

Endotracheal Tube Securing Device

Client: Dr. Lester Proctor

Team

Val Maharaj (leader)

Deborah Yagow (BSAC)

Andrew Bremer (BWIG)

Colleen Farrell (Communicator)

April 17 to April 23 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

- Solve diaphragm problem
- Have majority of poster finished
- Order more valves and adapters
- Start testing and calibrating of device

Summary of Accomplishments

- Finished half of poster
- Solved diaphragm problem
- Ordered valves to attach device to ET tube

This Week's Goals

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

Difficulties

We were having a hard time determining how much of the diaphragm to place in the cylinder. Too little and the device bursts, too much and the spring starts partially compressed due to the extra diaphragm material. It is little details like that that we need to hammer out.

We still need to receive valve parts from a company that has provides us free samples. These valves will allow us to connect our pressure monitor to the ET tube. Without these, we cannot do much calibration and testing.

