

Multi-institutional practice patterns in fetal CHD following of a standardized clinical assessment and management plan



Yalda Afshar¹, Whitnee Hogan², Charlotte Conturie³, Sherzana Sunderji⁴, Jennifer Duffy⁵, Kerry Holliman¹, Shabnam Peyvandi², Nina Boe⁶, Aisling Murphy¹, Gary Satou⁷, Anita Moon-Grady², on behalf of the University of California Fetal-Maternal Consortium (UCfC)

¹Division of Maternal Fetal Medicine; UCLA; ²Division of Pediatric Cardiology, UCSF; ³Division of Maternal Fetal Medicine, UCSD; ⁴Division of Pediatric Cardiology; UCD; ⁵Division of Maternal Fetal Medicine, UCI; ⁶Division of Maternal Fetal Medicine, UCD; ⁷Division of Pediatric Cardiology, UCLA

Background: Prenatal diagnosis of congenital heart disease (CHD) has been associated with both early-term delivery and cesarean delivery (CD).

Objective:

- We implemented a multi-institutional standardized clinical assessment and management plan (SCAMP) to determine the best practice, by examining existing practices and outcomes through the University of California Fetal-Maternal Consortium (UCfC).
- Identify triggers to early-term delivery and CD of fetal CHD.

Study Design

- UCfC site-specific management decisions were queried prospectively during prenatal care.
- Maternal and neonatal chart abstraction was completed at the five UCfC institutions following implementation.
- Primary outcomes were early-term delivery and CD.
- Descriptive statistics was used and comparisons with previously published data from our group were made.

Results

- 224 pregnancies with prenatal diagnosis fetal CHD were identified. The mean gestational age at delivery was 37.9 (± 2.1) weeks.
- 52% of deliveries occurred at <39 weeks, a decrease from 67% prior to implementation of the SCAMP.
- CD was planned in 22% of all pregnancies, a decrease from 37%.
- 65.7% of inductions at ≥39 weeks were scheduled to coordinate delivery planning.
- Actual mode of delivery was: spontaneous vaginal delivery 25% (n=56), induction of labor 33% (n=74), CD 42% (n=94).
- Indications for CD included: repeat CD 37.2% (n=35), malpresentation 31.3% (n=20), arrest of dilation 8.5% (n=8), arrest of descent 3.2% (n=3), and NRFHT 29.8% (n=28).
- Antenatal testing was recommended in 75.5%. Of these, 67.3% started at 32 weeks", and 66.1% recommended twice weekly. Abnormal antenatal testing led to a modification in intended delivery plan 9.1% of the time.

Conclusion:

- Implementation of a SCAMP in a multi-institutional cohort significantly decreased the rate of early-term delivery and planned CD for fetal CHD.
- Development of clinical pathways incorporating these practices may help standardize care, decrease maternal risk secondary to CD, improve neonatal outcomes, and reduce health care costs.

Development and implementation of a clinical pathway in a multiinstitutional cohort significantly decreased the rate of early-term delivery and planned CD for fetal CHD.



Take a picture of this QR code to access the poster or email Dr. Yalda Afshar at yafshar@mednet.ucla.edu



Figure 1. 224 cases from 5 centers

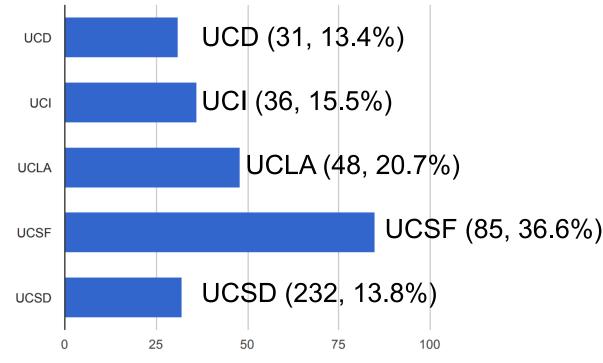


Figure 2. Fetal CHD diagnostic lesion

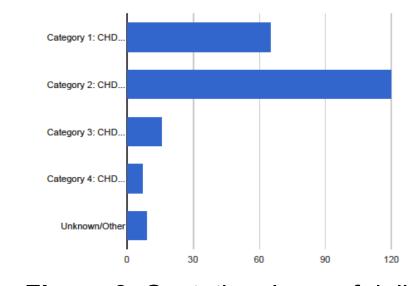


Figure 3. Gestational age of delivery

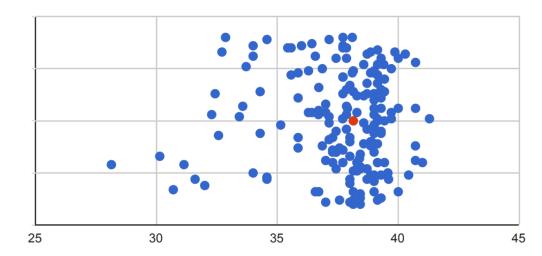
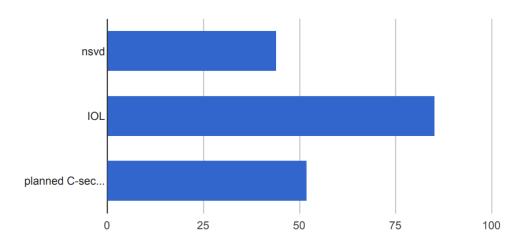


Figure 4. Planned MOD for fetal CHD



CD was planned in 22% of all pregnancies, a decrease from 37%.