

**CDP 12-187**

**Validity and Utility of Measures of Inappropriate Prescribing in Older Adult Veterans (CDA 10-017)**

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**BACKGROUND/RATIONALE:**

Roughly 1.5 million preventable adverse drug events occur in the US annually at a cost in excess of \$4 billion. Many of these events result from inappropriate prescribing and efforts to improve prescribing practices would have a major impact on outcomes. This is particularly true for the many older adult veterans who suffer from multiple comorbid conditions and require complex medication regimens. The ability to improve prescribing depends on valid methods for measuring medication appropriateness.

**OBJECTIVE(S):**

Therefore, the goal of this CDA-2 award is to build the applicant's methodological skills in several key areas related to the development of prescribing quality indicators. A series of incremental studies will examine the frequency and validity of these measures, which will then inform an investigator-initiated grant to determine the utility of prescribing quality indicators in targeting clinical pharmacy services.

**METHODS:**

Aims 1-4 will examine a selected panel of prescribing quality indicators which include drugs to avoid, drug-drug interactions, therapeutic duplication, and noncompliance. Aim 1 will use national VA data from 2003 to 2010 to contrast incidence and prevalence rates of these indicators. Aim 2 will identify patient, provider, and system-level variation in indicator frequency. Aim 3 will compare the performance of prevalence and incidence-based prescribing quality indicators in predicting adverse outcomes, adjusting for patient complexity using traditional multivariable regression-based methods. Aim 4 will determine the impact of selection bias on the relationship between prescribing quality indicators and adverse health outcomes using instrumental variable methods. Aim 5 will produce an IIR submission to determine the utility of prescribing quality indicators to target clinical pharmacy services within the VA Patient Aligned Care Team (PACT) model.

**FINDINGS/RESULTS:**

There are no findings at this time.

**IMPACT:**

We anticipate the results of this study will have three specific impacts. First, we will provide a detailed characterization of prescribing quality in VA across multiple clinical domains, over time, and between regions and facilities. Second, we will establish a methodological framework for examining the validity of prescribing

quality in VA. Finally, we will propose a strategy for implementing the use of prescribing quality indicators to efficiently target clinical pharmacy services within the PACT model, which will be formally tested in a future intervention study.

**PUBLICATIONS:**

Conference Presentations

- Lund BC, Ernst ME. The Comparative Effectiveness of Chlorthalidone versus Hydrochlorothiazide Veterans: Nurse Attitudes and Performance. Poster session presented at: VA HSR&D / QUERI National Meeting; 2012 Jul 16; National Harbor, MD.

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