Teaching Tech for Home Care

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Background

Evolving technologies are integral to Medicare "Innovation Models" for home care teams that are managed by Nurse Practitioners and physicians. Payment is available for registered nurses to act as care coordinators for in-home monitoring, communication, and intervention to support home caregivers. Education for student and practicing nurses must include theory and practicums related to technology use and the new models of care.

Objectives

This presentation will

1. Review new Medicare "Innovation Model" specifications and related technologies.
2. Suggest promising topics for technology education for Virtual Nurse Care Coordinators.

Methods

The Centers for Medicare & Medicaid Services (CMS) will pay Nurse Practitioners (NP) and physicians to lead interdisciplinary teams using technology in "Innovation Models" to decrease hospital and nursing home stays for chronic conditions and dementia. "Original" Medicare fee-for-service payment is available for care at home through the ACCESS model (Advancing Chronic Care with Effective Scalable Solutions) [1], and the GUIDE model (Guiding an Improved Dementia Experience). Medicare Advantage plans may adopt similar payments as well. Emphasizing outcomes over activities, nurses will use digital tools to monitor and intervene virtually, coordinating care with a home caregiver.

ACCESS and GUIDE follow guidelines for chronic care for conditions such as high blood pressure, high cholesterol, obesity, prediabetes, diabetes, chronic kidney disease, heart disease, musculoskeletal conditions, depression and anxiety, and dementia [2]. Medicare pays to coordinate care, including support for qualifying caregivers, care teams, 24/7 access, and attention to social needs [3]. Many technologies and nursing interventions will be directed to the caregiver rather than to the patient.

"For the GUIDE Model, a caregiver is defined as a relative, or unpaid nonrelative, who assists…with activities of daily living…. assistance may be episodic, daily, or occasional…Services include caregiver skills training, dementia diagnosis information, support group services, and one-on-one support calls "[4]. Documented higher burden and complex disease increase monthly payments; lower payments go to the professional for beneficiaries with a caregiver.

Discussion: Teaching Technologies to Support Virtual Nurse Care Coordination

Smart phones, smart watches, voice assistants, and Artificial Intelligence (AI) enable remote self-monitoring that continuously measure many variables and may include health questionnaires, and alerts to a nurse [5]. Numerous tools and apps include Artificial Intelligence (AI) to sort and summarize the data collected [6]. Organizational tools such as the eCare plan [7,8] and integrated digital care networks such as Connect America [9] may be beneficial.

Suggested teaching topics include theory and practicums for: Data to and from consumers for coordinated care; Ethics, privacy, security; Electronic clinical quality measures (eCQMs); Data standards for documentation and transmission; Data management; Data analysis; Patient Reported Outcome Measures (PROMs); Clinical decision support and risk prediction with Artificial Intelligence (AI); Technology implementation within clinical workflows; Data for population health; Current state of clinical AI; and Emerging technologies.

Conclusion

The background knowledge gained by nurses today forms a foundation for new models of care and as yet undeveloped expansions in future technologies and virtual nurse coordinated care.

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