USE OF VANCOMYCIN: CURRENT PRACTICES IN A PAEDIATRIC HOSPITAL

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BACKGROUND

Vancomycin is a time-dependant antibiotic usually active on Gram-positive bacteria. An early identification and a monitoring of vancomycin blood-concentrations must be made. Actually, there is no specific guidelines for pediatric population.

OBJECTIVE

Assessment of vancomycin prescriptions and blood-concentration monitoring in a pediatric hospital to propose local recommendations of good practices

METHODS

Retrospective analysis of computerized vancomycin prescriptions (> 2 days) , from January to December 2016

Demographic data

Blood-concentration monitoring

Additional medical data :

- ✓ renal function
- ✓ bacteria identification

Prescriptions-related parameters :

- ✓ therapeutic indications
- ✓ dosage
- ✓ administration mode

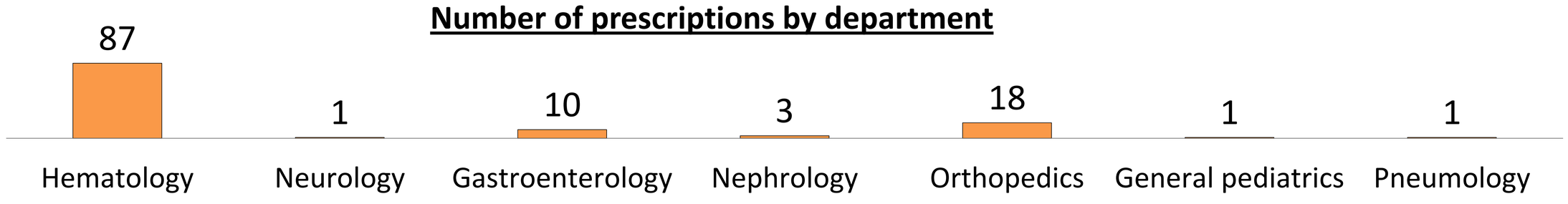
RESULTS

DEMOGRAPHIC DATA

121 prescriptions - 87 patients

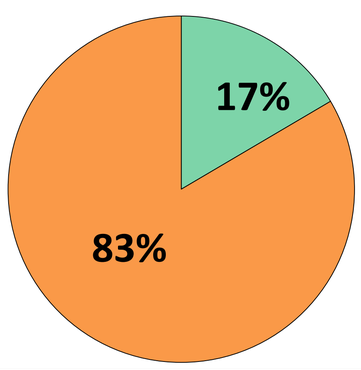
Average age: 8.9 (0,1-18,8) - 51,7% boys vs 48,3% girls

Number of prescriptions by department



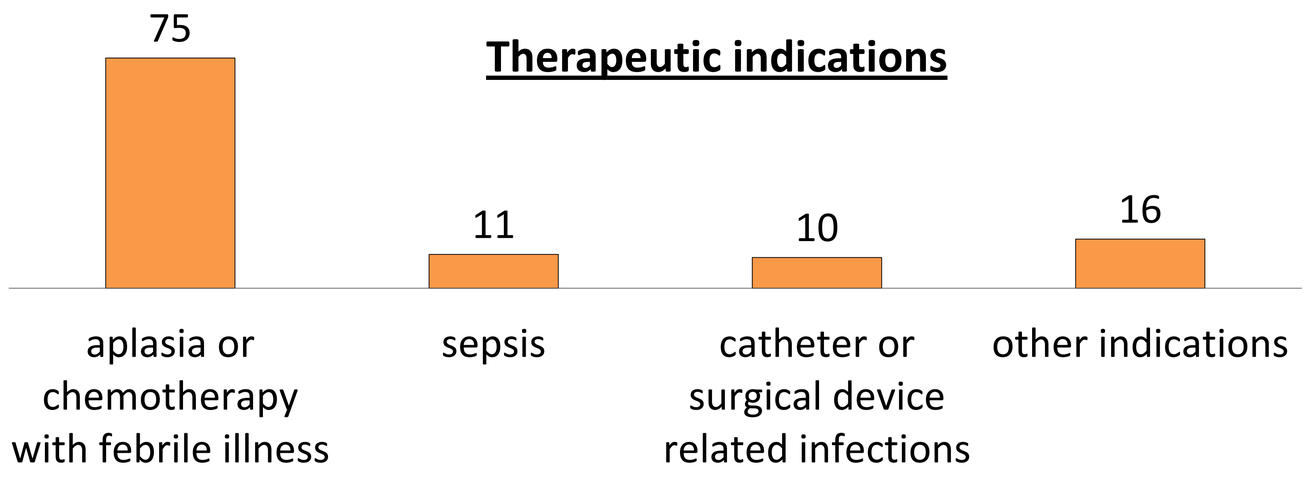
PRESCRIPTION-RELATED PARAMETERS

Administration mode



Mean dose : 43mg/kg/day

Therapeutic indications



VANCOMYCIN BLOOD-CONCENTRATIONS MONITORING

77 monitoring requested

↓

66/77 (85,7%) out of target values

↓

38/66 (57,6%) reassessed
(dose adjustment or prescriptions stopped)

ADDITIONAL MEDICAL DATAS

Bacteria identification

Negative culture results for 52.1% prescriptions
No identification requested for 5% of the prescriptions

Renal function

No Glomerular Filtration Rate (GFR) for 5.8% of prescriptions
GFR > normal values for 6.6% → all prescriptions were stopped

CONCLUSION

The lack of vancomycin blood-concentrations follow-up, dose adjustments and the prescription heterogeneousness justify the establishment of local recommendations of good practices
This work will lead to discuss new recommendations for vancomycin use with the infectious diseases team

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