CLINICAL PATHWAY:
Newborn Management of Prenatally Diagnosed Tetralogy of Fallot and Risk of Ductal Dependency (TET score)

THIS PATHWAY SERVES AS A GUIDE AND DOES NOT REPLACE CLINICAL JUDGMENT.

Inclusion Criteria: Newborns born at Hartford Hospital prenatally diagnosed with Tetralogy of Fallot and designated with a TET score; clinically stable
Exclusion Criteria: Any signs of clinical instability *(oxygen saturations <85%, respiratory distress, acidosis, rising lactate, poorly perfused extremities)*

Look at mother's medical record in Connecticut Children's Epic for last Cardiology note or ECHO report to determine antenatal risk of ductal dependency with Tetralogy of Fallot based on TET score (**Appendix A**)

TET Score

Level I: High Suspicion

- Admit to neonatal intensive care unit (NICU)
- Order STAT Cardiology consult AND page on-service cardiologist
- Order echocardiogram to be done same day

Access:
- Insert umbilical lines

PGE1 0.01 mcg/kg/min:
- Order prior to delivery (downtime procedures) to start ASAP

Labs & Monitoring:
- Pre/post saturations
- Q2hr arterial blood gas (ABG), lactate

Feeds:
- NPO
- Intravenous fluids (IVF) @ 100 mL/kg/day

Level II: Moderate-High Suspicion

- Admit to NICU
- Order STAT Cardiology consult AND page on-service cardiologist
- Order echocardiogram to be done same day

Access:
- Insert umbilical lines

PGE1 0.01 mcg/kg/min:
- Order at the time of delivery to be available at the bedside

Labs & Monitoring:
- Pre/post saturations
- Q4hr ABG, lactate

Feeds:
- NPO
- Intravenous fluids (IVF) @ 100 mL/kg/day

Level III: Moderate-Low Suspicion

- Admit to NICU
- Order routine Cardiology consult and page on-service cardiologist
- Order echocardiogram to be done within 24 hours

Access:
- Insert peripheral IV (PIV)

PGE1:
- Do not order unless clinically indicated

Labs & Monitoring:
- Pre/post saturations
- Q8hr ABG, lactate

Feeds:
- Ad lib PO

Level IV: Low Suspicion

- Admit to Hartford Hospital Newborn Nursery
- Contact on-service cardiologist regarding timing of consultation (inpatient vs outpatient)

Access:
- None indicated

PGE1:
- Do not order unless clinically indicated

Labs & Monitoring:
- Routine newborn care

Feeds:
- Ad lib PO

If at any time the patient becomes clinically unstable, exit pathway and call on-service cardiologist to discuss initiation of prostaglandins.*

**Examples of clinical instability include oxygen saturations <85%, respiratory distress, acidosis, rising lactate, poorly perfused extremities*

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Antenatal Risk of ductal dependent pulmonary blood flow in newborns Tetralogy of Fallot

Management recommendations for suspected Tetralogy of Fallot based on fetal echocardiogram

- All recommendations refer to management/monitoring for *PRIOR* to cardiology consultation in *clinically stable* patients
- Clinically stable patients have *none* of the following*:*
  - Saturations less than 85%, respiratory distress, acidosis, poorly perfused extremities, rising lactates.
- Any clinical concerns, including the above symptoms, require notification of the on service/on call cardiologist for further discussion.
- The following recommendations only apply prior to consultation. Further management will be based on consult findings.

Level	Fetal findings - examples	Ad mit	UmbiLines	PGE1	Labs and monitoring	Feed	Consultation
I High suspicion	• Pulmonary atresia • Retrograde main pulmonary artery blood flow • Reversal of flow in the ductus arteriosus	NICU	Yes	Order prior to delivery (downtime procedures) to start ASAP	- Pre/post sats - q2h ABG, lactate	NPO IVF@100ml/kg/d	Call for immediate consult. Echo to be done same day.
II Mod-high suspicion	• High velocity antegrade flow across the pulmonary valve • Hypoplastic pulmonary arteries • Bidirectional/Unclear flow in the ductus arteriosus • Vertical or tortuous ductus arteriosus • Hypoplastic pum valve annulus	NICU	Yes	Order PGE at the time of delivery to be available at the bedside	-- Pre/post sats - q4h ABG, lactate	NPO IVF@100ml/kg/d	Order immediate consultation. Notify cards attending. Echo to be done on same day.
III Mod-low suspicion	• Antegrade flow across the pulmonary valve • Abnormal appearance of the pulmonary valve • Normal or borderline pulmonary valve annulus dimension • Antegrade flow across the ductus arteriosus	NICU	No	Do not order unless clinically indicated	- Pre/post sats - q8h ABG, lactate	Ad lib PO	Order routine consultation Notify cardiology attending Echo to be done within 24 hours
IV Low suspicion	• Malaligned ventricular septal defect • Normal appearing pulmonary valve and annulus dimension • Normal, unrestrictive pulmonary valve flow • Normal ductus morphology and flow	WBN	No	Do not order unless clinically indicated	None	Ad lib PO	Evaluate either in the newborn nursery or shortly after discharge

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