

## **A Comparison of Oxygen Saturation Measurements Obtained from a 'Blue Sensor' with a Standard Sensor.**

Mawson I.E., Dawson J.A., Donath S.M., Davis P.G. *J Paediatr Child Health*. 2011 Oct;47(10):693-7.

### **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. SpO<sub>2</sub> measurements were recorded simultaneously from each sensor for 10 min. Agreement between pairs of SpO<sub>2</sub> measurements were calculated using Bland-Altman analysis.

### **Results**

Thirty-one infants were studied. There was good correlation between simultaneous SpO<sub>2</sub> measurements from both sensors ( $r^2 = 0.75$ ). 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 SpO<sub>2</sub> measurements is not clinically important.