

Feasibility of Implementing Pulse Oximetry Screening for Congenital Heart Disease in a Community Hospital.

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Objective

Pulse oximetry has been recognized as a promising screening tool for critical congenital heart disease (CCHD). The aim of this research was to study the feasibility of implementation in a community hospital setting.

Study Design

Meetings were conducted to determine an implementation plan. Pulse oximetry was performed on the right hand and foot after 24 h of age. Newborns with a saturation $\leq 95\%$ or a $\geq 3\%$ difference were considered to have a positive screen. Screening barriers, screening time and ability to effectively screen all eligible newborns were noted.

Result

From January 2009 through May 2010, of 6841 eligible newborns, 6745 newborns (98.6%) were screened. Of the nine infants with positive pulse oximetry screens, one had CCHD, four had CHD and four others were determined to have false positive screens. Average screening time was 3.5 min (0 to 35 min).

Conclusion

Pulse oximetry can be implemented successfully in community hospitals without an excessive number of false positives or additional nursing staff.