

Rectal Expulsion Device- Fast Forward Medical Innovation

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UMMS Capstone for Impact

Branch: Patients and Populations

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Project Summary

- Chronic constipation is an extremely common complaint encountered in the outpatient setting, yet there is an inability to promptly diagnose and manage constipation.
- There are currently no easy to use, prompt diagnostic tools available.
- The solution will be prompt and effective diagnosis and management through utilization of the Rectal Expulsion Device (RED).
- The RED functions as a substitute for ballon expulsion testing (BET) and is designed to be used in a general gastroenterologist's office
- The device will serve the same diagnostic purpose as BET with the advantage of being more compact and disposable after each use
- The device can be used at the bedside with the patient lying on their side on the exam bed, eliminating the need for a bedside commode
- It will be able to self-inflate to a desired volume and not require manual inflation of water with a syringe
- Results from testing can be interpreted immediately in-office allowing for expedited diagnosis and treatment

Action Items/Outcome

- Key milestones included customer discovery efforts to determine the utility of this process. I interviewed numerous GI physicians to determine what they thought about this device.
 - We discussed the possible results and their interpretation during the customer discover interviews, which helped guide our project forward.
- Discovered relevant prior art through a web based search of similar patents

Conclusion/Reflection

This experience was very helpful for my professional development. As a physician, I would like to develop and patent medical devices and be an innovator in my field. The FastPace program taught me how to think about medical devices more critically, outlining the problem, the solutions, value, stakeholders, etc. It was an excellent lesson in business in addition to medicine.

This experience helped me to think more critically about customer discovery. I learned the importance of speaking to the physicians and stakeholders that may use your product. Some of the feedback we had was incredibly helpful and may alter the trajectory of the project.