


Screening Newborns for Heart Defects



Newborns across the country are routinely screened for all sorts of health problems. Eight state legislatures have recently added a test for congenital heart defects to the list, and others are considering doing so.

Problems with the walls, valves, arteries or veins of the heart are some of the most common types of birth defects, affecting up to nine of every 1,000 births. Of the approximately 4 million babies born in the United States each year, more than 4,800 have a critical heart defect, putting them at higher risk for disabilities and early death. Early treatment is crucial, but often these babies appear healthy and go home before problems are detected. Critical heart disease is responsible for more deaths in the first year of life than any other birth defect.

All states screen for some genetic disorders and hearing problems. The U.S. Department of Health and Human Services' advisory committee on heritable disorders recommends screenings for 31 core disorders and 26 secondary disorders. The committee added a recommendation for congenital heart disease screening—known as pulse oximetry—in September 2011, which was endorsed by the American Academy of Pediatrics, the American College of Cardiology Foundation and the American Heart Association.

The pulse oximetry test measures the oxygen saturation in the blood; a low level can indicate additional testing is needed to look for heart problems. The screening detects about 77 percent of all congenital heart defects and is more effective than a basic clinical exam and prenatal tests.

Diagnosing heart problems early may eliminate future health care costs, such as emergency room visits, and may reduce the risk of medical malpractice suits against providers for failing to detect heart problems at birth. Supporters point out that many hospitals already have pulse oximeter machines, and that the test costs only \$5 to \$10 and takes about three minutes.

There are downsides, however. Smaller hospitals may not have the proper equipment or specialists to conduct follow-up tests, and false positives may require additional costly tests and cause unnecessary stress on parents. A recent study in the United Kingdom, however, found that false positive rates are low, occurring approximately one in 1,000 times.

Connecticut, Indiana, Maryland, New Hampshire, New Jersey, Tennessee and West Virginia passed laws requiring—and California requires offering—pulse oximetry screening of newborns. Another nine states have considered legislation, and two had bills pending at press time. And some states, even without legislation, require the test and are studying the issue. In Minnesota, a group of medical professionals, state officials and administrators developed a pilot program to conduct screenings. The Colorado General Assembly adopted a resolution requesting that the Department of Public Health and Environment develop a screening system, while an Alabama resolution commends the health department for requiring screening. In addition, six states have adopted resolutions to raise awareness about congenital heart defects.

—Jennifer B. Saunders