

Evaluation of AHRQ's On-Time Pressure Ulcer Program

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Contract Number:	290-06-0011-8
Project Period:	June 2009 – January 2012
AHRQ Funding Amount:	\$499,987

Summary: Pressure ulcers and injurious falls have serious health and economic consequences for elderly nursing home residents. Although substantial research has documented that preventing pressure ulcers and falls is possible, these problems persist across health care settings.

The On-Time Quality Improvement for Long-term Care project was funded by AHRQ in part to help nursing homes implement best practice guidelines in pressure ulcer care through workflow redesign and process improvements integrated into the daily work of front-line caregivers. While the On-Time program demonstrated success in early testing, a formal evaluation examining the effectiveness of this unique approach in reducing pressure ulcer incidence was needed as wide-spread dissemination was considered. In response, AHRQ funded a rigorous evaluation of the On-Time Pressure Ulcer program.

Lessons from the On-Time Pressure Ulcer program informed the development of an On-Time Fall Prevention module, which uses documentation data elements, actionable reports, and tracking tools to address resident fall risk factors. The module provides resources to help nursing home staff develop timely interventions to reduce at-risk residents' incidence of falls. A year-long process of meetings informed the standardization of fall documentation and the development of tools to guide clinical decisionmaking for fall prevention. In addition, several facilities participated in a series of teleconference calls to develop health information technology specifications based on the final set of fall prevention tools. The project team worked with facilities to develop a feasible implementation plan to integrate these tools into daily practice.

Early in the project, the original scope of work was expanded to include several additional tasks. A review of literature and analysis of national data was conducted to identify nursing home residents who should be targeted for prevention protocols to reduce hospital and emergency department (ED) visits. A training curriculum for the On-Time Pressure Ulcer program was developed and tested. The Team Strategies and Tools to Enhance Performance & Patient Safety (TeamSTEPPS) program was modified for use with nursing home staff. TeamSTEPPS is a training system designed to help health care professionals provide higher-quality, safer patient care and create a culture of safety within their teams. New materials, including the production of three videos, were designed to be relevant and meaningful to nursing home staff. Lastly, work on an additional On-Time module to prevent avoidable hospitalizations and ED visits was begun. A workgroup consisting of representatives from several nursing homes worked with the research team to develop reports and tools to identify residents at high risk of ED visits and inpatient hospitalizations and to support root cause analysis of treat-and-release patients.

Project Objectives:

- Evaluate the effect of the On-Time Pressure Ulcer program by comparing 12 New York nursing

homes that have implemented the program with 13 control nursing homes. **(Achieved)**

- Design the tools and establish the foundation for a fall prevention implementation effort using an approach similar to the On-Time Pressure Ulcer Prevention program, including standardized documentation data elements that can be integrated into everyday practice, actionable reports of resident fall risk factors, and tracking tools. **(Achieved)**
- Develop an evidence-based systems approach for identifying, managing, and monitoring multiple risk factors for hospitalizations and ED visits. **(Achieved)**
- Develop the On-Time Train-the-Trainer and TeamSTEPPS for long-term care curricula. **(Achieved)**

2012 Activities: This project was completed in June 2012. The focus of activity in the first half of the year was on completing and delivering the final report of the project.

Impact and Findings: The study team found a statistically significant reduction in pressure ulcer incidence associated with the joint implementation of four core On-Time components. Impacts vary with implementation of specific component combinations. On-Time implementation was associated with sizeable reductions in pressure ulcer incidence, implying significant improvements in health outcomes and substantial cost savings.

Target Population: Adults, Elderly*

Strategic Goal: Develop and disseminate health IT evidence and evidence-based tools to improve health care decisionmaking through the use of integrated data and knowledge management.

Business Goal: Knowledge Creation

**This target population is one of AHRQ's priority populations.*