



Are the official recommendations for amikacine serum level suitable for elderly patients?

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Background

Official recommendations for amikacine serum level:

Peak level	60 to 80 µg/ml
Through level	< 2,5 µg/ml

Difficult use in elderly patients

Larged observed interindividual variability

High potential toxicity of amikacine

Purpose:

To check the applicability of official recommendations in elderly patients

- Retrospective study
- In geriatric hospital
- All patients treated with amikacine during the last 3 years

Materials and Methods

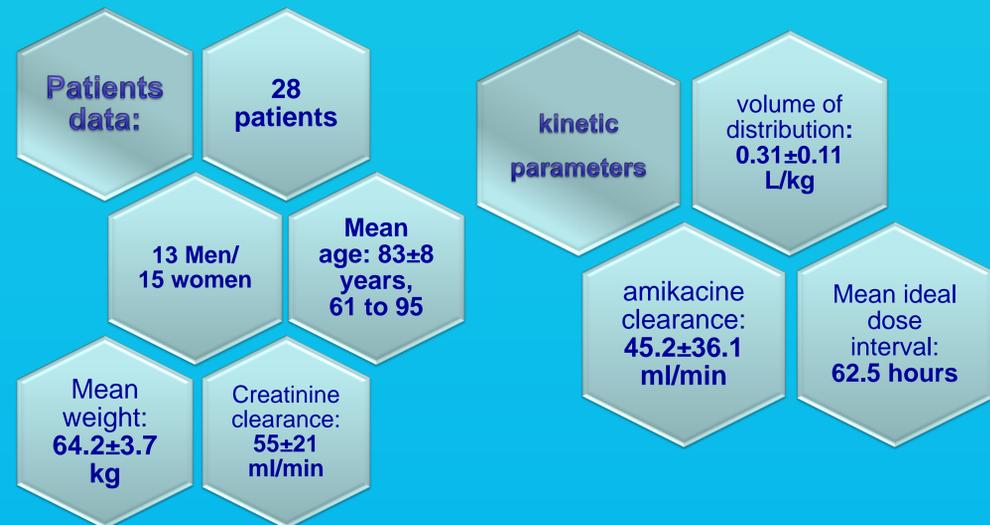
Medical patient file

- Anthropometric data
- History of amikacine administration
- Serum levels

USC* Pack software data:

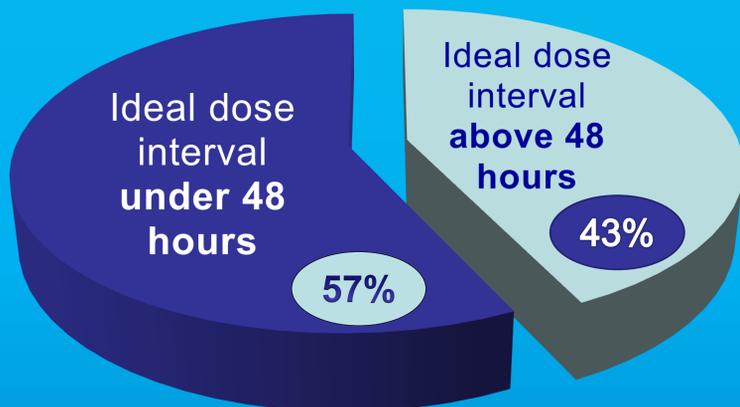
- Bayesian software
- Individual pharmacokinetic parameters
- Dosage regimen to reach recommended levels

Patients data



Results

Ideal dose interval to reach recommended through serum levels of amikacine:



Conclusion

For more than 40% of elderly patients, target peak cannot be reached:

without potentially toxic through level even after 48h

OR

without expanding the dose interval above 48h

be at risk of inefficacy for serious infection