

ROLE OF PHARMACISTS IN IMPROVING THERAPEUTIC DRUG MONITORING AND DOSING OF VANCOMYCIN

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Background and Importance

Accurate dosing and therapeutic drug monitoring (TDM) of **vancomycin** (VAN) are essential for effective treatment. However, achieving target concentrations often proves challenging due to **weak compliance** with institutional **guidelines**. Enhanced **support and education**, particularly involving **pharmacists**, are suggested to improve TDM practices of vancomycin.

Aims and Objectives

Primary endpoints

Impact of pharmacist intervention on

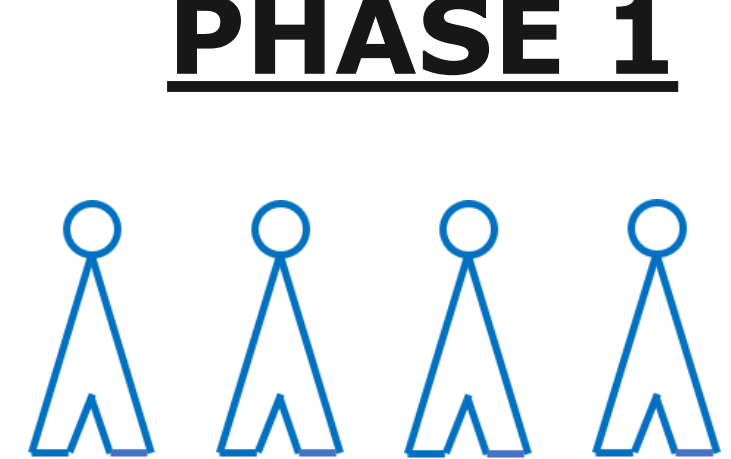
- Time to initial target attainment
- Compliance with institutional TDM guidelines

Secondary endpoints

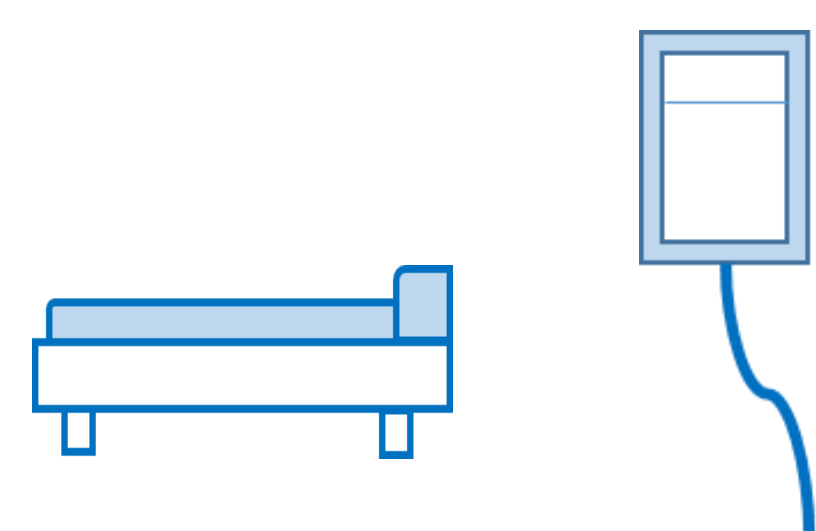
- Identification of TDM related issues
- Factors influencing the time to target attainment

Materials and Methods

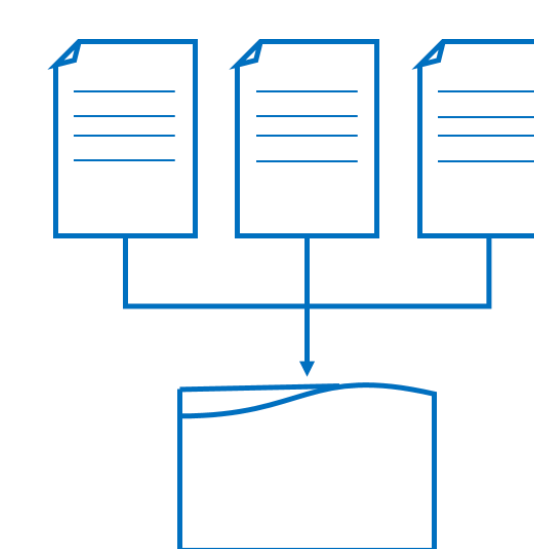
PHASE 1



Retrospective Cohort
(≥ 18 years)



Hospitalized
VAN Intravenously (≥ 72 hours)

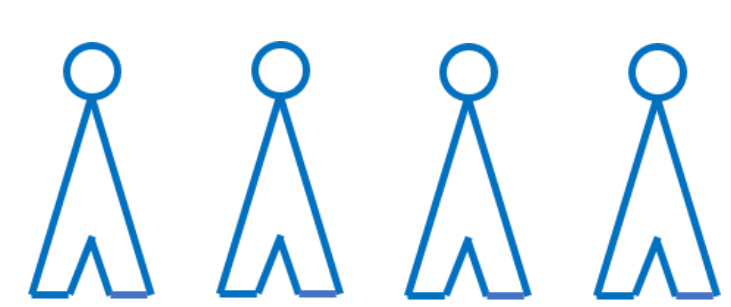


Data Collection

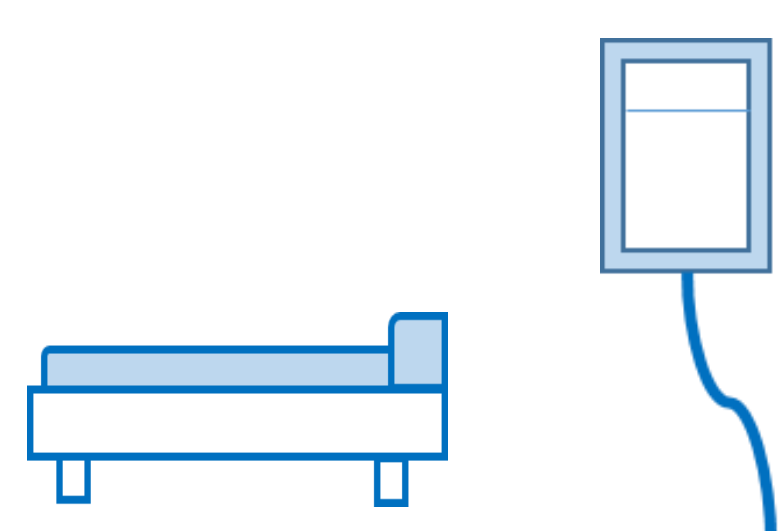


Analysis & Evaluation

PHASE 2



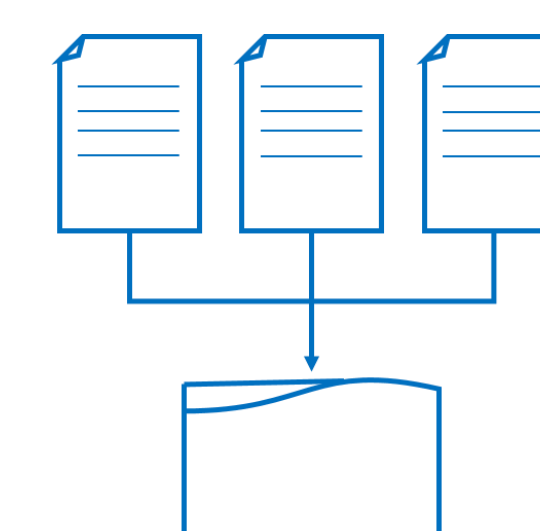
Prospective Cohort
(≥ 18 years)



Hospitalized
VAN Intravenously (≥ 72 hours)



Pharmacy Advisory
Service
TDM recommendations



Data Collection



Analysis & Evaluation

Results

PHASE 1

72 VAN courses



43,1% correct initial dosing

502 blood samples



8,4% correctly timed

170 dose adaptations



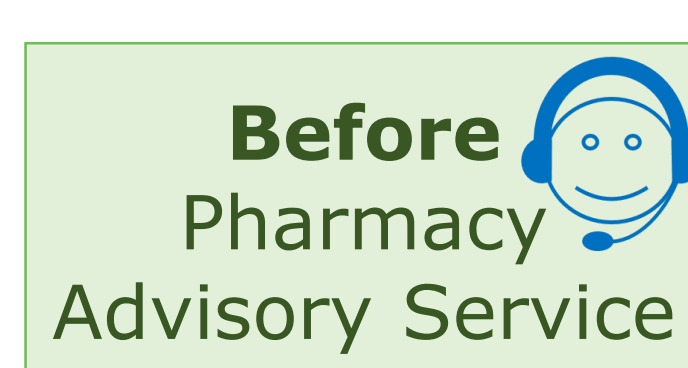
46,5% correctly adapted

Time to target attainment (median; 95% CI)

3,6 (3,2-3,9) days



Poor compliance TDM guidelines



PHASE 2

22 VAN courses

145 blood samples



14,5% correctly timed *

58 dose adaptations



70,7% correctly adapted *

Time to target attainment (median; 95% CI)

2,4 (0,9-3,9) days **



Influencing factors



~ Time to target ↓*

* p ≤ 0,05
** p > 0,05

Conclusion and Relevance

Provision of **TDM guidelines alone** is **not sufficient** in ensuring correct prescription and monitoring of vancomycin. Daily **dosing guidance** by pharmacists **may enhance** TDM practices and **may shorten** time to target attainment of vancomycin.

