INFECTION CONTROL HISTORY IN THE NETHERLANDS

- 1660 Anthony van Leeuwenhoek (microscope)
- 1798 State Inspectorate of Health
- 1903 TB Control
- 1946 Antibiotic (only by prescription)
- 1959 First National I.C. Conference
- 1966 National Guidelines Infection Prevention
- 1973 VHIG: Dutch Association Infection Control Professionals
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RISK FACTORS FOR DEVELOPING MRSA INFECTIONS

- intensive care treatment
- three or more antibiotics
- pressure ulcers
- surgical wounds
- nasogastric and/or endotracheal tubes
- drains
- urinary or intravenous catheterization

EMERGENCE OF MRSA IN EUROPE

1961: UK
1965: France
1968: Denmark
1974: Ireland
1975: Switzerland
1978: Greece
1980: Belgium
1986: Netherlands
Proportion of MRSA isolations in participating countries in 2002 © EARSS

Legend
- <1%
- 1 - 5%
- 5 - 10%
- 10 - 25%
- 25 - 50%
- >50%

Hosted by Paul Webber  paul@webbertraining.com  www.webbertraining.com
MRSA in Holland – What is Behind the Success
Gertie van Knippenberg-Gordebeke
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SEARCH & DESTROY STRATEGY
Strict isolation
• in single room (!)
• handhygiene
• nose-face mask, cap, gown and gloves
Interventions postponed if possible
MRSA screening of patient and HCW
• nares and throat, perineum, wounds and urine (if catheter present)
List of contacts
• HCW and roommates screening if patient found MRSA positive

SEARCH & DESTROY IS TEAMWORK……
It only works when all players have the same goal.

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Proceeding when MRSA is detected

HCW’s excluded from contact MRSA patient:
• eczema
• found to be MRSA positive sent on sick leave till:
  • decolonisation
  • eradication/treatment
• MRSA carrier → out of work

DECOLONIZATION OF MRSA
• mupirocin in anterior nares (or perineum)
• 4% chlorhexidine or betadine body and hair washes/showering during consecutive days
• sometimes local betadine for skin breaks
• daily clean clothing
• daily clean bed linen
• wash/steam cushion, blanket or quilt

REASONS FOR FAILING (DECOLONISATION)
• patients incapable to follow instructions (at home)
• break in skin (ulcer, eczema, etc.)
• permanent carrier?
• resistance development
• wrong treatment regimen
• with regard to drug and duration
HCW’s (DOCTORS) PROBLEMS

- carelessness
- denial
- disbelief
- disorganisation
- fear (to be found positive)
- foolishness
- ignorance
- inattentive
- inconvenience for patient
- inexperienced
- negligent

a lot of “dis”, “uns” and “ins”

- ostrich policy
- rebelliousness
- regardless
- uneaquistance
- unconscious
- underestimating
- unfamiliar with protocols
- unnoticed
- unpleasant measures
- unskilled staff
- unwillingness

MRSA control = fire fighting

Just do it!

Go for it all the way …..

Or just let it burn!

EVERYTHING ELSE….

Just costs a lot of money,

might add to the fire,

and you still get hurt!

CONTROL OF EPIDEMIC MRSA

- strict isolation & cohorting
- weekly screening of contacts (ward patients & HCWs)
  - when patients were infected or colonised
  - all possible contacts during complete stay of source
- intra - and inter-institutional communication
- decolonization
- flagging of records MRSA positive patients
- screening & isolation at readmission

Nicolle et al, Infect Control Hosp Epidemiol 1999; 20:202

OUTBREAK

STRICT ISOLATION PRECAUTIONS

- Written procedures.
- Individual room with negative airpressure, or cohorting.
- Strict isolation of known carriers and transferred patients.
- Gloves when direct contact.
- Disposable gown.
- Mask: direct and indirect prevention.
- Cap: direct and indirect prevention.
- Removal of linen and waste as ‘contaminated’.
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**HAND HYGIENE**

risk of spread: 80%

- Hospital-wide programme
- Alcohol-based hand disinfection
- Supervision, surveillance and control guidelines
- Education and promotion
- Optimal facilities
- Medical and nursing staff must serve as a model

**DUST serves as a reservoir**

MRSA CLEAN TEAM

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Some HCW’s believe that travelling from patients around the globe may jeopardise our success of the S&D program?

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**Why fight MRSA?**

Infections with MRSA cause:
- longer hospital stay
- more costs
- live threatening infections
- high mortality
- avert the possibility to all available antibiotics
- higher use Vancomycin leads to increase prevalence VRE

MRSA will never be solved by introduction new antibiotics

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**Factors for success**

- Communication - local
  - national
- Interdisciplinary teamwork
- Control of cleaning/disinfection
- Rising awareness
- Education

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**MRSA IN THE NETHERLANDS**

- Low prevalence (<1%)
  - MRSA “exclusively” from foreign counties
  - no MRSA in community
- Search & destroy strategy
- Changing epidemiology 1998
  - “Dutch source” increasing prevalence
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