



Policy Group on Healthcare-Associated Infection (HCAI)

## **How to Advise Patients with a HCAI – Guidance for Healthcare Workers in Dealing with Patients and Members of the Public**



F PHYSICIANS OF IRELAND

## Executive Summary

Much unnecessary anxiety can be generated when a diagnosis of a healthcare-associated infection (HCAI), such as MRSA, is made, as patients and their families do not always have access to credible or accurate sources of information. It is very important that healthcare workers inform affected patients of their condition and the prognosis in an appropriate and professional manner. Information provided about the patient's infection should be easily understood and given as soon as is practical and feasible. For example, there may be confusion amongst patients between colonisation or carriage when a patient is not ill, whereas infection usually requires treatment.

This document is intended to provide guidelines for healthcare workers. **It should not be given to patients instead of an information leaflet.** Suitable sources of information for the public are referenced in this document.

## What is a Healthcare Associated Infection (HCAI)?<sup>1</sup>

It is important to explain clearly to patients what a HCAI is and how it is contracted. Some of the coverage in the media and in other sources is not always clear or accurate. Information provided to the patient could define a HCAI as follows:

‘Healthcare-associated infection’ or HCAI refers to an infection that occurs as a result of contact with the healthcare system in its widest sense - from care provided in hospitals to care provided in patients’ homes, including primary (GP) care and nursing home care. These infections occur when microbes or germs (usually bacteria) enter the body through a wound or opening, such as the mouth, eyes or urinary tract. Between 1 in 10 and 1 in 20 patients admitted to acute hospitals will develop a HCAI, not all of which are preventable. It is not possible to eradicate HCAs completely.

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<sup>1</sup> Welsh Assembly Government Public Health Division: *Healthcare Associated Infections; Consultation on Information Provision, February 2008.*

## Where do HCAs occur in the body?<sup>2 3</sup>

Patients may not be aware that HCAs can occur anywhere in the body. The parts of the body most commonly affected are:

- The urinary tract; for example, cystitis, kidney infection
- The lower respiratory tract; for example, broncho-pneumonia, lobar pneumonia
- The skin; for example, infected diabetic ulcer, infected varicose ulcer
- The blood stream (septicaemia)
- Any part of the body that has been operated on or wounded; surgical sites or wounds may become infected after an operation

The nose and skin, and in particular skin folds in the armpit and groin, are common carriage sites for bacteria that cause infections.

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<sup>2</sup> Welsh Assembly Government Public Health Division: *Healthcare Associated Infections; Consultation on Information Provision, February 2008*

<sup>3</sup> HPSC, *Prevalence Survey of Healthcare-Associated Infections 2006*

## Risk Factors: Older Age, Compromised Immunity and Antibiotic Use

Many patients admitted to hospital have an immune system that is compromised in some way. Families and caregivers of patients infected with a HCAI should be informed, in a sympathetic manner that their loved ones may have been at an increased risk of developing the infection. The following information should be provided where relevant.

### Aging

Elderly patients are generally more susceptible to HCAs because the body's immune system becomes impaired with age and is less effective at fighting infections. With improvements in medical, diagnostic and therapeutic services, patients are surviving longer than ever before. In the last 20 years, the life expectancy of men and women in Ireland has increased from 71 to 76.8 years and 77 to 81.6 years respectively<sup>4</sup>. While those over 65 years of age account for just 11%<sup>5</sup> of the total Irish population, this same age group accounted for 31% of all hospital discharges in 2006<sup>6</sup>.

Although the most serious HCAs tend to occur in hospitals and long-stay units, there is increasing recognition of HCAs in nursing homes and in day care centres. In these settings, the increased age of residents and the increased use of antibiotics combine to increase the risk of HCAs.

### Compromised immunity

Any patient with an immune system that is compromised in some way will be at an increased risk of developing a HCAI. This includes low birth weight and premature infants, patients on chemotherapy for cancer, patients on immunosuppressive medicines such as corticosteroids and patients with certain diseases, e.g. diabetes mellitus.

### Antibiotic use

HCAs are often associated with antibiotic resistance, which results from their overuse<sup>7</sup>. The use of antibiotics is continuing to increase in Ireland and we are one of just three countries in Europe where the volume of outpatient antibiotic prescribing is still increasing - 3% since 2000<sup>8</sup>. Antibiotic-resistant bacteria such as MRSA and VRE (vancomycin-resistant enterococci) are common causes of infection in hospitals.

*Clostridium difficile* infection (CDI) is not an antibiotic resistant infection but is associated with antibiotic use. CDI has received a lot of media attention in recent years and is a major cause of public anxiety. The bacterium that causes this infection, *C. difficile*, is found in the stools of 3% of healthy adults and in up to 80% of healthy newborns and infants without any adverse effects<sup>9</sup>. High risk factors for CDI are heavy antibiotic use, old age and hospitalisation.

<sup>4</sup> HSE, *Health Status of the Population of Ireland, 2008*

<sup>5</sup> CSO, *Census 2006 Data*

<sup>6</sup> ESRI, *Activity in Acute Hospitals in Ireland 2006*

<sup>7</sup> RCPI Policy Group on HCAI, *Antibiotic use and the implications for HCAI*

<sup>8</sup> *Ibid*

<sup>9</sup> HPSC *C. Difficile Subcommittee, Surveillance Diagnosis and Management of Clostridium difficile-associated infections*

## Telling Patients they have a HCAI - General Principles

If a patient develops a HCAI or becomes colonised with multi-antibiotic resistant bacteria, it is important to inform them as soon as is practical and feasible. Much unnecessary anxiety is generated if patients are not fully or appropriately informed in a timely manner, or if they hear of their infection through a third party.

In hospitals, it is the responsibility of the patient's consultant to inform the patient that he/she has a HCAI. In the community this responsibility normally rests with the patient's GP. However the nursing team, infection prevention and control nurses, microbiologists and other healthcare workers may also have a role to play when conveying information on HCAIs.

The provision of clear and timely information allays undue anxiety and should be given in a manner that is easily understood. The patient should be given an accessible and practical information leaflet, if possible, on their infection. There are patient information leaflets available on HCAI, *Clostridium difficile* and MRSA that provide answers to common, specific queries raised by patients and their families/carers.<sup>10 11 12 13</sup>

Prior to discharge from hospital, a plan for future care should be prepared by medical and nursing staff and discussed with the patient. This should be brought to the attention of the GP, the public health nurse in the community or other healthcare professional in a timely manner. The patient should be given the opportunity to ask questions relating to their future care regarding infection or colonisation.

If the patient is being transferred to another hospital, community unit or nursing home for further care, his/her infection status must be notified to the receiving carer, particularly if this is related to an antibiotic-resistant bacterium. In some instances, for example MRSA infection or colonisation or *C. difficile* infection, this information needs to be communicated to healthcare professionals and institutions, as it may be relevant for future care. It should be borne in mind that while it is important to document the infection status of the patient on patient records, this must be done in a manner that protects the patient's privacy and dignity.

<sup>10</sup> HPSC, *Clostridium difficile* Patient Information Leaflet

<sup>11</sup> HSE, *Advice for those affected by MRSA outside of a hospital*

<sup>12</sup> MRSA Subgroup of the HSE Midland Area SARI Committee, *Information leaflet for patients in the community with MRSA*

<sup>13</sup> HSE, *Healthcare-Associated Infection: Information for Public and Patients*

## Patient Information Leaflets

Patient information leaflets play an important role when breaking news about HCAIs and some of these have been sourced in the preparation of this document.

A well-written leaflet will provide accurate, trustworthy answers to patients' most frequently asked questions. It should be noted, however, that the answers to some questions will often depend on the patient's unique circumstances (medical history, age, medications, etc).

Some examples of frequently asked questions and suggested answers include<sup>14</sup>:

### 1. What are the symptoms of a healthcare associated infection?

- Symptoms will vary depending on the infection involved and the site of the infection.
- Patients can have skin infections that may look like a pimple or boil and can be red, swollen, painful or discharging pus.
- Patients may also have a temperature or fever and feel generally unwell. More serious infections may cause pneumonia, bloodstream infections or surgical site or wound infections.

### 2. What is the difference between “colonisation” and “infection”?

- Colonisation means that the microbe or germ is simply sitting in or on the body (on any site) but is causing no harm to the person.
- With infection, the microbes are causing signs and symptoms of infection, and the person will feel unwell, for example, fever and/or pus discharging from a wound.

### 3. Who is at risk of infection?

- The following factors make patients vulnerable to infection:
  - Advanced age
  - Underlying diseases or medical condition, e.g. chronic kidney failure
  - Frequent use of antibiotics
  - The number and complexity of operations they've had
  - The presence of open wounds
  - Those who have been in a hospital/nursing home for a long time
  - People with a long-term illness

### 4. How is a HCAI spread?

- The method of spread depends on the infection involved. The commonest method is by direct contact but some are air-borne. Hand hygiene is the single most effective means to prevent spread.

<sup>14</sup> MRSA Subgroup of the HSE Midland Area SARI Committee, Information leaflet for patients in the community with MRSA

### 5. Can I pass a HCAI on to my family and relatives?

- In general HCAIs are not a risk to your healthy relatives/ friends or children.
- You can continue to live a normal life and maintain your usual relationship with your partner.
- Maintaining good personal hygiene and cleaning procedures in your house is enough to lower the risk of possible spread. Cleaning should be undertaken using warm water and normal household detergent e.g. washing-up liquid.
- When a close family member has a chronic illness then it is especially important to have good hand hygiene practices and regular cleaning procedures in your house.
- Depending on the type of HCAI, more specific information will be provided by your doctor, or health care professional.

### 6. Why are people with HCAIs isolated in hospitals but I don't have to be isolated at home?

- This is because the other patients in the hospital are sicker than people at home. They are therefore more likely to get a HCAI infection than somebody at home.
- Even though most people in hospital carry MRSA harmlessly, hospitals take steps to stop the spread of MRSA to other people so that the risk of serious MRSA infections is reduced.

### 7. If I have a HCAI, can I carry out my normal daily activities, such as taking exercise, going to the shops etc? Will it affect my work or study?

- If you feel well enough then you can continue with your usual activities, including shopping, socialising, swimming and other sports.
- You should avoid swimming if you have an open wound or sore and you should cover sores and wounds completely with a waterproof dressing if you are taking part in other sporting activities.
- In general having a HCAI should not affect your ability to work or for example, attend a 3<sup>rd</sup> level institution.
- If you work in a health-care environment you should seek further advice from occupational health, the infection prevention and control team or your GP.

### 8. If I have a HCAI can I go into a nursing home or residential/respite care?

- This will depend on your personal circumstances and your healthcare professional (e.g. nurse or doctor) will advise accordingly.

### 9. Who needs to know that I have a HCAI?

- In general, only staff involved in your health care need to know that you have a HCAI. This would include your public health nurse, your GP and the nursing and medical staff who are responsible for your care during your hospital stay or visits.
- If you have had a HCAI in the past it is helpful to tell the doctors and nurses looking after you as it will assist in planning your care.

## 10. Where can I get more information?

- Many hospitals and other healthcare institutions have local, customised patient information leaflets. There are also helpful leaflets produced by the Health Service Executive.
- Website sources of information include:
  - The Health Protection Surveillance Centre ([www.hpsc.ie/](http://www.hpsc.ie/))
  - The European Centre for Disease Prevention and Control ([www.ecdc.europa.eu/](http://www.ecdc.europa.eu/))
  - US Centre for Disease Prevention and Control ([www.cdc.gov/ncidod/dhqp/ar\\_mrsa.html](http://www.cdc.gov/ncidod/dhqp/ar_mrsa.html))
  - Hospital Infection Society ([www.his.org.uk/resource\\_library.cfm](http://www.his.org.uk/resource_library.cfm))
  - Association of Medical Microbiologists ([www.amm.co.uk/html/public.htm](http://www.amm.co.uk/html/public.htm))
  - The World Health Organisation ([www.who.int/patientsafety/activities/bacteriemia\\_zero/en/index.html](http://www.who.int/patientsafety/activities/bacteriemia_zero/en/index.html))

The use of information leaflets, while essential for patients, should not replace one-to-one discussion between the patient and the consultant or GP. The patient's relatives should also be given an opportunity to talk to a doctor or other healthcare professionals regarding the infection either before or after discharge from hospital. Having direct access to a health professional in this way can allay unnecessary worry after the patient is discharged.

## Conclusion

It is in everybody's interest to ensure that patients who have a HCAI or who are colonised with antibiotic resistant bacteria are informed of this as early as possible.

While acquiring a HCAI may be a cause of concern to patients, early disclosure is in the interest of the patient, the healthcare worker and the wider health service. Furthermore, frank and prompt disclosure, with due regard to privacy, is likely to allay the fears and anxiety of all concerned.

Patients often need reassurance that most HCAs are not a risk to otherwise healthy individuals. HCAs are not always preventable but good standards of personal hygiene, hand hygiene and normal standards of cleaning in the home will help prevent the spread of infection.

If patients are concerned about a potential risk to a family member, they should be encouraged to seek advice from their GP.

Healthcare workers have a vital role to play when informing patients and their families about HCAs. This document and other sources of information previously listed provide the basis for trustworthy, practical advice.

## References

Central Statistics Office: *Census Data 2006*.

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MRSA Subgroup of the HSE Midland Area SARI Regional Infection Control Committee: *Information Leaflet for Patients in the Community with MRSA, August 2008*.

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## RCPI Policy Group on Healthcare-Associated Infection (HCAI)

As part of The Royal College of Physicians of Ireland's (RCPI) aim to play a proactive role in the development of healthcare policy, it is convening a number of issue-focused policy groups that will allow medical experts to meet and discuss healthcare matters of concern to health professionals, healthcare providers and the general public. These policy groups will produce evidence-based position papers that outline the issue and propose specific steps to address the issue.

The RCPI Policy Group on Healthcare-Associated Infection was established in 2008. It intends to publish individual position papers on contributory factors and other topics related to HCAI.

### Members

**Professor Hilary Humphreys (Chair)** - Professor of Clinical Microbiology, based at Beaumont Hospital and recently stood down as Chairman of the National Committee for the Strategy for the Control of Antimicrobial Resistance in Ireland (SARI).

**Dr Mary Horgan** - Infectious Disease Physician, based at Cork University Hospital and has a long-standing interest in antibiotic use and resistance.

**Dr Brian O'Connell** - Consultant Microbiologist at St James's Hospital and Medical Director of the National MRSA Reference Laboratory.

**Dr Ciarán Donegan** - Consultant Physician in Healthcare of the Elderly at Beaumont Hospital.

**Dr Phil Jennings** - Public Health Specialist, Director of Public Health with the HSE and active in regional and national committees relating to the Strategy for SARI.

**Ms Máire Beckett** - Senior Infection Prevention and Control Nurse in the Rotunda Hospital.

**For more information contact:**

Joanna Holly  
Royal College of Physicians of Ireland  
Frederick House  
19 South Frederick Street  
Dublin 2

Direct Ph: 01 8639743  
Mobile Ph: 087 212 0245  
Main Ph: 01 8639700

[joannaholly@rcpi.ie](mailto:joannaholly@rcpi.ie)  
[www.rcpi.ie](http://www.rcpi.ie)



ROYAL COLLEGE OF  
PHYSICIANS OF IRELAND

FREDERICK HOUSE, 19 SOUTH FREDERICK STREET, DUBLIN 2

TEL: +353 1 863 9700 FAX: +353 1 672 4707 EMAIL: COLLEGE@RCPI.IE WEB: WWW.RCPI.IE