MRSA Screening and Decolonisation

UK Experience

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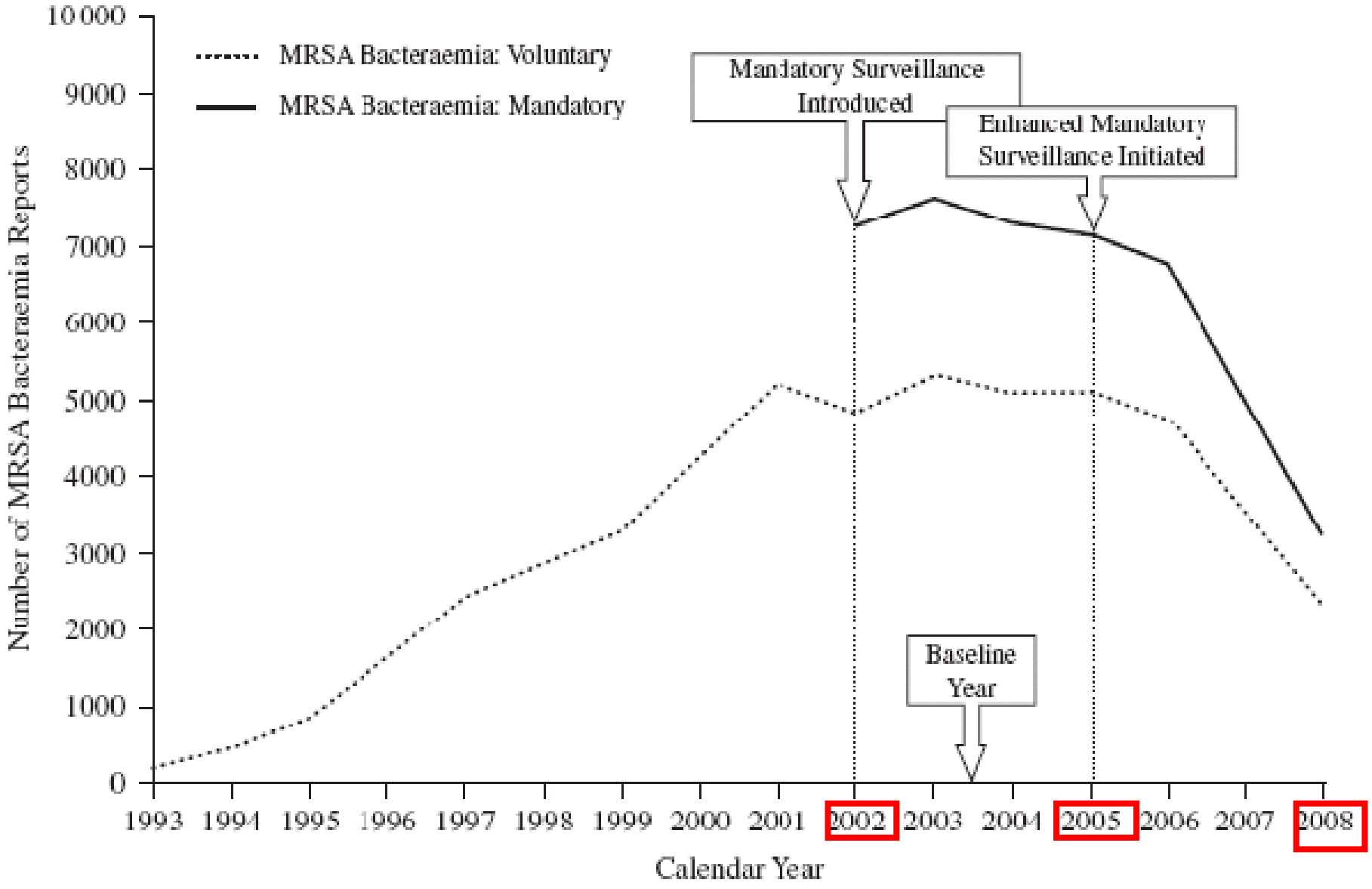
MRSA bacteraemia reports : England 1993–2008



- "microbiological screening must include all elective admissions to an acute trust irrespective of length of stay (but excluding a few patient categories as listed below)....MRSA colonised or infected patients should have effective decontamination and inpatients must be promptly identified and nursed in an appropriate isolation facility eg a side room or cohort bay."

Source:
DH *Screening for MRSA colonisation – a strategy for NHS Trusts: a summary of best practice* (July 2008 and DH Gateway Refs 10324 and 11123)
East of England Strategic Health Authority Operational Guidance (2008)

MRSA screening in UK

- On selected patients/areas based upon local risk assessment
- Those at high risk for MRSA carriage on admission

  (exception: direct isolation with no plan for clearance)
- Screen before elective admission
- Regular (e.g. weekly) screening of all patients on high-risk units
- At least 3 screens at weekly intervals before considered to be at low risk
- Subjected to regular audit & review, made available to management

Source: Guidelines for the control and prevention of MRSA in healthcare facilities – JHI 2006

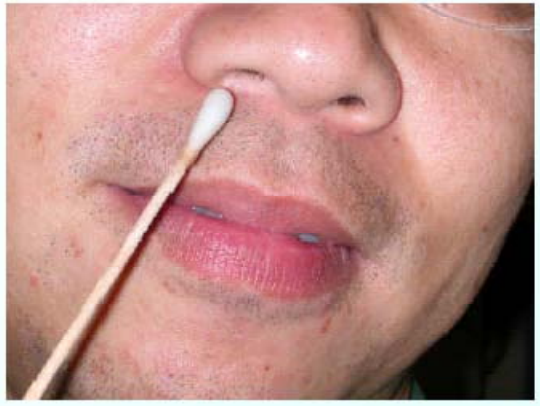
Exclusions for screening

- Minor dermatological procedures
- Day case
  - Ophthalmology / dental / endoscopy / colonoscopy / sigmoidoscopy / radiological procedures
  - Hysteroscopy / termination of pregnancy/
- Maternity/obstetrics (except elective caesareans and any high risk cases)
- Children/paediatrics (unless in a high risk group)
- Repeat attenders (not every admission)

Sites to be screened

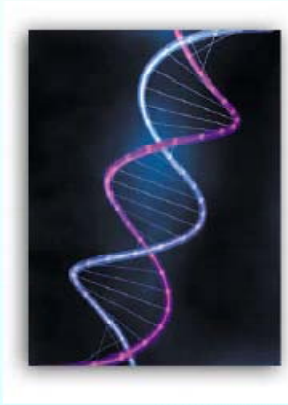
- Multi-site MRSA screening swabs
  - Nose, throat and perineum / groin (plus, umbilicus of neonates)
  - Any wounds, ulcers, pressure sores and intravenous or dialysis access sites +/- catheter urine (CSU)
  - The sites should be swabbed using separate swabs

MRSA screening



Conventional culture

Take days



Molecular testing

Take hours

MRSA decolonization therapy (5-7 days)

- Usually commenced immediately to eradicate the organism or, at least, reduce the patient's load of MRSA, to reduce the risk of transmission
- If acute MRSA infection is present, start decolonization therapy only after:
  1. Completion of antimicrobial therapy and
  2. Removal of infected source if present , e.g. indwelling catheters (urinary, vascular), tracheostomy tubes, implants or other foreign devices

MRSA decolonization

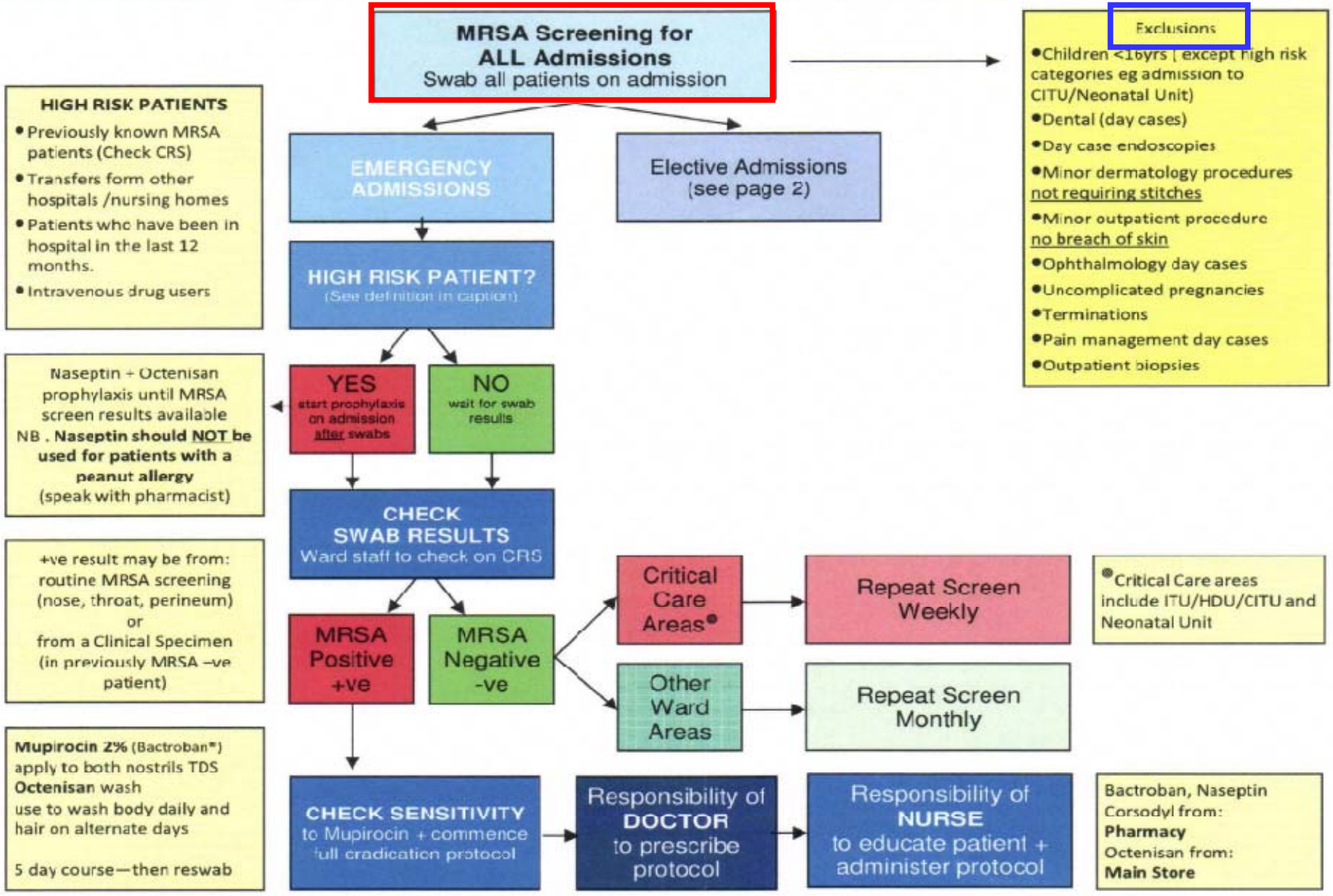
- Around 50-60% effective for long term clearance
- Normally only two attempts of decolonisation to be undertaken to prevent risk of resistance
- Beware of skin irritation. The use of emollients may be useful.
- Bed linen, towels and night wear should be changed daily throughout the treatment period
- Repeat MRSA screening swabs 48 hours after completion of treatment

Decolonization

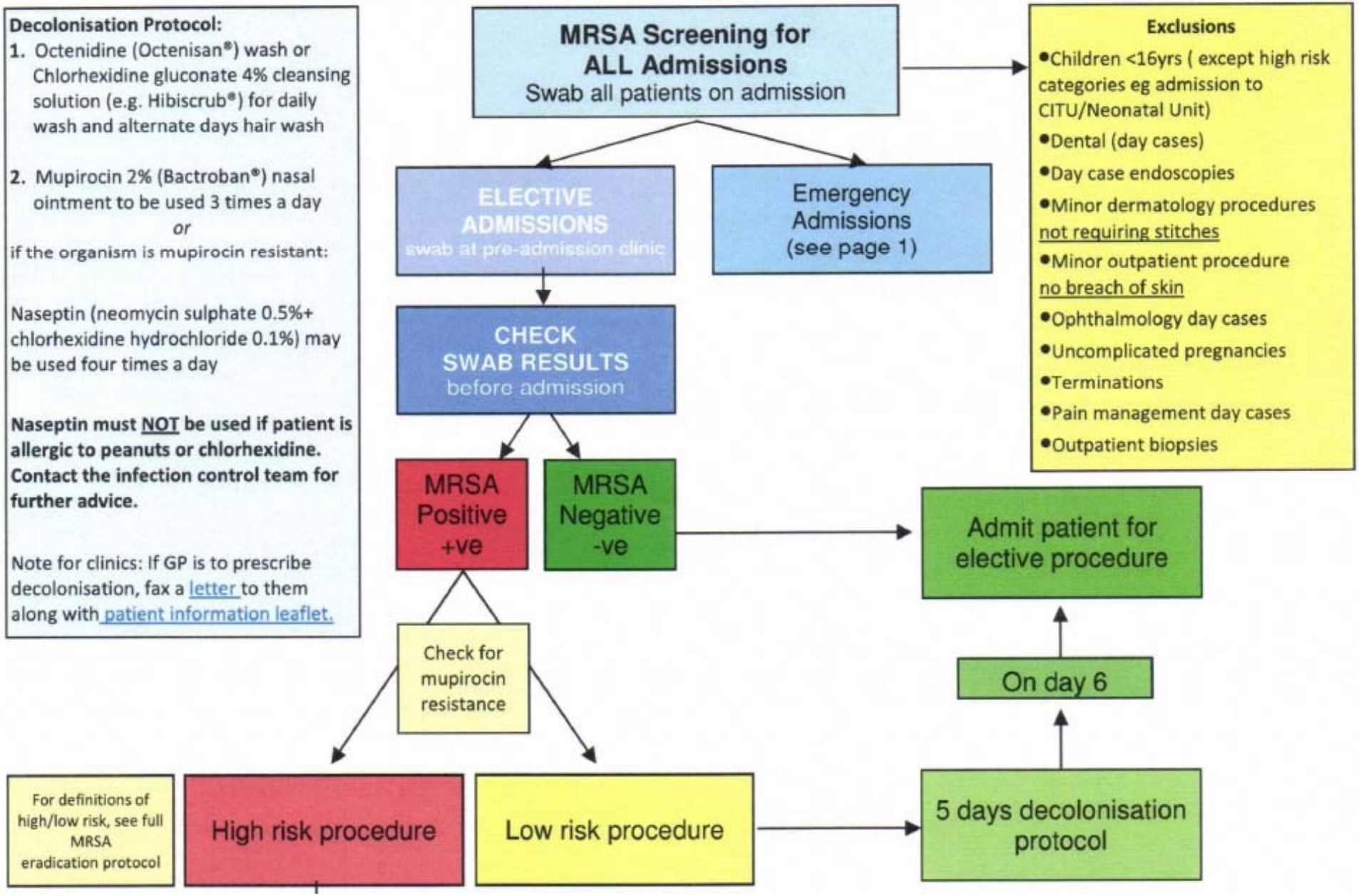
- Nasal decolonization (mupirocin 2%)
  - Taste mupirocin at the back of the throat after application
  - Not for >2 courses (risk of resistance)
- Skin decolonization
  - 4% chlorhexidine body wash/shampoo, 7.5% povidone iodine or 2% triclosan
- Systemic treatment
  - In conjunction with nasal mupirocin and skin decolonization
  - Seek advice from microbiologist, appropriate monitoring [e.g. LFTs], restricted to 1 course

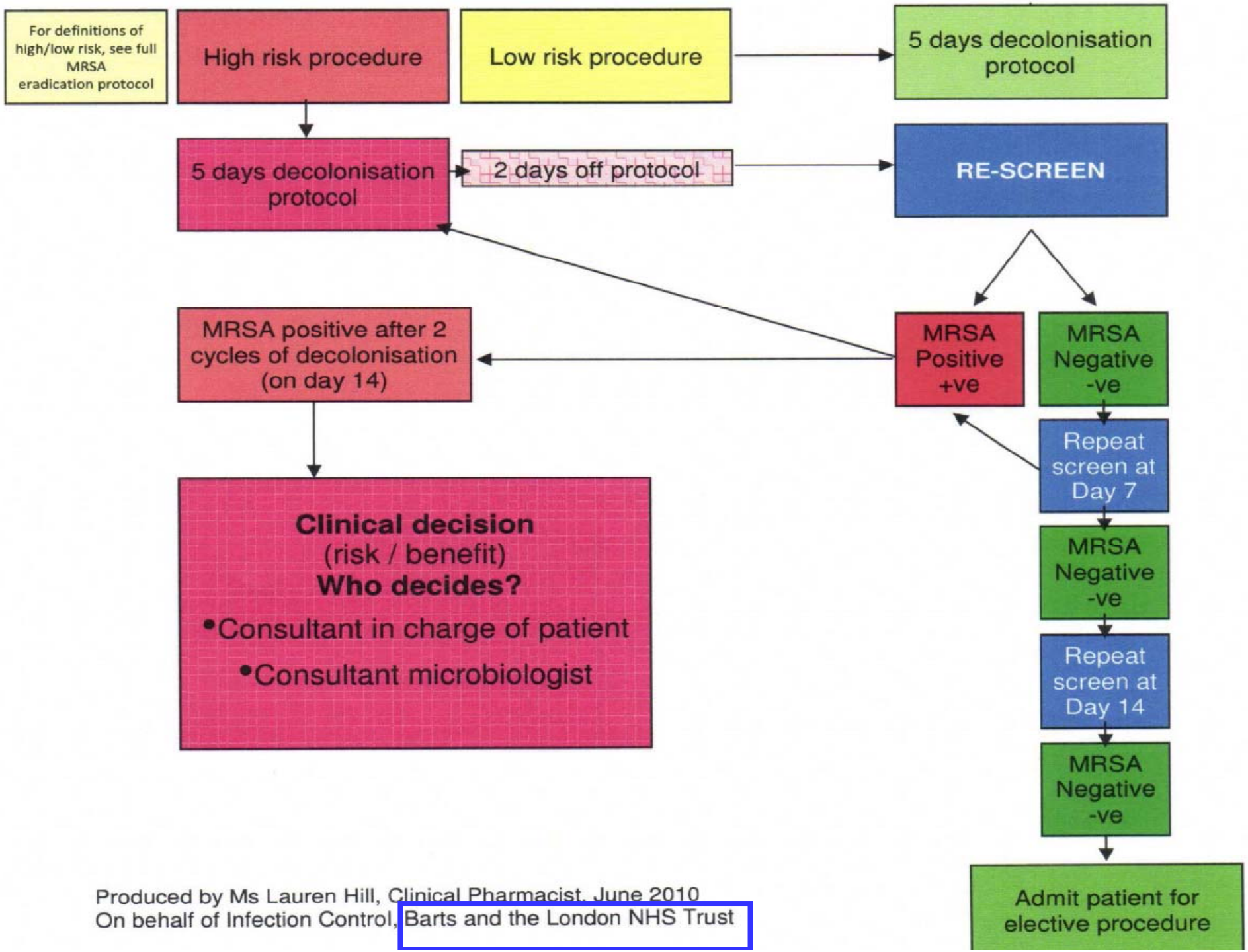
Source: Guidelines for the control and prevention of MRSA in healthcare facilities – JHI 2006

MRSA Screening and Eradication Protocol For Emergency Patients



MRSA Screening and Eradication Protocol For Elective Patients





Produced by Ms Lauren Hill, Clinical Pharmacist, June 2010
On behalf of Infection Control, Barts and the London NHS Trust

Summary of MRSA control strategies in UK

- Commitment from government & hospital management
- Target for action (Number of HAI MRSA B'emia)
- Additional resources
- Appoint director for prevention and control of infection
- Attention to environmental hygiene
- Infection control dash reports, regular audit meetings attended by all dept heads and management
- Hand hygiene audit (target at 95%)
- RCA & action plans for MRSA B'emia cases
- Financial penalty, hospital pull down or re-organisation

Thank You