

## **Results for the Study: Endotracheal palpation to assess tracheal depth in pediatric patients**

### **Introduction**

This study took place at the Royal University Hospital and Prairieview Surgical Center between June and August 2012. If your child participated in this study, we would again like to thank you, and share what we found.

### **Background**

Putting a breathing tube in windpipe common and life saving procedure. It is very important that the breathing tube is in the right place. The breathing tube is in the right place when its tip is in the middle of the windpipe. In children, the breathing tube can be in the wrong place more often than in adults because of the shorter windpipe. Many doctors advance the breathing tube in the windpipe according to a simple calculation based on the child's age. After the breathing tube is in the windpipe, an X-ray is often taken to make sure it is in the right place. Unfortunately, X-rays are time consuming to take, expensive, and are associated with causing cancer. Our study tried to determine if we could tell when the tip of the breathing tube was in the right place by feeling the front of the neck at the top of the breastbone.

### **Results**

We were able to study 50 children, including 30 boys and 20 girls, with an average age of about four. In all the patients, we were able to feel the breathing tube enter the child's windpipe when we felt the front of the neck. We also determined that when we used our study method (feeling the breathing tube at the top of the breastbone), the breathing tube was in the right place in almost all patients (98%). When we compared our results to the way many doctors use to decide to stop advancing a breathing tube, our method was able to detect the proper placement of the breathing tube more often.

### **Conclusion:**

Our results show our easy method to know when the breathing tube is in the right place works really well in children. We also found our method works better than the method many doctors currently use.

### **What We Plan to Do With Our Findings:**

We are planning to present the results of our study at a national meeting of anesthesiologists and publish a research paper directed toward anesthesiologists. We feel results will improve the way doctors place breathing tubes and other doctors should know about our findings.

If you have any questions, please feel to contact us.

Sincerely,

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