Clinical Pharmacy and Infectious Diseases

Example of implementation in a specific discipline

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INTRODUCTION

- Role of ID pharmacist

  P. De Cock
- Registration and cost-effectiveness of interventions - focus on antimicrobials

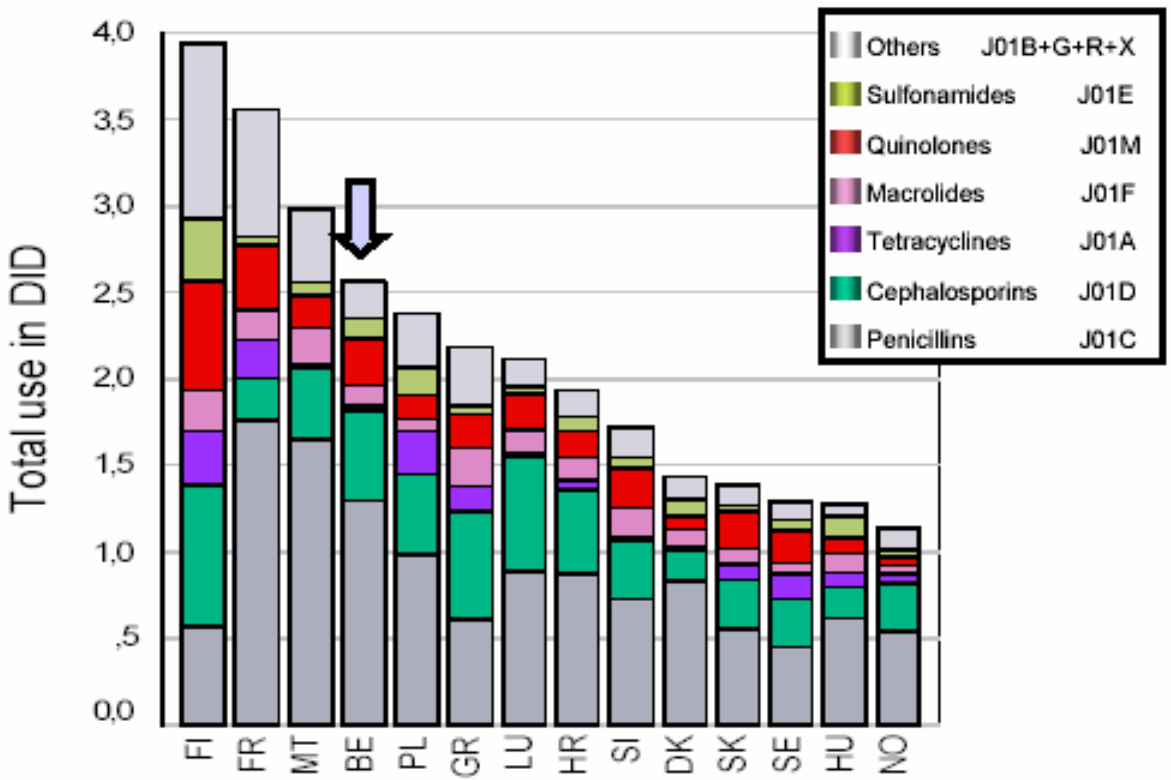
  B. Claus

BACKGROUND

- 50 % sub-optimal use [1]
- Optimizing antimicrobial use
  - Increase quality of patient care
  - Cost containment
  - Minimizing emergence of microbial resistance

BACKGROUND

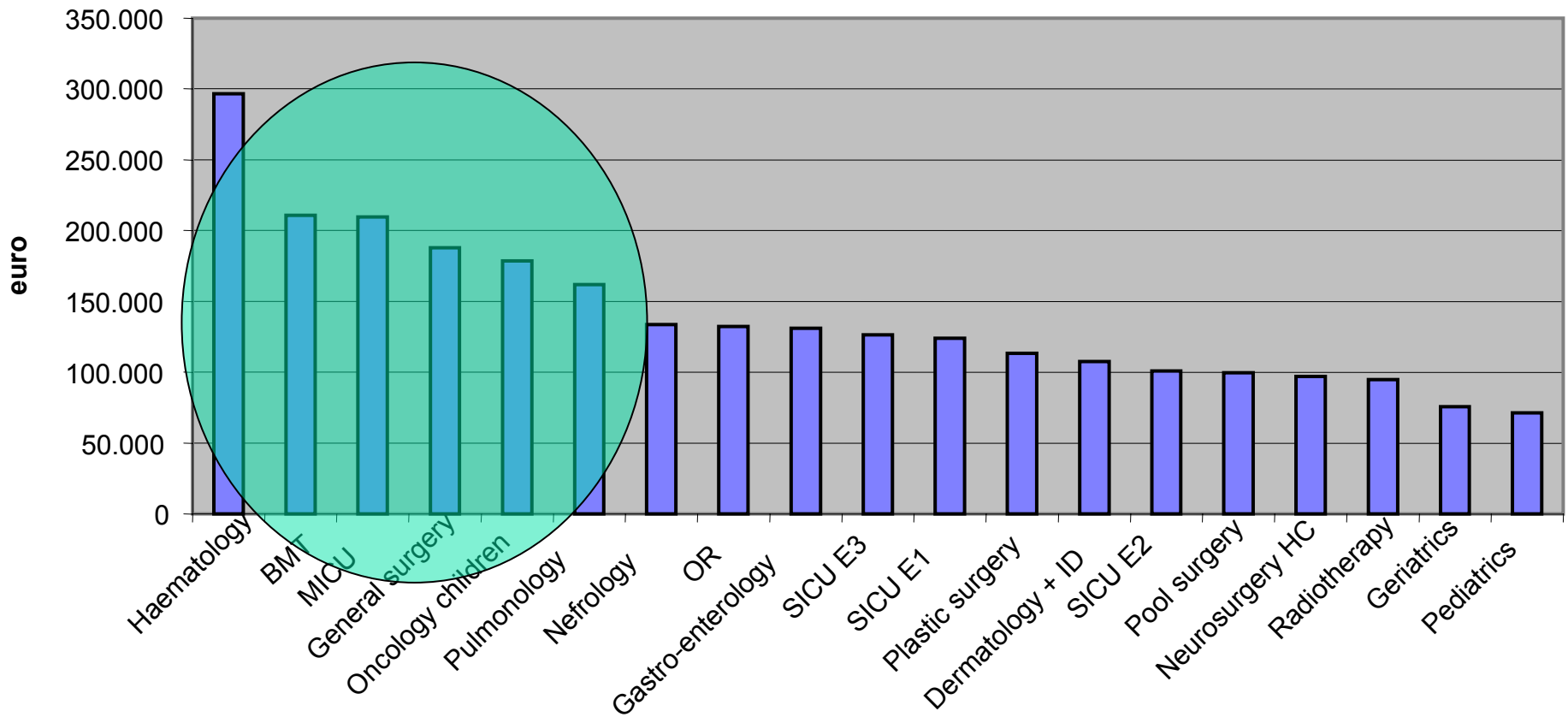
Antibiotic consumption in 2001 (hospitalized pts.)



Source: European Surveillance of Antimicrobial Consumption Project (ESAC)

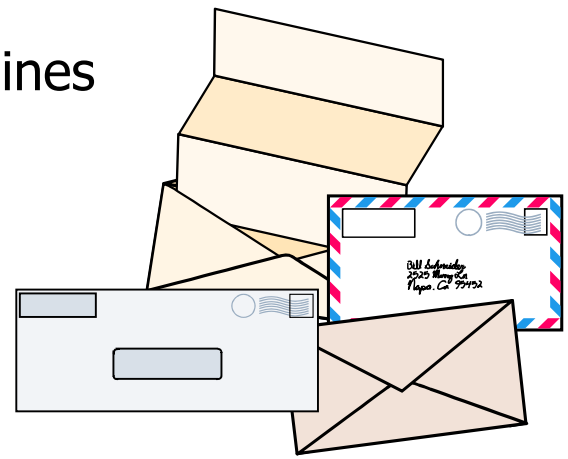
BACKGROUND

Top 20 consumers Ghent University Hospital



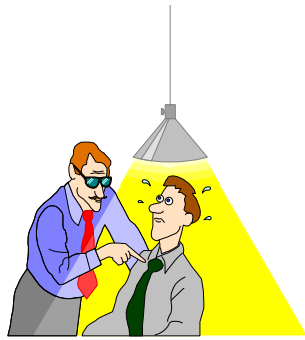
ID PHARMACIST'S ROLE (1)

- Hospital-wide role [2-4]
  - Infection control and antibiotic policy
    - Antibiotic formulary
    - Development and updating clinical guidelines
  - Audit and feedback
    - Consumption data
    - DUR, DUE (!)
  - Education of staff



ID PHARMACIST'S ROLE (2)

- Patient-oriented role (2-6)
  (in conjunction with the antimicrobial management team)



  - Streamlining and sequential therapy
    - IV-PO switch protocol
  - Therapeutic substitution
  - Antibiotic dose or regimen alteration
    - dose adjustments
    - dosing interval
    - pharmaceutical form
  - Approval of restricted antimicrobials
    - moxifloxacin, linezolid, mupirocin, lip. amphotericine B, voriconazole, caspofungin
    - ciprofloxacin, levofloxacin, meropenem, teicoplanin, vancomycin, piperacillin-tazobactam
  - Discontinuation of antimicrobials

ID PHARMACIST'S ROLE (3)

- Automatic stop orders for :
  - antimicrobial prophylaxis
  - restricted antimicrobials
  - empirical antimicrobials
- Advice on and as a result of TDM
  - aminoglycosides, glycopeptides
- Drug information
  - administration (incompatibilities, infusion rate…)
  - interactions
  - reimbursement, pricing
- Assistance in interpretation of lab results
  - renal function
- Indications for specific antimicrobial use
  - allergies
  - vaccination
- Suggesting for additional lab test ordering

CONCLUSION

- Role unmistakable
- Shortcomings
  - Education - training
  - Time
  - Cost-effectiveness of interventions

References

[1] *Roshdahl V. et al. The Copenhagen Recommendations. Report from the Invitational EU Conference on The Microbial Threat. Ministery of Health, Ministry of Food, Agriculture and Fisheries, Denmark 2002;1-52.*

[2] *Knox K. et al. Multidisciplinary antimicrobial management teams and the role of the pharmacist in management of infection. In Antibiotic policies: theory and practice edited by Gould J and van der Meer P. ISBN 0-306-48500-1.*

[3] *Weller T. et al. The expanding role of the antibiotic pharmacist. JAC 2004;54, 295-298.*

[4] *Knox K. et al. Multidisciplinary antimicrobial management and the role of the infectious diseases pharmacist – a UK perspective. Journal of Hospital Infection 2003; 53:85-90.*

[5] *Dickerson L. et al. The pharmacist's role in promoting optimal antimicrobial use. Pharmacotherapy 2000;20(6):711-23.*

[6] *Ibrahim K. et al. Intensive care unit antimicrobial resistance and the role of the pharmacist. Crit Care Med 2001;29(4 suppl):N108-13.*