

## ANALYSIS OF DRUG PRESCRIBING IN PATIENTS ON HEMODIALYSIS TREATMENT

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Potentially inappropriate prescribing (PIP) of drugs is defined as the use of drugs whose potential damage can overcome benefits. Elderly patients (65 years and older) with renal insufficiency are at particular risk, because they take a lot of drugs, and for the usage of the same, the patients need to have great knowledge and skills.

To identify the risk factors contributing to potentially inappropriate prescribing of drugs in elderly patients with renal insufficiency.

The study was designed as an observational case-control study. The research was carried out at the Clinic of Nephrology, Clinical Center Nis, Serbia. The data were collected from the medical files of elderly patients undergoing chronic hemodialysis treatment, as well as by interviewing. The cases were patients in whom the potentially inappropriate prescribing of drugs was determined by Beers criteria, and the controls were patients who used properly prescribed medications. The risk factors for PIP were established by univariate and subsequently by multivariate logistic regression.

The study included 68 patients older than 65 years who were on chronic hemo-dialysis treatment, 41 (60.3%) of them were men and 27 (39.7%) women. The average age of the studied population was  $72.71 \pm 5.92$  years, among which the youngest patient was 65 and the oldest 85 years old. According to Beers criteria, PIP was found in 14 (21%) patients. A significantly higher number of drugs was given to the patients in whom the potentially inadequate prescription of medication was established ( $Z = 2.650$ ;  $p = 0.008$ ).

The patients to whom the drugs were potentially inappropriately prescribed had a significantly higher number of comorbidities compared to other patients ( $\chi^2 = 2.636$ ;  $p = 0.008$ ).

This study showed that patients who have multiple comorbidities and take multiple drugs are at a substantially greater risk of having at least one drug potentially inadequately prescribed. PIP often results in the occurrence of toxic or side effects, and ultimately damage to the body.

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**Key words:** *potentially inappropriate prescribing of drugs, Beers criteria, polypharmacy, elderly patients*