Project Information

1R18HS024208-01

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DESCRIPTION DETAILS RESULTS HISTORY SUBPROJECTS NEARBY PROJECTS BETA LINKS NEWS AND MORE

Project Number: 1R18HS024208-01
Title: TRANSFORMING THE MEDICATION REGIMEN REVIEW PROCESS OF HIGH-RISK DRUGS USING A PATIENT-CENTERED TELEMEDICINE-BASED APPROACH TO PREVENT ADVERSE DRUG EVENTS IN THE NURSING HOME

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Awardee Organization: UNIVERSITY OF PITTSBURGH AT PITTSBURGH

Abstract Text:

DESCRIPTION (provided by applicant): In response to PA-14-002, we are proposing to conduct a cluster-RCT for a period of a year, to determine the impact of patient-centered telemedicine-based high-risk medication regimen reviews on adverse drug event (ADE) reduction in four nursing homes (NH). The National Action Plan for Adverse Drug Event Prevention identified, the nearly 16,000 NHs, as a clinical setting where adverse drug event (ADE) prevention strategies are lacking for high-risk drug classes including anticoagulants, antidiabetic agents, and opioids. The Office of Inspector General Report estimates that 37% of all harmful adverse events are related to drugs and two-thirds are preventable. A variety of approaches have been taken to minimize the occurrence of ADEs. Federal regulations require that residents' drug regimen should be free from unnecessary drugs (F-Tag 329) and a consultant pharmacist conduct a Medication Regimen Review (MRR) on each resident at least monthly (F-Tag 428). More frequent MRRs are required for residents with additional risk factors, such as receiving high-risk drug classes that place them at a higher chance of developing ADEs. Current ADE prevention strategies are failing to improve medication safety in NH residents because: 1) MRRs are almost always conducted retrospectively; 2) consultant pharmacists are usually not involved in MRR on admission to the NH, and 3) the MRR process is not patient-centered. We propose to address these medication safety gaps by first prospectively identifying NH residents who are either newly admitted with, or subsequently prescribed, a high- risk drug during their NH stay. We will introduce the use of telemedicine to improve timely access to consultant pharmacists who can provide patient-centered MRRs when a high-risk drug is prescribed. Telemedicine will also be used by the consultant pharmacist to directly interact with the resident and engage him/her in education to recognize and prevent ADEs associated with high-risk drugs. Telemedicine has been successfully employed by NHs, but its use is limited to a finite number of patient care issues and has not used for medication safety. In this study, we will evaluate the effect of pharmacist-led MRRs using patient-centered telemedicine for residents receiving high-risk drugs commonly associated with ADEs. We will also evaluate the residents' satisfaction and healthcare professionals' perception of pharmacist performance with this enhanced consultant pharmacist service. This study will correct a faulty retrospective 30-day MRR and provide a model for more frequent MRR when residents are prescribed a high-risk drug during their stay to prevent ADE occurrence with the innovative use of patient-centered telemedicine technology. The product of this research will be a generalizable electronic medical record-agnostic MRR model including decision support rules, and structured communication tools to optimally execute the consultant pharmacist's role in ADE prevention in the NH.

Public Health Relevance Statement:

PUBLIC HEALTH RELEVANCE: In response to PA-14-002, we are proposing to conduct a cluster-RCT for a period of a year, to determine the impact of patient-centered telemedicine-based high-risk medication regimen reviews on adverse drug event reduction in four nursing homes. The National Action Plan for Adverse Drug Event Prevention identified, the nearly 16,000 NHs, as a clinical setting where adverse drug event prevention strategies are lacking for high- risk drug classes including anticoagulants, antidiabetic agents, and opioids. This study will correct a faulty retrospective 30-day medication regimen review process and provide a model for more frequent medication regimen reviews when residents are prescribed a high-risk drug during their stay to prevent ADE occurrence with the innovative use of patient-centered telemedicine technology.

Project Terms:

No Project Terms available.