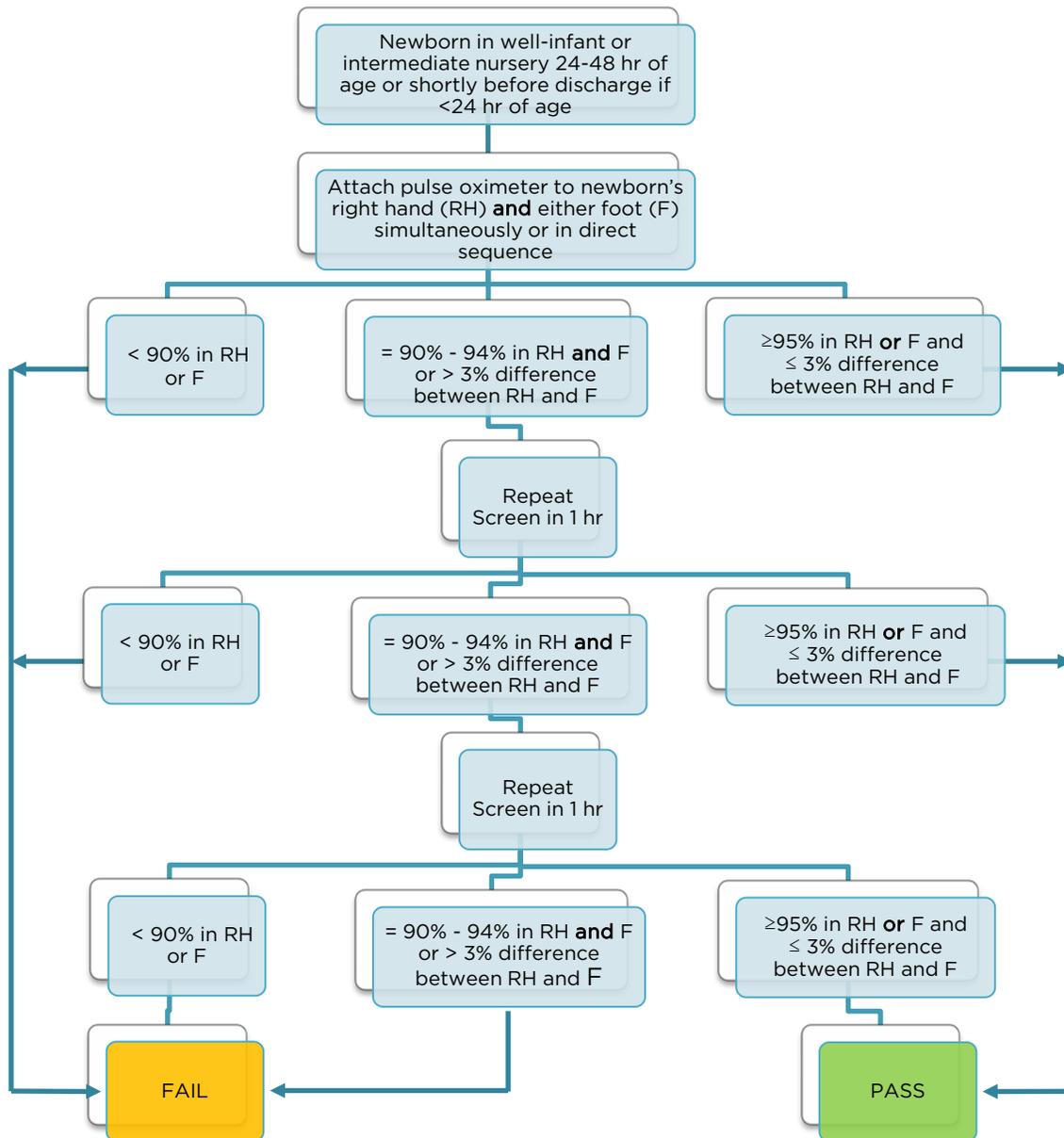


# Seattle Children's Guide to Pulse-oximetry Screening for Critical Congenital Heart Disease

## Questions?

Call a Seattle Children's pediatric cardiologist at 253-272-1812.

After hours page the cardiologist on call at 253-233-0086.



Reference: Kemper AR, Mahle WT, Martin GR, et al. Strategies for implementing screening for critical congenital heart disease. *Pediatrics*. November 2011; 128 (5). <http://www.pediatrics.org/cgi/content/full/128/5/e1259>



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# Seattle Children's Guide to Pulse-oximetry Screening for Critical Congenital Heart Disease

Pulse-oximetry screening can help discover critical congenital heart disease (CCHD) at an early stage. A new recommendation released in the November 2011 issue of *Pediatrics* outlines the steps of how to complete pulse-oximetry screening for CCHD. Seattle Children's Heart Center is here to help if you run into any problems while performing a pulse-oximetry screen.

## If the screening is positive:

- Notify patient's responsible care provider of results.
- Perform a complete clinical evaluation.
- If no explanation for hypoxemia, an echocardiogram is indicated to evaluate for critical congenital heart disease.
  - Discussion with a pediatric cardiologist is strongly recommended prior to obtaining echocardiogram.
  - If an echocardiogram cannot be performed on-site transfer should be considered.
  - A positive screen should be resolved *prior* to discharge.

## Questions?

Call a Seattle Children's pediatric cardiologist at 253-272-1812

(Monday to Friday, 8 a.m. to 4:30 p.m.).

After hours page the cardiologist on call at 253-233-0086.

A patient fails the pulse-oximetry screening if either of the following are true:

1. Any correctly obtained oxygen saturation is < 90%  
OR
2. The patient does not pass on 3 consecutive trials separated by 1 hour, either:
  - a) Oxygen saturation is <95% in both extremities
  - b) There is a > 3% difference in oxygen saturation between the right hand and either foot.

## Tips for Success

- False positives will be reduced if the newborn is awake
- Use motion tolerant pulse oximeters that report functional oxygenation saturation
- Time pulse ox screening along with hearing screen, at 24 hours of life or later

Reference: Kemper AR, Mahle WT, Martin GR, et al. Strategies for implementing screening for critical congenital heart disease. *Pediatrics*. November 2011; 128 (5).  
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