Prescribing patterns in nursing home patients

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Abstract

Motivation: Elderly patients residing in nursing homes have significant medical needs and are at risk for burdensome medication costs. Medicare Part D offers drug coverage to older adults; however some nursing home residents do not enroll. We are conducting an NIH-sponsored evaluation of Medicare Part D enrollment of nursing home residents that includes assessing the quality of medication use (Project number: 1R01AG046341-01A1). Our data set includes drug dispensing data, Medicare administrative records, and standardized clinical assessments from the Minimum Data Set.

Problem statement: Are criteria available for assessing whether elderly nursing home patients receive appropriate or inappropriate medications, given limited information from the data set?

Approach: We assessed the suitability of 114 validated criteria from the Screening Tool of Older Persons’ potentially inappropriate prescriptions (STOPP) and Screening Tool to Alert doctors to Right Treatment (START) which were developed for chart review in community-dwelling older adults in European Union1. We searched US literature for clinical concordance of each criterion, assessed relevance to nursing home population, and mapped clinical specifications to data set measures. We also pilot tested candidate criteria against a random draw of 100 nursing home residents.

Results: We identified 39 candidate criteria (28 STOPP; 11 START), given study standards and data limitations. Our pilot test revealed STOPP criteria prevalence of 6.1%.

Conclusions: Our study identified candidate criteria that could potentially be used in an evaluation of Medicare Part D enrollment in nursing homes. The next step is to convene an e-Delphi consensus panel of experts to review candidate criteria.

Background

- Over 3 million Americans reside in nursing homes (NH) each year2.
- It has been found that NH residents who stay >90 days have more difficulty returning home and may have impaired decision-making skills. These longer stays are also more costly and can lead to residents depleting their funds, thus leading to automatic enrollment in Medicaid and Medicare Part D3.
- It is unknown how this enrollment affects the prescribing of beneficial and suboptimal medications.
- We will examine the beneficial and suboptimal prescribing criteria before sending to an e-Delphi consensus panel for review and incorporation into a larger ongoing study.

Goal

To determine a set of applicable criteria regarding appropriate and inappropriate prescribing patterns in elderly NH patients. These criteria will be submitted to e-Delphi consensus panel for further evaluation.

Methods

Search Strategy

- Literature search regarding prescribing guidelines in elderly patients
- Revealed Beers Criteria and START/STOPP criteria
- START/STOPP selected due to including appropriate medications as well as inappropriate medications

Criteria Selection

- Began with 114 criteria (81 STOPP and 33 START)
- Reviewed each criteria to determine ability for inclusion into study
- A criteria was included if:
  - It had a measurable ICD-9 code
  - It included conditions measureable in the Minimum Data Set (MDS) 3.0
  - It included medications that could be found in a patients eMAR
- A criteria was excluded if:
  - It required measurable lab values or vital signs
  - Its prevalence in the population was found to be negligible
  - Its description was not well defined (e.g. listing a condition as mild/moderate without describing specific definitions of mild/moderate)
- We randomly selected a sample of 100 patients to examine the prevalence of STOPP criteria

Results

Criteria

- Using our inclusion and exclusion criteria, we selected 39 criteria to further apply to a dataset
- We selected 28 STOPP criteria and 11 START criteria
- Our pilot test showed STOPP criteria prevalence of 6.1%

Conclusion

Our study examined multiple guidelines for prescribing in the elderly and found the 39 most applicable criteria based on the access we have to patient data. These criteria will be further evaluated by an e-Delphi consensus panel prior to being applied to a large, multicenter retrospective data set.

References

2. Briesecher, B. Research strategy. NIH funded study, 2013: 84-86.

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