Tool Provides Precise Management of IVF Treatments

In the United States, women suffering from infertility underwent 190,000 cycles of in vitro fertilization (IVF) in 2014. The goal of an IVF cycle is a healthy baby, but in order to do this, patients and their partners have to manage a complex program of medications when dosage and time of administration can be critical. Not having the right medication at the right time can be the difference between a successful pregnancy or a failed—and expensive—in vitro cycle.

The Solution

University of Michigan’s Michael Lanham, M.D., has developed a dynamic calendar and medication manager for fertility patients called OnTrack, a program that provides patients with better control over their fertility medication supply and the entire IVF process. The software prompts patients to refill medications and provides clinics with the information they need to help patients who might be at risk for running out of medication or making some other medication error.

Due to the complexity of the treatment and because medications are expensive and typically ordered by patients incrementally to reduce waste, medication errors—including wrong doses and running out of medication—affect between 3-15% of patients. Without insurance coverage, each cycle can cost between $15,000 and $25,000 total for medications and procedures. With OnTrack, patients won’t have to worry about their actions during a treatment cycle negatively affecting the outcome.

The University of Michigan Translational Research and Commercialization (MTRAC) for Life Sciences Innovation Hub is supported by the U-M Medical School, U-M Tech Transfer Office, and the Michigan Economic Development Corporation and works to “fast forward” projects that have a high potential for commercial success, with the ultimate goal of positively impacting human health. The OnTrack project is just one of 11 projects in the 2017 cohort funded by MTRAC. In 2014, the program funded 11 teams for early commercialization development, while 11 teams were funded in 2015, and 12 projects were funded in 2016.
Significant Need
IVF patients have to individually manage the process of medication inventory, administration, and refills. Due to the complexity of the treatment, medication errors affect between 3-15% of patients.

Compelling Science
The program creates a checklist, allowing clinic staff to input which IVF medications to expect and patients to input their current inventory and name of pharmacy. The OnTrack software will allow patients to see when and how they can pick their upcoming medications and provide alerts on when they’re running low.

Competitive Advantage
OnTrack focuses on the inventory of medications and provides flexibility with multiple and changing doses, routes and medication combinations in IVF cycles, warning patients about an impending lack of medication before it happens. Current apps do not have the capability to warn patients about upcoming medication refill needs based on doses that can change daily.

MTRAC Project Key Milestones

Start feature development, recruiting U-M patients for research study
Recruit 50 more U-M subjects and 12 non-U-M patients for study
Additional 50 U-M patients recruited with 24 from outside clinics
Transition agreement with early adopters from research collaborators to customers

Clinic-facing features complete development
Conduct first mid-study evaluation
Pursue license of the software from U-M and pursue additional funding

Overall Commercialization

Product and associated software will be copyrighted.
Licensed to fertility clinics or directly to patients.

Michael Lanham, M.D.

The OnTrack app will allow patients, their partners, and IVF clinics to work together to eliminate medication errors, improving the chances for a successful pregnancy and a healthy baby. With the help of MTRAC funding, we can increase the power to establish our research findings as statistically significant, rather than just trends.