
**Introduction**
The study aims to investigate pulse oximetry measurements from a 'blue' pulse oximeter sensor against measurements from a 'standard' pulse oximeter sensor in newly born infants.

**Methods**
Immediately after birth, both sensors were attached to the infant, one to each foot. SpO₂ measurements were recorded simultaneously from each sensor for 10 min. Agreement between pairs of SpO₂ measurements were calculated using Bland-Altman analysis.

**Results**
Thirty-one infants were studied. There was good correlation between simultaneous SpO₂ measurements from both sensors (r² = 0.75). However, the mean difference between 'blue' and 'standard' sensors was -1.6%, with wide 95% limits of agreement +18.4 to -21.6%. The range of mean difference between sensors from each infant ranged from -20 to +20.

**Conclusion**
The mean difference between the blue and standard sensor SpO₂ measurements is not clinically important.