



# Antibiotic Management Team: a short survey

**F. Van Bambeke and Paul M. Tulkens <sup>1</sup>**

Pharmacologie cellulaire et moléculaire

Louvain Drug Research Institute & Centre de Pharmacie clinique

Université catholique de Louvain

Brussels, Belgium

Based on the Belgian experience and on material kindly provided by

- Pharm. Caroline Briquet, Groupe de Gestion de l'antibiothérapie, Cliniques univ. St Luc, Bruxelles, Belgium
- Dr C. Rossi, infectiologue - hygiéniste, CHU Ambroise Paré, Mons, Belgium
- Dr C. Potvliege, microbiologiste – hygiéniste, CHU Tivoli, La Louvière, Belgium
- Prof. H. Goossens, microbiologist and "creator" of the Belgian Antibiotic Policy Coordination Committee", Antwerp, Belgium
- Prof. A. Simon, microbiologiste – hygiéniste, Clin. univ. St-Luc, Bruxelles, Belgium
- Dr A. Apisarntharak, Division of Infectious Diseases, Thammasat University Hospital, Thailand.

---

<sup>1</sup> member of the Association for the Prudent Use of Antibiotics (APUA: <http://www.apua.org>)

# Antimicrobial resistance is a major problem in hospitals ...

Factors that may increase antimicrobial resistance in hospitals.

---

Greater severity of illness of hospitalized patients

More severely immunocompromised patients

Newer devices and procedures in use

Increased introduction of resistant organisms from the community

Ineffective infection control and isolation practices and compliance

Increased use of antimicrobial prophylaxis

Increased empiric polymicrobial antimicrobial therapy

High antimicrobial usage per geographic area per unit time

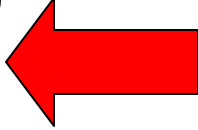
---

NOTE. Modified from McGowan JE Jr.

**You can act upon these parameters by a rational policy of use !**

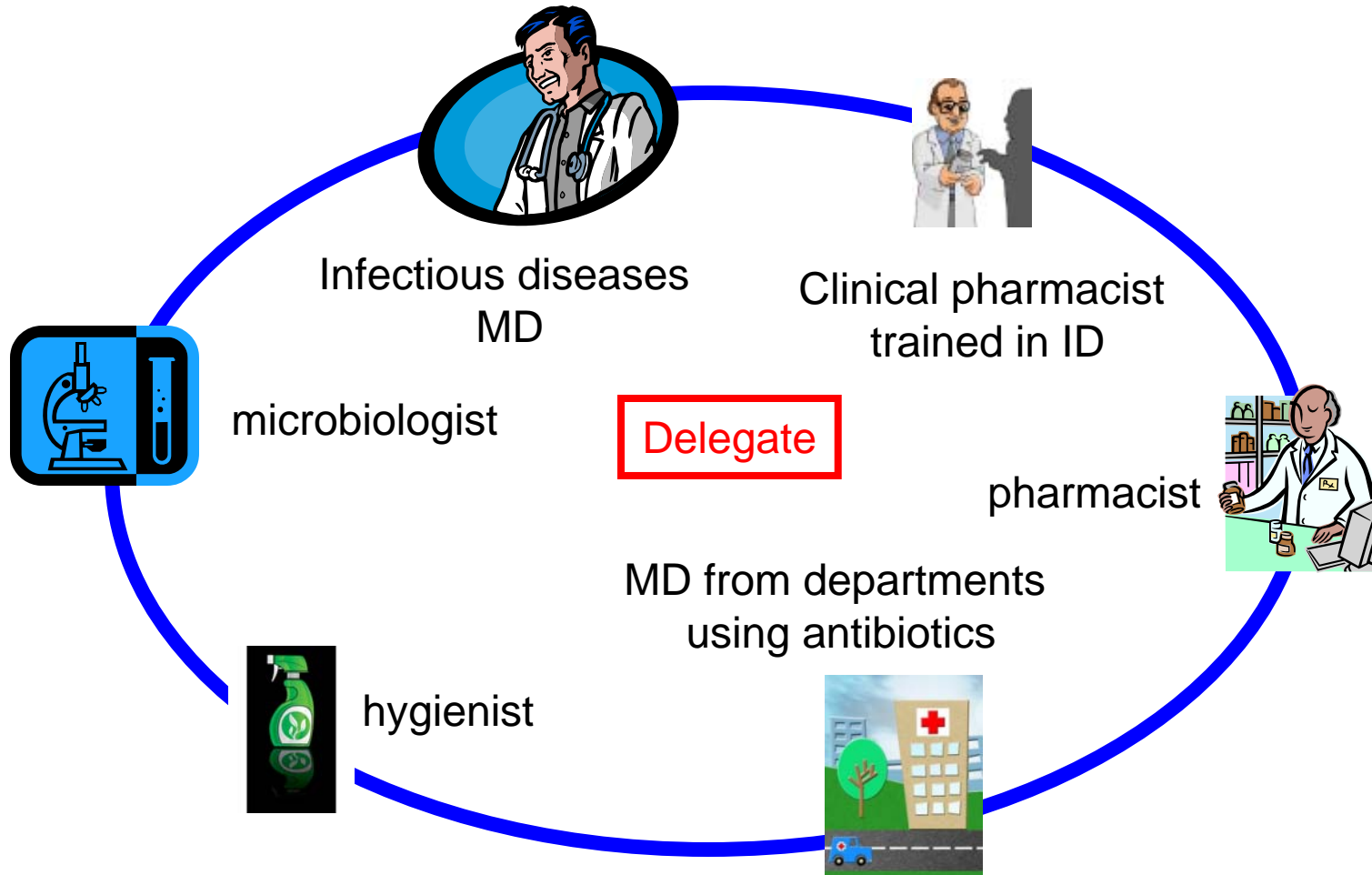
*Shlaes et al. Infect Control Hosp Epidemiol. 1997 Apr;18(4):275-91*

# But what can we do ?

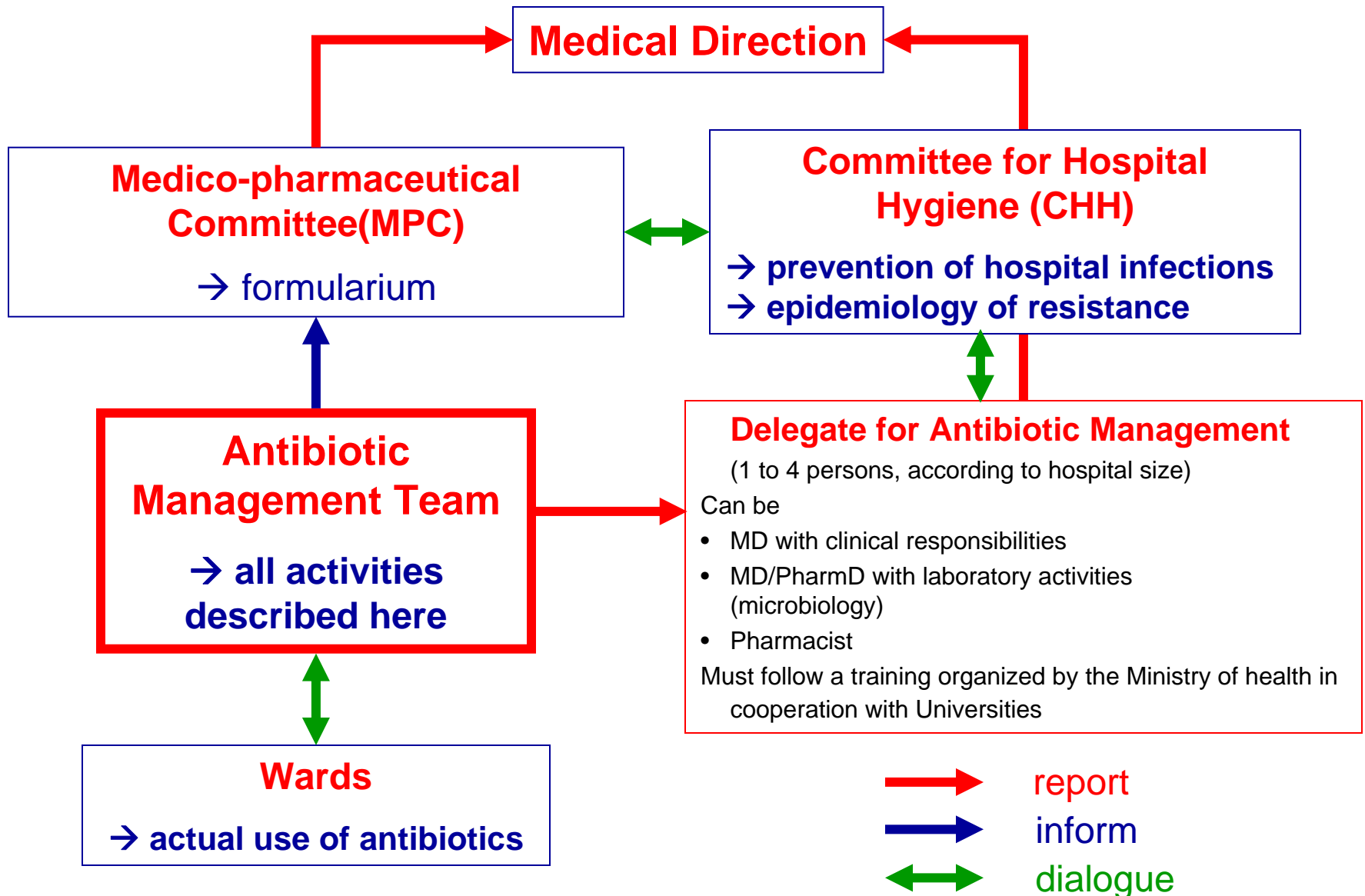
- Local
  - organism isolation (efficiency)
  - susceptibility pattern and reporting
  - **Antibiotic Management Team** 
  - Isolation and Hygiene
- Regional/National
  - resistance and antibiotic consumption data
  - setting up guidelines
  - coordination

# Antibiotic Management team

## Multidisciplinary team ...



# Position within the hospital organization



# Priority tasks

- **Mandatory interventions**

- Hospital formulary for antibiotics (with the MPC)

- **Required interventions**

- Guidelines (for the wards)
- Local epidemiology (in collaboration with the CHH)

- **Priority interventions**

- Evaluation of consumption (in collaboration with Pharmacy)
- Link between consumption and epidemiology
- Providing advice about antibiotic use (for all hospital)
- Limitation and control of antibiotic usage (in collab. with MPC)
- Staff education (all wards)
- Annual report to the "Belgian Antibiotic Policy Coordination Committee" (Ministry of Health)

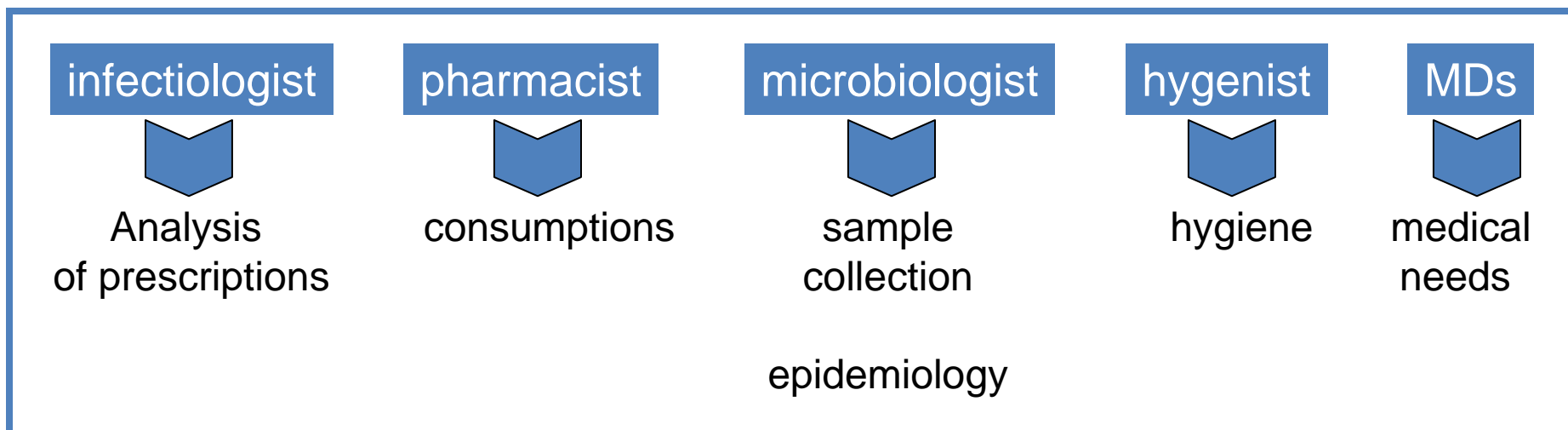
# *Financial support*

- Range: 10,000- 81,700 euro per hospital according to number of beds
- Annual budget: 3,609,208 euro  
(National Budget)  
→ mainly to cover the costs of hiring the **Delegates** of the Antibiotic Management Teams)

# How are new Antibiotic Management Teams set up ?

1. Determine human resources that are needed  
... and available

2. Describe the current situation



3. Establish the committee adapted to YOUR hospital



# *History project*

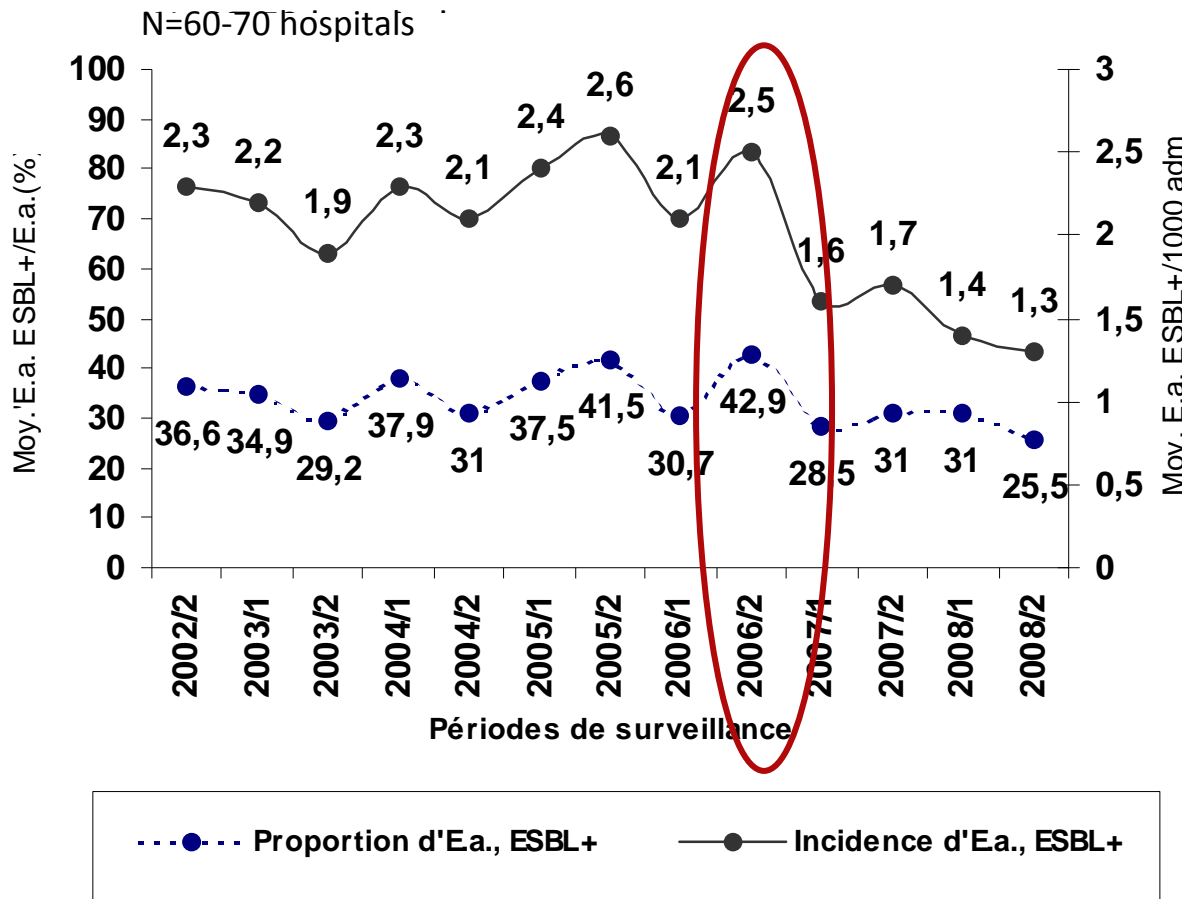
- October 2002 AMTs in 37 acute care hospitals  
(*Financing: Royal Decree 25 April 2002*)
- July 2006 AMTs in 61 acute care hospitals  
(*Financing: Royal Decree 10 November 2006*)
- July 2007 AMT in all acute care hospitals and chronic care hospitals with >150 beds  
(*Financing: Royal Decree 19 June 2007*)  
(*Tasks: Royal decree 12 February 2008*)

# Successes and Difficulties of the antibiotic management teams

- accepted as a reference in the hospital for
  - evaluation of consumption
  - prescription habits
  - detection of inappropriate use
  - reminding of guidelines

- Diffusion of information
- Communication
- Data availability
- unlinked softwares (laboratory vs. pharmacy)
- Heaviness of evaluation

# Surveillance of ESBL-producing *Enterobacter aerogenes* in Belgian hospitals



BAPCOC effect ?  
**(Implementation of the Antibiotic Management Teams)**

Hand hygiene  
 National campaigns ?

BICS guidelines for infection control of MRSA in hospitals ?

Decrease in proportion / incidence of ESBL+ *E. aerogenes* since 2006/2  
 No difference in incidence by hospital nbr of bed size  
 2,5 fold higher incidence in hospitals with DMS >9 days

ISP/WIV report 2008/2