

Telemedicine to Link Nursing Homes to the Emergency Department

Problem to Be Resolved:

- The several thousands of transports from nursing homes to local emergency departments for care that are not needed.

Hospital: Medical College of Georgia
Medical Center

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Category:

- C: Clinical Initial Evaluation

Key Words:

- Telemedicine
- Geriatric
- Continuity of Care

Hospital Metrics:

(Taken from the American Hospital Directory)

- Annual ED Volume: Approximately 80,000
- Hospital Beds: 632
- Ownership: Governmental, State
- Trauma Level: I
- Teaching Status: Yes

Tools Provided:

- Telemedicine Process Flow

Clinical Areas Affected:

- Emergency Department
- Psychiatric Consult Departments
- Nursing Home

Staff Involved:

- Nurses/personnel
- Nursing Home Administration
- Emergency Physicians
- Communications

Innovation

When a resident in a nursing home develops what the staff feels is a possible medical emergency — manifested by heart rate or oxygen changes, a fever, or other physical signs — the staff will call the nursing home physician on-call, who will most often suggest the patient be sent to the local ED. The Medical College of Georgia implemented a telemedicine program to conduct emergency physician evaluations before nursing home residents are unnecessarily sent to the emergency department. By outfitting a room in the nursing home with a telemedicine transmittal unit, a member of the nursing home staff can call the communications center at the Medical Center of Georgia, which will in turn contact the emergency physician on duty to relay the request for a consult. The program avoids tying up EDs near the nursing homes with avoidable and costly visits, and elderly patients do not needlessly undergo the stress of transport to and from the hospital.

Results

Since the program has been established, 20 teleconsults have been conducted resulting in only 10 admissions to the emergency department. Given that 10 nursing homes in the program send roughly 300-500 patients to the emergency department annually, the program has the potential to save time and resources.

The Medical College of Georgia receives requests for psychiatric consults for acute mental status changes in nursing home patients. It typically takes a nursing home over a week to bring a physician in to provide this type of consult, but this program allows for it to be done within a couple of hours. The nursing home staff are also relieved that their residents are not being abandoned in the corner of an ED for a few hours waiting for a ride back to the nursing home and their patients do not have to leave unnecessarily an environment where they are mentally comfortable.

From The Experts:

“Nationwide, we’re seeing several hundred thousand needless transports from nursing homes to local EDs for care that is not needed. We could make better decisions about whether those trips are necessary by having an emergency physician evaluate those patients via telemedicine prior to transport.”

Bruce Janiak, MD, FACEP, FAPP Professor Emergency Medicine, Medical College of Georgia Medical Center

Timeline

Installation of the system took approximately 2 months. It took 6 weeks of staff training once the system was installed to implement the program entirely.

Innovation Implementation

The nation’s health care system could greatly alleviate burdens on emergency departments by abandoning the old school of thought that it’s necessary to touch someone to make a medical decision. According to emergency medicine expert Bruce Janiak, “most of the information comes from the medical history, and a little from physical signs and tests.”

If an emergency physician is available to do a consult, they can go to the unit in the emergency department with the telemedicine equipment to do a visual consult and ask questions. Equipment is available that allows

the physician to look in the ears, listen to the chest, and look at the skin with a magnifying lens. The emergency physician then determines what, if any, treatment is needed or whether a trip to the ED is warranted.

Cost/Benefit Analysis

An ambulance would take a nursing home resident to the ED where they are evaluated, and in roughly four out of ten cases the patient is discharged and an ambulance would take them back to the nursing home. During this episode of care, roughly \$2,500 is spent on transportation and ED costs.

The costs of implementing this kind of telemedicine program include: each specially equipped PC is roughly \$20,000, the cost of leasing a T1 line is approximately \$400 per month, and annual operating costs are roughly \$48,000. A switch to internet encrypted transmission is coming soon and costs will be dramatically reduced.

Advice and Lessons Learned

- 1. Ensure an advocate for the program.** There is need for an advocate at the start of arranging a telemedical consult program who is willing to constantly encourage people to use the technology. The funding and equipment alone will not create an impact.
- 2. Identify organizations that will realize a profit from the program.** To increase adoption, the ED should identify organizations that will realize a profit by using telemedical consults after analyzing the costs of implementation. There are ways to reduce the costs.
- 3. Encourage your staff.** The potential to save time and resources is great if nursing staff can be persuaded to use teleconsults more frequently. Often they forget to remind the nursing home physician a teleconsult with the ED is available. And some of the residents' primary care physicians request it not be used because of lingering skepticism in the health care arena vis-à-vis telemedicine.

Tools to Download

- [Telemedicine Process Flow](#)

Related Resources

- [Urgent Matter E-Newsletter Volume 7, Issue 4: Innovations, Using Telemedicine to Link Nursing Homes to the Emergency Department](#)