AUDIT OF NEONATAL PULSE OXIMETRY SCREENING

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Background and aims: Pulse oximetry is not routinely used in term neonates. However, current research argues strongly towards introduction as infants with critical congenital heart disease may be detected who are otherwise discharged undiagnosed. Delayed diagnosis and treatment can result in higher mortality, increased hospital stay and incidence of significant complications.

This audit aimed to determine feasibility of local screening by quantifying potential false positives thus achieving a perception of workload, unnecessary distress and cost-effectiveness.

Method: Data collection upon 100 infants in postnatal wards and delivery suite involved documentation of hours of age and SpO₂ as assessed.

With verbal parental consent the pulse oximeter was placed on the infant's left foot and the reading taken after 30 seconds good trace.

Suggested criteria from research are; on initial screening; saturations $\geq 95\%$ can be discharged, 90-94% repeat screen 6hrs later and saturations $< 90\%$ refer for further investigation +/- Cardiology opinion and echocardiography.

Results: Results correlate with current research showing 5% potential false positives. All of these babies were re-checked 6 hours later and had SpO₂ $\geq 95\%$. Consequently of these 100 babies none would have required referral to cardiology based on the above criteria.

[Oxygen Saturations for Hours of Age]

Conclusion: Neonatal screening by pulse oximetry could be implemented locally during routine baby check. Based on audit there is minimal extra work, cost and distress created.