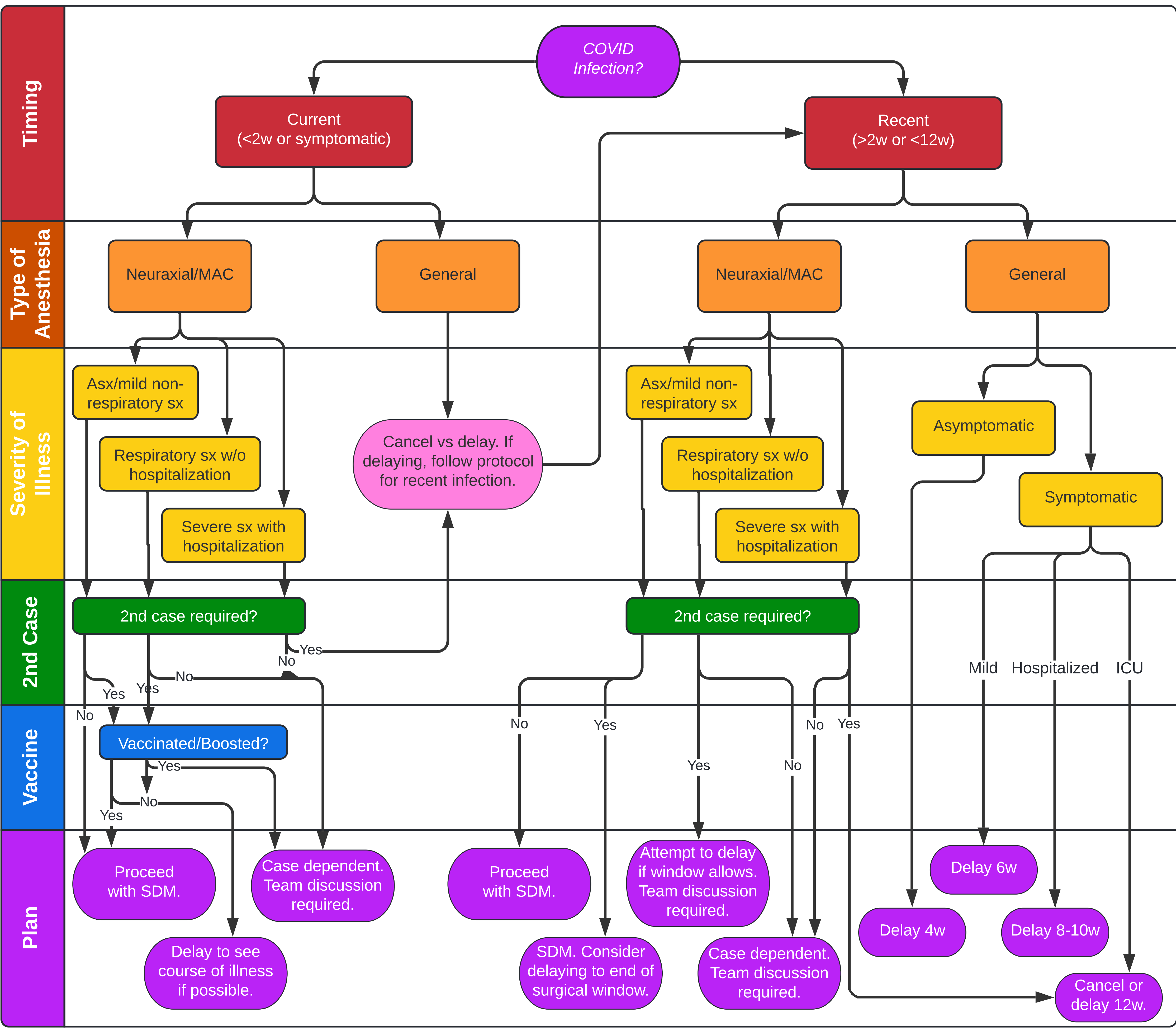
22y/o G2P0 at 21w with fetal myelomeningocele

- Fetoscopic myelomeningocele repair
- COVID+ 3 weeks ago
- Cough + infiltrates on chest x-ray but not hospitalized
- Unvaccinated



Fetal Surgery During the COVID-19 Pandemic: A Decision Support Algorithm for Managing Ethical and Clinical Conundrums

Claire A. Naus, MD, Caitlin D. Sutton, MD



Case 1: 29w fetus with HLHS w restrictive atrial septum

- Current infection
- MAC +/- neuraxial
- Respiratory symptoms
- No second case required
- Not vaccinated

Case 2: 27w fetus with CDH for FETO balloon

- Current infection
- MAC +/- neuraxial
- Asymptomatic
- 2nd case required
- Vaccinated/boosted

Case 3: 21w fetus with spina bifida

- Recent infection
- GA + neuraxial
- Symptomatic but not hospitalized

SDM, Shared decision-making
MAC, Monitored anesthesia care