

## **New-Generation Pulse Oximetry in the Care of Critically Ill Patients.**

Giuliano K.K., Higgins T.L. *Am J Crit Care*. 2005 Jan;14(1):26-37

### **Objective**

To review the published, peer-reviewed studies to date on use of the new-generation pulse oximeters, which are manufactured with algorithms to filter out patients' body motions, and describe the application of new-generation pulse oximetry in clinical practice in critical care.

### **Methods**

MEDLINE was used to locate appropriate articles on pulse oximetry for the years 1995 to 2003. Each article was examined for scientific merit, content, and applicability to clinical practice.

### **Results**

A total of 17 relevant articles on the clinical performance of the new-generation pulse oximeters were reviewed, and the data were organized into a table.

### **Conclusions**

The combination of studies done in both clinical and laboratory settings did not provide any strong and convincing evidence that the performance of any single new-generation device was superior to that of any other new-generation device. However, the clinical performance of all the new-generation pulse oximetry devices was better than that of earlier devices.