

Management of Caesarean Delivery in a Patient with Fontan Circulation

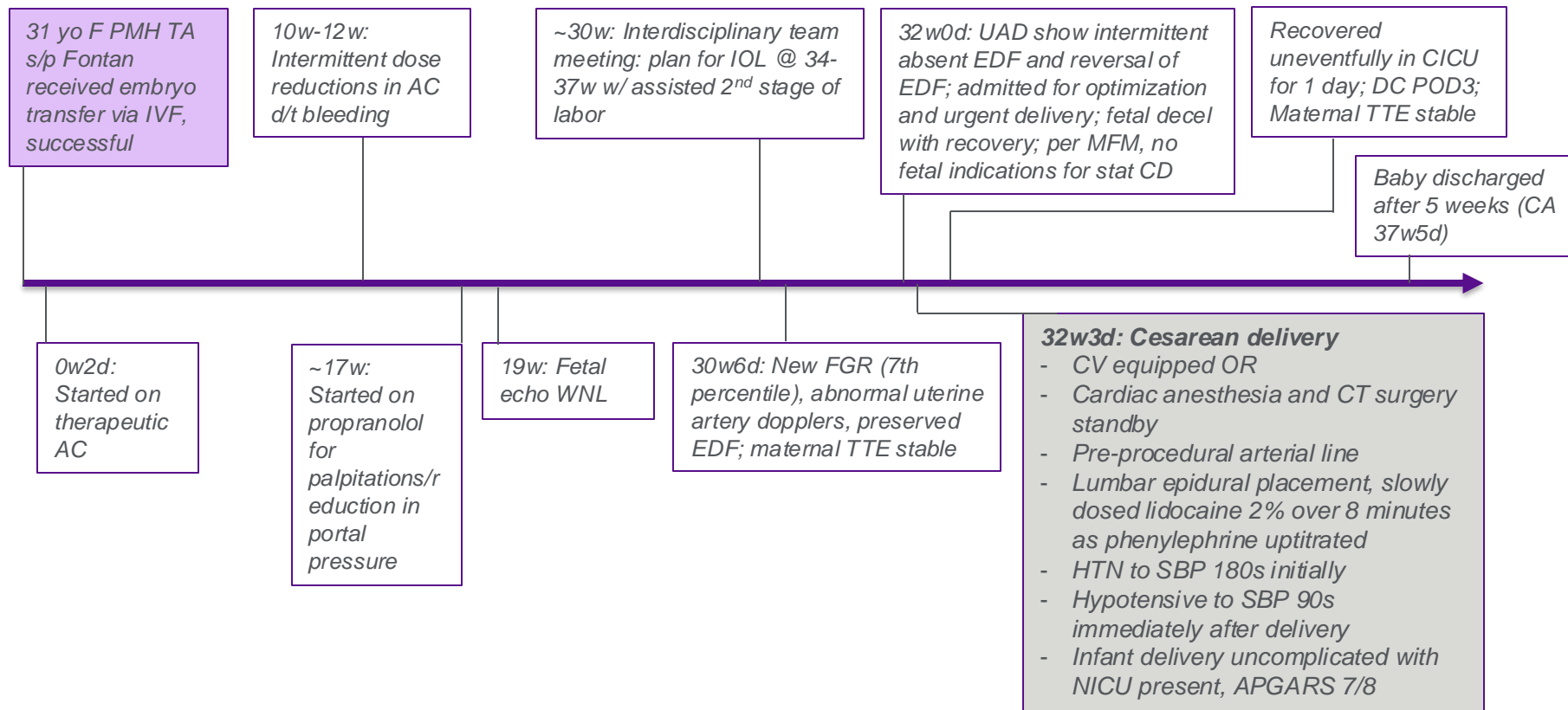
Ashley Radee, MD, William Liao, MD, Javier Solis, MS, and Jeffrey Bernstein, MD

Background

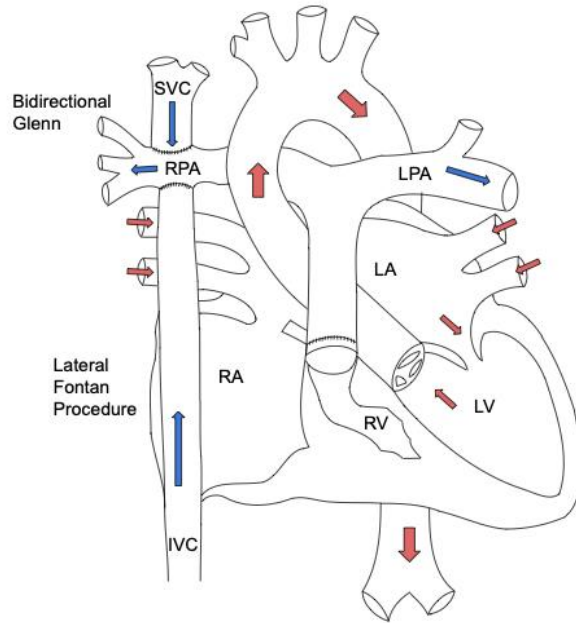
mWHO Risk Stratification Class	Examples
I	Small/mild PS, PDA, MVP, repaired simple defects
II	Unrepaired ASD/VSD, repaired TOF, Turner syndrome*
II-III	Mild LV impairment, Bicuspid aortic valve w/ Ao <45mm, AVSD
III	Asymptomatic Fontan , unrepaired cyanotic disease, mechanical valve, LVEF 30-45%, severe asymptomatic AS
IV	PAH, LVEF<30%, severe MS, severe symptomatic AS, Fontan with complications

Physiologic Changes of Pregnancy	Complications of Fontan Palliation/Single Ventricle Physiology
Increased circulating volume	Chronically elevated CVP, hepatic congestion
Increased CO (reliant on SV>HR)	Low CO (reduced ventricular filling, low stroke volume w/ limited ability to increase)
Decreased systemic vascular resistance	Non-pulsatile flow to lungs, relatively fixed pulmonary vascular resistance
Hypercoagulability (factor based)	Hypercoagulability (low flow state)

Case



Discussion



Services Involved

Obstetrics	NICU
Maternal/Fetal Medicine	Cardiothoracic Surgery
Obstetric Anesthesia	Adult Congenital Cardiology, Peds cardiology
Cardiac Anesthesia	Hepatology