



FAST Adoption of Significant Technologies

The *FAST* Initiative

About NEHI

NEHI is an independent, not-for-profit research and health policy organization dedicated to transforming health care for the benefit of patients and their families. Visit www.nehi.net



About MTC

The Massachusetts Technology Collaborative (MTC) is the state's development agency for renewable energy and the innovation economy. MTC works to stimulate economic activity in communities throughout the Commonwealth. Visit www.mtpc.org

WHAT IS *FAST*?

NEHI and the Massachusetts Technology Collaborative established the *FAST* Initiative as a joint partnership. The objective of this program is to identify and evaluate medical technologies that are not well adopted despite their potential for improving patient outcomes and reducing total treatment costs. If our reviews confirm a candidate technology's value, we work with our Steering Group of national payers, providers and experts to lower barriers to broader use and track results over time. The *FAST* process provides a vehicle for payers and providers to:

1. Select from emerging technologies those with potential for improved patient outcomes and cost savings;
2. Evaluate their clinical and financial benefits;
3. Identify highest value application of technologies;
4. Define barriers to adoption in large populations; and
5. Accelerate the pace of broader dissemination.

WHICH TECHNOLOGIES WILL BE CONSIDERED?

Most categories of innovative technologies for disease diagnosis, treatment, management, and monitoring will be considered. Our technology reviews are based on the potential of technologies to meet the following *FAST* criteria:

1. There is a substantial patient population addressed by the technology;
2. The technology significantly improves patient outcomes;
3. The technology reduces overall costs of care;
4. There is low market penetration in high-value uses;
5. There are barriers to broader dissemination that can be addressed.

THE *FAST* INITIATIVE PROCESS

The *FAST* Initiative process begins with a scan to identify medical technologies to which the *FAST* criteria are then applied. Candidate technologies that have high-potential according to the criteria are then brought to a diverse, expert Steering Group which selects the 2-4 most promising technologies to be further evaluated and profiled. For each profiled technology a Working Group is convened to determine the necessary evidence levels and make one of three recommendations:

1. **Evidence level is NOT met:**
 - a. Leave the adoption of the technology to market forces.
2. **Evidence level is INCONCLUSIVE but promising:**
 - a. Further evaluation needed in the form of a demonstration project.
3. **Evidence level IS met:**
 - a. If barriers are surmountable, work with stakeholders to accelerate adoption.
 - b. If barriers are insurmountable, place technology back into pool of potential technologies to be revisited later.



FAST Technology Profiles

TELE-INTENSIVE CARE UNIT

Among the four candidate technologies, Tele-ICU has advanced the furthest in the review and demonstration process. In December 2010, NEHI published *Critical Care, Critical Choices: The Case for Tele-ICUs in Intensive Care*, examining the results of a study that collected data on patient mortality and ICU lengths of stay from three sites. The results demonstrated that tele-ICU technology has significant clinical and financial benefits. Patient ICU stays were reduced by 30 percent or an average of two days in the academic medical center and Tele-ICUs also enabled the community hospitals to care for a substantial portion of patients who would have been transferred to teaching hospitals. Retaining these patients in community hospitals saves the payers approximately \$10,000 per patient.



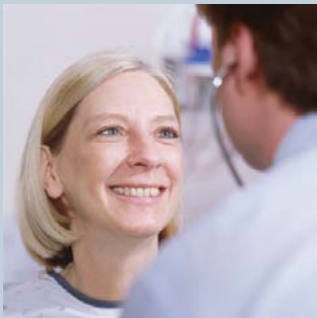
HOME TELEHEALTH FOR HEART FAILURE

In partnership with Atrius Health, FAST is conducting a demonstration project to examine the potential of HT technology to enhance the care of chronic disease and prevent rehospitalizations and other unnecessary health care services among patients who have been recently hospitalized for congestive heart failure (CHF). The project is designed to assess the clinical and financial impact of this technology, including analysis of return on investment. The project will also seek to identify effective clinical and financial models for the long-term use of HT for other chronic illnesses, working with a multi-stakeholder Advisory Group to develop and disseminate policy recommendations to enable broader adoption.



POINT OF CARE DIAGNOSTIC TESTING

The FAST Steering Group selected rapid diagnostic point-of-care (PoC) testing as a promising technology. After conducting surveys of primary care settings and neighborhood health centers in California and Boston, we learned that the rapid strep test is widely used and therefore not a candidate for FAST. While utilization of HIV and influenza PoC tests was very low, the number of patients who were judged by their clinicians to be appropriate candidates for these tests was small, so that there was little demand for these PoC tests in the ambulatory setting. The Working Group determined that there was no need for a concerted policy effort to speed the adoption of this technology.



HOME COAGULATION MONITORS

Home coagulation monitors provide benefits for patients and produce net cost-savings, especially for patients on Warfarin. However, significant barriers to the adoption of home coagulation monitors exist in the political power of coagulation monitoring clinics. The Working Group decided to publish a position paper on the topic but not to take the issue to a policy level because it was believed that the political opposition could not be overcome.

