

Potentially Inappropriate Medication Use In the Elderly: A 2-year Review of Comprehensive Geriatric Assessments

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INTRODUCTION

- Certain drugs have been linked to adverse events and poor outcomes in the elderly.
- These drugs, called Potentially Inappropriate Medications (PIM) by the American Geriatric Society¹, should be avoided in the elderly population, through treatment with safer drugs and/or nondrug approaches.
- It is estimated that as many as 40% of the elderly are using at least one PIM¹.
- The American Geriatric Society (AGS) has 2 lists of PIMs (i.e., the 2012 Beers Criteria):

List 1	List 2
2012 AGS Beers Criteria for PIM Use in Older Adults (Regardless of Disease/ Conditions)	2012 AGS Beers Criteria for PIMs to Avoid in Older Adults with Certain Diseases or Conditions

OBJECTIVES

To determine

- The prevalence of PIMs prescribed among patients (65 years and older) referred for comprehensive geriatric assessments.
- The most common PIMs prescribed.
- The extent geriatric assessments addressed PIM use.

METHODS

Design: Cross-Sectional Study.

Sample: 200 Patients ≥65 years of age seen for Comprehensive Geriatric Assessments at the Glenrose Rehabilitation Hospital in 2012-2013.

Procedure: Chart review on usage of PIMs, as defined by the 2012 Beers Criteria.

Data Analysis. Descriptive statistics

RESULTS

Demographics

Mean age: 79 years ± 8; 60% Females; 40% Males

NINE Is the average number of medications the patients were taking (9± 4 Medications).

Prevalence of PIM Prescribed

49.5% Of patients were prescribed PIMs (98/200).

45.5% (91/200) were prescribed at least One PIM in List 1.	31% (62/200) were prescribed at least one PIM in List 2
16% (32): at least 2 PIMs	13.5% (27): at least 2 PIMs
2.5% (5): at least 3 PIMs	5% (10): at least 3 PIMs
1.5% (3): 4 PIMs	3% (6): 4 PIMs

Most Common PIMs Prescribed

In List 1:	In List 2:
Zopiclone (n=32)	Benzodiazepines (n=29)
Benzodiazepines (n=33)	Zopiclone (n=14)
Pain-Indomethacin/NSAID (n=16)	SSRI (n=12)

For List 1, the top PIMs prescribed were CNS and Pain medications. See Figure 1.

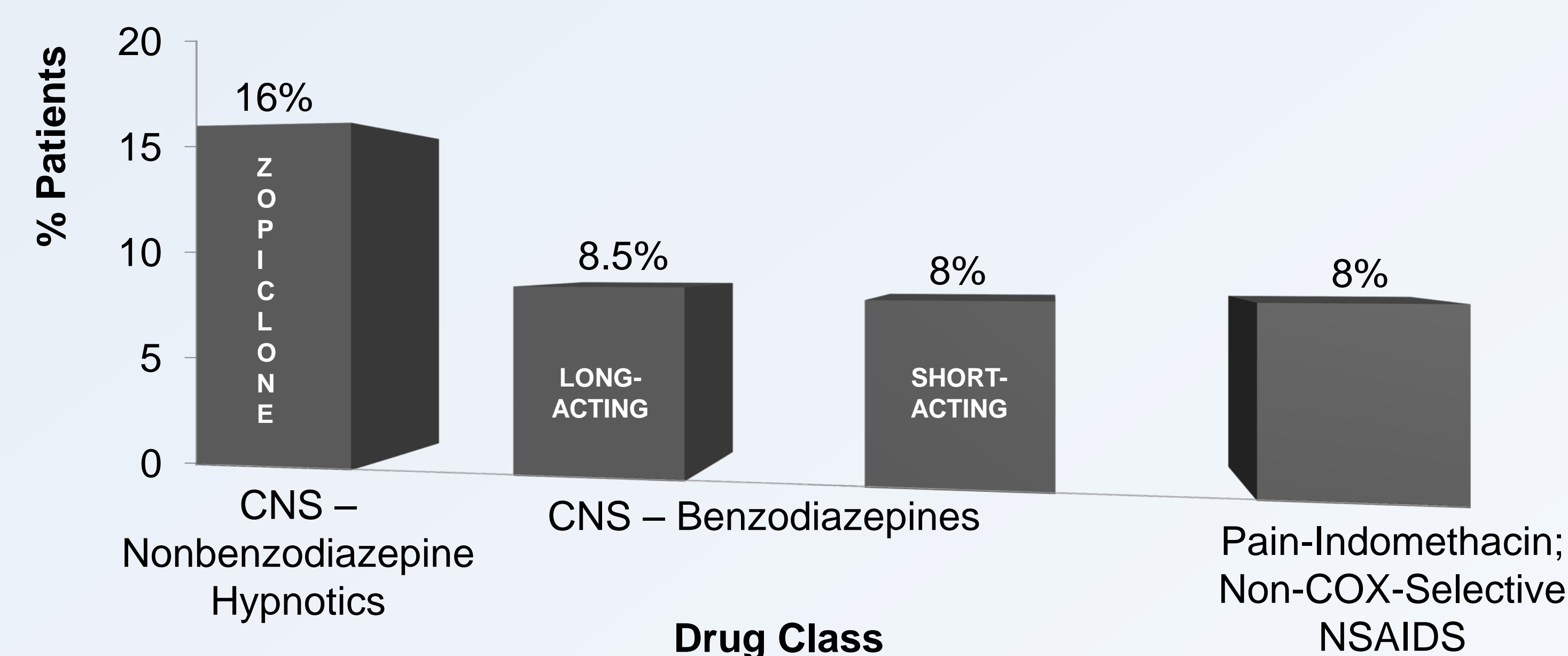


Figure 1. The Most Frequently Prescribed PIMs, Based on the 2012 AGS Beers Criteria for PIM Use in Older Adults (Regardless of Disease or Conditions).

Legend: CNS, Central Nervous System; NSAID, Non-Steroidal Anti-inflammatory Drug

For List 2, the top PIMs prescribed were CNS medications: Benzodiazepines, Nonbenzodiazepine Hypnotics, and antidepressants. See Figure 2.

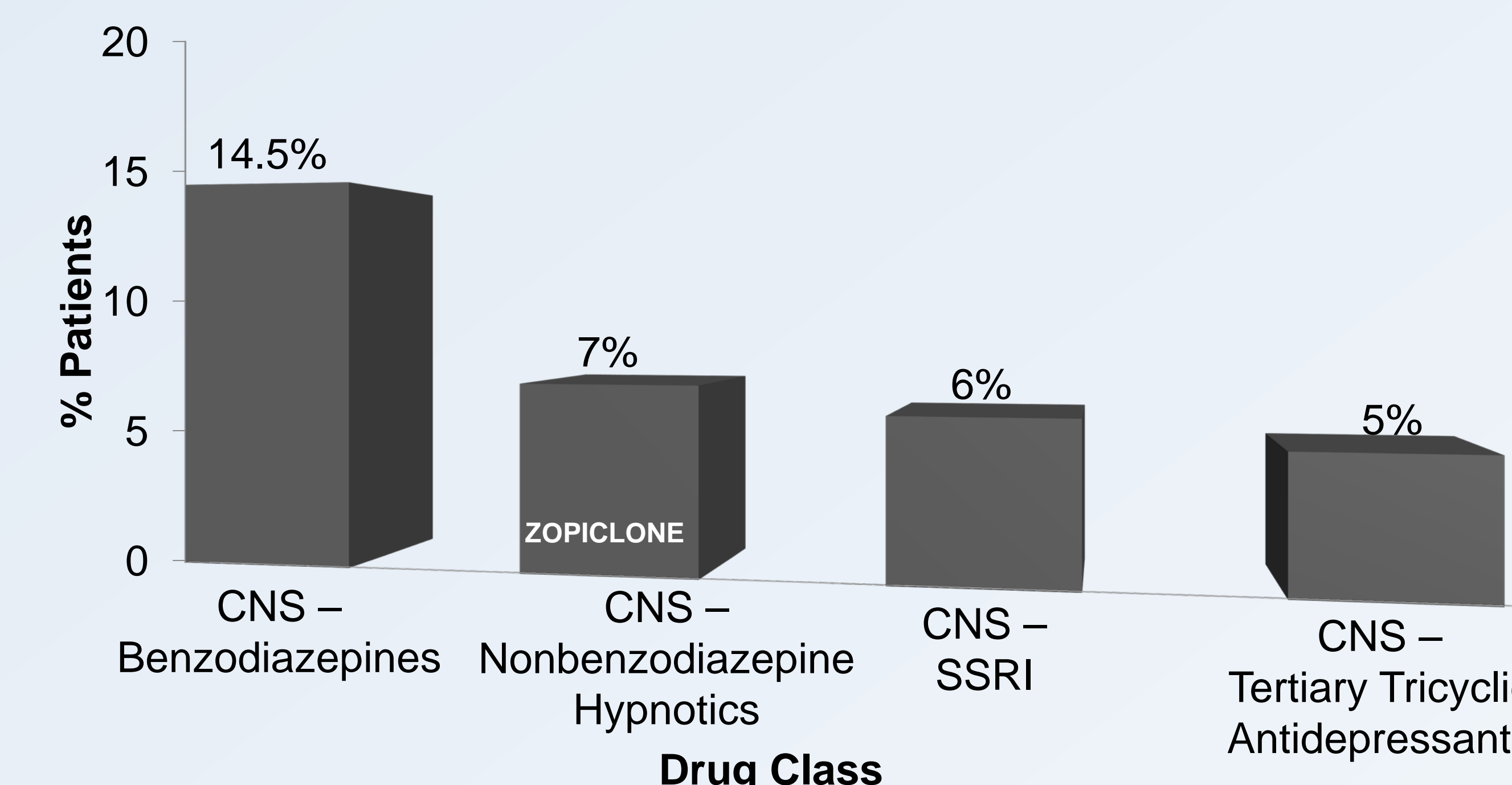


Figure 2. The Most Frequently Prescribed PIMs, Based on the 2012 AGS Beers Criteria for PIM Use in Older Adults with Certain Diseases or Conditions.

Legend: CNS, Central Nervous System; SSRI, Selective Serotonin Reuptake Inhibitor

Comprehensive Geriatric Assessments' Impact on PIM Use

48% Of the 98 patients (who used PIMs; 47/98) had their medications stopped, tapered, adjusted, decreased, or reviewed as a result of Comprehensive Geriatric Assessments.

Among the patients, there were a total of 129 and 91 PIMs from Lists 1 and 2, respectively, prescribed.

Of the 129 PIMs, 41% (53/129) was ordered to be stopped, tapered, adjusted, decreased or reviewed.	Of the 94 PIMs, 40% (38/94) was ordered to be stopped, tapered, adjusted, decreased or reviewed.
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DISCUSSION

The 2012 Beers Criteria should be used as a guideline for safe drug use and monitoring in the elderly. The criteria, however, is not meant to supersede clinical judgment.

CONCLUSION

PIM use in the elderly is common and needs to be addressed.