

The national reference collection  
of nosocomial bloodstream  
infections

GOSPIZ-GDEPIH

# Aim of the collection

- To create a Belgian national collection of bacteria isolated from nosocomial bloodstream infections
- To create a collection that will serve as a reference collection for various kinds of surveillance studies

# Reasons to start the collection

- Many interesting surveillance studies are organised for a number of years and then discontinued (e.g. susceptibility testing of anaerobes, NPRS).
- Many studies have methodological flaws :
  - not all relevant antibiotics are investigated
  - collection of strains originating from a single or few hospitals and therefore biased

# Reasons to start the collection

- regular, repeated and representative surveillance studies are needed to provide the necessary information for an informed antibiotic policy
- There is a need for relevant, recent susceptibility data
  - to judge the introduction of new antibiotics
  - for a sustained analysis over the years of comparable collections of strains
  - to evaluate the effects of antibiotic use and changes in antibiotic policy.

# Practical organisation

- **Inclusion criteria for bacterial strains**
  - limited to nosocomial bloodstream isolates from patients hospitalised in Belgian acute care hospitals
  - starting point: surveillance protocol for nosocomial septicaemias of the NSIH
    - criteria for nosocomial septicaemia as in the NSIH protocol.

# Practical organisation

- **inclusion criteria for participating hospitals**
  - All hospitals that participate in the NSIH surveillance on nosocomial septicaemia can participate

# Practical organisation

- **collecting of strains and transport to central labs:**
  - NSIH septicaemia registration complemented with additional module
    - ask you to provide your data on antibiotic susceptibility
    - asks you to send the isolate to the central lab
      - Provides you with all necessary info regarding shipment
      - Gives you address of the central lab (UZ Gasthuisberg – Leuven)

# Practical organisation

- **central lab**

- plates isolates and checks for purity; in case of doubt, repeats identification and susceptibility testing
- Stores isolates in a - 80°C freezer.
- compiles database with data provided by the sender

# rules regarding the collection

- **Ownership**
  - GOSPIZ-GDEPIH becomes owner of the collection
  - GOSPIZ-GDEPIH has responsibility for continuity of the collection, collection and storing of strains and data
  - collection contains all strains collected during five years preceding the current year
  - Older strains will be destroyed unless GOSPIZ-GDEPIH specifically requests to continue storing

# rules regarding the collection

- **Use of the collection**

- Every year, GOSPIZ-GDEPIH with WIV-ISP will publish a detailed report of strains and susceptibilities and studies performed with strains from collection
  - participating labs receive report of their own results in comparison to the national results
- collection made accessible for surveillance studies (susceptibility testing, typing, virulence typing, or others)
  - surveillance studies may be scientific, clinical, aimed at improving hospital hygiene or marketing oriented (eg data for introduction new antibiotics, or activity of existing antibiotics)

# rules regarding the collection

- **Access to the collection**
  - Decided by GOSPIZ-GDEPIH in accordance with established rules.
    - demand for strains from the collection has to be in the context of a specific study; protocol of this study is submitted to the board of GOSPIZ-GDEPIH.
    - labs that participate in the collection are preferred

# rules regarding the collection

- **Financial implications for withdrawal of strains from the collection**
  - non-sponsored studies or studies sponsored by or performed by supporting firms
    - retrieval cost of 5 euro per strain
  - studies sponsored by or performed by non-supporting firms
    - overhead of 2500 euro plus 10 euro retrieval cost per strain

# Funding of the collection

Options:

- 1) funding by government (BAPCOP)
- 2) funding by users (pharmaceutical companies)
  - - yearly support (5000 euro)
    - guarantees access to database for any kind of surveillance study (does not include the cost of the study itself)