

MRSA: National developments, Progress, Challenges and Targets

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The MRSA challenge - 2007

■ Bacteraemia - annual

– 2001/2 7291
– 2002/3 7426
– 2003/4 7700
– 2004/5 7212
– 2005/6 7097

-quarterly

(Q Av) 1823
(Q Av) 1856
(Q Av) 1925
(Q Av) 1808
(Q Av) 1773

– 2006/7 6381

Q1 1741
Q2 1651
Q3 1542
Q4 1447

– 2007/8

Q1 1303

Responsibility for HCAI

■ Clinicians

- ***Safe patient care***
- Diagnosis
- Treatment
- Prevention
- Control

■ Board/CEX/DIPC

- Corporate environment
- Make it happen

■ Government/DH

- Set standards
- Ensure priority
- Monitor outcome
- ***Legislation***
- ***Performance management***

Reducing HCAI....

Change the mindset

■ From:

- 1) create a system to deliver specialist clinical care
- 2) take measures to prevent infection

■ To:

- 1) create a safe environment for patient care
- 2) deliver specialist clinical care within that environment

Getting Ahead of the Curve - 2002

Priorities identified

■ HCAI

- bacteraemia (MRSA, GRE)
- *C. difficile* associated diarrhoea
- surgical site infection

■ Tuberculosis

■ Blood-borne & sexually transmitted viruses (and others!)

■ Antimicrobial resistance

And then.....

POLITICS

(and the media hype)

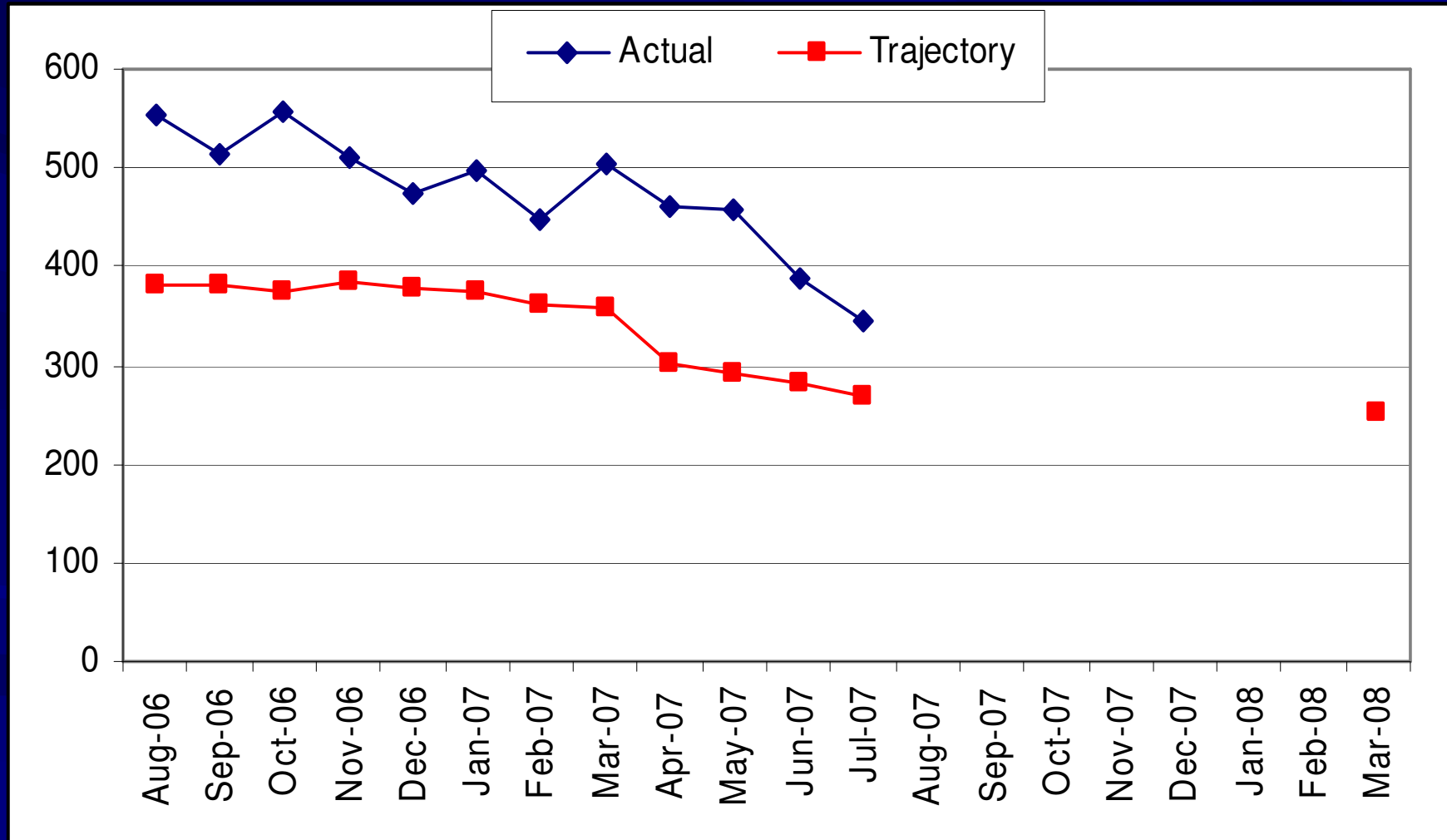
HCAI 2003 - 04

- *Winning Ways* - December 2003
 - Strategy for HCAI
- *NAO Report* - July 2004
 - Critical of slow progress
- *Towards Cleaner Hospitals and Lower Rates of Infection* - July 2004
 - Action plan

MRSA Target

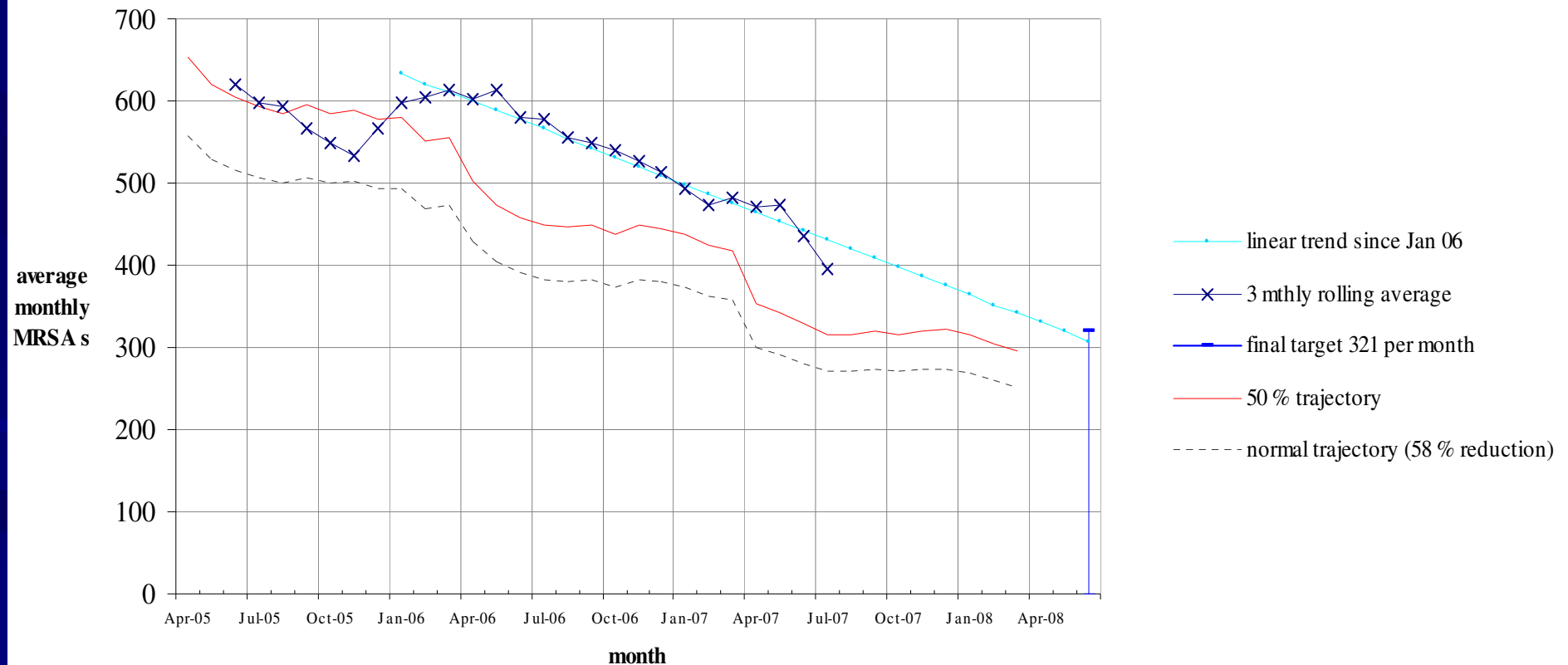
- 'Halve MRSA infections by 2008'
 - MRSA bacteraemia
 - Baseline 2003-04; Start date April 2005
 - Monthly returns
 - 3-monthly publication from Jan 2007
 - Monthly submission and DH/SHA review
- Depends upon mandatory surveillance being accurate and timely – CEx sign-off

Monthly MRSA bacteraemia figures August 06 to July 07



MRSA bacteraemia projections – July 2007

**3 monthly rolling average MRSA levels
April 2005 to July 2007
in comparison with trajectories, final target and
projection based on assumption of continuation of linear trend since January 2006**



MRSA reporting

■ Timeliness

- CEO lock down
- Data entry in time
- Use voluntary screen to record info to focus effort

■ Extenuating circumstances

- Duplicates
- Repeats in untreatable patients
- Responsible Trust (eg, renal satellite units)

What do the data tell us?

- Men >65 yrs are 43% of MRSA bacteraemias
 - (15% of all admissions nationally)
- 80% of MRSA bacteraemias are in emergency admissions
 - (37% of total admissions)
- 35% have been in hospital during the previous month
- Length of stay over 7 days increases risk
- 10% of MRSA bacteraemias come from nursing homes
 - 17% for pre-48 hour cases.
- 30% diagnosed in first 48hrs
 - but 65% of these patients have touched health care setting in recent past
- Risk factors
 - 14% - chronic wounds
 - 14% - central lines; 10% peripheral lines
 - 8% pneumonia

How do we change bad habits?

- Management
 - emphasis on infection control
- Enhanced surveillance (HPA)
 - MRSA & *C. difficile*
- Clinical practice protocols
- Cleanliness and hygiene
 - hand hygiene
 - environmental cleaning
- Training
- Targets and performance management

Management priority & responsibility

■ HCAI

- ***NOT*** just the Infection Control Team
- Trust Board
- Chief Executive
- Clinical ownership
- ***ALL STAFF***

■ ***DIPC is the focus***

- Responsibility
- Authority – clinical and managerial
- Resource allocation

WW Action area 6. Management and organisation

■ Chief Executive's responsibilities

- Core part of Clinical Governance and Patient Safety programmes
- Promote low levels of HCAI
 - Ensure actions are taken
- Aware of legal responsibilities to identify, assess and control risks of infection
- Appoint Director of Infection Prevention and Control

DIPC role

- Senior management – Board/CEx report
- Professional credibility
 - Special expertise
- Reporting line for ICT
- Policy implementation
- Performance management
- Resource allocation
- ***A champion & a manager!!***

Providing the tools

- *Cleanyourhands* campaign
- PEAT inspections for cleanliness
- *Saving Lives & Essential Steps*
- Root Cause Analysis tool
 - bacteraemia-specific version – Sept 2006
- MRSA screening advice - October 2006

.....and now.....

.....legislation

- Health Act 2006
 - Statutory Code of Practice
 - Compliance assessed by the Healthcare Commission
 - Annual healthcheck
 - 120 unannounced spot checks
 - Improvement notices

Health Act 2006 – Code of Practice

- 11 core duties
 - Management, Organisation and Environment
 - Clinical Care Protocols
 - Healthcare Workers
 - Training in Infection Control
 - Own health protection
- Policy components & references to support compliance
- SL assessment revision to reflect CoP

'Saving lives' toolkit

- Two components

- Self assessment tool –

- now revised to reflect CoP core duties*

- 7 High Impact Interventions (Care Bundle approach)

- plus guidance notes*

High Impact Interventions (revised June 2007)

1. Central venous catheters
2. Peripheral line care
3. Dialysis catheters
4. Surgical site management
5. Urinary catheters
6. Ventilator management
7. *Clostridium difficile*

SL Guidance

- October 2006
 - MRSA screening
- June 2007
 - Blood Culture protocol
 - Antimicrobial prescribing framework
- September 2007
 - Isolation and cohorting

MRSA screening – October 2006

- Guidance to NHS Trusts
- Focus on own high-risk groups
 - Elective orthopaedic, cardiovascular, neurosurgery – pre-admission
 - Emergency surgery – elderly orthopaedic/trauma?
 - All elective surgery?
 - ICU & HDU admission and weekly
 - Renal dialysis
 - Admissions from other hospitals, healthcare settings
 - All emergency admissions?

Screening and decolonisation

- Screening methods
 - Swab, direct plating on chromogenic agar
 - Swab, into selective broth, then plate
 - Rapid tests, eg PCR etc
- Decolonisation regimen
 - MRSA positive
 - All initially; stop on negative result?
 - All, irrespective of screening?
- Isolate patient ***if possible***

Environmental hygiene

- Hospitals should be clean!
- Role of matrons & ward sisters
- Routine cleaning
 - Hand-contact areas
- Enhanced cleaning in infected areas
 - Use of disinfectants
- Deep cleaning after discharge of infected patient
- Cleaning of the bed and bed space
- Medical equipment

Training

- BMJ eLearning
 - *C. difficile* video CPD module
- DoctorsNet
 - CPD module
- Dialogue with
 - Undergraduate Deans
 - *Tomorrow's Doctors* review group (GMC)
 - Royal Colleges
 - Postgraduate Deans

Target performance management

■ DH Task Force

- Reviews MRSA bacteraemia and *C. difficile* figures
- Monitors programme activities
- Identifies Trusts for *SL* reviews and visits

■ SHA performance managers

- Monthly review of Trust performance

■ PCT commissioners

Improvement programme

- National Performance Improvement Network (PIN)
 - Meets 3 times a year
- *Saving Lives* self assessment reviews
- Improvement visits
 - DH team; 2-day interviews
 - Develop local action/recovery plan
 - Support implementation

Summer 2007

- *Saving Lives* issue 2 (June)
 - *C. difficile* care bundle updated
 - Antimicrobial prescribing – best practice
- Improvement Team (formerly MRSA)
 - Double funding (and size!)
 - Extend remit to *C. difficile*
- DIPC – review
- SACAR report – *J Antimicrob Chemother* suppl Aug 2007
 - Antimicrobial framework

Antibiotic policy - prevention

- Restrict use of broad spectrum agents
- Promote aminoglycosides (gentamicin etc)
- Reasons for prescribing recorded
- Stop dates – review by pharmacists
- Prophylaxis – single dose
- Audit, training and review
- Role of Antimicrobial Prescribing Team/Committee

Announcements Sept-Oct 2007

- National CD target - 30% reduction by 2011
- CMO PL on Death Certification
- Deep cleaning (PM)
- Matrons & Clinical Directors report to Boards quarterly
- Dress code – bare below the elbow
- MRSA screening - universal
 - Electives by 2008; emergencies a.s.a.practicable
- Isolation and cohorting guidance
- Regulator powers: fines and ward closures

Dress code (mainly for doctors)

- Bare Below the Elbow (BBE)
 - Short sleeves
 - No wrist watch
 - No wrist or hand jewellery (except plain wedding band)
 - ***Sleeves/cuffs and jewellery are impediments to hand hygiene and aseptic procedures***
- No ties (except bow ties) – *they are readily contaminated and not washed!*
- No white coats!
- Scrubs where appropriate, eg, theatre, ICU/HDU, A&E

A wake-up call.....

- We must no longer accept these infections as 'normal'
- Patients
 - Can be very ill
 - Can die
 - Stay in hospital longer
 - May need major surgery
- Significant NHS resources can be better used

Goal (Government/DH) - use

- Political imperative
- Measurement
- Target setting
- Professional support
- Performance management AND
- Legislation

To change human behaviour (clinical & managerial) to

- Overcome the challenge of MRSA