Project Title: An airway pressure device for use in an MRI machine

Team Members:
Laura Sheehan - Leader
Jon Cappel – Communications
Noelle Simatic – BWIG
Kevin Johnson – BSAC

Client: Victor Haughton, M.D.
UW Department of Radiology
3252 Clinical Science Center-E3
Phone: 263-5306
email: vmhaughton@facstaff.wisc.edu

Advisor: Mitch Tyler

Date: 10/7/05 – 10/13/05

Problem Statement: Our client Dr. Haughton is currently studying CSF flow during Valsalva maneuvers performed by children with Chiari I malformations. Current research suggests that CSF flow decreases during Valsalva maneuvers in these patients. The airway pressure device would help monitor the exhalation force exerted by each child during a Valsalva maneuver in the MR suite. Knowing the pressure exerted by each patient in the study would be extremely beneficial for data analysis and accuracy.

Last Week’s Goals:
- Make improvements to the PowerPoint presentation
- Possibly prepare a demonstration for the Midsemester Presentation
- Rehearse presentation as a group
- Make sure that the PDS is up-to-date
- Decide which transducer to order
- Evaluate valve alternatives

Individual Goals:
Laura – Progress report, practice presentation
Jon – Practice presentation
Noelle – Work on project website, practice presentation
Kevin – Take pictures of autovalve and transducer, obtain demonstration materials, practice presentation

Summary of Accomplishments:
- Revised PowerPoint presentation
- Prepared demonstration for presentation
- Rehearsed as a group
- Finalized design recommendations
This Week’s Goals:

- Meet with client to discuss Midsemester presentation
- Obtain client feedback on mouthpiece selection
- Discuss sanitation techniques with Matt O’Brien
- Order parts (transducer, voltage meter, valve)
- Test the transducer in the scanner
- Evaluate transducer placement

Project Difficulties: None

Activities:

- **Laura** – Progress report, team meeting, team rehearsal: 4 hours
- **Jon** – Team meeting, team rehearsal: 4 hours
- **Noelle** – Work on project website, team meeting, team rehearsal: 4 hours
- **Kevin** – Team meeting, team rehearsal: 4.5 hours

Team Total Hours for this Week: 16.5 hours

Project Schedule:

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<th>Tasks</th>
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