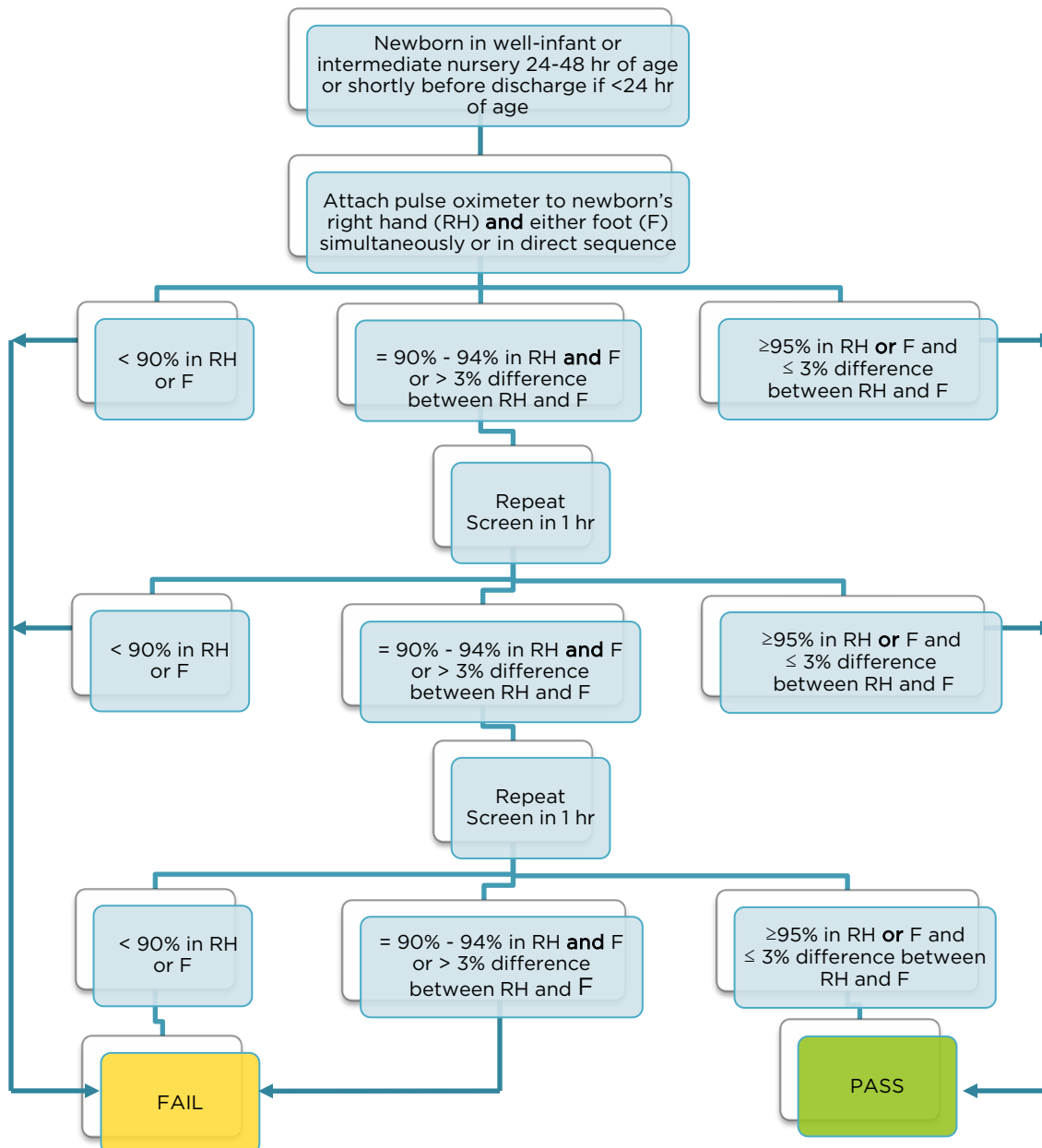


Seattle Children's Guide to Pulse-oximetry Screening for Critical Congenital Heart Disease

Questions? Call a 24 hour on-call Seattle Children's pediatric cardiologist at 206-987-7777 or 877-985-4637, option 4



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 patient fails the screen:

- 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?

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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

- Falsely failed screens 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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