

Pulse oximetry: A viable screening tool for infants with suspected congenital heart disease

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Pulse oximetry, a non-invasive procedure that measures the amount of oxygen in the bloodstream, can be used as a screening tool to detect critical congenital heart disease (CCHD) in infants, and is more readily available than echocardiography, the current gold standard for CCHD diagnosis, according to a new research abstract presented Friday, Oct. 14, at the American Academy of Pediatrics (AAP) National Conference and Exhibition (NCE) in Boston.

In September, the U.S. Department of Health and Human Services added pulse oximetry to the list of core screening standards; however, no research has been conducted that looks at the availability of these devices, or their frequency of use.

Researchers surveyed nurse managers and administrators at 88 of the 99 Wisconsin hospitals which routinely deliver newborns. All responding hospitals had pulse oximetry available in the nursery, of which 28.4 percent (representing one-third of all newborns in Wisconsin) routinely used this device to screen for CCHD. In contrast, same-day echocardiography was available at only 37.5 percent of the responding hospitals. More than 26 percent of births occurred in a facility where same-day neonatal echocardiography was not available, with the average distance to a higher-level care facility of choice being 53.1 miles.

"There is a large body of literature on pulse oximetry as a [screening tool](#) for critical congenital heart disease from Europe; however, there is very little population-based information on this type of screening in the health care systems of the United States," said lead study author Daniel J. Beissel, MD.

"Although the use of pulse oximetry is a relatively new tool in screening for critical [congenital heart](#)

[disease](#), its use is expanding rapidly," said Dr. Beissel. "The implementation of [pulse oximetry](#) is likely to expand further as more and more states pass legislation requiring this type of screening in all [newborns](#)."

Provided by American Academy of Pediatrics

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