

Potentially inappropriate prescribing among older people in Kosovo: A study protocol

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Abstract

Inappropriate prescribing in older people is a common and serious healthcare problem in most of the countries, but especially in transitional countries of the Western Balkans including Kosovo where there are no clear and strict regulations related to prescriptions or use of medications. Thus, similar to other countries, the *polypharmacy* phenomenon is supposedly linked to an increased risk of adverse drug reactions and inappropriate prescribing in Kosovo too. However, population-based data on drug use and misuse, or potentially inappropriate prescription rates are scarce.

In the framework of information scarcity related to surveys and other studies focusing on potentially inappropriate prescribing among older people in Kosovo, we propose a study protocol to assess the magnitude and determinants of inappropriate prescribing among men and women aged ≥ 65 years in Kosovo using standardized and internationally validated instruments. More specifically, this proposed protocol aims to assess the prevalence and predictors of potentially inappropriate prescribing among older people admitted to the hospital, but also among older people attending primary health care centers in Gjilan region, in Kosovo.

Keywords: *Beers' Criteria, inappropriate prescribing, Inappropriate Prescribing in the Elderly Tool (IPET), older people, polypharmacy.*

Older people in Kosovo

In Kosovo, older people (individuals aged ≥ 65 years) are at greater risk of poverty and ill-health conditions compared to the general population. According to 2008 estimates, the expected life expectancy at birth in Kosovo was 67 years for males and 71 years for females in 2008 (1). Notwithstanding the fact that Kosovo consists of

the youngest European population, it is inevitably akin to the global trend of aging reflected by a steady decrease of the growth rate of the population (2). Such a trend points to a gradual increase of the older segment of the population which is due to an increase in life expectancy coupled with a decrease in fertility rate. Thus, the share of

older people (individuals aged ≥ 65 years) is currently estimated at 7% (1).

Older people in Kosovo face serious socio-economic and financial difficulties (3). Furthermore, current national programs, strategies and policies do not sufficiently address socioeconomic needs and health problems of older people in Kosovo. To date, there is no social health insurance scheme in place for the population of Kosovo. This poses serious challenges for the older segment of the population which is a vulnerable and marginalized subgroup in need of many health care services. As a matter of fact, the lack of health insurance scheme in Kosovo is reflected in the health status of the population, particularly of the older people.

Thus, a fairly recent report from Kosovo indicated remarkable health problems and challenges pertinent to individuals aged ≥ 65 years of both sexes (4). According to the findings of this recent study including a nationwide representative and large sample of older people in Kosovo (1890 individuals aged ≥ 65 years: 949 men and 941 women), 42% of older people were unable to access medical care, of whom 88% due to unaffordable costs (4). Furthermore, more than half of the older people in this survey perceived their health status as poor. As for the prevalence of chronic conditions, about 83% of older men and women reported at least one chronic condition (63% cardiovascular diseases), and 45% reported at least two chronic diseases. Women were particularly vulnerable as the prevalence of chronic morbidity and poor self-rated health was significantly higher than in men. Also, the very old individuals had a remarkably higher prevalence of multi-morbidity and poor self-perceived health status. Finally, poverty (including its related inability to access medical care) was a strong predictor of poor self-reported health and the presence of chronic conditions (4).

Potentially inappropriate prescribing among older people

Older people often experience multiple diseases and, therefore, this is inevitably associated with multiple drug use. This phenomenon, being referred to as *polypharmacy* (5), is related to the concurrent use of at least five different medications. Such multiple use of medications may lead to inappropriate prescribing and a decrease in the therapeutic response

(5-7). According to the international literature, potentially inappropriate prescribing in older people are considered those drugs which do not have evidence-based indications for use, those which bear a high risk for side effects in older people compared with younger adults, or those drugs which have not been shown to be cost-effective in clinical settings, but particularly in population-based studies (8).

From this point of view, inappropriate prescribing in older people is a common and serious healthcare problem in most of the countries, but especially in transitional countries of the Western Balkans including Kosovo where there are no clear and strict regulations related to prescriptions of medications. Thus, similar to other countries, the *polypharmacy* phenomenon is supposedly linked to an increased risk of adverse drug reactions and inappropriate prescribing in Kosovo too.

It must be pointed out that, notwithstanding the fact that inappropriate prescribing is a vast phenomenon in many countries, this condition is almost fully preventable and, for this very reason, there have been developed specific screening instruments for inappropriate prescriptions including Beers' Criteria and the Inappropriate Prescribing in the Elderly Tool (IPET) [8]. Such instruments are envisaged for testing and use in our Kosovo study.

In the international literature, Beers' Criteria consist of the most frequently reported screening instrument for inappropriate prescribing notwithstanding some major criticism which has been evoked mostly due to the fact that several drugs are rarely prescribed currently, there exists a lack of structure in the presentation of the criteria and omission of several important and common inappropriate prescribing instances (8).

Suggested study protocol for potentially inappropriate prescribing in Kosovo elderly

The rapid socioeconomic and political transition in the past two decades including the devastating war with Serbia have further marginalized the older people in Kosovo. As a matter of fact, the World Bank reports that Kosovo is among the poorest countries in Europe with older people being at a particularly risk of poverty (9). The economic hardship is also reflected in the poor health indicators of older people. However, population-based data on drug use and misuse, or potentially inappropriate

prescription rates are scarce.

Therefore, in the framework of information scarcity related to surveys and other studies focusing on potentially inappropriate prescribing among older people in Kosovo, we propose a study protocol to assess the magnitude and determinants of inappropriate prescribing among men and women aged ≥ 65 years in Kosovo using standar-

dized and internationally validated instruments. More specifically, this proposed protocol aims to assess the prevalence and predictors of potentially inappropriate prescribing among older people admitted to the hospital, but also among older people attending primary health care centers in Gjilan region, in Kosovo. Findings of this study will be reported in detail elsewhere.

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