



# Antibiotic Policy in Belgian Hospitals

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(BAPCOC)

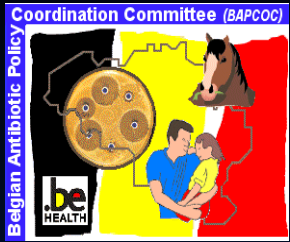
# Introduction

## ✓ Situation in western countries:

- 30% of all hospitalised patients receive antibiotics (AB)
- AB = 13% to 37% of global drug budget in hospitals
- Bad utilisation and overuse of AB is frequent
  - ⇒ USA: up to 41% of prescriptions not justified
  - ⇒ USA: up to 50 % of prescriptions not appropriate

## ✓ Importance of antibiotic (AB) resistance:

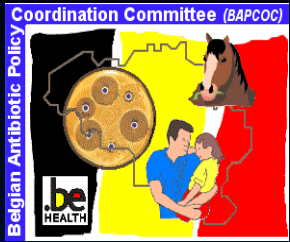
- Estimated additional cost in USA: 4 till 5 milion USD per year (mostly due to multiresistant nosocomial infections)



# Antibiotic Policy in Belgium

## ✓ Objectives :

- Ameliorate quality of care
- Halt increase of antibiotic resistance (ABR) through a more appropriate AB use
- Limit costs of AB therapy



# Belgian Initiatives

- ✓ **FPS of Social Security (RIZIV/INAMI)**
  - Objective: cost containment
- ✓ **FPS of Health, Food Chain Security and Environment**
  - Objective: containment of ABR through a multidisciplinary and integrated approach (BAPCOC)

Hospital care

Ambulatory care

Health education

Veterinary care



# BAPCOC

## ✓ AB policy in hospital care

- Surveillance of resistance in hospital germs
  - ⇒ *S. aureus*, *E. aerogenes*
- Elaboration of evidence based therapeutic guidelines
  - ⇒ Community acquired acute pyelonephritis
- Amendment of hospital legislation (government funding)
  - ⇒ Medical microbiologist, clinical infectiologist
  - ⇒ Obligatory AB policy group and AB policy specialist
  - ⇒ Training in AB policy for health facilities
  - ⇒ Obligatory participation in regional meetings for hospital hygienists



# Intended legislation

- ✓ **AB policy group (ABPG) in each hospital**
  - **part of medical-pharmaceutical committee (MFC)**
  - **members: hospital hygienist, clinical microbiologist (physician or pharmacist), clinical infectiologist and/or medical microbiologist, hospital pharmacist**
  - **Members and chairman proposed by medical-pharmaceutical and hospital hygiene committee and decided by the medical director after advice of medical council**
  - **Chairman must be a physician**



# Intended legislation

✓ **ABPG takes in charge the tasks of the MFC that concern anti-infectious drugs:**

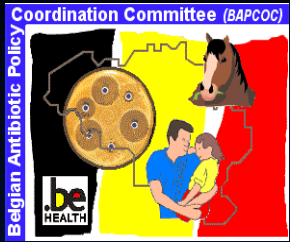
- **Formulary: design and update**
- **Therapeutic guidelines:**
  - ⇒ **Design and update empiric, etiologic and prophylactic treatment guidelines for infections**
  - ⇒ **Distribute these guidelines among physicians**
  - ⇒ **Promote also guidelines produced by and/or approved by BAPCOC**



# Intended legislation

## ✓Tasks of ABPG (cont.)

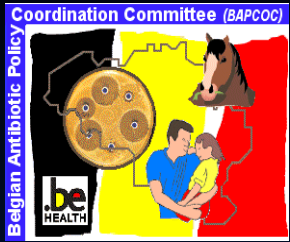
- design, implement and evaluate initiatives to promote appropriate use of AB:
  - ⇒ monitor indications, duration and stream lining of AB therapy
  - ⇒ monitor AB prophylaxis in surgery
  - ⇒ Oblige pharmaceutical industry to adapt its promotion strategies in accordance with the AB policy and formulary of the hospital
  - ⇒ organise training for medical, paramedical and nursing staff concerning diagnosis, microbiology, epidemiology and therapeutic principals of infectious disease.



# Intended legislation

## ✓ Tasks of ABPG (cont.)

- Measuring implementation of formulary and therapeutic guidelines
- Measure consumption profiles of anti-infectious therapy
- Measure and monitor local resistance by means of laboratory data
- Report to prescribers, medical director and committee of hospital hygiene



# Intended legislation

- ✓ **Report yearly to BAPCOC:**
  - Consumption of AB in DDD per hospital department
  - Local evolution of ABR over time and for different AB
  - Overview of control actions undertaken
  - Other items as defined by BAPCOC



# Intended legislation

- ✓ **Assignment within ABPG of a physician or pharmacist:**
  - As AB policy responsible
  - In charge of :
    - ⇒ Training
    - ⇒ Implementation of guidelines and formulary (only if physician)
    - ⇒ Reporting
- ✓ **Several hospitals can appoint together one person if formal collaboration agreement**



# Intended legislation

## ✓ Required qualifications :

- Medical microbiologist or clinical infectiologist
- Hospital pharmacist specialised in clinical biology and with training in AB therapy policy (200 hours and apprenticeship)
- For time being, if physician:
  - ⇒ Specialist in internal medicine, pneumology, paediatrics, intensive care or clinical biology
  - ⇒ Trained in AB therapy policy (200 hours and apprenticeship)



# Intended legislation

## ✓ Transition phase (5 years)

- Committee of peers to certify expertise in AB therapy policy based upon proven experience
  - ⇒ Members of BAPCOC
  - ⇒ Representatives of scientific societies
  - ⇒ Representatives of Ministers of health and social affairs
- Candidates in training will be provisionally recognised as experts (5 year validity)



# Pilot project

- ✓ To bridge the time needed to publish the Royal Decree
- ✓ Selection of 36 hospitals based upon:
  - previous efforts to implement an AB policy
  - expertise of candidates
  - proposed future activities
- ✓ Funding calculated on number and type of beds (01-10-2002 till 30-09-2003)



# Proposed actions

- ✓ **Optimalisation of choice of AB and duration of AB treatment (38%)**
  - Formularies
  - Producing or updating guidelines
  - Stop orders
  - Motivation / authorisation to prescribe outside formulary
  - Counseling (on request or automatic)
  - Uniformisation of AB policy in new hospital sites
- ✓ **Research: efficient if combined with other measures**

# Proposed actions

- ✓ Surveillance of quantity of AB used (14%)
- ✓ **Research: feedback can have favourable influence**
- ✓ Surveillance of quality of AB use (5%)
  - Timely switching to monotherapy
  - Timely switching to oral therapy
  - Streamlining
  - Audits
- ✓ **Research: utility demonstrated (generally in combination with limited availability of AB)**



# Proposed actions

- ✓ Training of prescribers, paramedics and nursing staff (11%)
- ✓ Research: training programmes have only temporary effects if not continuous or accompanied by other measures.

Most effective are individual contacts with specialists in infectious diseases



# Proposed actions

- ✓ Surveillance of AB resistance with feedback to prescribers (5%)
  - Purchase of lab equipment
  - Screening studies MRSA + multiresistant *E. aerogenes*
- ✓ Research: useful to evaluate and update hospital hygiene programs (spread prevention), formularies and therapeutic guidelines



# Proposed actions

- ✓ Linking AB resistance and consumption (2%)
- ✓ **¿ Effect on appropriate prescribing ?**
- ✓ Evaluation of implementation and impact of guidelines, formularies and other measures (13%)
- ✓ **Expert opinion: stated to be essential**
- ✓ Selective reporting of AB resistance patterns (2%)
- ✓ **¿ Effect on appropriate prescribing ?**



# Proposed actions

## ✓ Others:

- Upgrading IT technology (13)
- Enhancing hospital hygiene (1)
- Meetings between infectious disease specialists and microbiologists of different Hospitals (2)
- Administrative measures:
  - ⇒ control of messages communicated by representatives (1)
  - ⇒ Seminars on influence of representatives (1)



# Not proposed

- ✓ Detection, prevention, and control of AB resistance declared as institutional objectives with allocation of resources
- ✓ Expert opinion: only managers can ascertain a coordinated approach



# Discussion

- ✓ **Advantages of a committee:**
  - Can favour bottom-up approaches and facilitate acceptance
  - Can design locally adapted and specific plans for hospital departments and institutions
  - Can adapt national guidelines to the local situation
  - Can analyse AB strategies and inform prescribers



# Discussion

- ✓ Potential problems of a committee:
  - Lack of consensus
  - Difficult to anticipate national and international resistance trends
  - Independence of pharmaceutical Industry not guaranteed