Clostridium difficile – the scale of the problem in the UK and working across nursing homes

Tackling healthcare associated infections outside of hospital – Learning Workshop 1

Tuesday 7th July 2009 10.35-11.15

Saffron Centre,

Birmingham

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HPA RMN Healthcare associated infection lead for London
Health Protection Agency (HPA)
Regional Microbiology Network (RMN)

July 3, 2009

Healthcare associated infections

A question of

quality in healthcare delivery

and

patient safety

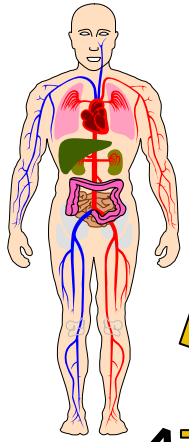
MRC Clinical Research Centre

S P Borriello, F E Barclay, H E Larson and others

1970s – 1990s

- 1980 Epidemiology of experimental enterocecitis due to *Clostridium difficile* J Infect Dis 142 (3): 408-13
- 1981 Simplified procedure for the routine isolation of *Clostridium difficile* from faeces J Clin Pathol 34: 1124-1127
- 1981 Antibiotic and pseudomembranous colitis 7 Suppl A 53-65
- 1986 Asymptomatic carriage of *Clostridium difficile* in patients with cystic fibrosis J Clin Pathol 39:1013-18
- 1990 Virulence factors of *Clostridium difficile* 12 Suppl 2:S 185-91
- 1990 The influence of the normal flora on *Clostridium difficile* colonisation of the gut Ann Med 22 (1): 61-7

Pathogenesis

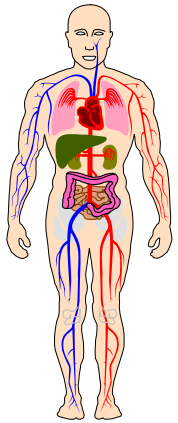


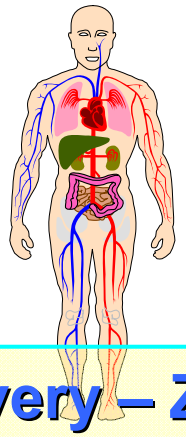
Exposure to spores

Antimicrobial treatment

- ❑ change in pattern of disease
- ❑ Severe disease
- ❑ Increase mortality and morbidity

Asymptomatic





CDAD

- ❑ Role of receptors
- ❑ Role of immunity
- ❑ Role of Host factors
- ❑ Role of antibiotics (Q & 3GC)

Colonisation resistance

10^{12} organisms per gram of faeces

Patient safety – Quality in healthcare delivery – Zero tolerance

Exotoxins

Enterotoxin

Toxin A 308kDa

Cytotoxin

Toxin B 250/270 kDa

Cytotoxic effect

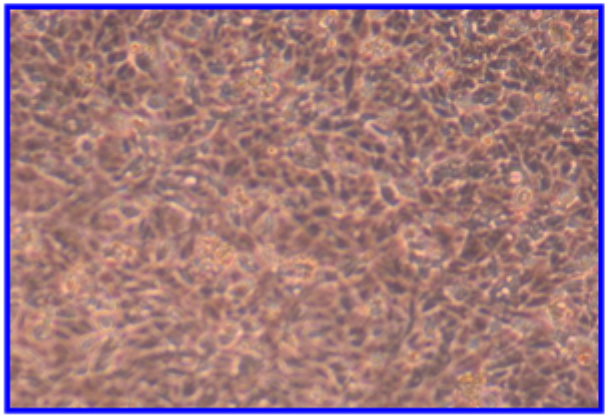
$A^+ B^+$

$A^- B^+$

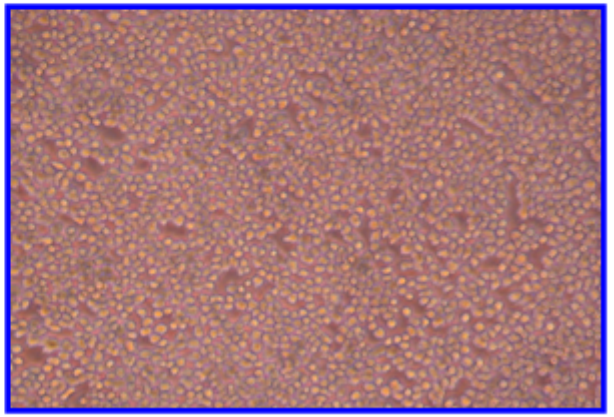
$A^- B^-$

Binary toxin

Before

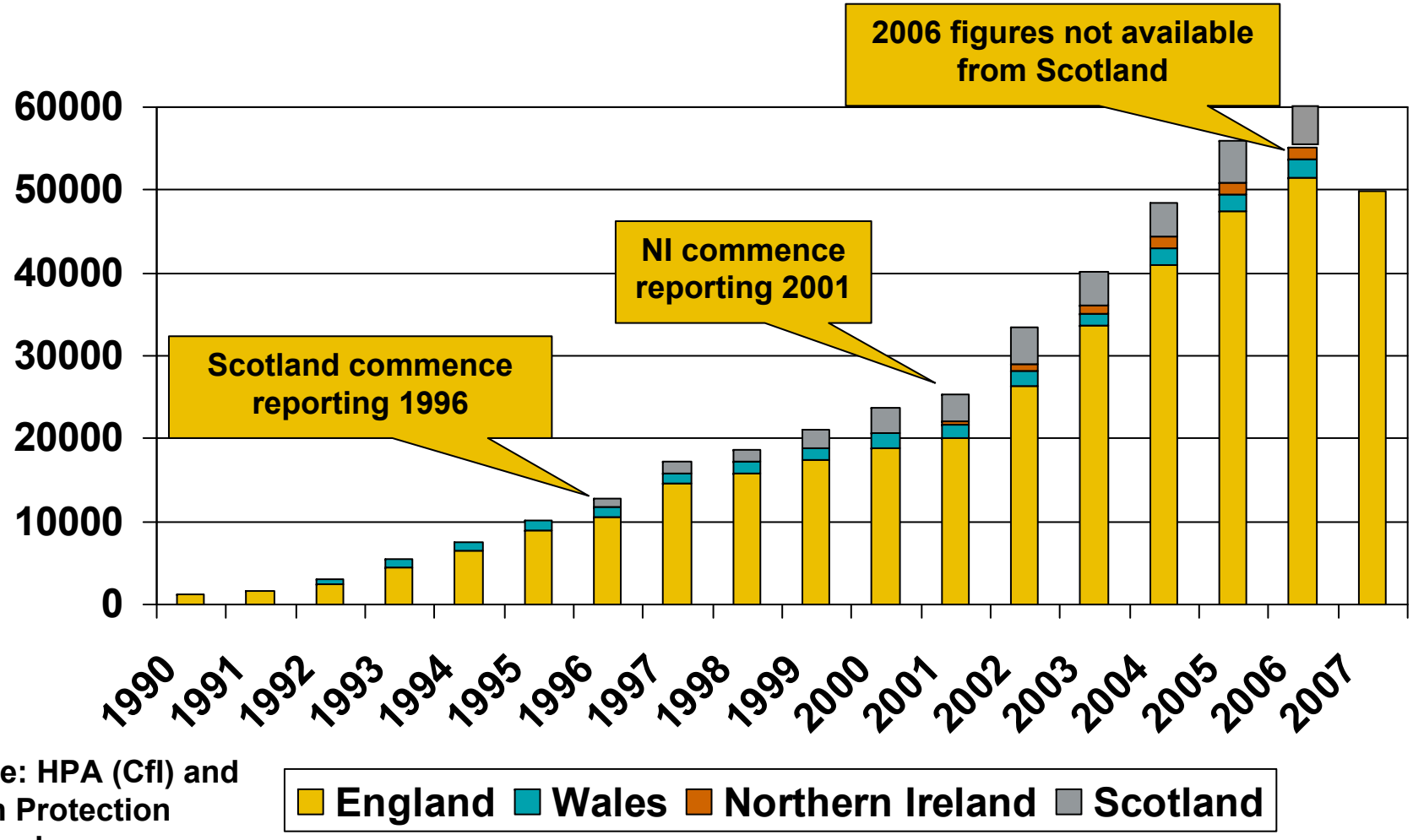


After



Images: Courtesy of Dr Jon Brazier

Clostridium difficile: UK Voluntary laboratory reporting



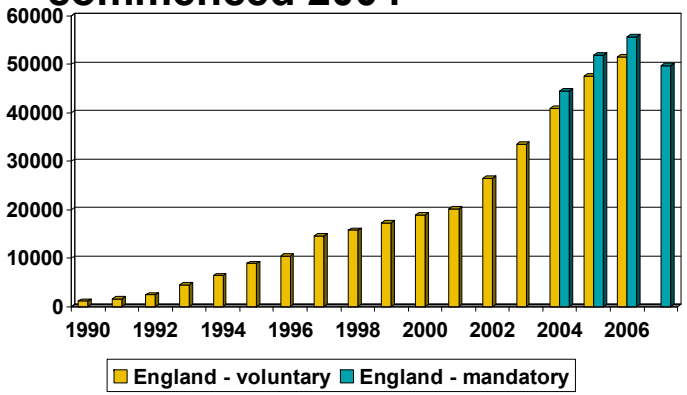
Source: HPA (CfI) and Health Protection Scotland

Patient safety – Quality in healthcare delivery – Zero tolerance

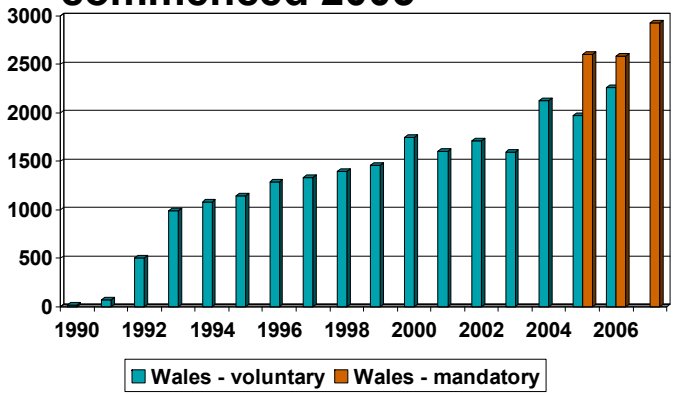
Clostridium difficile: mandatory reporting for England, Wales, Northern Ireland and Scotland

Health Protection Agency

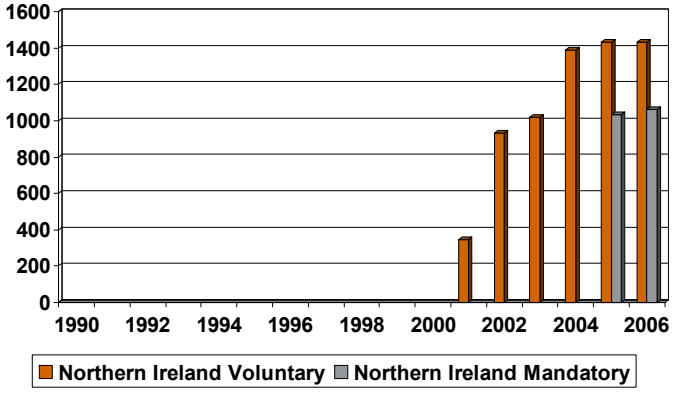
Mandatory cases aged 65 & over commenced 2004



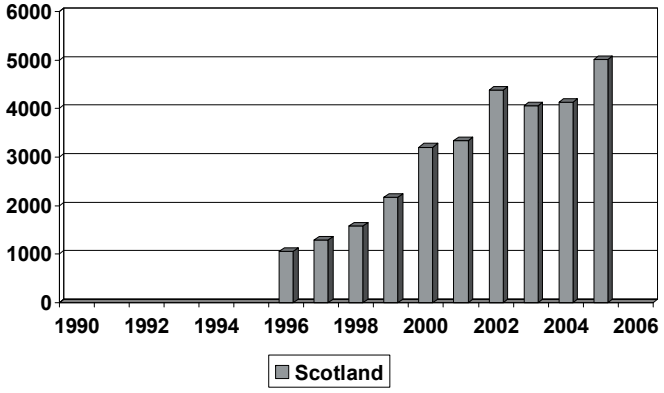
Mandatory cases aged 65 & over commenced 2005



Mandatory cases aged 65 & over commenced 2005-6



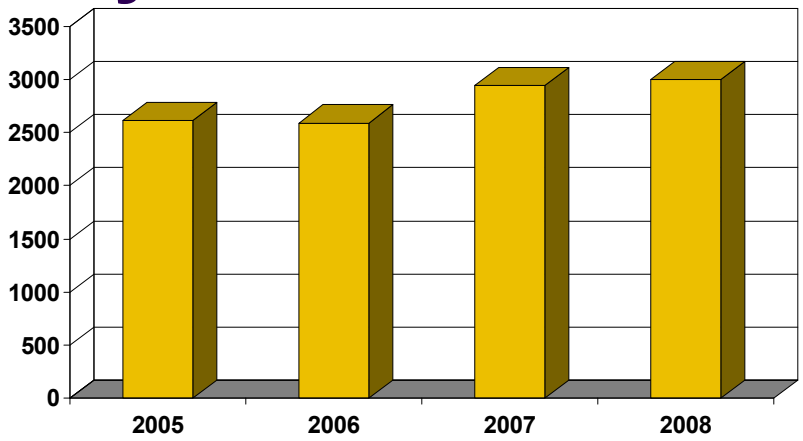
Mandatory data Expected December 2007

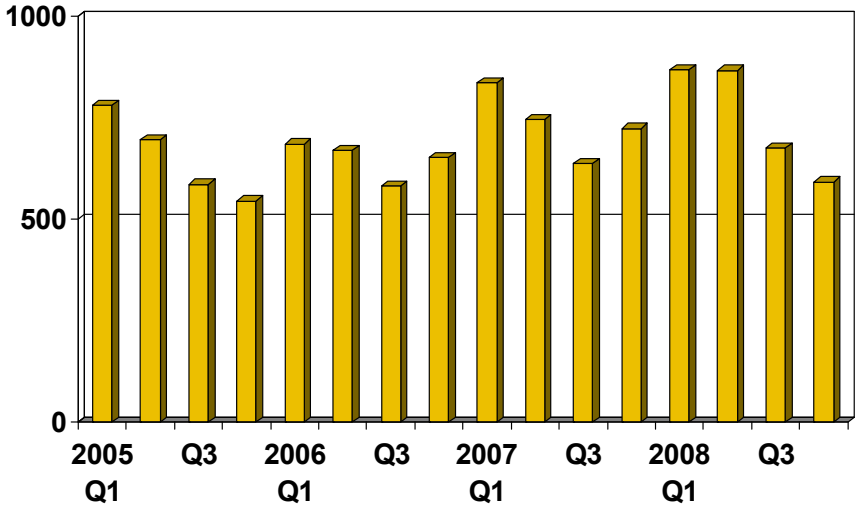


Source: HPA (CfI) and Health Protection Scotland

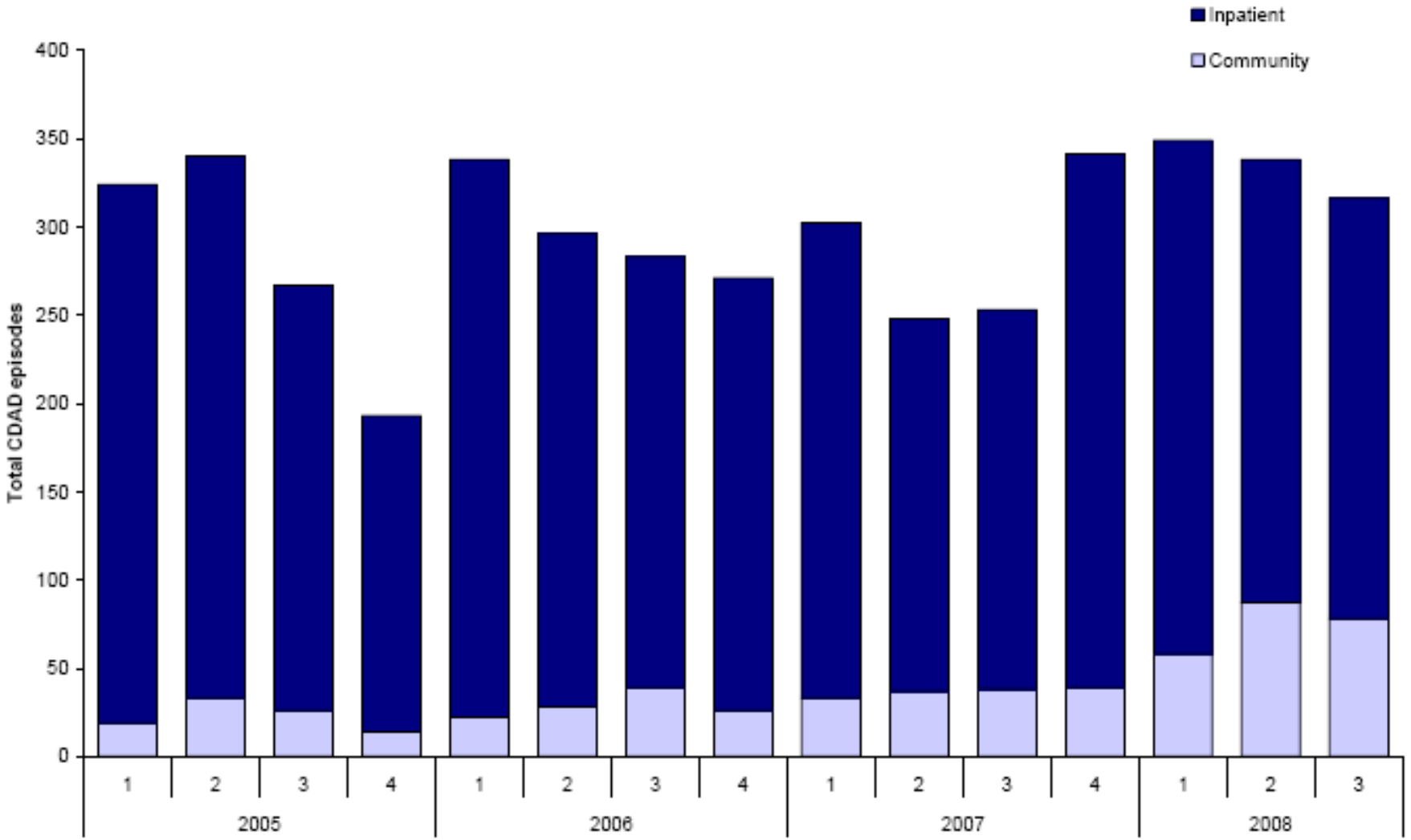
Patient safety – Quality in healthcare delivery – Zero tolerance

Wales Mandatory *Clostridium difficile* >65yrs 2005-8

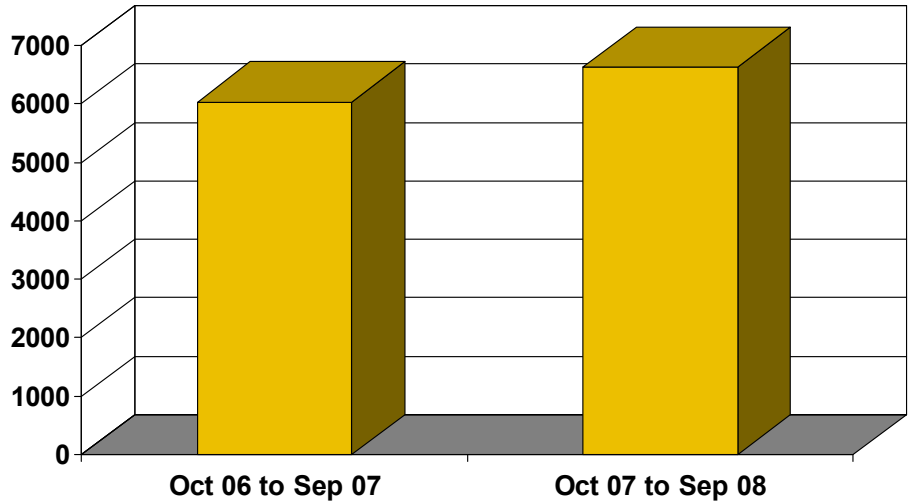


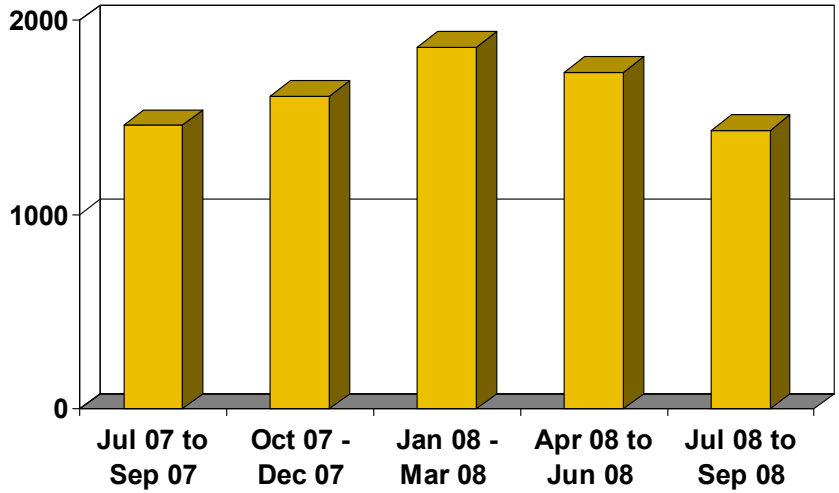


Total CDAD reports, inpatient and community, in Northern Ireland, by quarter (patients ≥ 65 years), between 2005 and 2008.



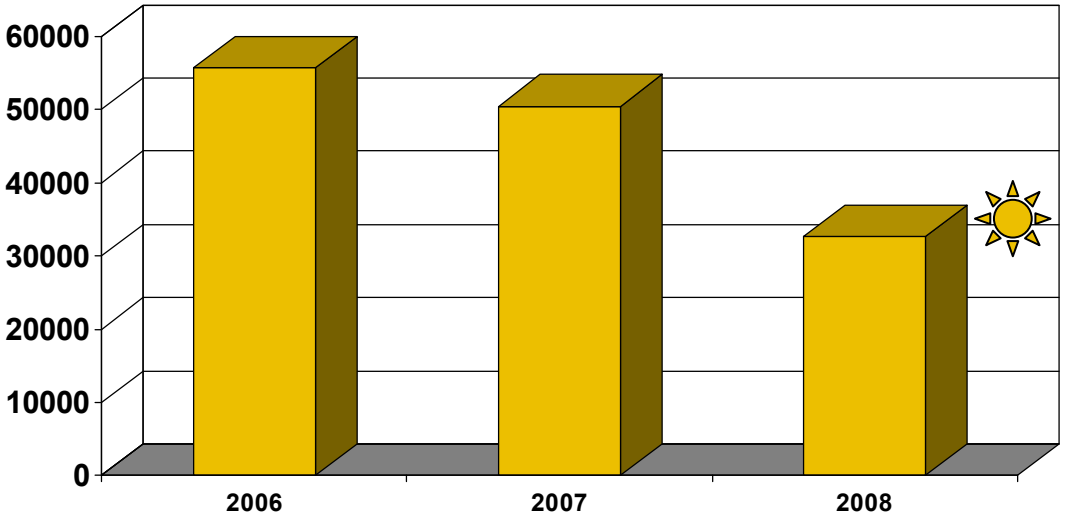
Scotland Mandatory *Clostridium difficile* reporting from 1 Sept 2006

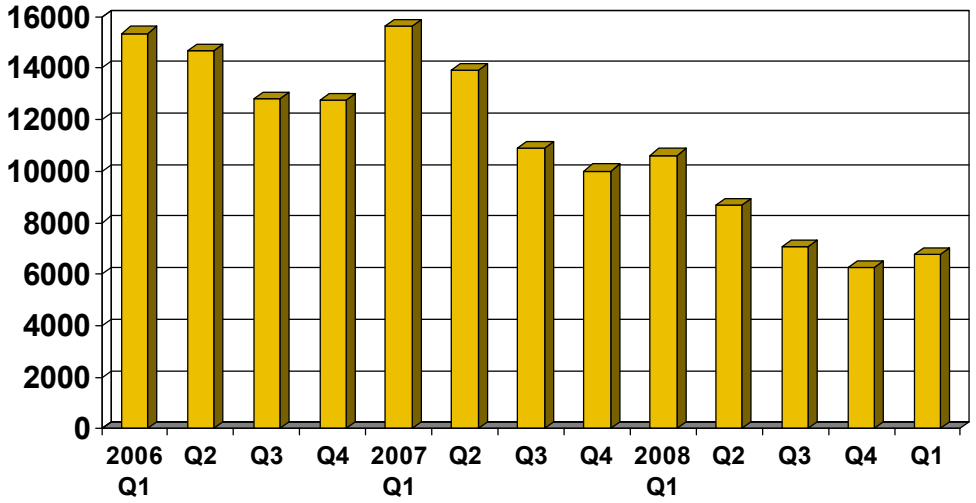




Prior to September 2006 data was voluntary and therefore not comparable

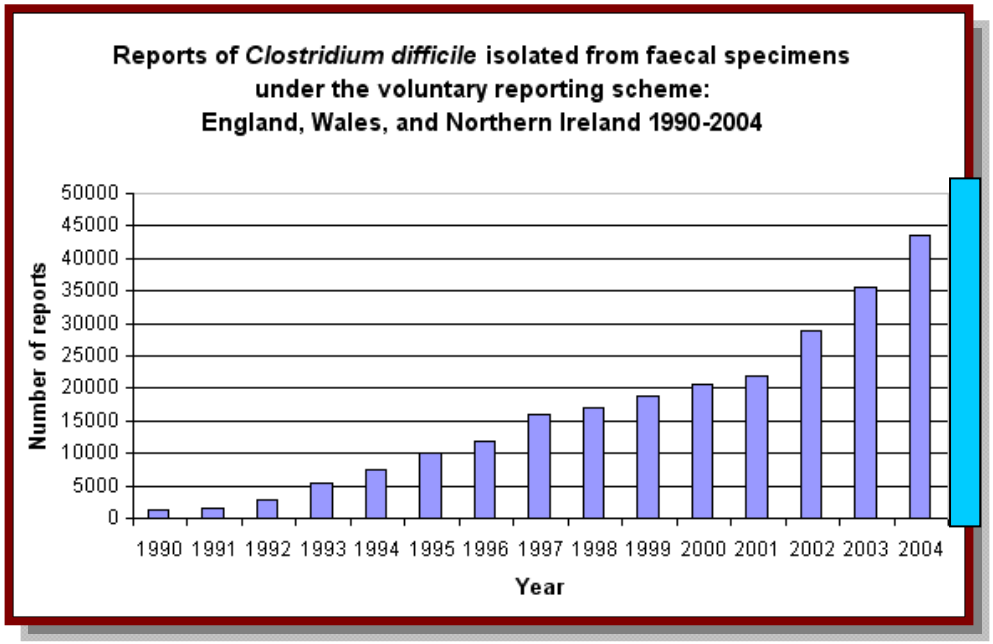
England Mandatory *Clostridium difficile* >65yrs Jan 2006 – Mar 2009 Quarterly



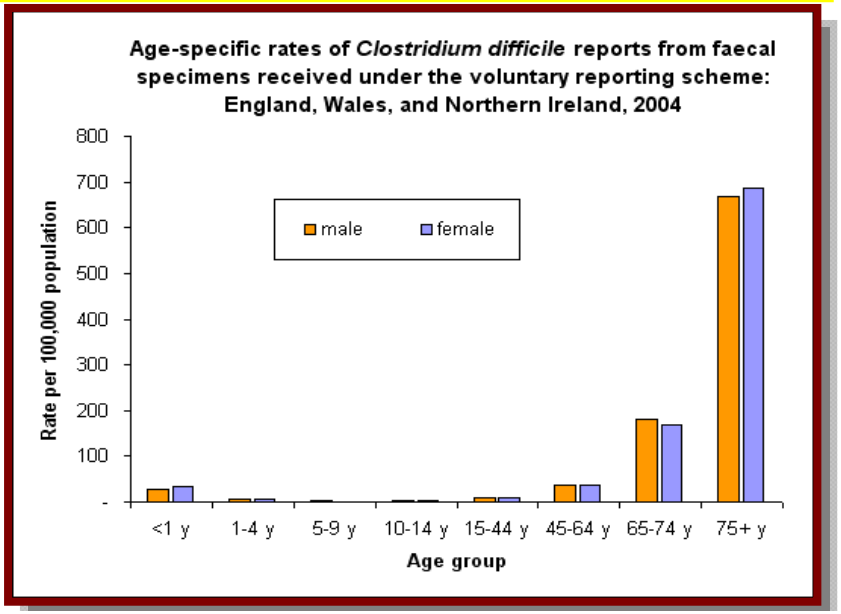


The problem

Under represents true picture



- ❑ Mainly a problem with elderly
- ❑ New strain affecting some young
- ❑ Recent US report in pregnant mums
- ❑ More severe disease
- ❑ Increased mortality
- ❑ Ribotype 027 and other strain
- ❑ Multi-resistant (quinolones)

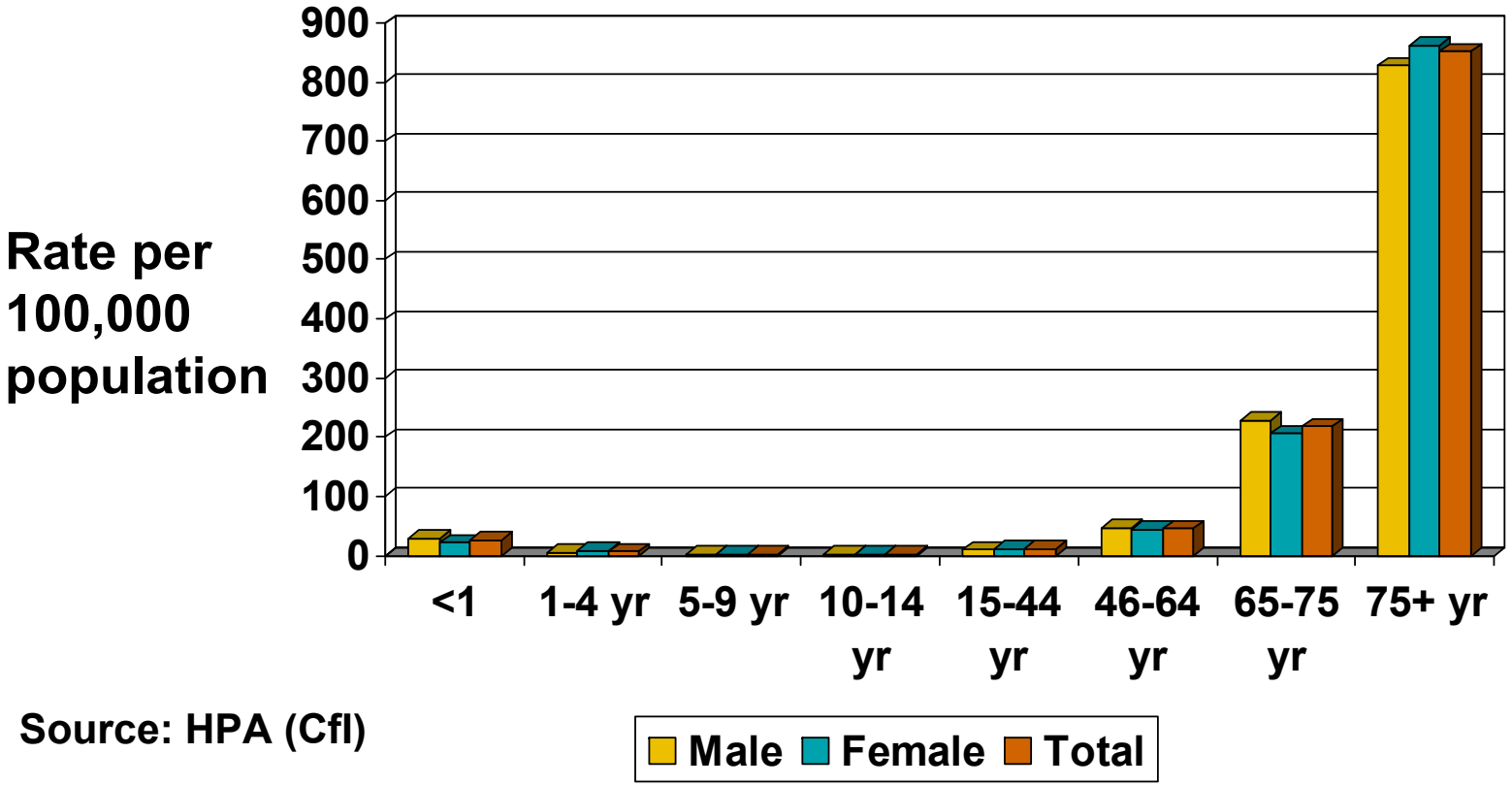


- ❑ Increased ascertainment
- ❑ Better laboratory diagnosis
- ❑ Genuine increase in numbers
- ❑ Genuine problem

Age specific rates* of *Clostridium difficile* from laboratory reports under voluntary reporting scheme: England, Wales and Northern Ireland 2006* Rate per 100,000

Health Protection Agency

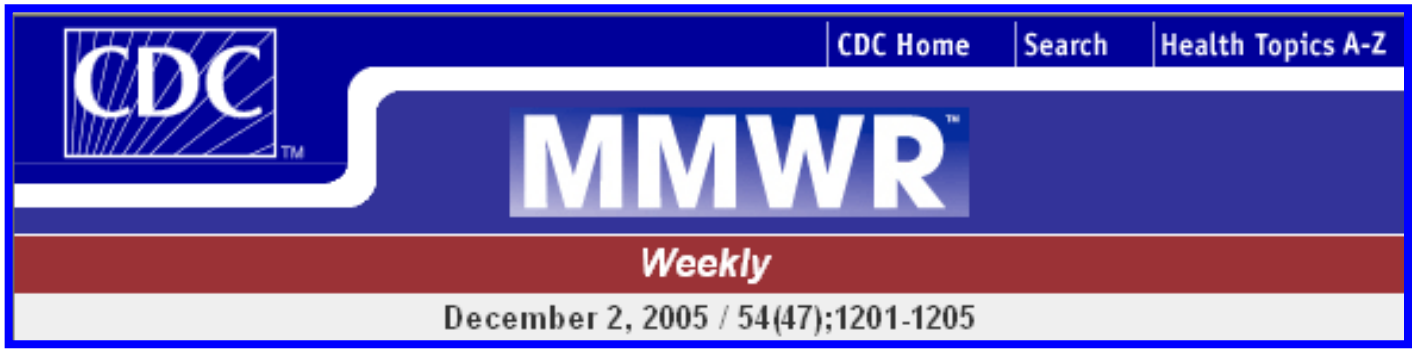
84% cases occur in the over 65yrs age group



Source: HPA (CfI)

Rates were calculated using Office of National Statistics 2005 mid-year resident population estimates

Patient safety – Quality in healthcare delivery – Zero tolerance



Health Protection Agency

Severe Clostridium difficile – associated disease in populations previously at low risk Four States 2005

❑ Case 1 31yr female

- ❑ 14 weeks pregnant
- ❑ 3 wks Diarrhoea
- ❑ CDT+
- ❑ Previous UTI on Septrin,
- ❑ Initially treated with Metronidazole
- ❑ readmitted 18 day severe colitis
- ❑ spontaneous abortion –
- ❑ subtotal colectomy, ITU ventilated
- ❑ – Died 3rd day of hospitalisation

❑ Case 2 10yr girl

- ❑ intractable diarrhoea, projectile vomiting and abdominal pain,
- ❑ no antibiotics in the last yr,
- ❑ CDT +,
- ❑ fever, abdo pain and diarrhoea.
- ❑ Physician throat swab – rapid strep positive, prescribed Amox unable to take it –
- ❑ resolved after hospitalisation, IV fluids, electrolytes and metronidazole

Impact of Emergency colectomy on survival of patients with fulminant *Clostridium difficile* colitis during an epidemic caused by a hypervirulent strain

Annals of Surgery Vol 245, No 2 February 2007 267-272

- Retrospective observational cohort study
- 165 cases of CDAD requiring ITU care
- Jan 2003 – Jun 2005 in 2 tertiary care hospitals – Quebec
- Primary outcome was mortality within 30days of ITU admission
- 87/165 (53%) resulted in death within 30days of admission
- 38/87 (44%) died within 48hrs of ITU admission

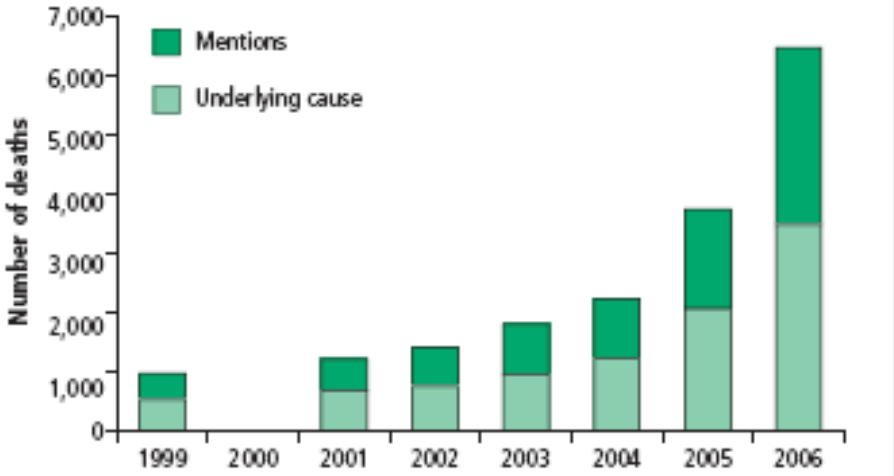
Deaths involving *Clostridium difficile*:

E & W 1999 -2005

Health Statistics Quarterly 33 - Spring 2007

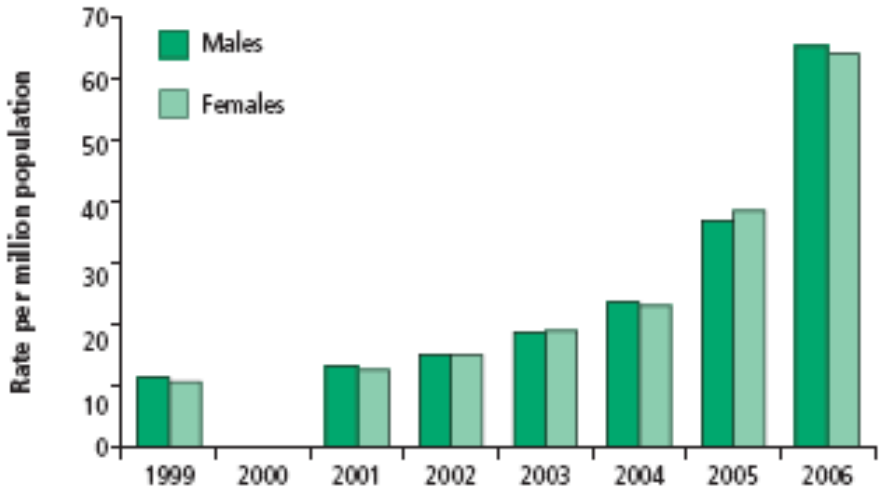
Office of National Statistics

Figure 1 Number of death certificates mentioning *Clostridium difficile*, by whether it was the underlying cause of death, 1999–2006



Data for 2000 are not presented, see methods section.

Figure 2 Age-standardised mortality rates for *Clostridium difficile* by sex, 1999–2006



Data for 2000 are not presented, see methods section.

United Kingdom
Clostridium difficile Figures 2004-2006
Opportunities – LoS and financial

Voluntary

Spend a little to save a lot

	Cases	Mortality @
Total 2004	48,542	,000
Total 2		
Total 2006	60,000*	,000

Is this standard of care acceptable in a modern healthcare delivery system?

30% 18000 deaths

* 2006 data for Scotland not available – notional 5000 cases added

Spend a little to save a lot

Figures calculated using the LoS & costs mentioned in the DH High Impact Intervention No 7

Epidemiology and incidence of *Clostridium difficile*-associated diarrhoea diagnosed upon admission to a university hospital

Patients with *Clostridium difficile*-associated diarrhoea (CDAD) may initially develop symptoms in the community and be subsequently diagnosed at hospital admission. The objective of this study was to report the incidence of CDAD at a tertiary care hospital, and to determine the epidemiology of cases diagnosed within 48 h of hospital admission, compared with cases of nosocomial CDAD diagnosed 48 h or more after hospitalization. The average incidence was 4.0 cases/10 000 patient-days for CDAD on admission and 7.0 cases/10 000 patient-days for nosocomial CDAD. A significant difference was observed in CDAD rates on admission compared with nosocomial CDAD rates ($P = 0.017$), but no differences were observed over time for either rate.

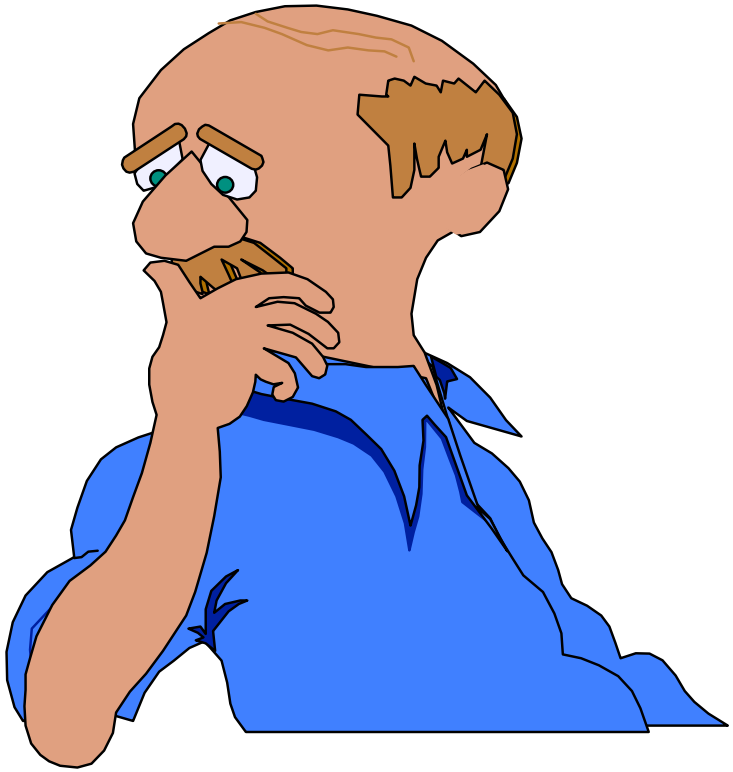
Overall, 44% of cases had CDAD on admission and 56% of cases had nosocomial CDAD. Fifty-six (62%) patients with CDAD on admission had been admitted to the same hospital and 24 (27%) had been admitted to another hospital within the previous 90 days.

Only eight (9%) patients had not been exposed to any healthcare services in the 90 days preceding hospital admission. A standardized case definition of healthcare-associated CDAD should include previous hospitalizations.

Admitting physicians should consider *C. difficile* in the differential diagnosis of patients admitted with diarrhoea, with or without a history of admission to healthcare facilities.

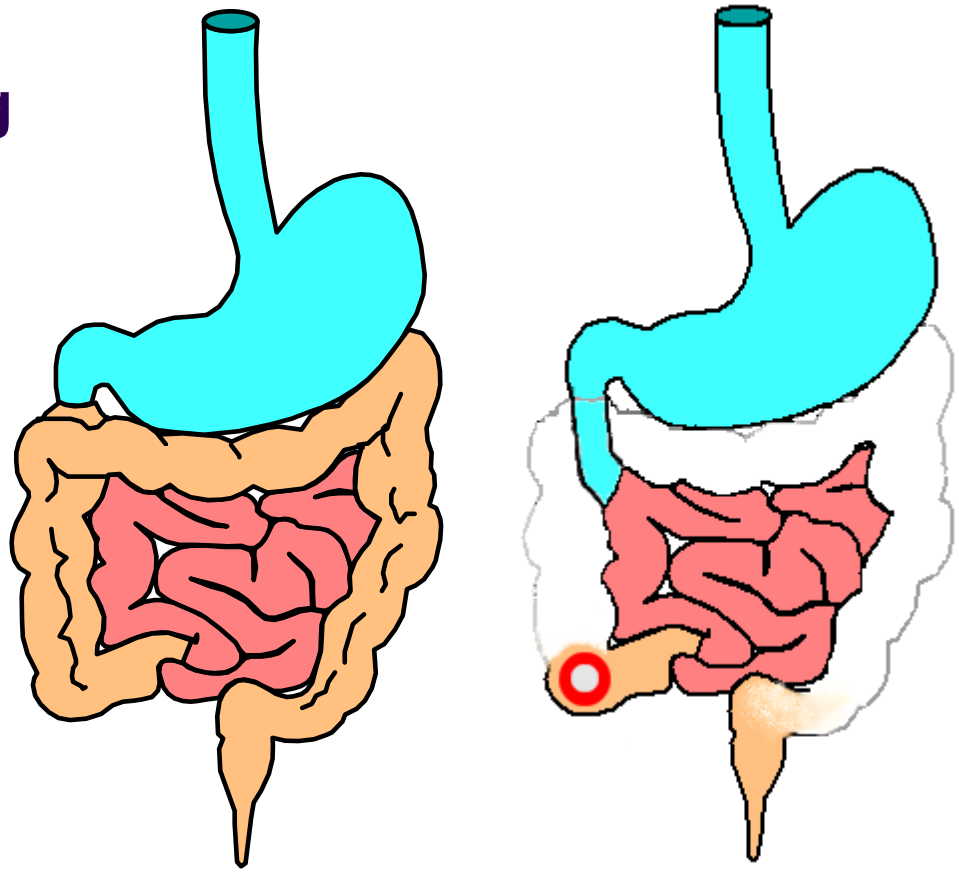
M F Price JHI 65 (1) January 2007 p 42-46

Imagine



Summary
Local, National, International problem

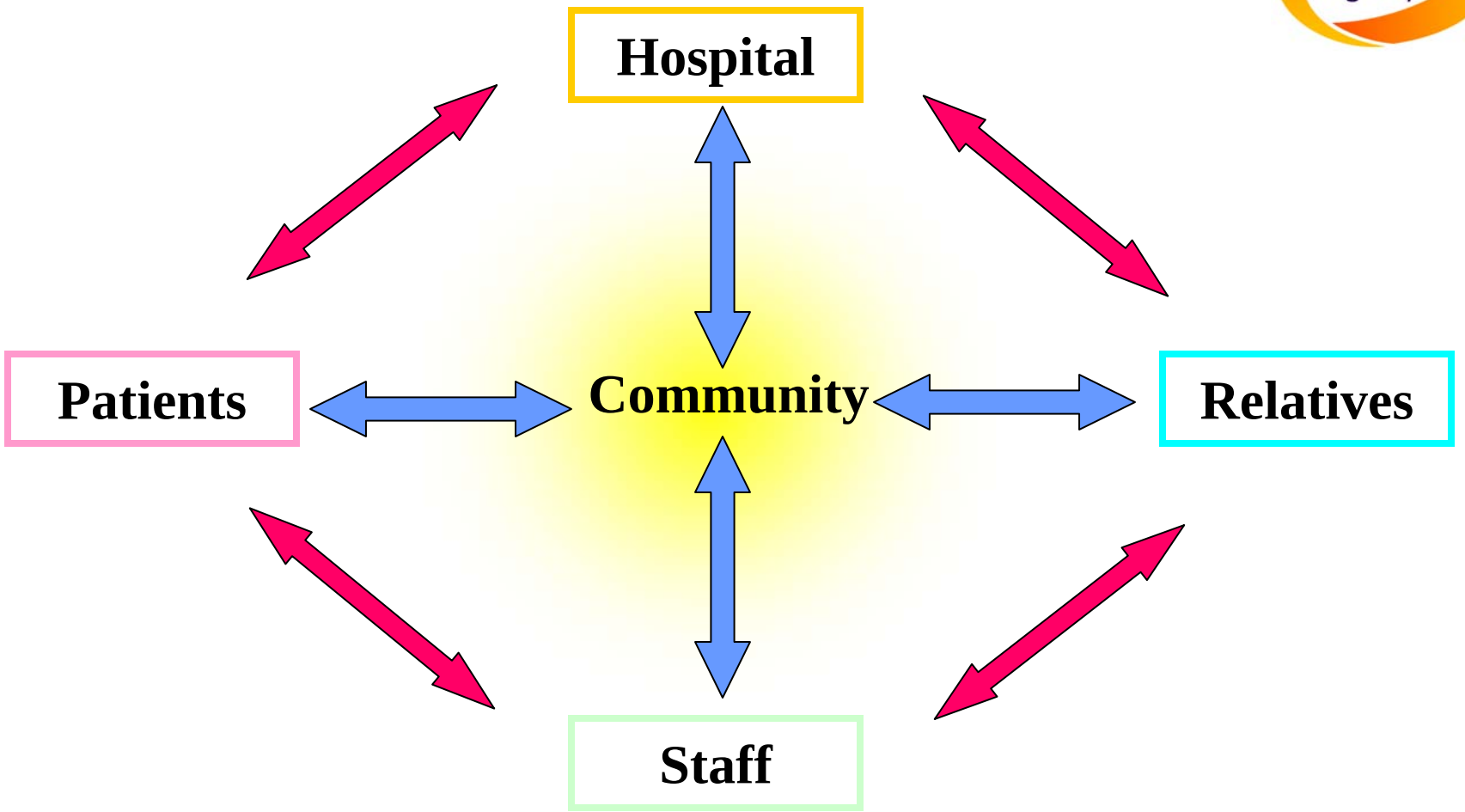
- Increase in numbers
- Elderly as well as young
- Severe disease
- Increased mortality
- Increase relapse



Colonisation resistance

- Protection
- 10^{12} Organisms per gram of stool
- All antibiotics have some effect
- Some more than others
- Cephalosporins significantly implicated
- Previously quinolones thought to least affected
  - However, now CD strains resistant
- Some antibiotics effective against vegetative form may have a lower relative risk
- Collateral damage
- Collateral damage and what the future might hold. The need to balance prudent antibiotic utilization and stewardship with effective patient management
- Int J Infect Dis 2006 Sep; 10 suppl 2: S17-24

Interaction between community & hospital



Vehicles of transmission

Community

Where is the difference?

Community case - two thirds have had prior contact with hospitals

Already, policy of accepting the elderly in nursing homes and residential homes

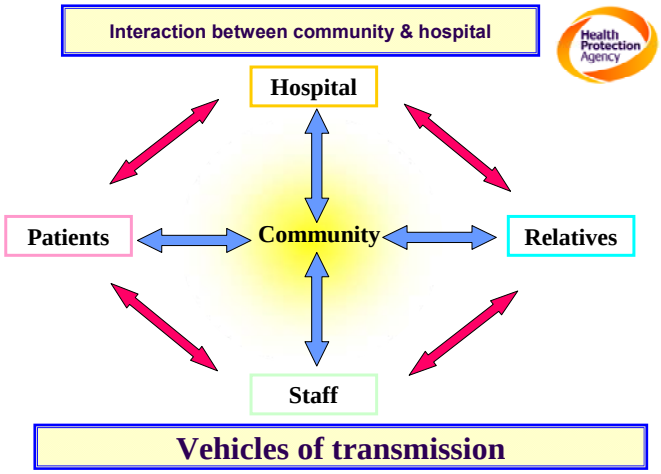
Evidence of colonisation in those around case

Skin contamination of cases

Difficulties of cleanliness around the elderly

There will be accidents

Hygiene must be enhanced



Guidelines vs Bundles

What is a bundle?

- **Guidelines:**
- Long, all inclusive and confusing
- Potential interventions are supported by some evidence
- Difficult to translate into action often ignored by clinicians
- **Bundles**
- Few key actionable interventions, supported by strong evidence , culled from guidelines

- Grouping of best practices that individually improve care but when applied together result in substantially greater improvement
- It's a science – standard of care
- Compliance can be measured
- All or none

Saving Lives: reducing infection, delivering clean and safe care

High Impact Intervention No 7

Care bundle to reduce the risk from *Clostridium difficile*

- ❑ **Isolation of infected patients**
- ❑ **Enhanced environmental cleaning**
- ❑ **Prudent antibiotic prescribing**
- ❑ **Hand hygiene**
- ❑ **Personal protective equipment**

All five measures 100% of the time

- **Surveillance**
- **Compliance**
  - **Whats happening**
  - **Root cause analysis**

Those most at risk of CDAD are older patients and those who have had a recent (within the last four weeks) course of antibiotics[7]. Five main factors have been identified as being necessary to reduce the incidence of CDAD[2, 8] which if rigorously applied using a 'care bundle' approach would contribute to a reduction.

- Prudent antibiotic prescribing[9]
- Hand hygiene[10, 11, 12, 13, 14, 15, 16, 17]
- Enhanced environmental cleaning[14, 15, 16, 17, 18, 19]
- Isolation of infected patients[18, 19, 20]
- Personal protective equipment[19, 20]

Patient safety – Quality in healthcare delivery – Zero tolerance

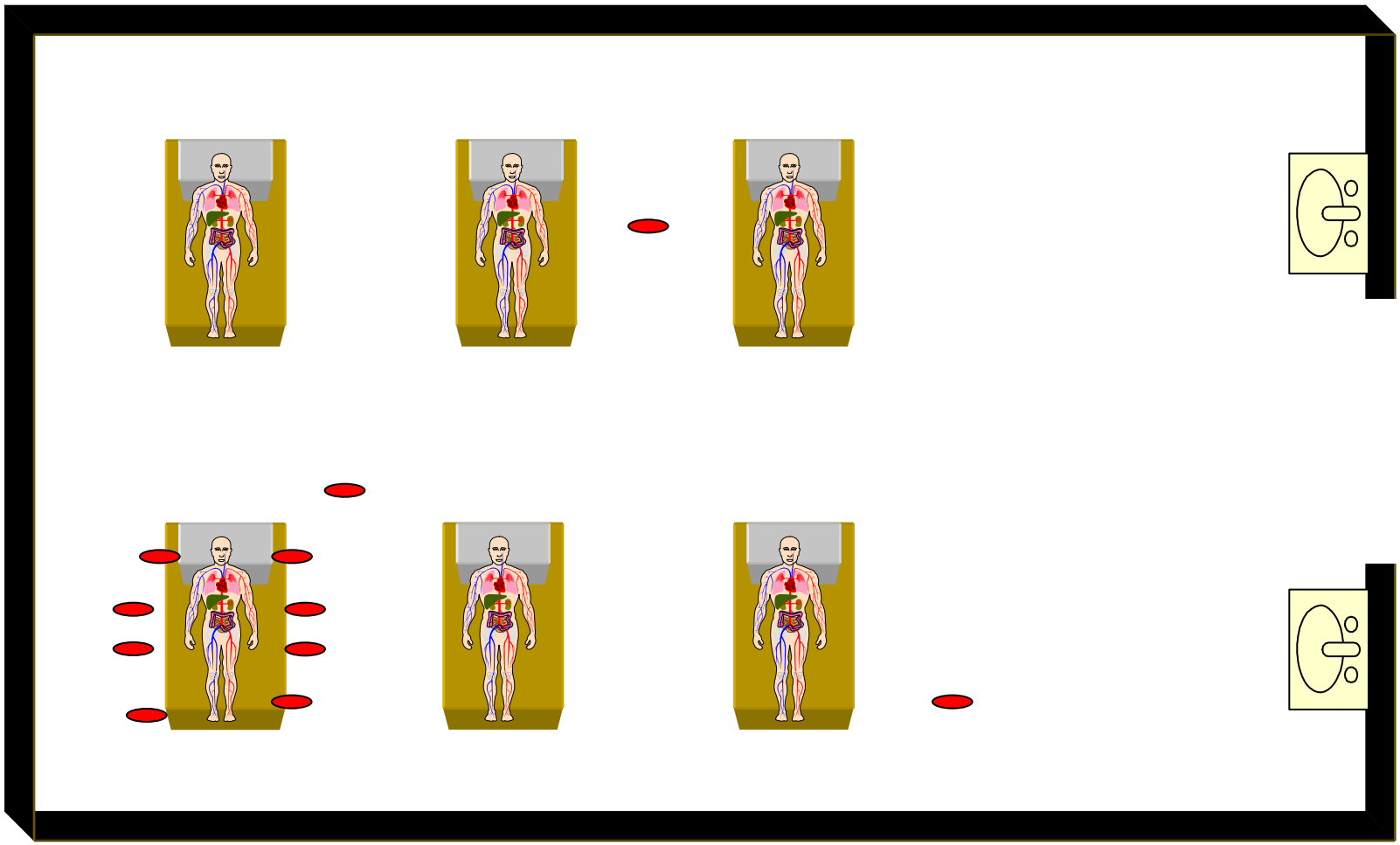
Implement all five measures together for quicker faster progress

All five measures 100% of the time

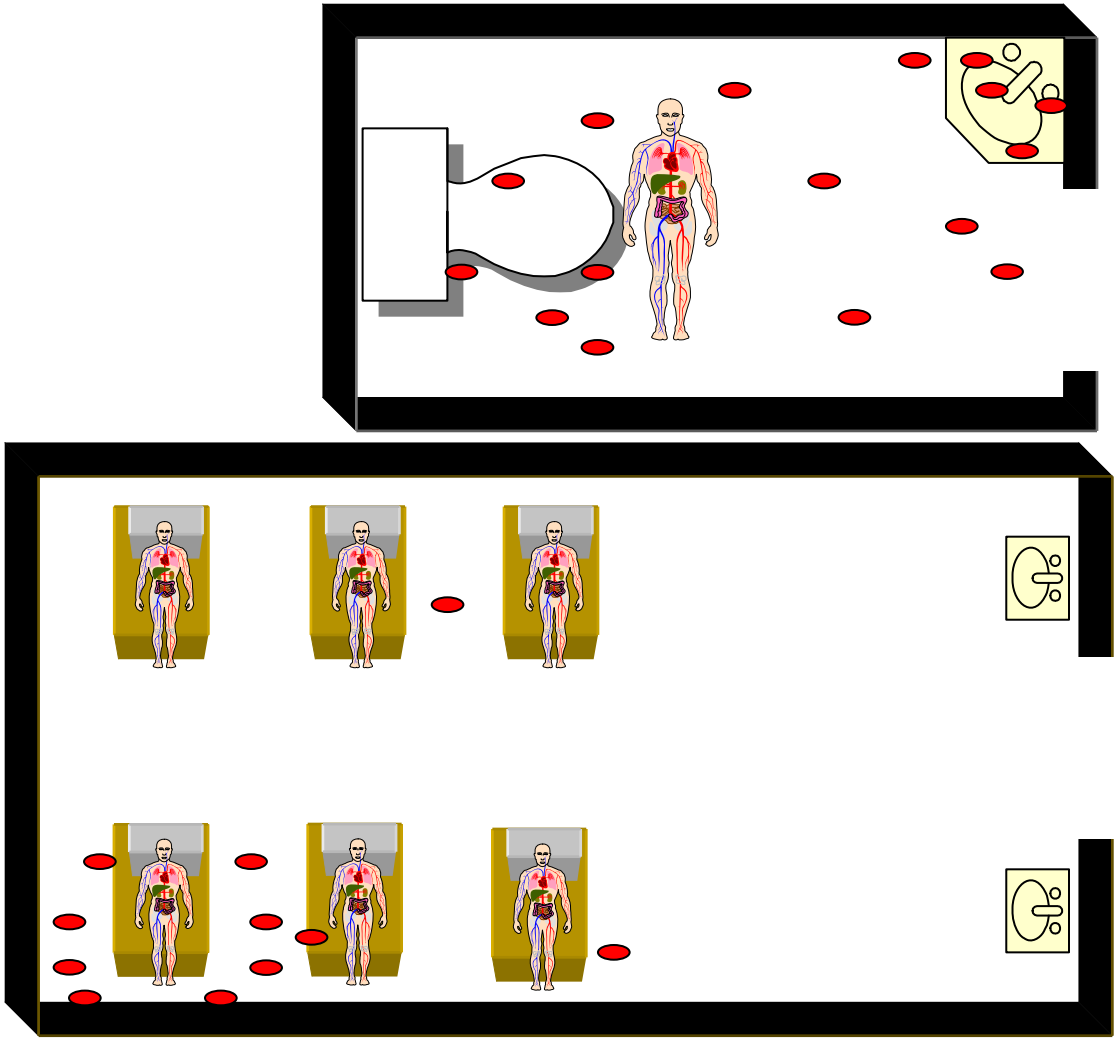
Sustain the improvement

Reduce the winter peak

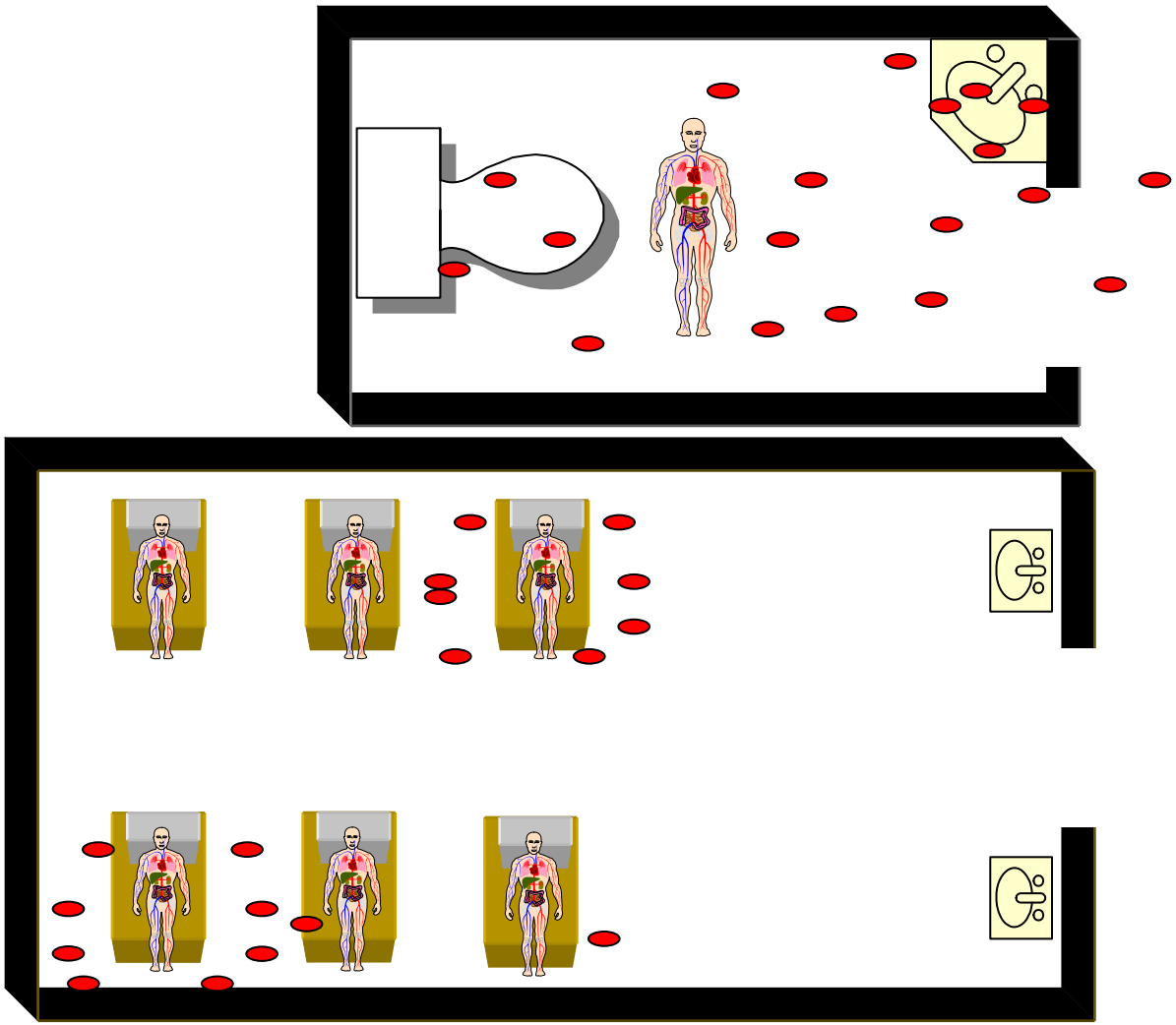
Six bedded bay



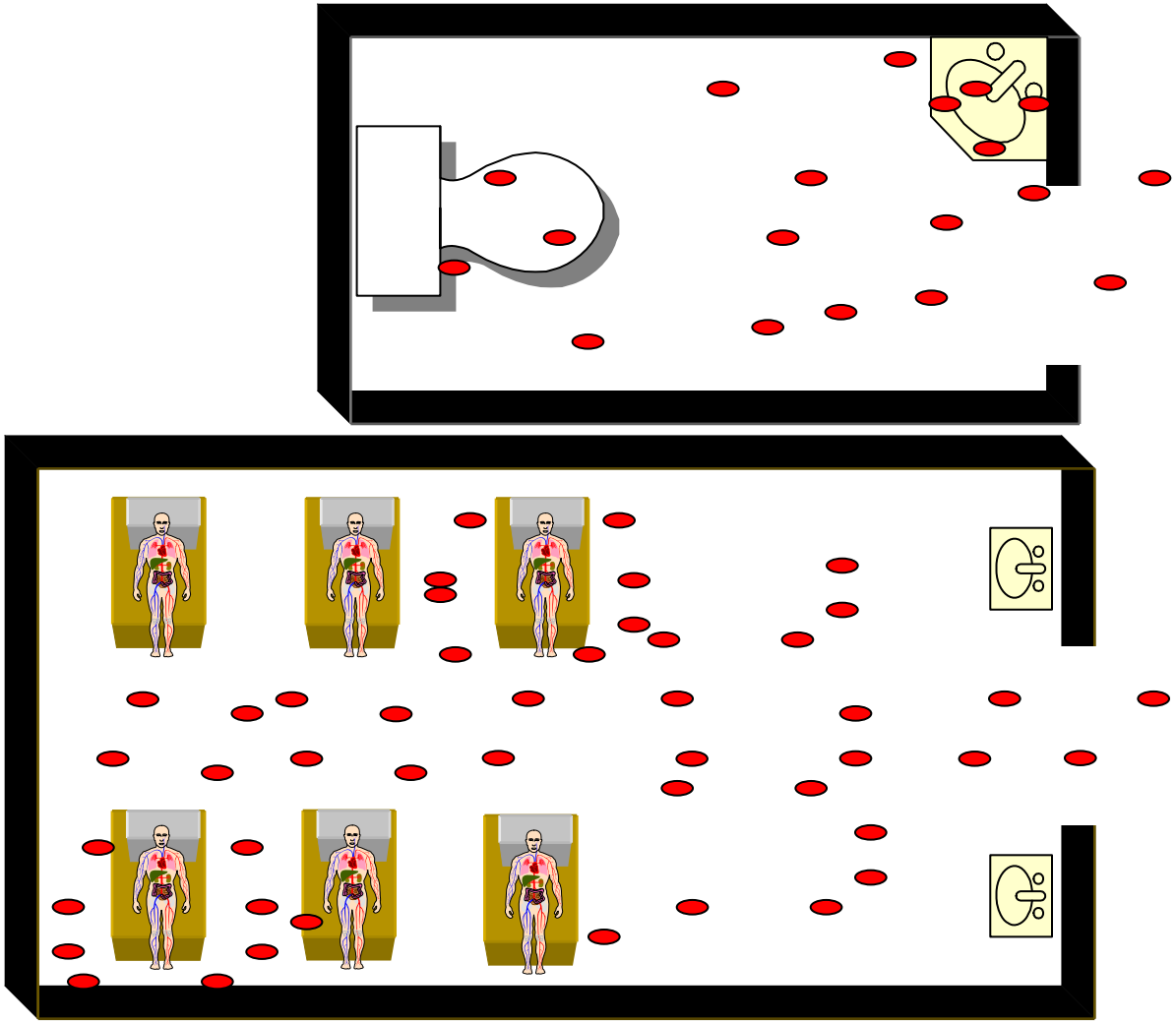
Chain of transmission and Accumulation of spores

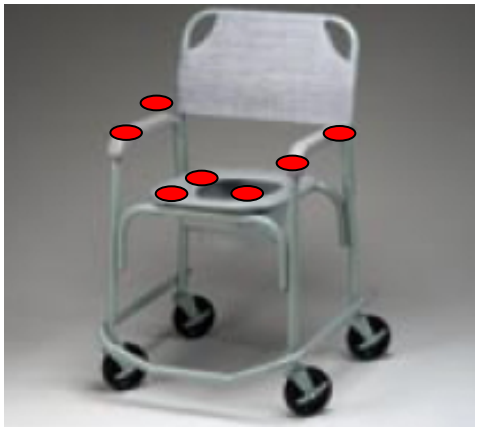


Environmental contamination with spores

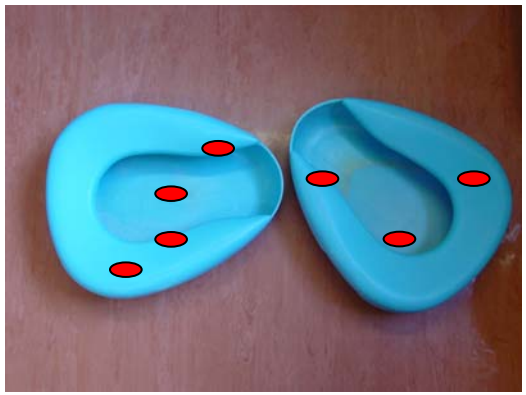


Environmental contamination with spores and poor cleaning standards

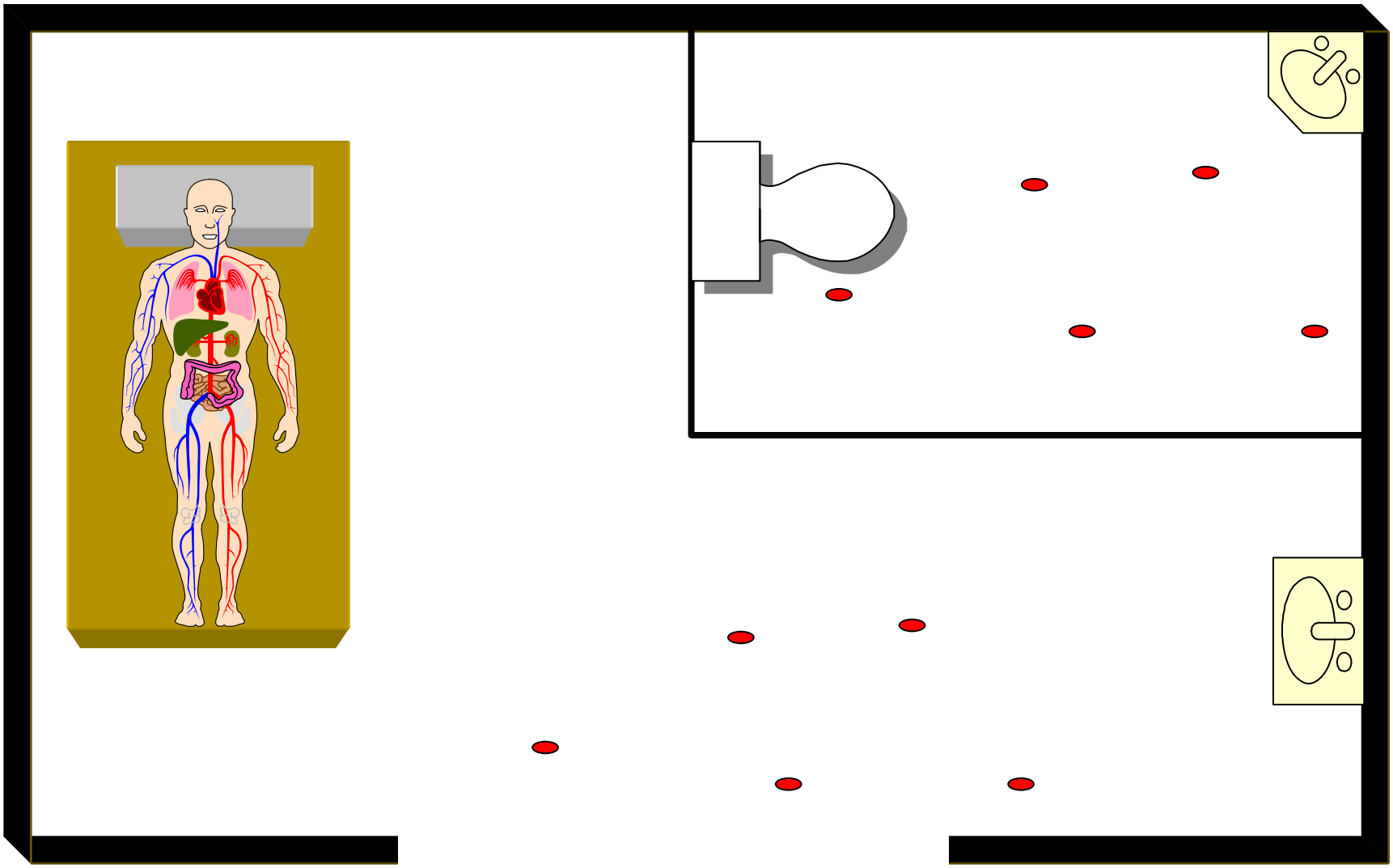




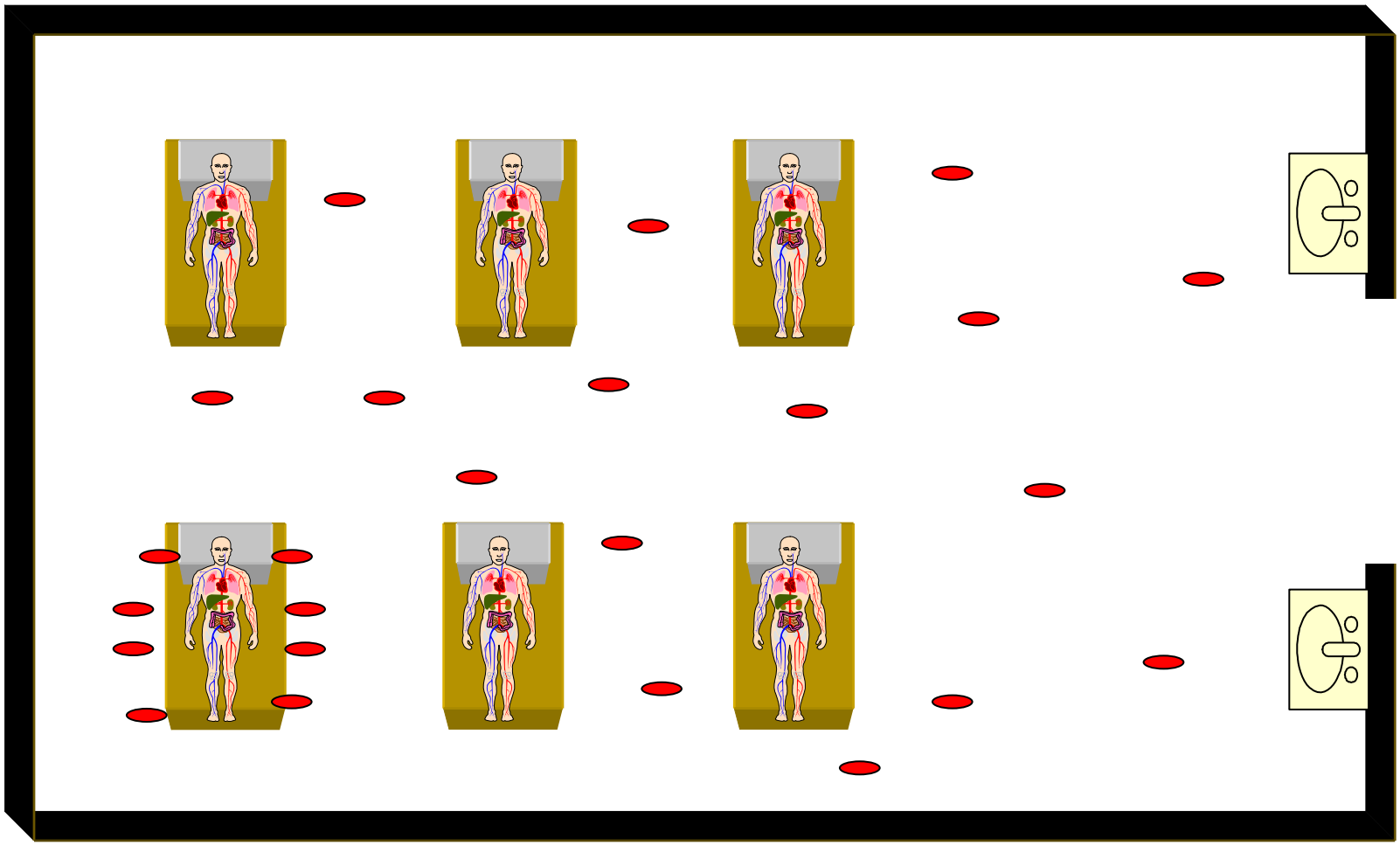
www.tfihealthcare.com



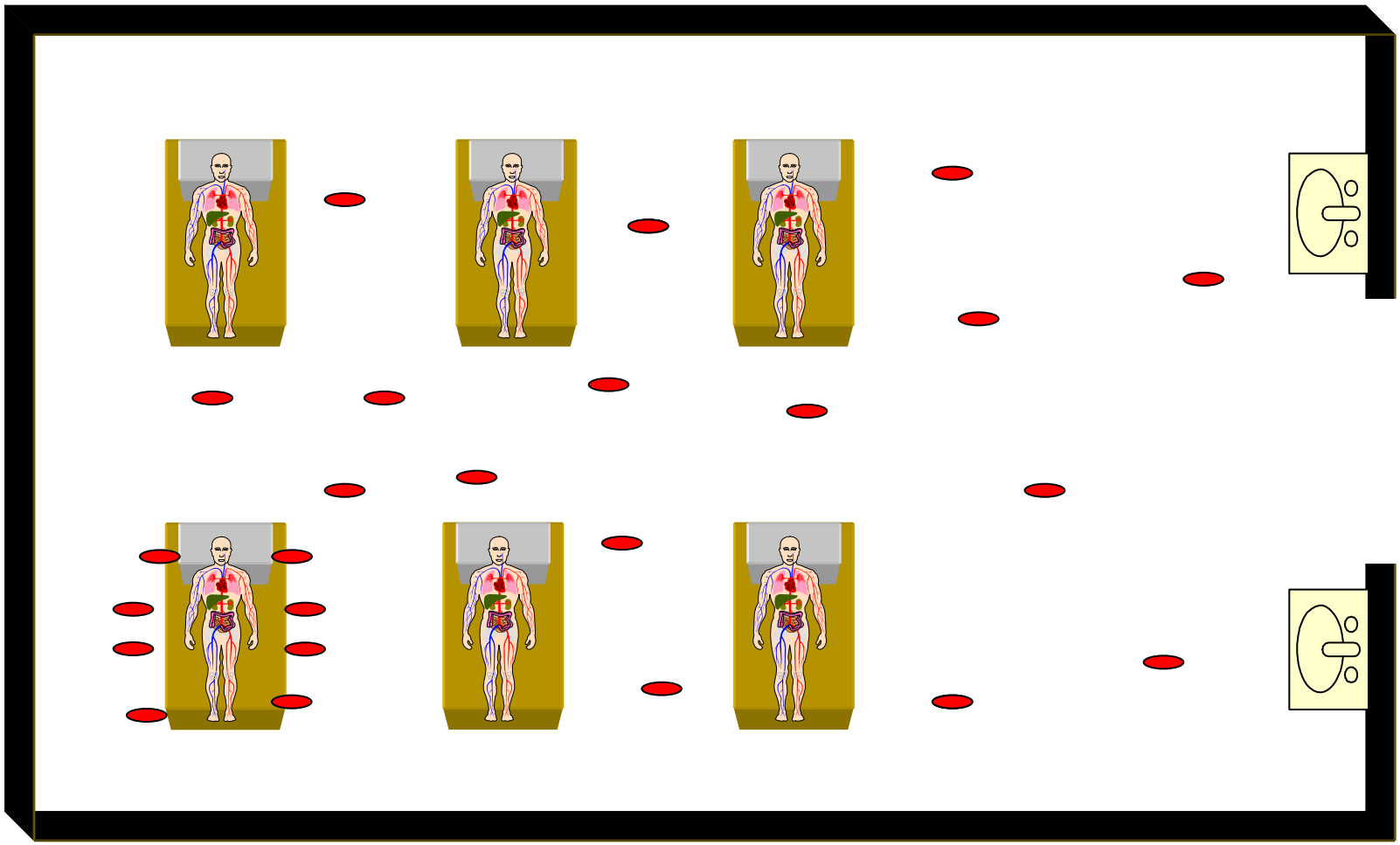
En-suite



Six bedded bay *Clostridium difficile* and norovirus



Six bedded bay *Clostridium difficile* and norovirus



Infectious disease transmission
Reproduction number R_0

1 2 3 4

Less than 1 to eliminate disease

Health
Protection
Agency

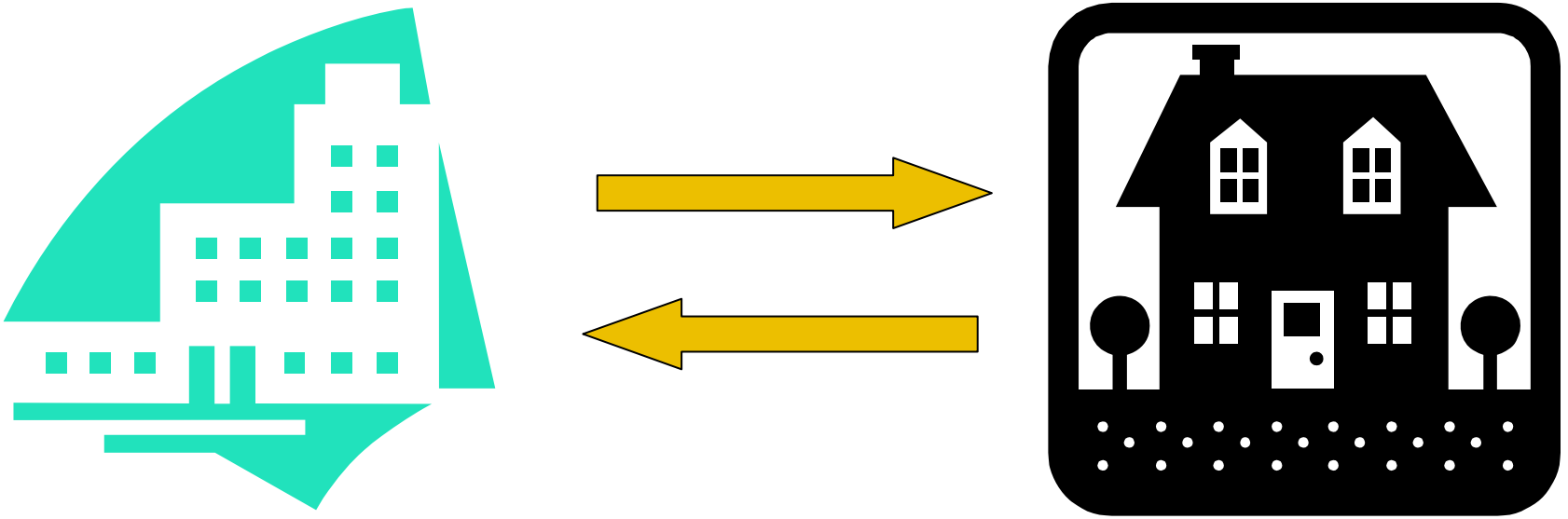
Diarrhoea in nursing homes

- Non – infective causes
- Laxatives
- Constipation –over flow
- Feed – milk intolerance

- Infective causes
- Norovirus
- *Clostridium difficile*
- Rotavirus

- Early detection
- Isolation
- En suite room
- Adequate cleaning
- Submission of specimen
- Adequate log book of incidents

Hospital and nursing home interaction



- *Clostridium difficile*
- Norovirus
- (MRSA)
- Other alert organisms

Ex hospital patient

- **Discharge letter**
- **Local intelligence**
- **Infection control measures**
  - Hand hygiene
  - Cleaning standards
  - Regular meetings
- **Asymptomatic**
  - then develops diarrhoea
- **Relapse**
-
- **Recent antibiotics**
  - trigger for Cd infection
- **Recent Hospitalisation**
  - primed patient

Nursing homes – Infection Control standards

- **En suite facilities**
- **Adequate hand hygiene facilities**
  - Sinks, soap, drying facilities – appropriate placement
  - Disposal bins – placement
  - Alcohol gel (not *Clostridium difficile*)
- **Cleaning standards**
  - daily cleaning regime
  - weekly cleaning
  - deep cleaning
  - de-clutterring and de-dusting
  - Bathroom cleaning checklist
- **Food hygiene standards**
- **Visitor policy**
  - Children
  - Adult
- **Change in culture**
- **Change in behaviour**
- **Education**
- **Training**
- **Monitoring**
- **Audit**
- **Audit against standard**
- **Walk about**
- **Governance structure**
- **Reporting lines**
- **Accountability and Responsibility**

Nursing home – patient care

- **Rapid isolation to prevent spread**
- **Full infection control measures**
  - **Staffing arrangements**
  - **Hand hygiene**
  - **Daily cleaning arrangements**
  - **Responsible person**
  - **Daily patient review – do not neglect (out of site out of mind)**
  - **Terminal clean**
  - **Nursing and social care**
- Protocol driven
  - **Patient care pathway**
  - **Nursing care pathway**
    - **Stool charts – frequency and consistency**
    - **Fluid balance**
    - **Blood pressure, heart rate and temp monitoring**

Nursing home – Isolation facilities

- Isolation facility
  - Rule base, procedures and processes
  - Infection control rules can be maintained
  - Environmental cleaning easier
  - Toilet facilities – bedpan and commodes
  - Control who comes in and who goes out
  - Maintain hand hygiene, gowns, etc
  - Maintain discipline

Deep cleaning

1 November 2007

IMPROVING CLEANLINESS AND INFECTION CONTROL

Dear Colleagues

As you are aware, the Prime Minister and Secretary of State recently announced a series of measures aimed at improving hospital cleanliness, including increasing the number of Matrons and giving more powers to nurses. This letter gives more detail.

Increasing the number of Matrons to 5000

We expect to have 5000 Matrons in acute services by May 2008. This will allow hospital Matrons to devote a substantial amount of time to the delivery of a safe and clean environment for patient care. To make sure the additional numbers of Matrons make a difference, Trusts should focus the role of the Matron on

- Providing a clean environment for care
- Ensuring best practice in infection control
- Improving clinical care standards
- Treating patients with dignity and respect

This letter builds on *A Matron's Charter : An Action Plan for Cleaner Hospitals* (DH, 2004).

In setting up implementation plans, Trust Directors of Nursing will need to introduce any necessary changes to ensure that all Matrons have personal responsibility for these actions.

We will be collecting the number of Matrons in post through the ESR on a monthly basis, by SHA. We will provide information on current and indicative numbers for each SHA directly to SHA Directors of Nursing and Workforce.

The financial allocation for this development will be reflected in PCT allocations and in the tariff from 2008/9.

Department of Health

From the Chief Nursing Officer and Director General of NHS Finance, Performance and Operations

Professor Christine Beasley CBE RN

Mr David Flory

Richmond House
79 Whitehall
London
SW1A 2NS

PL/CNO/2007/6

For action

- Chief Executives of NHS Trusts and NHS Foundation Trusts
- Chief Executives of Strategic Health Authorities
- Directors of Nursing of NHS Trusts and NHS Foundation Trusts
- Directors of Estates and Facilities of NHS Trusts and NHS Foundation Trusts
- Strategic Health Authorities Directors of Workforce
- Strategic Health Authorities Directors of Performance Management

For information

- Strategic Health Authorities Directors of Nursing
- Strategic Health Authorities Estates and Facilities advisors

Authorised by the Department of Health
Gateway No. 8977

Annex A

Deep cleaning

The details of the deep clean will be finalised locally. **SHA estates and facilities advisors** can help PCTs and SHAs to commission deep cleans that meet the needs of the site and deliver tangible outcomes by year-end.

The following list shows some of the ways in which we expect the deep cleaning to be carried out:

Dismantling/cleaning beds/bedrails	Curtain changing
Cleaning equipment e.g. commodes	Window washing
Cleaning ductwork	Cleaning soft furnishings
Steam cleaning	De-cluttering
Ultrasonic cleaning	Cleaning cupboards/storage space
Hydrogen peroxide fogging	Cleaning kitchens/food prep areas
Restoration of surfaces	Cleaning trolleys/trolley wheels
Wall-washing	Cleaning entrances/common areas
High cleaning	Doors and door furniture
Cleaning behind radiators, fitments	Light fittings
Floor scrubbing	Telephones/IT equipment

In some instances it may be more appropriate to replace items that cannot be satisfactorily cleaned, or to replace damaged finishes to make subsequent cleaning easier. Some Trusts may wish to use the fund to invest in equipment in this context, in addition to the cleaning of existing equipment where it need not be replaced.

The money can be spent in any hospital setting but priority should be given to areas where an impact on healthcare associated infections or on patient and public confidence can be clearly demonstrated. This is revenue funding which, under normal finance rules, can include non-capitalised equipment purchases.

Deep cleaning is disruptive and time consuming and it would be advisable for public confidence for Trusts to explain that a deep clean is in progress through appropriate signage.

Accessing funding

Proposals will be commissioned locally. They must be signed off by **Trust Directors of Nursing** and include confirmation that this will be truly additional expenditure and will lead to clear improvements in cleanliness and/or infection control.

Care Homes
- Attention to detail
– strategic, tactical and practical
– empowering people to do the right thing

Health Protection Agency

Ensure patient contact areas are adequately cleaned

- ❑ Does it look clean?
- ❑ Is it clean?
- ❑ How do you know?
- ❑ What system do you have in place to ensure?
- ❑ Quality and reliability?

Care homes
- Attention to detail
– strategic, tactical and practical
– empowering people to do the right thing

Health Protection Agency

Ensure bedpans and commodes are adequately cleaned

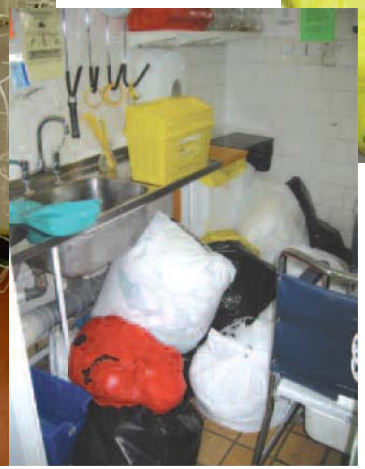
- ❑ Does it look clean?
- ❑ Is it clean?
- ❑ How do you know?
- ❑ What system do you have in place to ensure?
- ❑ Quality and reliability?

Care homes
- Attention to detail
– strategic, tactical and practical
– empowering people to do the right thing

What is the culture in the care home?

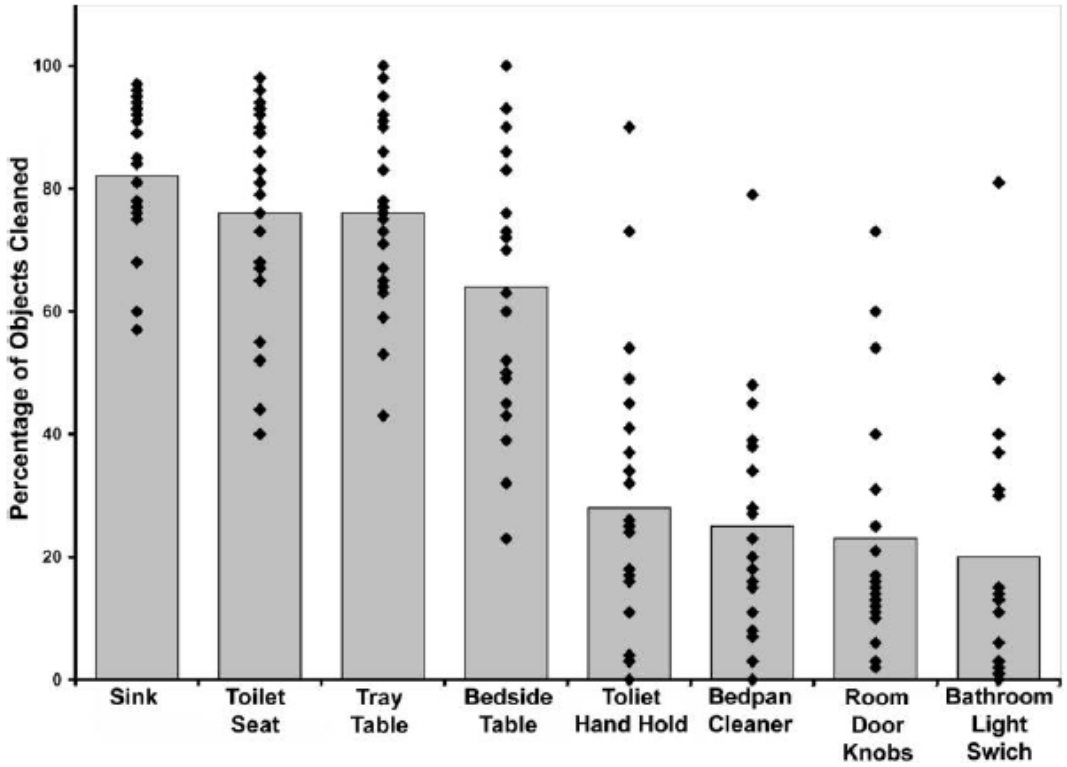
Is there sufficient storage space? - Redesign

- ❑ Does it look clean?
- ❑ Is it clean?
- ❑ How do you know?
- ❑ What system do you have in place to ensure?
- ❑ Quality and reliability?



Healthcare Commission

Cleaning Schedules

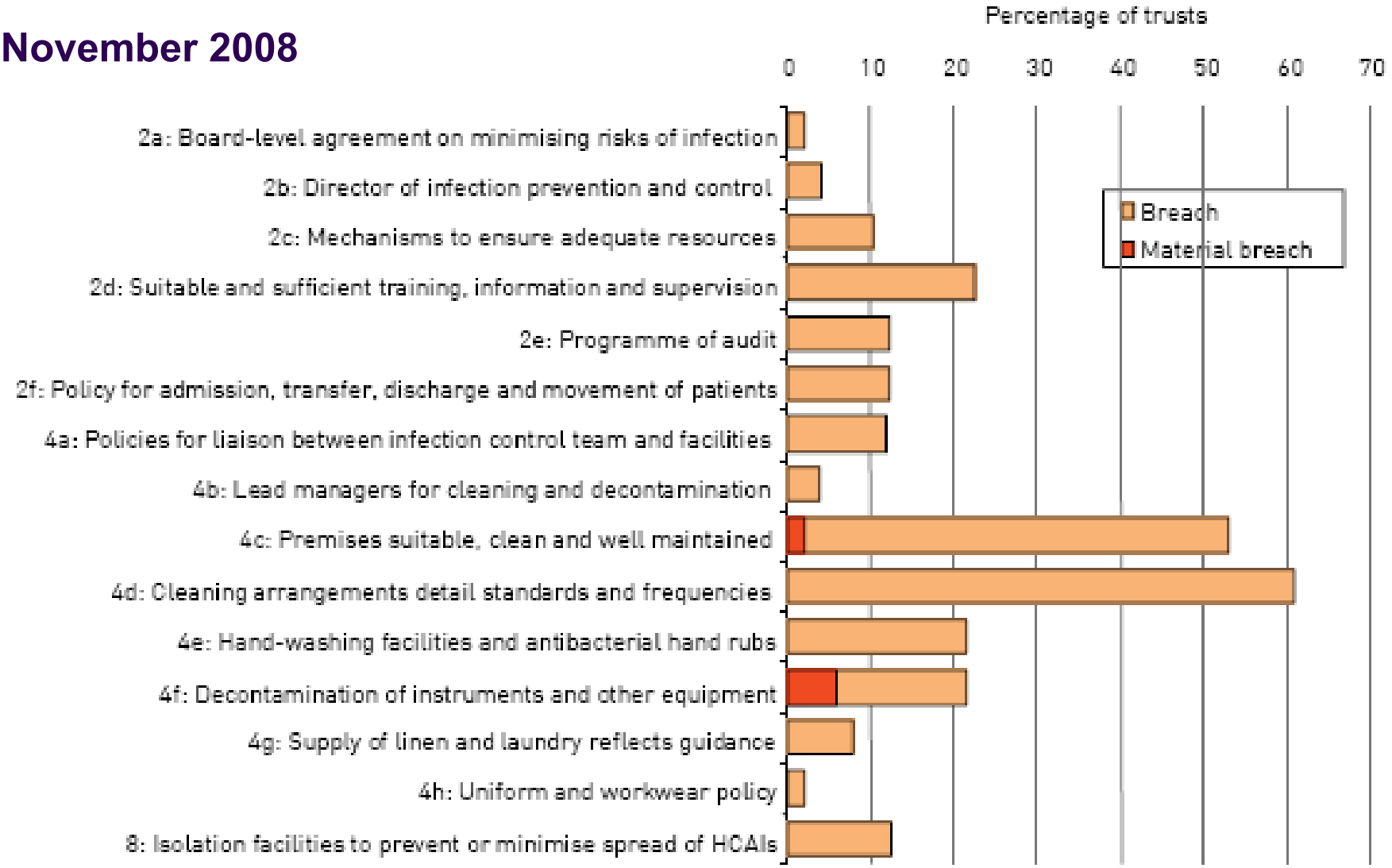


Identifying opportunities to enhance environmental cleaning in 23 acute care hospitals
Infection control and hospital epidemiology
Carling P et al January 2008 Vol 29 No 1 p1-7

Healthcare Commission
Inspections of cleanliness and infection control: how well are acute trusts following the hygiene code?

Health Protection Agency

November 2008



Patient confidence and satisfaction

- Error rates
- Defects
  - 1in 100
  - 1 in 1,000
  - 1 in 10,000
  - 1 in 100,000
  - 1 in 1,000,000

What level of error would you tolerate?

www.bristolairport.co.uk

Bristol International Air traffic control

Hand Hygiene Transmission routes

National Patient Safety Agency

NHS National Patient Safety Agency

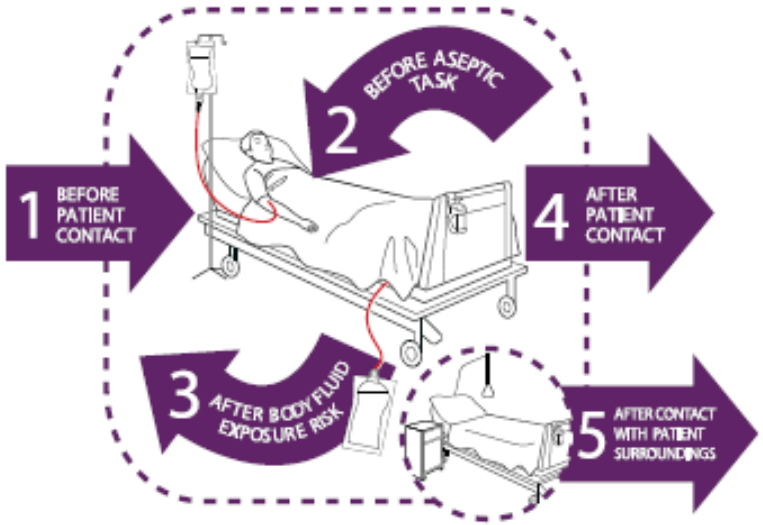
Health Protection Agency

At the bed-side

At the bed-side

At the bed-side

Your 5 moments for hand hygiene at the point of care



1	BEFORE PATIENT CONTACT	**WHEN?** Clean your hands before touching a patient when approaching him/her **WHY?** To protect the patient against harmful germs carried on your hands
2	BEFORE AN ASEPTIC TASK	**WHEN?** Clean your hands immediately before any aseptic task **WHY?** To protect the patient against harmful germs, including the patient's own, from entering his/her body
3	AFTER BODY FLUID EXPOSURE RISK	**WHEN?** Clean your hands immediately after an exposure risk to body fluids (and after glove removal) **WHY?** To protect yourself and the healthcare environment from harmful patient germs
4	AFTER PATIENT CONTACT	**WHEN?** Clean your hands after touching a patient and her/his immediate surroundings when leaving the patient's side **WHY?** To protect yourself and the healthcare environment from harmful patient germs
5	AFTER CONTACT WITH PATIENT SURROUNDINGS	**WHEN?** Clean your hands after touching any object or furniture in the patient's immediate surroundings when leaving - even if the patient has not been touched **WHY?** To protect yourself and the healthcare environment from harmful patient germs

Adapted from WHO World Alliance for Patient Safety 2006

cleanyourhands campaign

http://www.npsa.nhs.uk/nrls/alerts-and-directives/alerts/clean-hands-save-lives/

Hand Hygiene Transmission routes

At the Chair -side

At the Chair -side

At the Chair -side

National Patient Safety Agency

Your 5 moments for hand hygiene at the point of care

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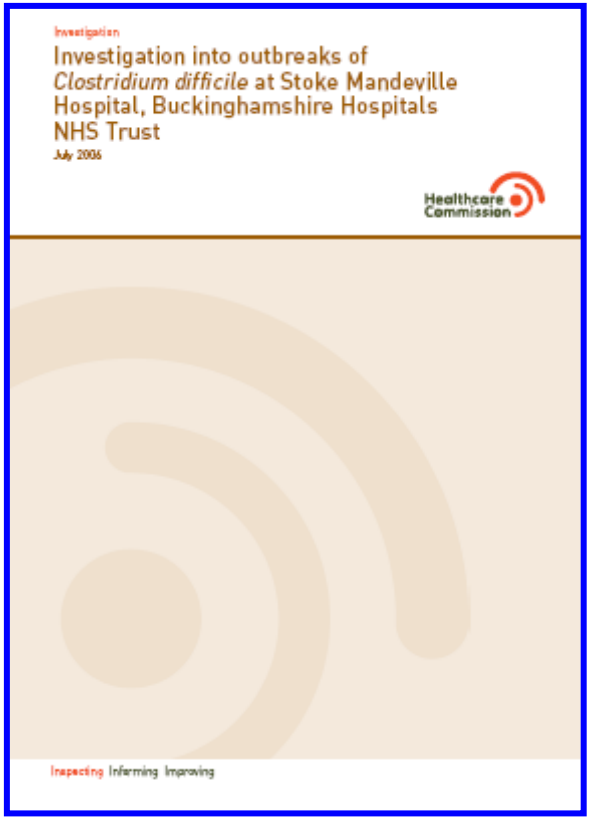
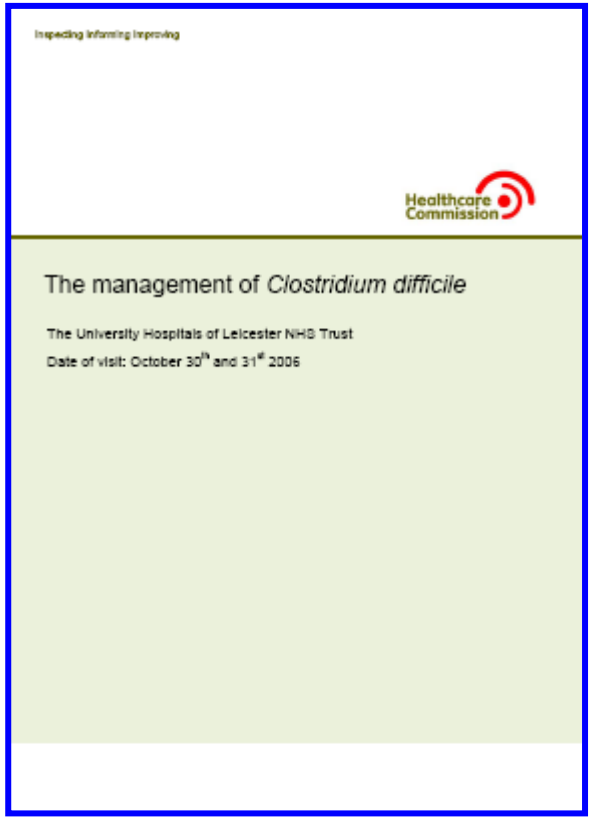
Adapted from WHO World Alliance for Patient Safety 2006

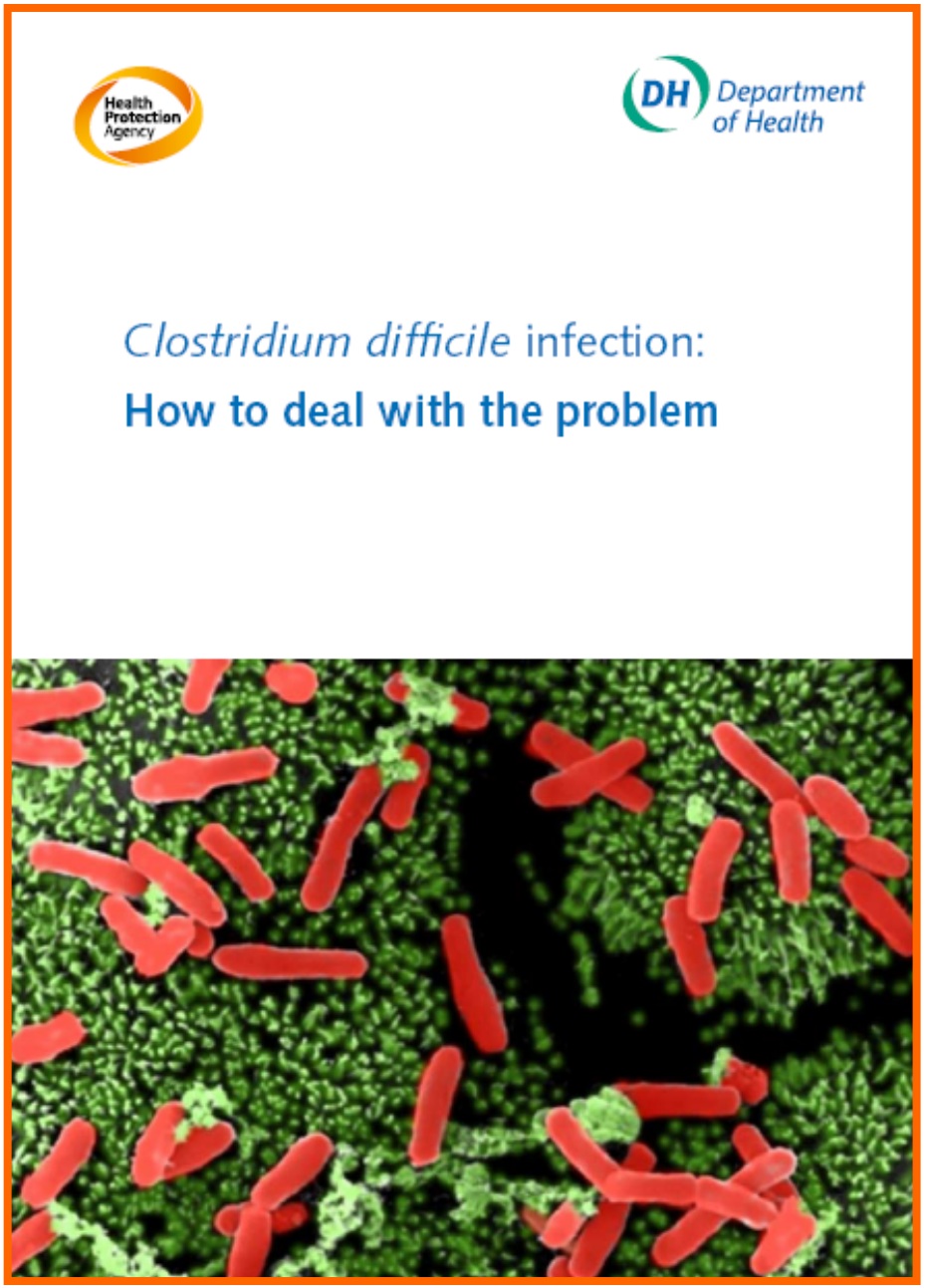
http://www.npsa.nhs.uk/nrls/alerts-and-directives/alerts/clean-hands-save-lives/

Healthcare Commission reports





www.healthcarecommission.org.uk



January 2009

Health Protection Agency

http://www.hpa.org.uk/web/HPAwebFile/HPAweb_C/1232006607827

- Those in the community who have contact with people with diarrhoea should wear:
  - **disposable gloves and aprons for all contact with them and their environment.**
- After contact they should dispose of the gloves and aprons and wash their own hands with liquid soap and water, whether or not their hands are visibly soiled.
- Alcohol handrub can be used after this.

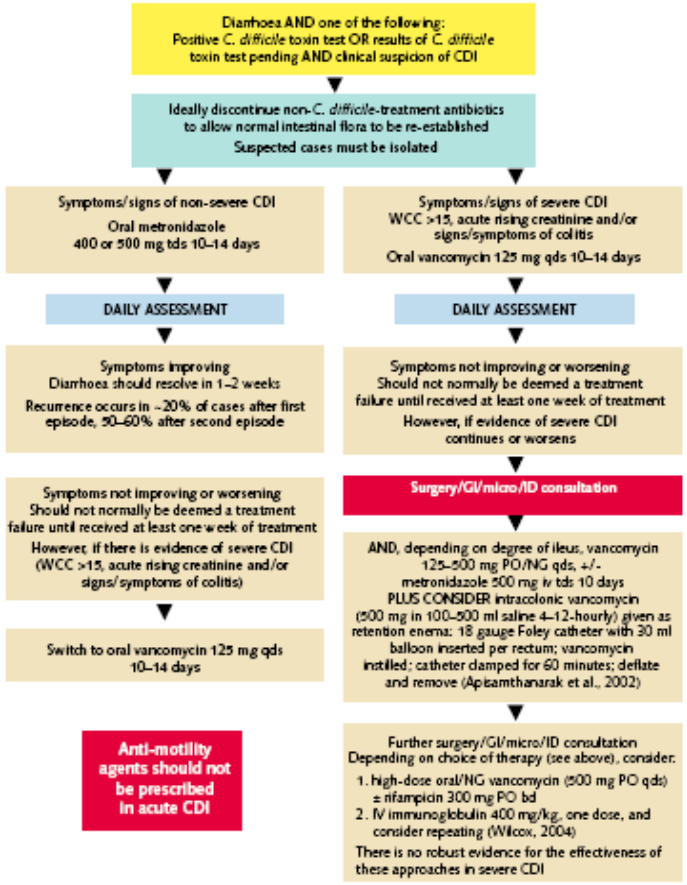
- Staff in the community who have diarrhoea should not work unless they have been symptom-free for 48 hours or the diarrhoea has been shown to be non-infectious and not a risk to others.
- Staff with continuous severe diarrhoea should be investigated and followed up.

- Guidance on prescribing antibiotics in the community should be followed.
- Proton pump inhibitors (PPIs) should be used only when there is a clear clinical indication.

- There should be no restriction on institutions, such as care homes, receiving patients who have had CDI and are now clinically asymptomatic.
- Care should be taken to communicate the individual's infectious status clearly to staff and GPs, issuing a proforma letter.

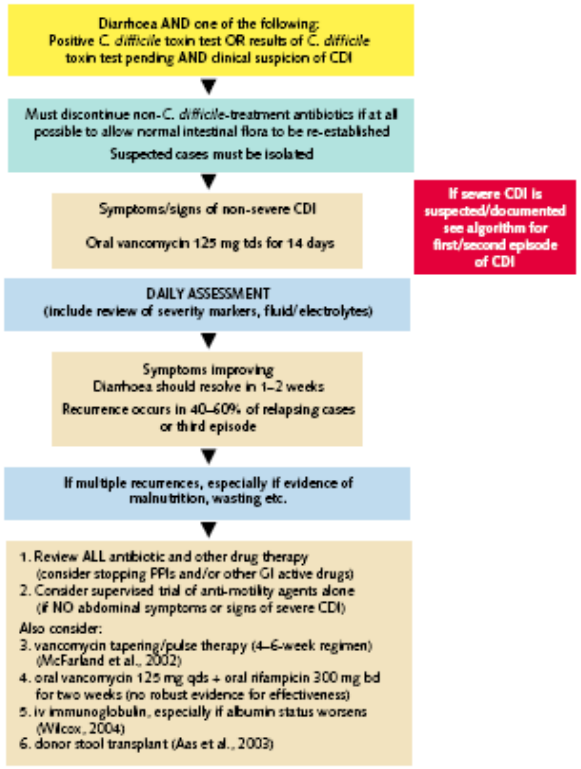
Treatment algorithms

Figure 3: First or second episode of *C. difficile* infection



Treatment algorithms

Figure 4: Recurrent C. *difficile* infection (third or subsequent episode)



Health Protection Agency

Appendix 2:
The Bristol Stool Form Scale (Bristol Stool Chart)

Type 1		Separate hard lumps, like nuts (hard to pass)
Type 2		Sausage-shaped but lumpy
Type 3		Like a sausage but with cracks on its surface
Type 4		Like a sausage or snake, smooth and soft
Type 5		Soft blobs with clear-cut edges (passed easily)
Type 6		Fluffy pieces, a mushy stool
Type 7		Watery, no solid pieces ENTIRELY LIQUID

Reproduced by kind permission of Dr K. W. Heaton, Reader in Medicine at the University of Bristol.

Appendix 3:
Medicines that can produce diarrhoea

Diarrhoea is a common adverse drug reaction (ADR) with many medicines. Antimicrobials account for about 25% of drug-induced diarrhoea though most cases are benign (Lee, 2006).

While diarrhoea has been seen with most medicines, the ones that are most commonly implicated are:

- acarbose;
- antimicrobials;
- biguanides;
- bile salts;
- colchicine;
- cytotoxics;
- dipyridamole;
- gold preparations;
- iron preparations;
- laxatives;
- leflunomide;
- magnesium preparations, eg antacids;
- metoclopramide;
- misoprostol;
- non-steroidal anti-inflammatory drugs (NSAIDS), e.g. aspirin, ibuprofen;
- olsalazine;
- orlistat;
- proton pump inhibitors; and
- ticlopidine.

Alternative diagnoses for the diarrhoea are important; therefore, careful attention should be paid to the temporal relationship between the time that the medicine is first taken and when the diarrhoea first appears.

Further information on adverse effects is available from local medicines information centres or by using the 'search by section' facility at http://emc.medicines.org.uk/

Appendix 4:
Example of a proforma letter to GPs

Date:

Dear Doctor

Re:

The above was recently an in-patient on Ward .....

During their hospitalisation, your patient was diagnosed as having *Clostridium difficile* infection and was treated with.....

This infection is almost exclusively associated with the use of antibiotics. Infection may become manifest while on antibiotics, but a significant number of cases occur following cessation of therapy, the incubation period extending to several weeks. Symptoms may include fever, abdominal pain and diarrhoea (with/without blood or mucus).

We are therefore writing to inform you that there is a small chance following discharge that:

- your patient could relapse with the infection. If this happens, please discuss their treatment with the medical microbiologist. If concerned about the severity of infection, hospital admission should be considered; and
- future administration of broad-spectrum antibiotics could precipitate infection.

(If antibiotics are required, a short course of a narrow-spectrum agent is preferable.)

Once the patient has recovered, follow-up samples for clearance are not required.

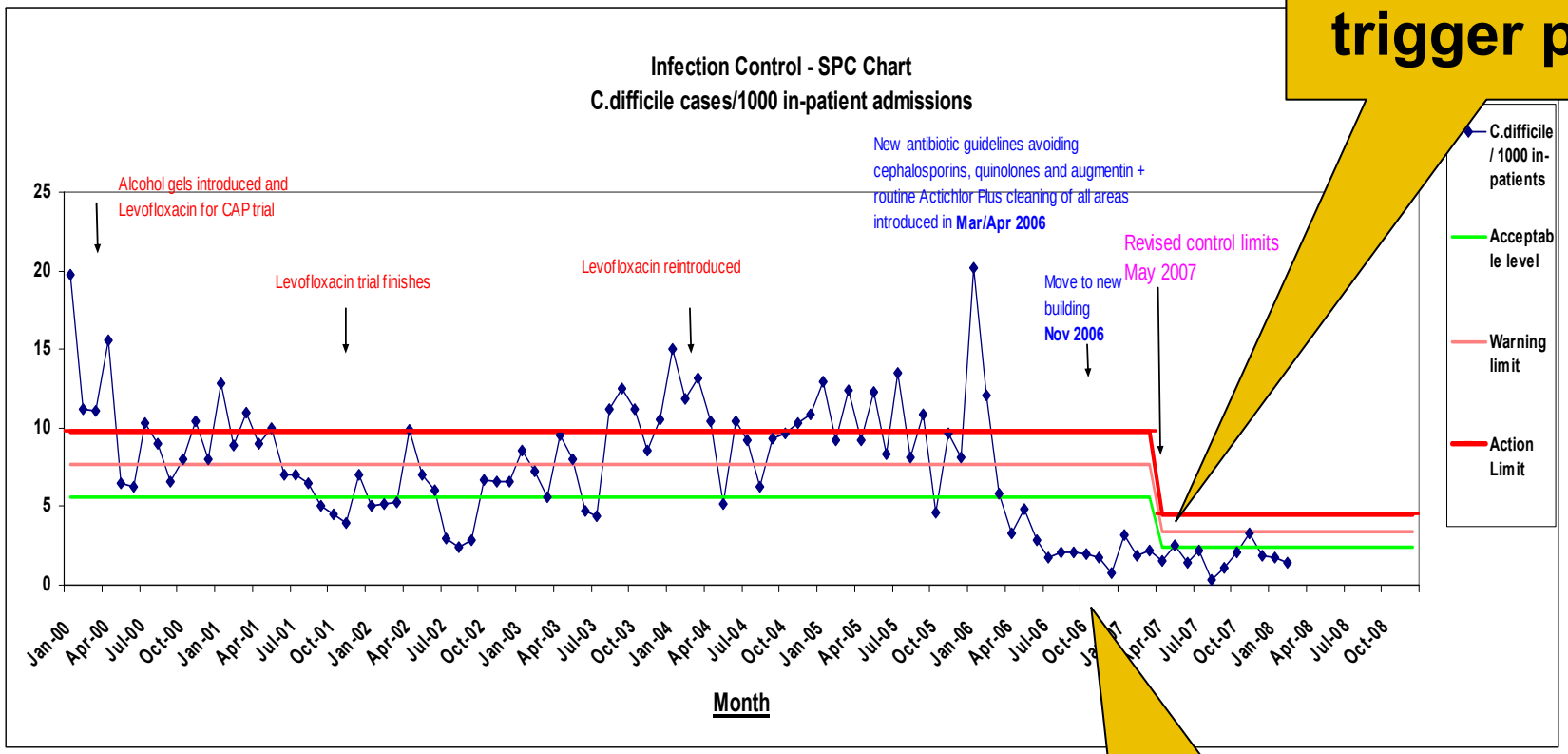
For further advice, contact the medical microbiologist on extension xxx or via the switchboard outside working hours.

Yours sincerely

A London Hospital

Health Protection Agency

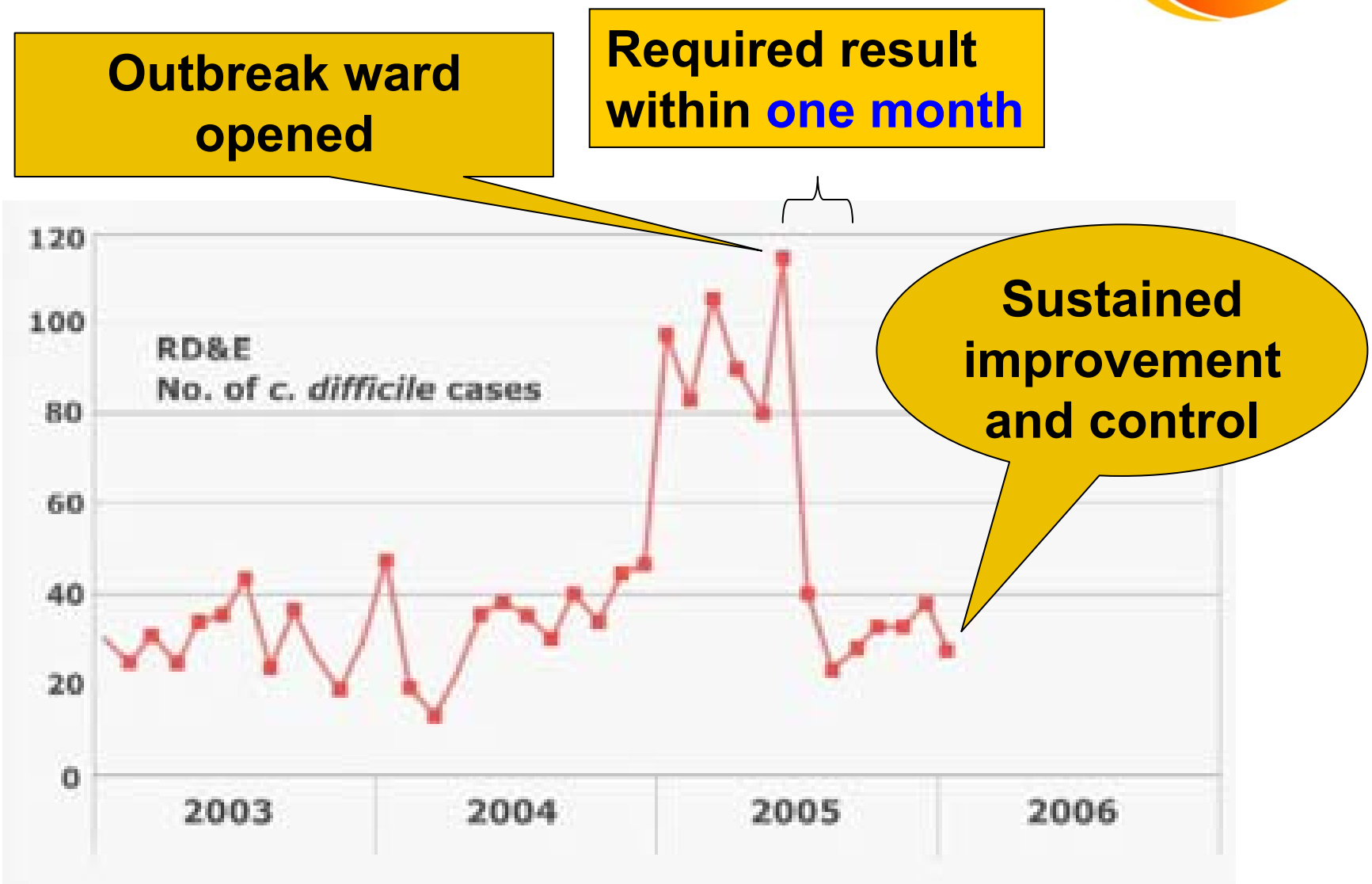
Discussion on trigger points



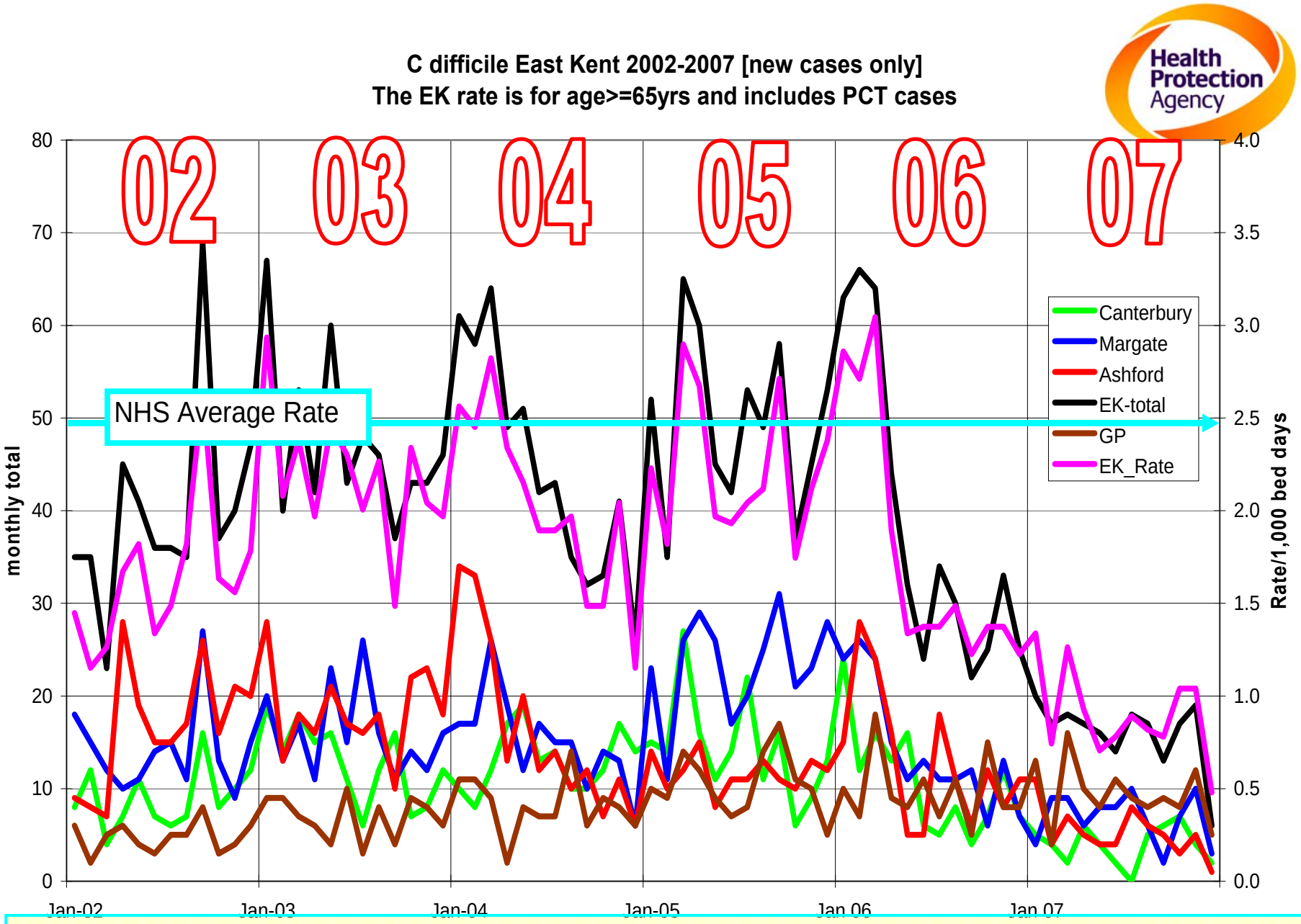
New PFI hospital

Patient safety – Quality in healthcare delivery – Zero tolerance

Effectiveness of an isolation ward
Royal Devon and Exeter Hospital

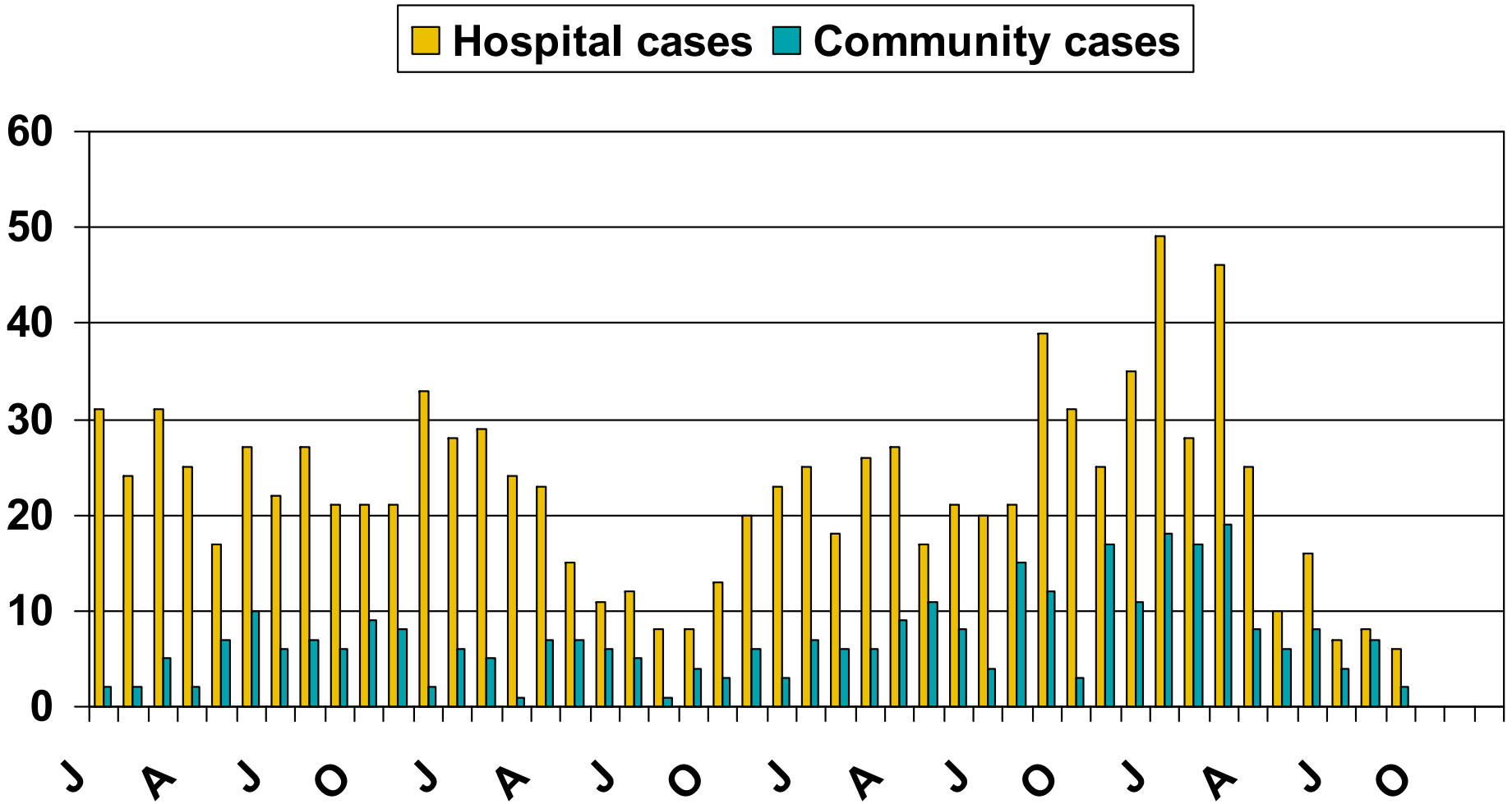


http://www.bmjlearning.com/planrecord/foundation/learnonline/videomodule_cdifficile.htm



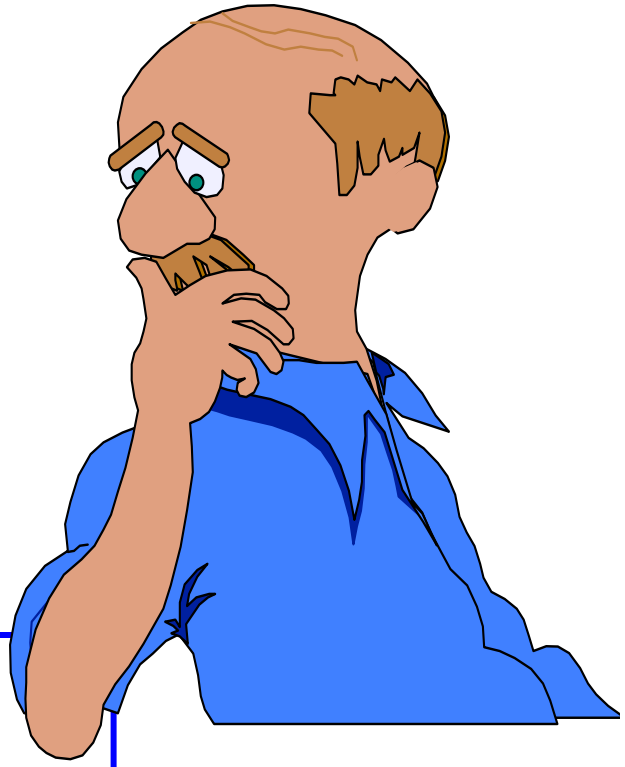
Patient safety – Quality in healthcare delivery – Zero tolerance

Control the hospital – the community problem disappears



What makes it happen?

- Levers
- Drivers
- Motivation
- Incentives
- Improving
- Making it happen



- Delivering safe care
- Delivering reliable care
- Delivering consistent care
- Delivering the best care

Key points

- Organisational culture
- Leadership
- Frontline staff
- When organisations get it right

Strategies – Attention to detail

- Every little measure counts
- No single measure is effective
- All five measures 100% of the time
- Is it really happening at the coal face?
- How do we know?
- What are the monitoring systems?
- How do we know its working?

Cleaning
Meticulous, Scrutiny, Reliability, Consistency, Performance

- Schedule
- Contact areas
- Audit
- Compliance
- Contact areas
- Teaching and training

Cautions

- Take account of outbreaks
- Take account of norovirus

How can we improve?

- Measure it
- Audit it
- Monitor compliance
- Learn from our mistakes
- Learn from others mistakes
- Access all the skills of the work force

Patient safety – Quality in healthcare delivery – Zero tolerance

Top priority - Care Homes

Essentials of delivering modern healthcare

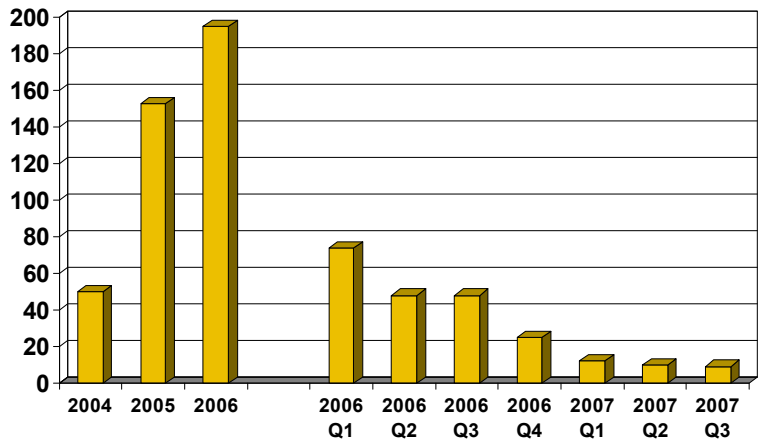
- Delivering good quality healthcare
- Delivering safe healthcare
- Delivering patient focused healthcare
- Reliable, consistent and of a high standard
- Delivered as part of a normal service and not an added extra
- Sustained

Patient safety – Quality in healthcare delivery – Zero tolerance

Clostridium difficile: can we get to low levels?

- ❑ can we eliminate *Clostridium difficile*

- ❑ We can reduce it significantly
- ❑ We can achieve very low levels
- ❑ Don't get left behind



What does Zero tolerance mean?

When a patient gets a HCAI is that a failure of healthcare delivery?

Yes and don't let anyone tell you otherwise

Who makes it happen?

- Are you encouraged by what you have seen?
- Are you inspired?
- Go back to your care home
- Take a lead
- Become a leader
- Make a difference
- Enhance patient safety and save lives

Introduction to infection control in care homes

This is a series of seven short films. These are designed to provide staff with an introduction to infection control.

These seven short films include:

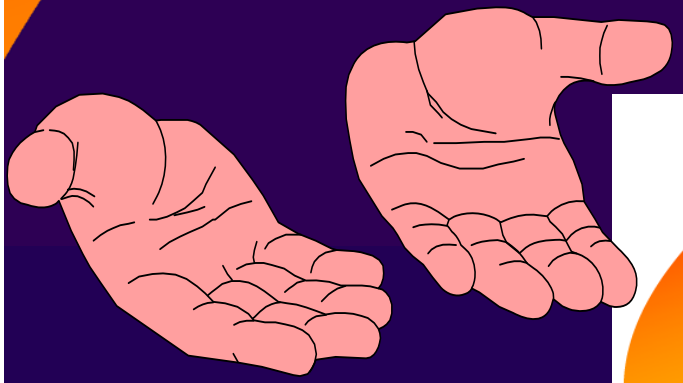
- Preventing Infection
- Hand Hygiene
- Person Protective Equipment
- Prevention of exposure to Blood and Body fluids
- Clinical Equipment
- General Equipment
- Management of Laundry

Infection control nurses have provided expert advice throughout filming and production of the training resource. Every effort has been made to ensure that the advice provided is based on the best available evidence
while providing advice that can be easily adopted and put into practice. The DVD can be can be used to supplement existing infection control training programs for care homes. It will also provide practical assistance to help comply with the Department of Health Code of Practice as and when it is issued.

http://www.hpa.org.uk/webw/HPAweb&Page&HPAwebAutoListName/Page/1229594195568?p=1229594195568

Thank you for listening

Patient Safety Community Safety



PLEASE WASH YOUR HANDS

Bharat Patel

HPA
Consultant
Medical
Microbiologist

Acknowledgements:

To my colleagues in various NHS hospitals

BMJ Learning

Health Protection Agency website

Department of Health colleagues

DH Website

7th July 2009