Management of newborn during pulse oximetry screening for CCHD

Baby ≥ 24 hours of age?

Yes

Pulse oximetry screen for CCHD

Normal (negative)

- Discharge as usual

Abnormal (borderline)

- Review by MO or NNP
- Repeat screen in one hour

Abnormal (positive)

- Requires urgent medical review
- Admit to neonatal unit
- Commence close clinical surveillance—SpO₂ and cardio-respiratory monitoring
- Investigate for sepsis
  - Refer to QCG EOGBS guideline
- Investigate for CCHD
- Consider investigations for other respiratory/vascular problems
- Contact RSQ as required

Repeat screen normal?

Yes

Respiratory distress:
- Tachypnoea > 60/min
- Grunting
- Chest recession

Cardiac signs:
- Bradycardia < 60 bpm
- Tachycardia > 160 bpm
- Poor femoral pulses

No

Pulse oximetry screening
- Ensure baby is fed/settled
- Apply neonatal oxygen saturation sensor(s) to either foot or right hand and either foot
- Connect sensor(s) to motion tolerant pulse oximeter(s)
- Keep sensor in situ until trace is steady (< one minute)
- Record highest SpO₂ and if used calculate difference between hand and foot readings

Abnormal (positive)

- Admission to neonatal unit
  - Consider investigations for sepsis, other respiratory/vascular problems
- If respiratory distress or cardiac signs
  - SpO₂ and cardio-respiratory monitoring
- Consider CXR, 4 limb BP, echocardiography
- Delay discharge
- If baby is well, repeat screen in 3–4 hours
- Contact RSQ as required

Repeat screen normal?

Yes

Manage as abnormal (positive) screen

No

Baby ≥ 24 hours of age?

No

Screen immediately prior to discharge
- May result in false positive
- Follow local protocols for screening by home visiting midwife or GP

Discharge as usual

CCHD: critical congenital heart disease; BP: blood pressure, bpm: beats per minute, CXR: chest X-ray, EOGBS: early onset Group B Streptococcus, GP: general practitioner, HR: heart rate, min: minute, MO: medical officer, NNP: neonatal nurse practitioner, QCG: Queensland Clinical Guidelines, RSQ: Retrieval Services Queensland, SpO₂: oxygen saturation, >: greater than; ≥: greater than or equal to; <: less than; ≤: less than or equal to