

A smiling nurse in a white uniform stands in a hospital hallway. She is wearing a white short-sleeved button-down shirt and white pants. Her name tag is visible. The hallway is well-lit with recessed ceiling lights. In the background, there are glass-walled rooms and a window with a potted plant. Another person is visible in the distance.

Successful infection control at a Danish hospital department

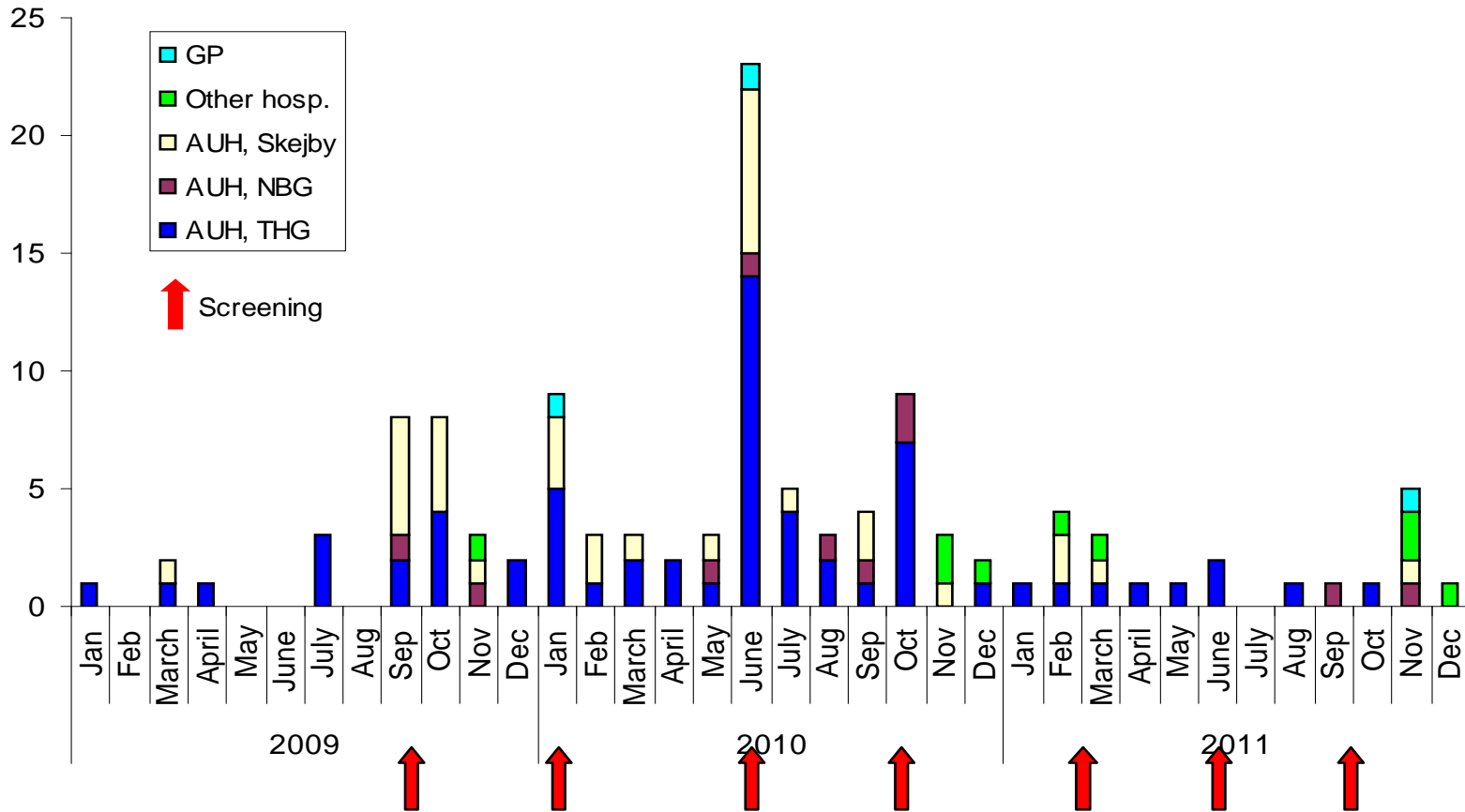
Ulla Kehlet
Infection control Nurse, MCN

No action today - no cure tomorrow

Ref.: WHO Director-General Dr. Margaret Chan april 2011

- Multi-drug-resistant-organisms are a threat to the health of human beings all over the world
- In Denmark, we also have MDRO
- Isolation of patients with MDRO is recommended but many hospitals lack single room facilities
- How can we prevent hospital acquired infections with MDRO?

Incidence of Vancomycin resistant Enterococcus in hospitals served by the Department of Clinical Microbiology



Strategy to prevent an outbreak at the Department of Hematology

Screening of all in-patients every third month

- Surveillance cultures - swabs from the perineum

Guidelines for infection control

- Isolation in single room
- Use of barrier precautions during care

Isolation

- Single room with separate toilet/bathroom facilities
- Patients with an ongoing infection caused by VRE
- Patients colonized with VRE (carriers)
- During the present admission
- During re-admission within 14 days

Barrier precautions

During care:

- Gloves
- Apron
- Hand hygiene

Cleaning procedures:

- General cleaning procedures supplemented with alcohol disinfection (70-85 % ethanol) on surface of contact

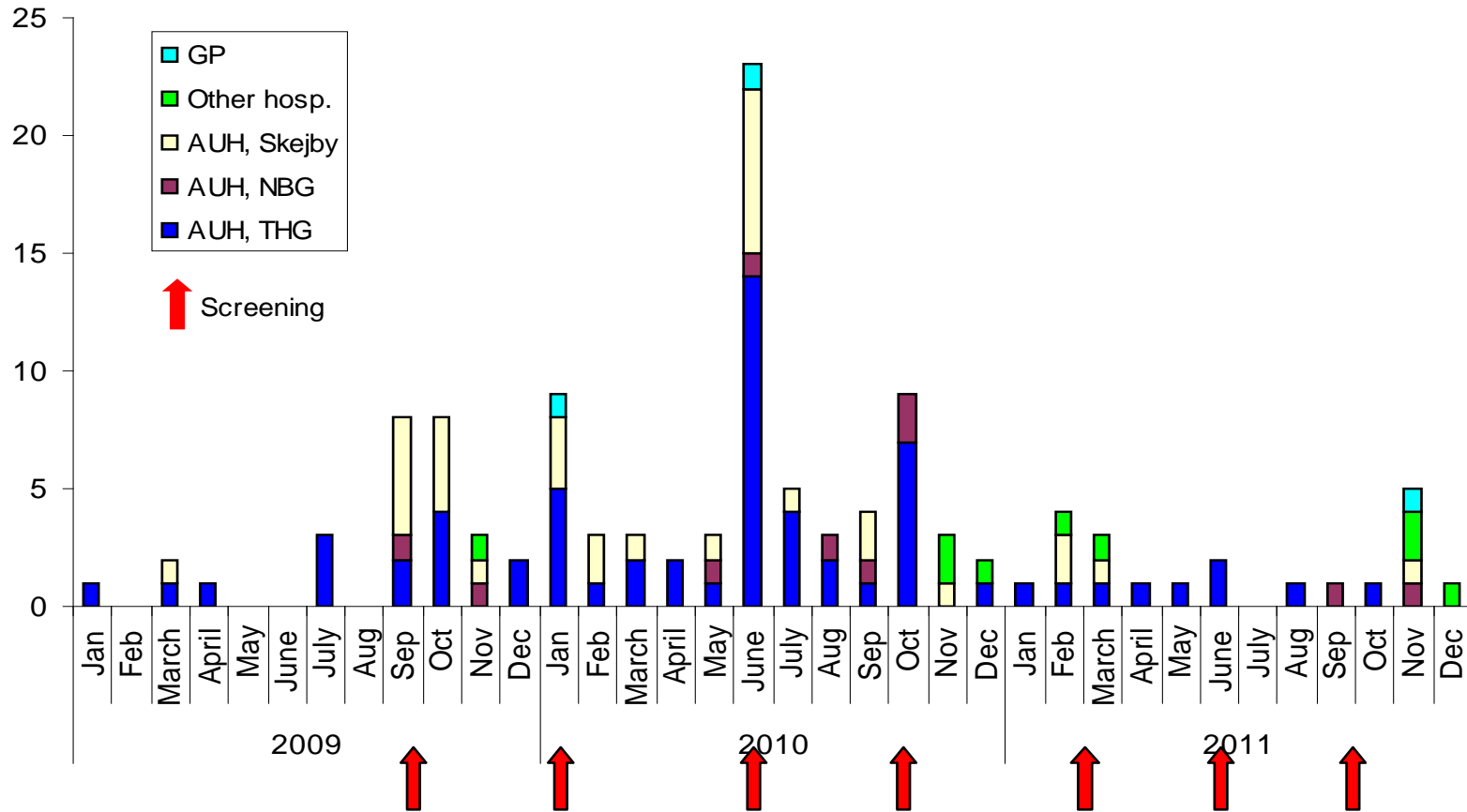
Outbreak

- In June 2010 VRE is endemic
- VRE present in the environment
- Need for renovation in the out-patient clinic
- Need for renovation in the hotel rooms
- New rigorous steps

New rigorous steps

- Continue isolation precautions for VRE positive patients
 - Increasing cleaning procedures in the toilet/bathrooms
 - Use of toilets must activate disinfection procedures performed by all patients
 - Increased hand-hygiene instructions to all patients
-
- The cleaning procedures were followed also at the out-patient clinic
 - Patient hotel renovated six rooms

Success?



Highest level of:

Overall precautions:

- Always isolation of patients with diarrhea – single room with toilet/bathroom

Barrier precautions:

- Apron, gloves and performance of hand hygiene when touching **every** patient, or the patient surroundings or the most potential sources of infections (secretions and excretions)

Education:

- Instructions to all personnel and patients

Disinfection:

- Three times a day cleaning followed by a disinfection with chlorine of toilets and bathrooms

Study results

31 procedures with potential risks were observed:

- 96 % used gloves as recommended
- 76 % used an apron as recommended

Study results

- 86 % performed hand disinfection before touching a patient and before any clean procedure
- 80 % performed hand disinfection after touching a patient and after any unclean procedure

Face today's challenges

- Several patients could be carriers of MDRO
- National guidelines recommend isolation of patients with MDRO
- Many departments do not have isolation facilities
- The departments are responsible for the patient during the admission
- Is the patient at risk for getting a hospital acquired infection?

Success?

