

Endotracheal Tube Securing Device

Client: Dr. Lester Proctor

Team

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April 24 to May 1 2008

Problem Statement

Dr. Lester Proctor, a professor of anesthesiology and pediatrics for the UW medical school, has expressed the need for a pressure indicator which would be used for endotracheal tubes. Over inflation of the cuff on an ET tube can cause tracheal damage, especially in children, and Dr. Proctor is looking for a qualitative indicator which would be attached to the ET tube and would give a consistent reading on the pressure in the inflated cuff.

Last Week's Goals

- Finish construction of final model
- Test device
- Finish Poster

Summary of Accomplishments

- Finished poster
- Solved *rolling* diaphragm problem
- Tested device
- Practiced presentation

This Week's Goals

- Finish final paper

Difficulties

We were having difficulties keeping the indicator straight inside the tube, so we tried many things to guide the indicator. We had everything together two weeks ago except this final step of making the diaphragm raise and lower the indicator perfectly. We thought a bigger diameter indicator would be best but then we realized a smaller diameter indicator would actually allow the indicator to roll with the diaphragm. It took us too much time to realize that.

Ink on the poster smudged a bit, and we tried to wipe it off, but it became worse. We finally resorted to white out to clean it up.

