Strategies for combating MRSA in Norway

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Content

• The epidemiology of MRSA and antibiotic use in Norway

• A historical view on the development of antibiotics, the evolution of MRSA and infection control

• Norwegian strategies regarding prevention and control of MRSA infections

• Evidence and transferability
MRSA in Europe

The proportion of invasive S. aureus isolates resistant to oxacillin

The European Antimicrobial Resistance Surveillance System. EARSS Annual Report 2008
MRSA in Norway

Reported cases of MRSA infections and colonisations

The Norwegian Surveillance System of Communicable diseases (MSIS)
MRSA in Norway
Reported cases of MRSA infections and colonisations

The Norwegian Surveillance System of Communicable diseases (MSIS)
Consumption of antibiotics

Total outpatient antibiotic use in Europe, 2008
Consumption of antibiotics

Outpatient antibiotic use in France, UK and Norway in 2005, distributed by antibiotic classes

European Surveillance of Antimicrobial Consumption (ESAC)
Consumption of antibiotics

Total sales of antibiotics in Norway for systemic use in humans, 1980-2009

The Norwegian Wholesaler Database
The history of resistance in S. aureus

- Discovery of new classes of antibiotics
- Antibiotic use
- Resistance in S. aureus
- Infection control

Antibiotics:
- Sulfonamides
- Beta-lactams
- Aminoglycosides
- Cloramphenicol
- Tetracyclins
- Macrolides
- Glycopeptides
- Streptogramins
- Quinolones
- Lincosamides
- Trimetoprim
- Oxazolidinones
- Lipopeptides
- Beta-lactamase
- MRSA
- HA-MRSA
- CA-MRSA
- LA-MRSA

Infection control measures:
- Hand hygiene guidelines
- National surveillance of MRSA
- Surveillance of HCAIs
- MRSA guidelines
- Infection control program
- Action plans

Timeline:
1930s: Discovery of new classes of antibiotics
1940s: Antibiotic use
1950s: Resistance in S. aureus
1960s: Infection control
1970s: MRSA emergence
1980s: HA-MRSA
1990s: CA-MRSA
2000s: LA-MRSA
MRSA-guidelines
Control measures in health care

- Standard precautions
- Targeted screening
- Isolation / work restriction
- Decolonisation
- 12 month follow up
MRSA-guidelines
Communication and implementation

430 municipalities
- Chief med. off.
- GPs
- Health care inst.

54 hospitals
- Infection cont. pers.
- Health care pers.

NIPH
Prevention and control of MRSA
Evidence and transferability

Surveillance / standard precautions / prudent antibiotic use
Targeted screening
Isolation / work restriction
Decolonisation
12 month follow up
Thank you for your attention!