



## Latency and Loss of Pulse Oximetry Signal with the Use of Digital Probes During Prehospital Rapid-Sequence Intubation

Davis DP, Aguilar S, Sonnleitner C, Jennings M. *Prehosp Emerg Care*. 15(1):18-22. Epub 2010 Sep 21.

### Introduction

Prehospital personnel rely on timely and accurate pulse oximetry data when performing critical skills, such as rapid-sequence intubation (RSI). Loss of signal may be a frequent occurrence in patients with poor peripheral perfusion. Delay or latency period in the timeliness of pulse oximetry data may exist with fingertip probes.

### Methods

The study included 124 patients with severe traumatic brain injury undergoing prehospital RSI by air medical crews. Data from hand-held oximetry-capnometry units were analyzed for either the loss of a pulse oximetry tracing ( $\geq 30$  seconds) during the RSI procedure or the presence of a latent period (defined by the SpO<sub>2</sub> nadir occurring after intubation in patients undergoing desaturation [SpO<sub>2</sub>  $\leq 93\%$ ] during the procedure).

### Results

A high incidence of pulse oximetry failure was observed, including a latent period in the majority of patients undergoing desaturation. A total of 98 patients (79%) had pulse oximetry failure during critical points in the RSI procedure. In the 49 patients with a desaturation during RSI, a latent period was observed in 27 (55%).

*This summary was created by Xhale Assurance, Inc. based on the original report by the authors referenced.*



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