

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 – please register !!

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)