Patient Journey Record (PaJR): Monitors Chronically Ill Patients via Phone Calls to Improve Outcomes.

Snapshot Summary

The Patient Journey Record (PaJR) through care guides remotely monitors patients with chronic illness through daily or as needed daily health conversations about general health-related questions and health care.

The system transmits patient responses that are then analysed for review using software that organizes the data predicts next day health and unplanned service utilization. The system allows the care guides to quickly pinpoint health issues and respond accordingly, either by contacting the patient (to offer care instructions and/or self-care education) or his or her physician or directing the patient to emergency services. The program significantly reduced hospital admissions.

Evidence Rating

The evidence consists of pre- and post-implementation comparisons of hospital admissions in two cohorts; and post-enrolment patient satisfaction scores.

Developing Organizations

National Digital Research Centre,
Primary Care Research,
Groupnos,
Trinity College Dublin

Patient Population

Vulnerable Populations > Older Patients with Chronic Illness and Multi-morbidity

Problem Addressed

- *If not monitored closely, chronically ill individuals—may decompensate in anyone of multiple domains in their personal health environment. Decompensation may lead to the need for expensive inpatient and/or long-term care.*
- *Although ongoing monitoring of these individuals, especially older ones, may prevent some of these complications, relatively few health systems have the capacity to provide such services to date and involve expensive telehealth equipment in the home with the costs of maintaining the equipment.*
- *Cycle of hospitalizations: Many patients with chronic illnesses require frequent hospitalizations to deal with exacerbations or complications associated with their condition(s).*
- *Unrealized benefits of monitoring: Ongoing monitoring of chronically ill individuals, especially older ones, can help to prevent many exacerbations and complications, thus reducing care costs and allowing them to remain in their homes.*

Description of the PaJR system

The PaJR system uses care guides to remotely monitor patients with chronic conditions on a daily basis or as required basis. Each call is made to the patient and or their care giver on an agreed basis,

In a conversation about the daily narratives living, patients respond to general health-related questions; the system transmits responses to a machine learning device that monitors quantitative and qualitative features of the narrative and the language and voice. These are instantaneously reviewed by the care guide using software that organizes the data and highlights alerts. This allows prompt responses to alerts.

Key elements of the program include the following:

Enrolment: GPs agree to refer patients to the program who require care for chronic conditions and are at risk of hospitalisation. To date, more than 60 patients are enrolled in Kildare, roughly two-thirds of whom have multiple conditions.

Consent process which identifies suitability for the program and patient and or caregivers consent; Review of the patient's medical history, psychosocial needs, caregiver support, medications, and SF12 and Social support.

Baseline assessment: A care guide performs a baseline assessment on each patient. The assessment process includes the development of care plan. The care coordinator develops a brief care plan for the patient and caregiver about timing of calls and with the GP based on his or her knowledge of the chronic condition(s) and medical complexity.

Daily during the working week phone calls: Questions relate to concerns, perceptions of general well-being, symptoms, knowledge, activities of daily living, and caregiver support.

Ongoing monitoring by care guide: The care guide automatically receives an organized summary of patient responses each day via computer and alerts with predictions of next day self-rated health and unplanned care use. The system provides colour-coded alerts thus helping the coordinator identify and triage patient needs.

Responses and Interventions: The coordinator responds to these needs based on his or her expertise supported by the care team, providing active care management and self-management education to the patient, communicating with the patient's physician when necessary, and/or directing the patient to contact emergency services.

Caregiver support: Because patients with significant challenges often rely on a caregiver, PaJR system has direct conversations with the caregiver about their health and concerns, as well as perceptions of the patient's health on an ongoing basis and then initiates supportive activities when appropriate. This might take the form of referral for social work services or for community-based resources such as support groups or Meals on Wheels.

Planning and Development Process

Key elements of the planning and development process included the following:

1. Pilot program: The Kildare and County West Wicklow region piloted the program between 2010 -2011.
2. Steering committee planning: A multidisciplinary steering committee made up of representatives from geriatrics, nursing, and extended care
3. Establishment of service: The PaJR established partnerships with service providers - a central office to oversee the national rollout and sustainment of the program.
4. Standardized care coordinator training: The curriculum includes a training manual with at least 8 hours of informal education and 2 to 4 weeks of supported training. Approximately 3 care coordinators have been trained to date.
5. Ongoing expansion: The program continues to expand, with plans to increase to 500 in 3 locations in Ireland in the next 6 months and a 1000 patient trial.
6. Resources Used and Skills Needed – Currently 1 care guide handles a caseload of roughly 60 patients, depending upon the stability and complexity of each individual case.

Getting Started with This Innovation

- Use systems approach: Integrate the program into existing medical and behavioural health services, as the use of existing resources helps keep program costs low.
- Provide thorough training: Care coordinator training will be formalized and standardized, yet also individualized to ensure that the program offers consistently high-quality services. This training should focus on the care conversations and health promotions components of the role as well as use of the technology.

Sustaining This Innovation

- Focus on the patient: Successful outcomes depend on the ability to meet individual patient needs. Care coordinators should identify and address these needs while also encouraging patient self-management, as this approach will ultimately serve the patient best and help to reduce utilization.

References/Related Articles

1. Martin, C., *Complex adaptive chronic care - typologies of patient journey: a case study.* Journal of Evaluation in Clinical Practice, 2011. **17**(3): p. 1-5 online. http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2753.2011.01670.x/abstract
2. Martin CM and Sturmberg JP, *Complex Adaptive Chronic Care: a framework for health, health care, health systems and policy.* Journal of Evaluation in Clinical Practice, 2008.
3. Martin, C.M., et al., *Patient Journey Record Systems (PaJR): The Development of a Conceptual Framework for a Patient Journey System.*, in *User-Driven Healthcare and Narrative Medicine: Utilizing Collaborative Social Networks and Technologies*, B. R and M. CM, Editors. 2010, IGI Global: Hershey PA. p. 75-92.

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