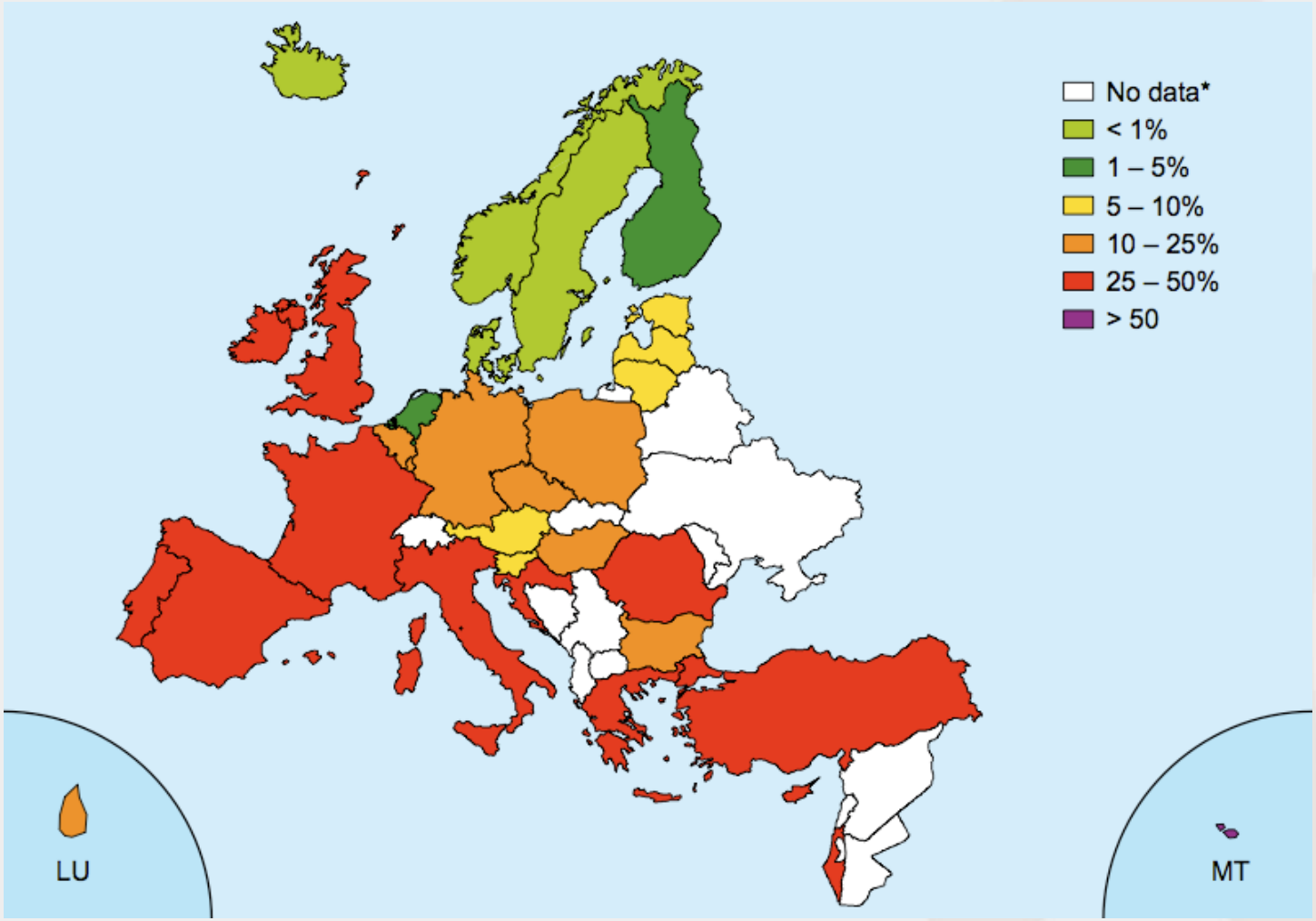
MRSA policy in the Netherlands

200110 Heinsberg

Staphylococcus aureus prevalence 2007 (EARSS)



Outline of the presentation

Basic principles:

- Antibiotic policy,
- Infection control policy,

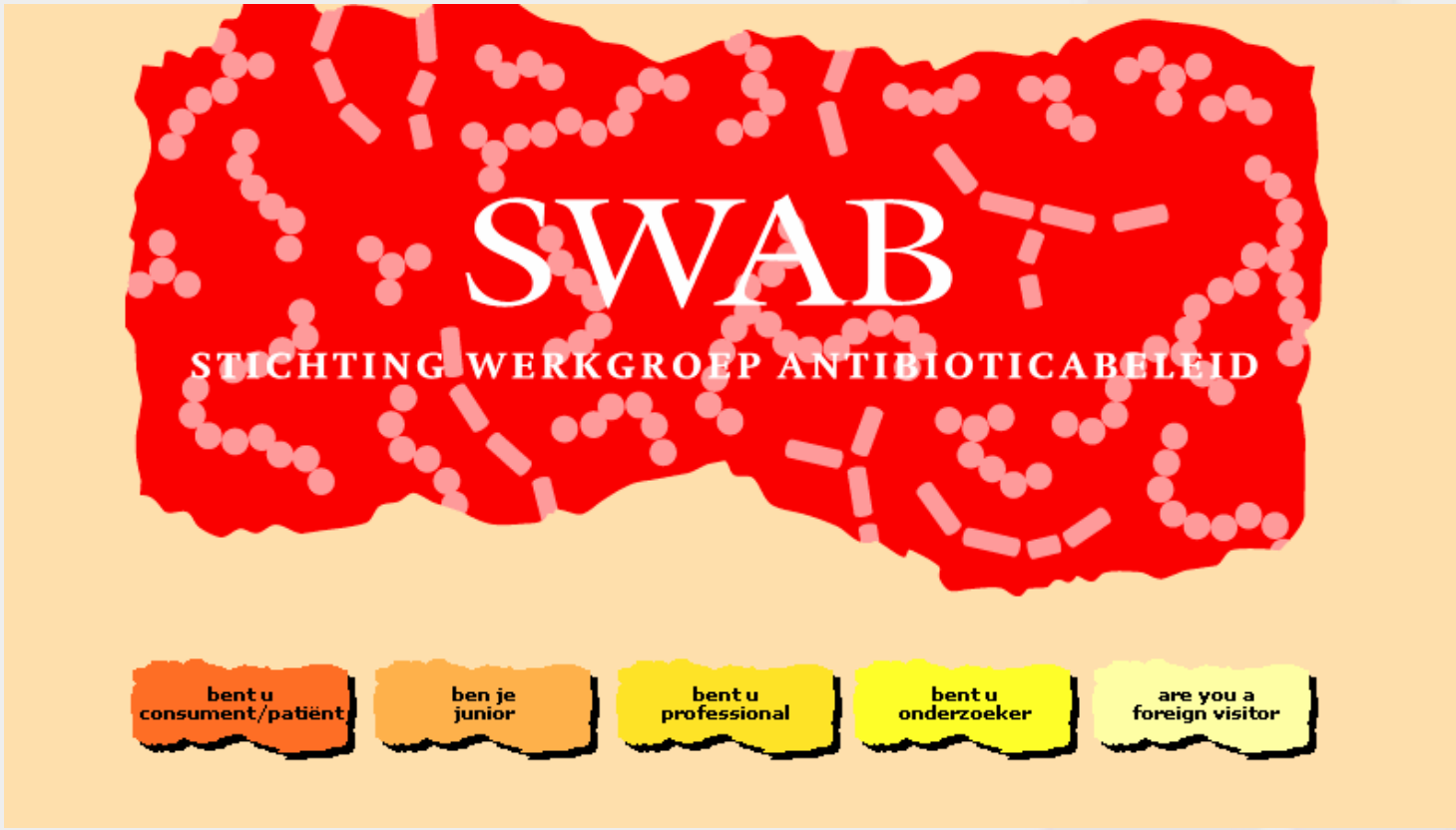
Specific aspects of MRSA

- General
- Nursing homes

- **Antibiotic policy**:

  SWAB: **S**tichting **W**erkgroep **A**ntibiotica **B**eleid
- **Infection control policy:**

  WIP:**W**erkgroep **I**nfectie **P**reventie


SWAB
STICHTING WERKGROEP ANTIBIOTICABELEID
bent u consument/patiënt
ben je junior
bent u professional
bent u onderzoeker
are you a foreign visitor

SWAB's mission

SWAB aims to control and, where possible, reverse the trend toward the continued emergence of antimicrobial resistance through promoting the prudent use of these agents, thus contributing to the appropriate care of patients now and in the future

29 oktober 1996

www.swab.nl

SWAB

- 1995: initiative of 3 scientific societies NVMM, NVI en NVZA
- 1996: non-profit organisation
- Financial support of the Government
- Working groups on antibiotic use and antibiotic resistance surveillance

SWAB's surveillance systems

Antibiotic use

- SWAB working group on antimicrobial use
- Foundation for Pharmaceutical statistics (SFK)
- Netherlands Institute for Health Services Research (NIVEL)

Antibiotic resistance

- SWAB working group on antimicrobial resistance
- Netherlands Institute for Health Services Research (NIVEL)
- University Hospital Maastricht
- National Institute for Public Health and the Environment (RIVM)

SWAB activities 1

- Results of antibiotic use and antibiotic resistance are yearly published in Nethmap.
- Yearly symposium of SWAB with presentation of SWAB affiliated projects

SWAB-activities 2

- National antibiotic guidelines

  adapted to the local situation in each hospital
- Specific guidelines on several subjects, i.e. pneumoniae, bloodstream infections, central nervous infections
- Post graduate courses

Antibiotic Policy?

Antibiotics

The more you use it

the more you lose it

Infection control policy

An ounce of prevention
is worth a pound of cure

WIP

- Dutch Working party on Infection Prevention
- 1981 4 professional societies: NVMM, NVIZ, NVM, HIP.

WIP

- **Aim:** to develop and publish up-to- date, scientifically based guidelines on infection prevention in *hospitals*, *nursing homes*, institutions for the handicapped, dental care and *homecare*.
- Guidelines are the professional standard,
- Standard for the Public Health Inspectorate

MRSA guidelines WIP

- Hospital
- Long term care facilities(=nursing homes)
- Homes for the elderly

MRSA

methicillin resistant S. aureus

Search and Destroy Policy

Search and Destroy

- Specifically *searching* for MRSA
- *Optimising the detection* of MRSA

and

- Implementation of *isolation measures*

Search and Destroy
Hospital

Actively searching for MRSA:

* Colonization and Infection
* Four risk categories for patients and health care workers

Search and Destroy
Hospital

Risk categories:

1. Proven MRSA carrier
2. *High risk* of being a carrier
3. *Moderately elevated risk* of being a carrier
4. *No elevated risk* of being a carrier

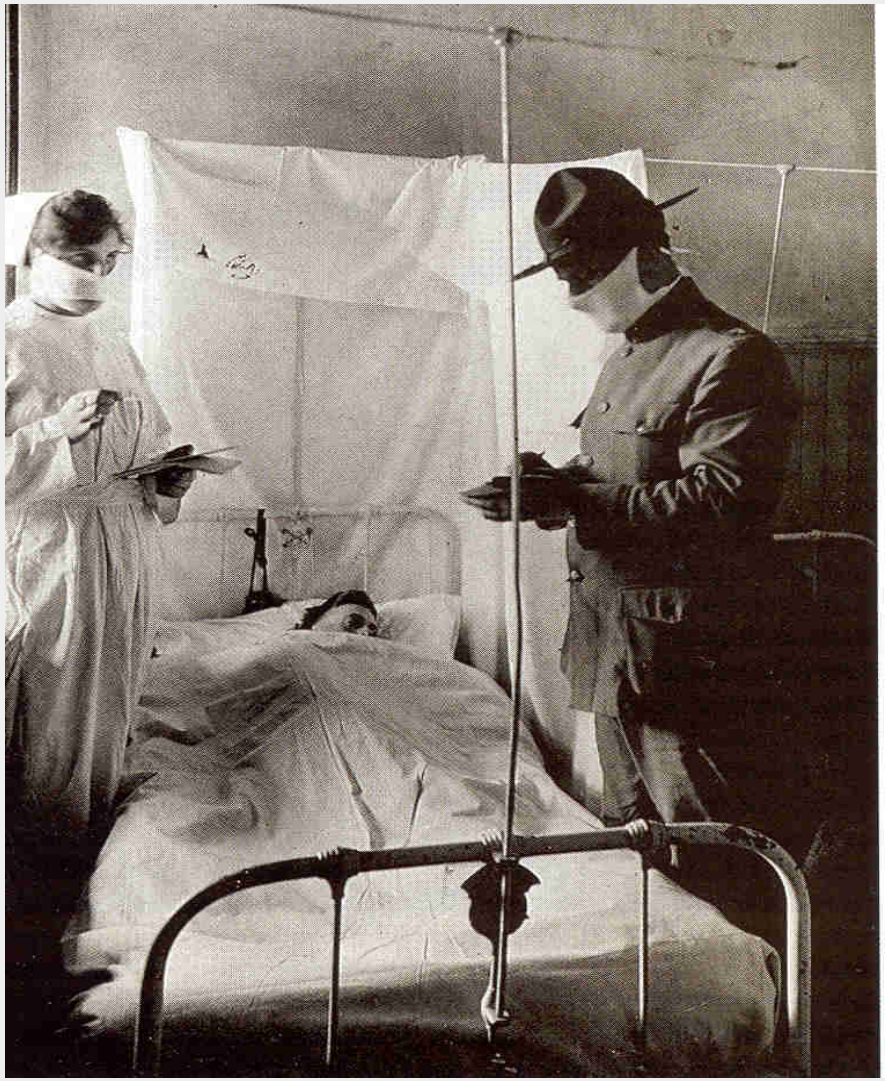
High risk of being MRSA carrier

- less than 2 months ago hospitalization abroad for more than 24 hours
- hospitalization with surgery, drain or catheter insertion, intubation, skin lesions, abscesses or furuncles
- unprotected contact with a MRSA positive patient
- care taken MRSA positive patients of which control results are not yet available.

Measures Category 1 and 2

- Strict isolation
- Protective clothing(cap, gloves, coat, mask)
- “own” experienced nursing team
- Contact list of health care workers who have contact with MRSA positive patient (control for MRSA colonization)
- For cat. 2: measures can be lifted in case the cultures on MRSA are negative.

Isolation measures



MRSA anno 2000 …

- MRSA not only in hospitals but also in the community: community associated MRSA

  1993: Western Australia

  1999: Minnesota

- MRSA from animals: pigs, poultry,…

Risk Factor for MRSA?

MRSA guidelines
LTCF

- Admittance from foreign health care institution with risk factors,
- Risk factors must be present on admittance,
- Single room, door closed.

- MRSA positive
- Single room, door closed.

Questions?

Question 1

- Rules for patients admitted to a hospital in the Netherlands:

  No specific rules unless

  - the patient comes from abroad with risk factors,

  - from another ward of a hospital with an MRSA problem

  - the patient is MRSA positive.

  Then: isolation and screening.

Question 1

- Screening:

  swab of nose, throat, perineum, wounds,

  in case of urinary catheter also urine.

- Isolation:

  - Single room with ante room, door closed: MRSA positive patient

  - Possible MRSA positive: single room, door closed

  - Cohort nursing (only when same resistant mo)

  - Duration: depends on the culture results

MRSA positive patient

- Decolonization:

  - mupirocin 5 days + washing with chlorhexidine

  - 2 days after stop mupirocin control swabs,

  - MRSA negative: ok; but weekly control during admittance (or 3 times negative)and in infosystem of the infection control nurse (readmittance!)

  - MRSA positive: second mupirocin therapy,

  - if control still positive: systemic therapy in close cooperation with the infectious disease specialist(SWAB guideline)

Question 2

- MRSA positive patient in a nursing home:
  - may take part in common activities,
  - may go to the dining room,

    but
  - in case of wounds: protection,
  - wound care: door closed, use protective clothing.

Question 3

- **Information for the GP or nursing home:**

  - on discharge the patient receive from the hospital(infection control nurse) a letter regarding his/ her MRSA status.

  - the infection control nurse will inform the GP/ nursing home regardign teh MRSA status,

  - MRSA positive patient are “marked”in the surveillance system of the infection control nurses.

How to control the MRSA problem?

- Rapid identification (within a few hours) of a possible MRSA: *24 hours, 7 days a week*
- Implementation of an optimal infection control policy (universal precautions and isolation facilities)

Close cooperation between professional groups in and between countries (cross border) is a prerequisite to control the problem of MRSA

CA MRSA Western Australia

- 425 CA MRSA
- Only resistant to beta-lactams and erythromycin
- 10 different MLST types
- SCCmec Type IVa
- Most pvl negative

O'Brien et al JCM 2004

Community-Acquired MRSA

- Definition:

  * absence of hospital-associated risk factors

  * susceptibility to most antibiotics other than beta-lactams

  * SCC mec type IV

  * pvl and other staphylococcal enterotoxins positive

CA MRSA definition problem

Absence of hospital associated risk factors:

- Known risk factors:

  recent hospitalization, surgery, outpatient visit, nursing home admission, antibiotic exposure,
- Chronic illness, iv drug use,
- Close contact with a person with risk factors for MRSA acquisition

de Sousa et al FEMS Imm. and Med.Micr. 2004

CA MRSA definition problem

- Absence of risk factors,
- CA: acquired or detection of colonization or infection in the community
- MRSA colonization can persist for months to years (skin lesions, chronic care facilities)
- MRSA acquisition (often) unrecognized unless clinical infection develop

de Sousa et al FEMS Imm and Med. Micr. 2004

CA MRSA definition

Classifying an MRSA isolate as a CA MRSA requires carefull evaluation of the risk factors.

de Sousa et al FEMS Imm. And Med. Micr. 2004