



Preface

Polypharmacy: A Continuing Challenge to Clinicians



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We, clinicians, took an oath to cause no harm. One of the most common ways that clinicians can cause harm is by through prescribing unnecessary medications and/or prescribing medications that interact negatively with other medications.

DEFINITION

There have been many definitions of polypharmacy. Masnoon¹ tabulated 138 definitions of polypharmacy, of which 111 used a numerical definition. The most common number was five or more medications. Some made the important distinction of appropriate versus inappropriate or problematic medications.² Rather than number of medications, the definition that we favor for polypharmacy is the use of one or more unnecessary or inappropriate medications, since, in our opinion, that is the real issue. Beers, from that small college in Westwood, came up with classifying inappropriate medications. We believe that prescribing inappropriate medications is probably more worrisome than the absolute number of medications.

WITH AGING, THERE IS INCREASED COMORBIDITY WITH RESULTANT INCREASES IN MEDICATION NUMBERS

Chronic conditions increase in frequency with aging.³ Therefore, it is not surprising that the number of prescribed medications increases with aging and that polypharmacy is a significant issue in older patients.

MEDICINE IN THE UNITED STATES IS PROVIDED IN SILOS, WHICH INCREASES THE RISK OF POLYPHARMACY

Health care silos may provide efficient care for specific conditions, but often the health care providers in these silos do not take the time to address all the medications the

patient may be prescribed by doctors in other silos. As a result, the patient is at risk of polypharmacy with potential drug-drug interactions.

THE NUMBER OF MEDICATIONS PRESCRIBED FOR SENIORS IS INCREASING

From 1988 to 2018, the percent of Americans using five or more prescription drugs increased from 4% to 11%.⁴ For those ages 65 years and older, the percent exploded from 13.8% to 41.9% during this same time. There were no significant differences by sex. There were some differences by ethnicity with older Asian Americans and Hispanic/Latino Americans having the lowest percent, 6.6%, and African American elders having the highest percent of taking five or more prescribed medications at 12.4%.

IN AMERICA, POLYPHARMACY IS PROFITABLE

Pharmaceutical companies in the United States are raking in the dollars. On average, Americans spend twice as much (\$1126 per capita) than their peers in other countries on prescription medications (\$552).⁵

POLYPHARMACY INCREASES WITH AGING

Three-quarters of those ages 50 to 65 years used prescription drugs compared with 91% of those ages 80 years and above. Even more importantly, the number of drugs prescribed increases from 13 at ages 50 to 64 years to 22 for those ages 80 years and above.⁶ The tragedy is that more than half of the prescription costs for those 65 years and above is out of pocket, and for those ages 80 years and over, this percent increases to 67%.

POLYPHARMACY LEADS TO INCREASING PROBLEMS WITH COMPLIANCE, ADVERSE DRUG RESPONSES, AND DRUG-DRUG INTERACTIONS

With more medications prescribed to a patient, the risk of compliance, adverse drug responses, and drug-drug interactions increases.

POLYPHARMACY IS NOT JUST PRESCRIPTION DRUGS

Older Americans, accounting for just 13% of the US population, purchase 40% of all over-the-counter (OTC) medications.⁷ These OTC medications include treatments for allergies, upper respiratory infections, arthritis, heartburn, and constipation.⁷ More than 3 million Americans reported using herbal remedies.⁶ The supplement to the NHIS 2002 included questions related to alternative medications, and 12% had used them.^{8,9}

DEPRESCRIBING AS A RESPONSE TO POLYPHARMACY

One of us (E.L.S.) was at the National Institutes of Health, leading an initiative for reducing polypharmacy that featured television and radio interviews. After one of these interviews, E.L.S. received a call from a nursing home administrator who proudly told me that he was stopping all the medications to his older residents. We must be

careful to emphasize the importance of appropriate medications while we reduce polypharmacy.

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