Lead-winning innovation is a sensor that detects when IV medication is connected to a patient's peripherally inserted central catheter (PICC) line, meaning the patient is beginning therapy" Infectious Diseases Society of America (2019).

Infectious Diseases Society of America report "A device designed to improve adherence to outpatient parenteral antimicrobial therapy (OPAT) took top prize at the second IDEA Incubator, a competition showcasing inventions, products and devices to improve patient care for infectious diseases, which takes place during IDWeek. Four finalists were chosen from among 51 applications to present their solutions to address challenging problems, including sepsis and central line-associated bloodstream infection (CLABSI), in the Shark Tank-style competition.

Awarded the grand prize for the OPAT monitoring device were Sai Dodda, PharmD, clinical coordinator, Ballwin, Missouri, and Chris Sleckman, MS, engineer, Clayton, Missouri, both of HIVE, a student-run biotech startup at Washington University in St. Louis. Every year more than 300,000 people receive OPAT, which enables them to get intravenous therapy (IV) for challenging infections

while remaining at home or in an outpatient clinic, rather than needing to be hospitalized. However, 16% are readmitted to the hospital for noncompliance.

The winning innovation is a sensor that detects when IV medication is connected to a patient's peripherally inserted central catheter (PICC) line, meaning the patient is beginning therapy. The data is then sent in real time to the patient's doctor and home health agency to help them monitor use and intervene when patients aren't compliant. Additionally, health care providers are alerted if the medication is not administered at the correct time. Because OPAT is significantly less costly than in-hospital therapy, the researchers estimate the device would prevent $2,000 in costs for every day of hospital readmission avoided. Dodda and Sleckman were awarded the grand prize of $10,000"

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