



Antibiotic Policy in Belgian Hospitals

E. Hendrickx

Belgian Antibiotic Policy Coordination Committee
(BAPCOC)

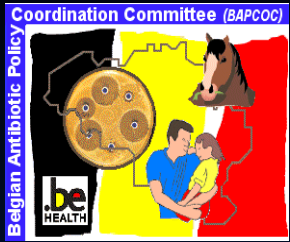
Introduction

✓ 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:

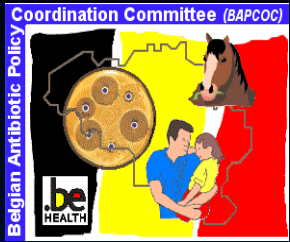
- Estimated additional cost in USA: 4 till 5 milion USD per year (mostly due to multiresistant nosocomial infections)



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:**

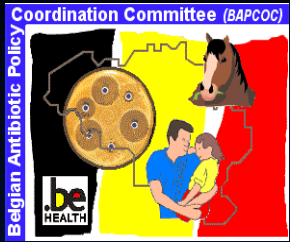
- **Formulary: design and update**
- **Therapeutic guidelines:**
 - ⇒ **Design and update empiric, etiologic and prophylactic treatment guidelines for infections**
 - ⇒ **Distribute these guidelines among physicians**
 - ⇒ **Promote also guidelines produced by and/or approved by BAPCOC**



Intended legislation

✓Tasks of ABPG (cont.)

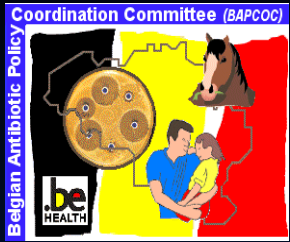
- design, implement and evaluate initiatives to promote appropriate use of AB:
 - ⇒ monitor indications, duration and stream lining of AB therapy
 - ⇒ monitor AB prophylaxis in surgery
 - ⇒ Oblige pharmaceutical industry to adapt its promotion strategies in accordance with the AB policy and formulary 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