Prevention And Control of Infection: A Multifactorial Approach

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Aim

• To provide an overview of
  – Current national initiatives for prevention and control of HAIs
  – Where HAI aligns with other national initiatives
  – Structural factors required for infection prevention and control
  – Standard infection control precautions; transmission-based precautions
National Overview

- All four UK countries have HAI action plans and are at various stages of implementation
- CNO leads in each country
- HAI Task Force in Scotland
Situation Update

CMO Health Protection Priorities
Scottish Patient Safety Programme
Implementation and Monitoring
National Hand Hygiene Campaign
Clinical Quality Indicators
Antimicrobial Prescribing
HAI Task Force Delivery Plan
HAI Action Plan
National Tissue Viability Programme
Senior Charge Nurses
Better Health Better Care
Better Together

Joined up approach at national level
HAI Task Force

- New HAI Task Force three year Delivery Plan (e.g. patient safety, education, surveillance, guidance and standards and physical environment)

- Implementing prioritised actions based on the Scottish HAI prevalence survey – trying to improve patient safety and quality of care

- Overall national HAI prevalence of 9.5% for acute hospitals and 7.3% for non-acute hospitals

- Need to improve
Priority areas for surveillance:

- Catheter associated urinary tract infection (CAUTI)
- Surgical site infection
- Gastrointestinal infection (specifically Clostridium difficile)
- Skin and soft tissue infections
- Central vascular catheters and peripheral vascular catheters
- Blood stream infections
- Repeated speciality
Priority interventions

- Care and maintenance of devices (urinary catheters, peripheral and central vascular catheters and mechanical ventilation)
- Surgical site infection prevention
- Prudent prescribing of antimicrobials
- ‘Care Bundle’ approach
- Continuing improvement of infection prevention and control
- Scottish Infection Research Network (SIRN) research e.g. research on single interventions, impact of HAI outbreaks
Health Protection Scotland’s Remit

• To work, in partnership with others, to protect the Scottish public from being exposed to hazards which damage their health and to limit any impact on health when such exposures cannot be avoided.

• Health Protection Scotland will seek to achieve its aim by:
  – Ensuring a consistent, efficient and effective approach in the delivery of health protection services by NHS related agencies;
  – Co-ordinating the efforts of public health agencies in Scotland in health protection, especially when a rapid response is required to a major threat;
  – Helping to increase the public understanding of, and attitudes to, public health hazards and facilitating their level of involvement in the measures needed to protect them from these;
  – Being the source in Scotland of expert advice and support to government, NHS, other organisations and the public on health protection issues;
  – Helping to develop a competent health protection workforce;
  – Improving the knowledge base for health protection through research and development.
Infection Control Team’s Remit

• To provide expert infection control advice, guidance and support we aim to identify, develop and encourage best practice in order to contribute to the improvement of HAI outcomes and Health Protection in Scotland.

- Public health / community infection control
- Further development of hand hygiene campaign
- Model policies supporting materials
- Further development of ECOSS
- Care home surveillance
- Care bundles
- National guidance – diarrhoeal samples
- Outbreak resources
- MRSA screening programme pilot
- Variation in SAB rates
- Surveillance of antimicrobial resistance
- Surveillance of use of antimicrobial resistance drugs
- Further development of ECOSS
Scottish Patient Safety Programme

- Scottish Patient Safety Programme builds on work that is already taking place through the UK Safer Patients Initiative
- To steadily improve the safety of hospital care right across the country
  - evidence-based tools and techniques to improve the reliability and safety of everyday health care systems and processes
- Real-time data will be gathered by units
- The staff caring directly for patients will lead the changes required to achieve the aims of the programme

Source - http://www.patientsafetyalliance.scot.nhs.uk/about-the-alliance/
CMO Health Protection Priorities 2008-10

• Include HAI and antimicrobial resistance
National Tissue Viability Programme

- Direct link to findings of HAI prevalence survey
- Links to patient safety
- Pressure ulcer care bundles
- Educational package
- Prevalence and incidence national monitoring
- Aligns with Clinical Quality Indicator programme
Clinical Quality Indicators

- Linked to Senior Charge Nurse Review
- Linked to patient safety
- Supported by national electronic quality improvement programme
- Pressure ulcer prevention; falls prevention; food, fluid and nutrition; monitoring and observation
Senior Charge Nurse Review & Responsibility for Safety and Cleanliness

- Senior charge nurses throughout Scotland will in future have the same responsibility for ward hygiene as matrons used to have.

- New responsibilities critical in enforcing vital hygiene standards, and helping to tackle healthcare associated infections as one part of their expanded leadership role.

- A key component of the new role is the responsibility for "signing off" on a daily basis, cleaning and hygiene standards in their wards.

HAI Action Plan

- 7th August 08

- Released in light of the *C. difficile* outbreak in the Vale of Leven Hospital to address the recommendations arising from the independent review and look back exercise
New HAI Action Plan (August 2008)

- NHS Scotland hand hygiene policy clarification on what agents to use for hand hygiene and when they are indicated.
- Clostridium difficile Root Cause Analysis tool to be developed and used by Boards to investigate adverse outcomes including death.
- National infection control guidance for primary and community care.
- Standard template and guidance for local surveillance to be developed and implemented by NHS Boards.
- National; overview hand hygiene report produced 2 monthly on NHS Boards compliance.
- Information leaflets:
  - HAI (general information)
  - Clostridium difficile (patients, relatives and staff)
  - Laundering of patients laundry at home
- Mandatory surveillance of Clostridium difficile associated disease revised to include surveillance of 15 year old and above and quarterly reports.
- A pilot of web based episode reporting with roll out to all diagnostic laboratories from March 2009.
- All Boards will have web based test reporting for Clostridium difficile by end of October 2008.
- National guidance on prevention, control and management of Clostridium difficile:
  - CDAD care bundle
  - C.diff check list
  - Framework for local surveillance
  - Antimicrobial prescribing.

HPS
<table>
<thead>
<tr>
<th>NHS Board Responsibilities</th>
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<tr>
<td>- Empower their Charge Nurses to deliver against their responsibilities</td>
<td>- All patients to receive information on HAI</td>
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<td>- Implement the recommendations in the Senior Charge Nurse Review</td>
<td>- Infection control policies include primary and community care</td>
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<td>- HAI SCRIBE</td>
<td>- Structure/resources to provide effective IC service across NHS Board area</td>
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<td>- Planned preventative maintenance programmes</td>
<td>- Policy / guidance on completing death certificates reviewed</td>
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<td>- Have ‘zero tolerance’ to non-compliance with hand hygiene</td>
<td>- Local surveillance</td>
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<td>- Report hand hygiene compliance (staff and visitors) and facilities on a hospital basis to 2 monthly Board meetings</td>
<td>- NHS Boards Risk Register</td>
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<td>- HAI budget requirements</td>
<td>- NHS Boards to self assess current compliance with NHS QIS HAI Standards (March 2008)</td>
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<td>- Identify budget for urgent repairs and replacement equipment available to Charge Nurses</td>
<td>- HAI education and training</td>
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<td>- Cleaning matrix with responsible discipline</td>
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<td>- HAI objective in annual CPD plans</td>
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NHS QIS
HAI Standards

• Standard 1 – Compliance
• Standard 2 – Public involvement, patient focus
• Standard 3a & 3b – Prevention and control of infection
• Standard 4 – Environment and equipment
• Standard 5 – Education
• Model Infection Control Policies
  – Standard Infection Control Precautions
  – Transmission Based Precautions
Model Infection Control Policies

- Model Infection Control Policies
  - Provide a common, evidence based approach to Infection Control
  - Standard Infection Control Precautions
  - Reviewed regularly to ensure current evidence
Standard Infection Control Precautions Model Policies

- Request from SEHD
- Not mandatory
- Provide a common, evidence based approach to infection control
- Avoid duplication of effort
- They are to be used with other local and national guidance
- They are reviewed on a regular basis to ensure the most up-to-date evidence is included
**Standard Infection Control Precautions Model Policies**

- Consist of nine policies

<table>
<thead>
<tr>
<th>• Hand Hygiene</th>
<th>• Management of Care Equipment</th>
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<tr>
<td>• Personal Protective Equipment</td>
<td>• Control of the Environment</td>
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<td>• Occupational Exposure Management (Including Sharps)</td>
<td>• Safe Management of Linen</td>
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<tr>
<td>• Management of Blood And Body Fluid Spillages</td>
<td>• Safe Disposal of Waste</td>
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<td>• Providing Care in the Most Appropriate Place</td>
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Transmission Based Precautions Model Policies

- Based on CDC Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings 2007

- Addition to Standard Infection Control Precautions

- Set of measures that should be implemented when patients/clients are either suspected or known to be infected with a specific infectious agent
  - For example those of HAI concern such as MRSA and *C. difficile* that may spread and cause harm to others while care is being delivered

- They are reviewed on a regular basis to ensure the most up-to-date evidence is included
Transmission Based Precautions Model Policies

- Consist of three policies

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<tr>
<th>Transmission Type</th>
<th>Example</th>
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<tr>
<td>Droplet</td>
<td>e.g. Influenza</td>
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<tr>
<td>Contact</td>
<td>e.g. MRSA</td>
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<tr>
<td>Airborne</td>
<td>e.g. Acute respiratory <em>Mycobacterium tuberculosis</em></td>
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Summary

• Infection prevention and control is a priority for improvement of patient, staff and visitor safety and quality of patient care

• Infection prevention and control is everyone’s responsibility

• Requires a multifactorial and multiprofessional approach
“Nine-tenths of our sickness can be prevented by right thinking plus right hygiene – nine-tenths of it!!”

Henry Miller (1891-1980)
Websites

- HPS Infection Control Team –

- Standard Infection Control Precautions Model Policies –

- Transmission Based Precautions Model Policies –