Improving Communication in Home Healthcare
Reducing Hospital Readmissions

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Problem Statement

• Home healthcare patients require providers to visit them within their homes. Many of these patients require frequent visits and face difficulties with communication with their provider between visits. Failure to adhere to their medical regiment often causes these patients to be unnecessarily readmitted to the hospital. Alternate modes of communication could improve adherence of home healthcare patients to their proper health regiment.
Elderly Patients: a big proportion of home care target group

- According to our case study, more than 50% of patient receiving home care services are elderly people. Regarding the existing literature on the high rate of readmission for elderly people, improving quality of care in home care settings would decrease hospital readmission rate.

- Elderly patients discharged to the community from hospitals face a higher risk of reentering the health care system. The rate of recidivism has been documented; it ranges from 17% to 38% in different studies.

Elderly Patients: a big proportion of home care target group

A study shows that about 59% of unplanned readmission of elderly people are avoidable, pointing out seven reasons for readmission:

- Relapse of original condition
- Development of new problem
- Caregiver problems
- Complication of illness
- Need for terminal care
- Problems with medication
- Problems with services

Many of these problems can be solved through a good communication with caregivers.

Communication, one of the key factors in palliative care

- Arnold B., 2011: Communication is a key currency for delivering optimal palliative care which is possible through:
  1. developing more comprehensive clinical-patient needs assessment tools;
  2. improved patient-clinician communication

- Baile WF, Aaron J: Excellent communication is central to the overall practice of navigation and to palliative care. Good communication between physician and patient can help in navigating the transition to palliative care and hospice.

BMC Palliative Care 10(1): 1.

Communication is important, but the quality is more important.

- Caregivers’ good interpersonal relations with patients facilitated medication management, whereas poor communication/relations among caregivers within a support network impeded the process.

Caregivers’ life experience
- self-confidence
- emotional states
- cognitive and physical abilities
- Knowledge
- Patient’s emotional state
- Complex medication needs

Affect communication quality

Demands careful and structured communication framework

Use of videophones for seniors and hospice providers

- Seniors found it easy to use (71%)
- Willing to accept technology
- Hospice providers could use (85%)

Literature Review

Use of Telemonitoring Systems

- Patients can be monitored from the comfort of their home
- Periodically acquire vitals (e.g. blood pressure, heart rate)
- Increasingly common for devices to be wireless
- Need to be integrated with healthcare information systems

Literature Review

Manhattan Research survey of physician digital adoption

- 7% of physicians use online video conferencing to communicate with patients
- Used for follow-up questions or for geographically diverse patients
- Barriers: HIPAA and lack of reimbursement

Existing Products

Telemonitoring
• Bosch Health Buddy
• Connects patients to their care providers
• Providers can monitor and take action

http://www.bosch-telehealth.com/content/language1/html/5578_ENU_XHTML.aspx
Existing Products

In May 2011, after a one year launch

• 30% of U.S. physicians own an iPad
• 28% plan to purchase in the next 6 months
• 81% of physicians own a smartphone

Taking the Pulse® U.S. v11.0. Manhattan Research
Existing Products

In Denmark, patients can visit their doctor from home using simple medical devices and a notebook computer with a Web camera.

Existing Products

Online Care for Providers
• Service for care providers
• Sets up live encounters through video, audio, and chat, and sets up payment automatically

http://onlinecareforproviders.com/index.php
Atlanta Hospice

- **Services:**
  - **Home healthcare**
    - Home visit: physicians, nurse practitioners, social workers
      - 5-6 days a week: nurse visit
      - 1-3 days a week: physician visit
      - 2.2-2.5 days a week: social workers
  - **telemonitoring**
  - **Hospice**
Atlanta Hospice

• Technologies:
  • PT/INR machine:
    • to read patient’s blood clotting tendency (coagulation)

• Telemonitoring:
  • to read blood pressure
Atlanta Hospice

- **Med Home Unit**: medical alarm system
  - Can record and play approximately eight 15-second audio reminder messages.
  - Emergency bottom: connected to the 24-hour call center specialist who can communicate with the patient
Atlanta Hospice

- **Med Lucker**: medication storage and emergency kit
  - To pick up medicine, no more waiting.
  - Stores and tracks a variety of emergency and first-dose medications at health care facilities
Atlanta Hospice

- MedPORTAL help physicians automate their entire day across all care settings
Document imaging system: electronic recording mechanism, it takes a paper medical record and creates a universal electronic patient medical record that is easily managed.
Problems with existing home care system and technologies

- Not all the devices are available for patients; nurses and physicians are responsible to use and apply them.
- Not all the households have the LAN and internet access.
- People key information in, errors are possible.
- Information are passively collected and they are not actively used by caregivers.
- Data are not integrated.
- Patients are willing to use the devices, by they don’t want commitment.
- Patients are different in medical adherence.
- The costs are too high.
- Only visits are covered by Medicare, not telemonitoring and other far distance technologies.
Goals

Improve Communication

Improve Adherence

Decrease Cost
Cost effective method of using videoconferencing for home healthcare patients

- Bundled data plan
- Secure connection platform
- Simple interface
- Transferable hardware