

Electronic surveillance of antimicrobial resistance (AMR) and healthcare associated infections (HAIs)

ECDC, Stockholm, 18-19 September 2019

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Surveillance based on electronic records, automated surveillance

Machine-to-machine (M2M) communication



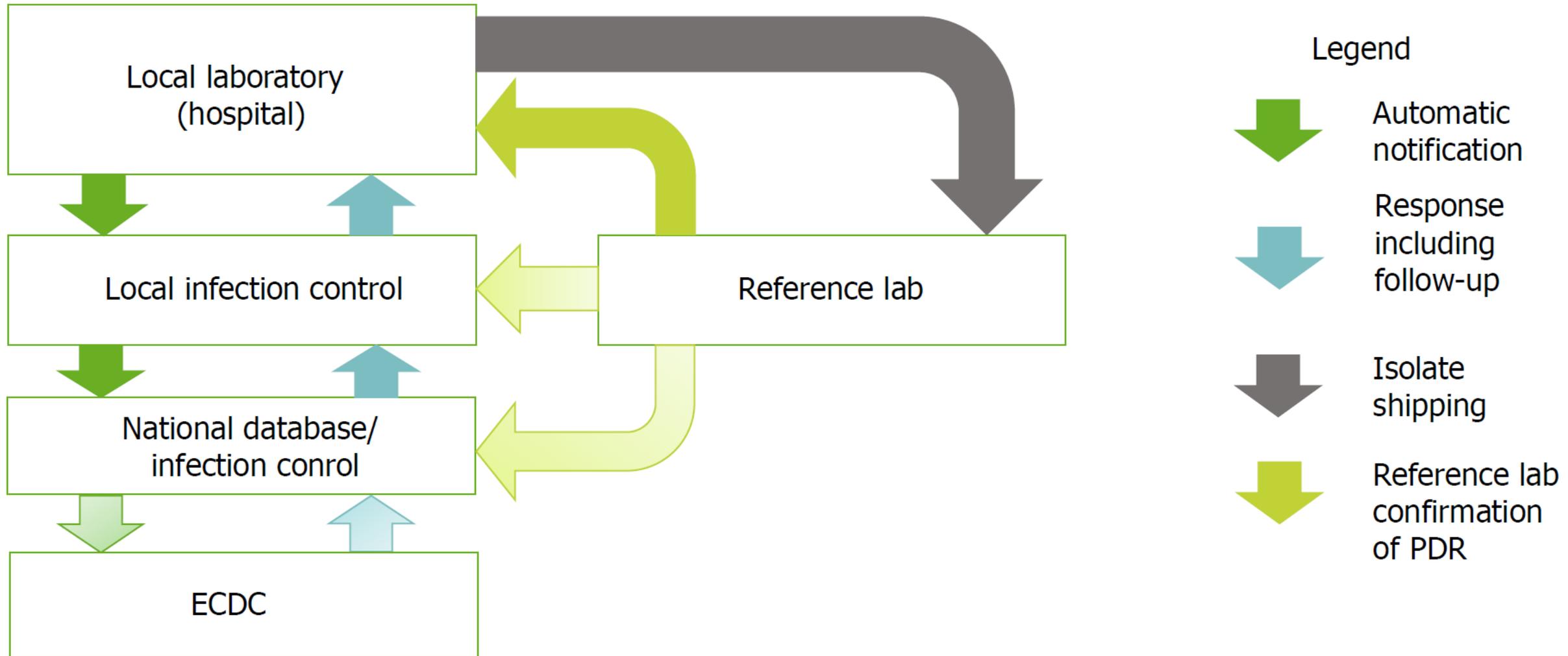
Objectives of the ‘simple’ and ‘complex’ PDR pilot surveillance protocol

Tommi KÄRKI and colleagues, ECDC
Expert Meeting on electronic surveillance of antimicrobial resistance and healthcare-associated infections, 18-19 September 2019

'Simple' vs 'complex' protocol options

- **Simple system approach – laboratory-based surveillance:**
 - to support development of current systems, without breaking existing structures;
 - to allow tangible development for less advanced systems;
- **Complex system approach – data linkage:**
 - to support development of 'advanced' systems;
 - to allow directing the discussion of future AMR and HAI surveillance towards larger perspective of eHealth and technological transformation;
- **Simple-complex compatibility:**
 - Simple system should remain a subset of the complex system.

PDR surveillance data flow - idealized



Aim of the project

To analyze data in order to facilitate Knowledge-based-decision-making

Specific objectives

- Improve prediction and control
- Establish data flows to ECDC
- Understand current obstacles
- Identify opportunities



AUTOMATED AMR AND HAI SURVEILLANCE IN DENMARK

Expert meeting on electronic surveillance of AMR and HAI

18-19 September 2019

Sophie Gubbels



- MiBa forms the basis of automated surveillance in Denmark
- Vision for MiBa

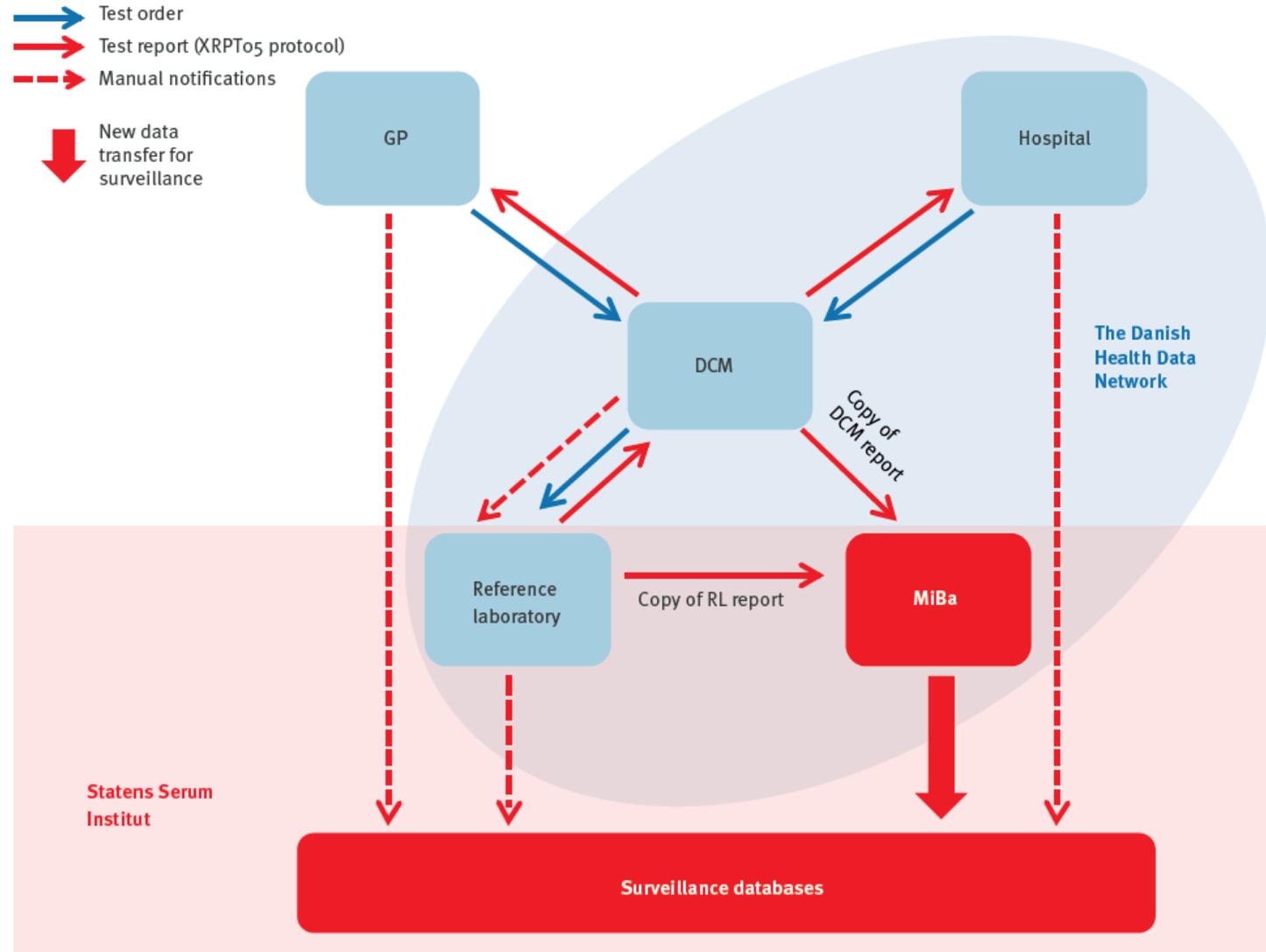
MiBa

- Provide nationwide access for healthcare professionals to microbiological test results for patients in their care
- National surveillance for infectious diseases and microorganisms
- Data source for research and quality assessment.
- Automatic transfer of data to other databases monitoring e.g. hospital infections and antibiotic resistance

automatic, flexible and real time

FIGURE 1

Electronic communication of microbiological laboratory test orders and reports, Denmark

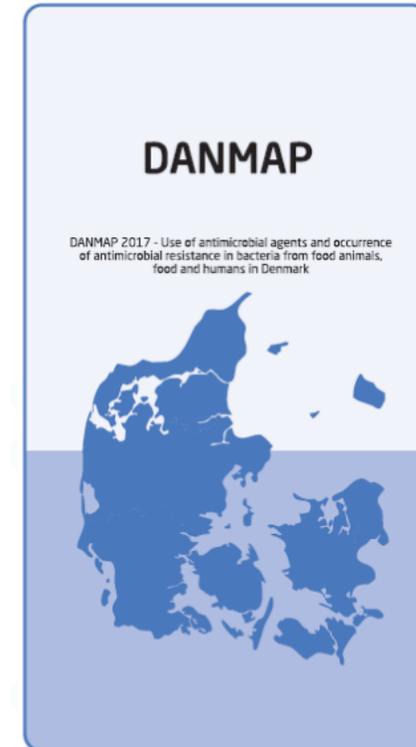


DCM: department of clinical microbiology; GP: general practitioner; MiBa: the Danish Microbiology Database; RL: Reference laboratory; XRPTo5: MedCom XRPTo5 xml data transfer protocol.

- ❖ Since 1995: “The Danish Integrated Antimicrobial Resistance Monitoring and Research Programme” – DANMAP

- ❖ In 2019 DANMAP contains for the first time AMR results directly from MiBa (currently in press):
 - Blood isolates
 - Enterococcus faecalis
 - Enterococcus faecium
 - Escherichia coli
 - Klebsiella pneumoniae
 - Pseudomonas aeruginosa
 - Acinetobacter sp

 - Urine isolates (hospitals, GP’s)
 - Escherichia coli
 - Klebsiella pneumoniae



Täna tähelepanu eest!

