

Master thesis project synopsis

Avoiding adverse effects when dosing medications in the elderly: renal function, comorbidities and age – what is the evidence?

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The risk of adverse drug reactions increases in elderly patients. Among factors responsible for this increase are comorbidities and decreased renal function. Often, dose reduction is recommended above a certain age. For drugs with large renal clearance, measures of renal function for example S-Creatinine or estimated GFR such as eGFR are used to identify patient groups at risk where a lower dose is needed. The question is whether age per se, renal function or comorbidities have the greatest impact on risk and thus should be the basis of dose recommendations. What is the evidence for the current recommendations: clinical trials, pharmacokinetic studies in the elderly or observational studies? Or are recommendations based on more general evidence on renal function decline with age, combined with modelling, simulations and extrapolation? The aim is to perform a literature review in a selected drug group to investigate these aspects of adverse reactions in the elderly.

Keywords

Adverse reactions

Elderly

Renal function

Comorbidity

Age

Dosing