

Continuous Monitoring of Asthma Control Progress Report 2

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Date: Friday, January 27th - Thursday, February 2nd

Problem Statement

Asthma patients often do not experience the the symptoms of asthma exacerbations, such as coughing, wheezing, and increased respiratory rate, for up to 2 days after it has begun. In severe asthma patients, where the exacerbations are more frequent, prolonged detection can lead to more serious symptoms, longer recovery times, and extended tissues destruction. These severe asthma patients only account for 10% of all asthmatics, but they account for a disproportionate amount of health-care costs, hospital admissions, doctor visits, and emergency services. By creating a device that can detect the symptoms of an asthma exacerbation earlier, the patients could be notified to start their asthma action plan (AAP) sooner. This could potentially save significant amounts of time, money and resources while reducing the effects of the exacerbation.

Restatement of Previous Team Goals

- Meet with our advisor
- Complete the IRB protocol
- Figure out how to save data/ review it in LabVIEW

Summary of Team Role Accomplishments

- Luke (BSAC) - Attended bi-weekly BSAC meeting
- Tim (Leader/ Communicator)- Worked on/ submitted the progress report.
- Kelsey (BWIG/ BPAG)- Uploaded last week's progress report to the website. Worked on the progress report.

Summary of Design Accomplishments

So far we have not come up with any changes to the design. The team has decided that the aspect of this project that needs the most work is the casing/ housing for the microphone. While the device from last semester works, its bulky nature makes it unideal for integration into a shirt. We will continue to research and brainstorm to come up with new solutions to the issue.

At the same time, the group intends to use the preexisting device from last semester (with a few minor tweaks) to test on actual asthma patients. The team has completed the necessary steps online to be added to the protocol, and we will continue preparing for this task as well.

Progress Report	X	X													
PDS															
Preliminary Presentation															
Preliminary Report/Notebooks															
Final Presentation															
Final Report/Notebook/Evals															
Team Goals															
Select 3 final design ideas															
Design Matrix															
Presentation Powerpoint															
Decide on final design															
Presentation poster															
Meetings															
Team	X														
Advisor	X	X													
Client	X														
Website															
Update info	X	X													

Expenses

No expenses at this time