



Duke File (IDF) Number

IDF #:T-007725

Meet the Inventors

[Knechtle, William](#)
[Aroumougame, Vidhya "Vidhya"](#)
[Balu, Suresh](#)
[Daniel, Jamie](#)
[Gao, Michael](#)
[Gardner, Matthew](#)
[Hintze, Bradley "Bradley"](#)
[Nichols, Marshall](#)
[Patel, Akash](#)
[Ratliff, William "Will"](#)
[Revoir, Michael "Mike"](#)
[Sendak, Mark](#)
[Spiritos, Michael](#)

Contact For More Info

Dardani, Dan
 919 684 3311
daniel.dardani@duke.edu

Department

Duke Institute for Health Innovation (DIHI)

External Link(s)

- [From the lab of Dr. Will Knechtle, MBA, MPH](#)
- [Development and Implementation of a Hospital at Home Program in Wake County \(Duke Institute for Health Innovation, 2021\)](#)

At-home acute hospital care guidebook

Unmet Need

Over the last 40 years, the number of hospitals and hospital beds in the U.S. has declined, while the demand for emergency department services has increased. As a result, a reported 90% of emergency departments mention crowded conditions, with some patients in critical need getting turned away and redirected to other hospitals or simply not receiving the treatment they require. Situations such as these are not only a disservice to those seeking medical attention, but to the medical professionals who are overworked and, in some cases, have the devastating task of turning people away. Luckily, many emergency department patients may be eligible to receive care and treatment in their own homes, decreasing the demand for inpatient requests. There is an immediate need to reduce emergency department crowding while at the same time meeting the needs of all patients such that they receive timely care from medical professionals.

Technology

Duke inventors have developed a method, organized into a comprehensive guidebook, on how to execute acute hospital care at-home. This is intended to be used by healthcare leaders who organize healthcare workflows and can implement the best practices outlined in the guidebook to effectively launch home hospital systems. Specifically, the guidebook provides a framework on how to organize and build an at-home acute hospital care leadership team with their roles and responsibilities. It includes Hospital at Home patient eligibility requirements, guidance for the Hospital at Home medical team, protocols for admission and discharge of patients, safety checklists, a list and budget of necessary materials, instructions for the development of health record and radiology services, as well as marketing and patient education materials. This has been demonstrated with the consolidation of all this information into a draft document, which has been requested by Home Health leaders from University of Michigan, Vanderbilt University Medical Center, and the Medical University of South Carolina.

Advantages

- Effective solution for crowding in emergency departments
- More rapidly meets patient needs, improving the overall quality, safety, and experience of care
- Increases hospital care capacity and access to healthcare for more patients

