

Control of infection in healthcare workers

Effective: February 2009

Review: February 2012

1. Introduction

Much of the work done in controlling infections in hospital is devoted to preventing the spread of infection between patients or to the protection of hospital staff. The risk that infected staff pose to patients or other staff members is often poorly recognised. If the risk posed by infection in health care workers is not recognised and addressed, there is the potential for large outbreaks of infection among staff and/or patients. For this reason, any staff member who may be suffering from one of the conditions listed in this document **MUST** be referred to Occupational Health Department (OHD) immediately. This policy summarises how the problem of an infected staff member should be dealt with. Although intended principally for nursing and medical staff, it is also applicable to other areas where staff members have direct contact with patients. It is intended to supplement, but not replace, guidelines which may already exist in other departments (e.g. catering).

2. General principles

2.1. Relationships between the Occupational Health and the Microbiology & Virology Departments

Infected or potentially infected staff who have not sought advice from their general practitioner should be referred in the first instance to the OHD, who will liaise with the Infection Prevention and Control Team when necessary. Infection prevention and control nurses provide a seven day cover to all hospital sites in the Trust. In addition, an on-call medical microbiologist is always available out-of-hours. They should be consulted if a potential infection control problem arises.

2.2. Role of Occupational Health

The role of the OHD in managing infectious disease in staff is to expedite diagnosis of the condition and facilitate its treatment. In cases where the diagnosis is in doubt, the Occupational Health Physician may call upon existing expertise within the Trust. With regard to treatment, although in some cases the function of the OHD will be to direct staff members to their own general practitioners when treatment is required, there are certain conditions in which it is more appropriate that treatment is given on-site by the OHD. This would include conditions where there were important implications for the spread of infection within the Trust such that it would not be desirable to wait for treatment to be obtained elsewhere. The need for on-site treatment will depend on the condition concerned and will be decided by the OHD in conjunction with the Infection prevention and Control Team.

2.3. Specimen collection

Where specimens are required for diagnosis of a condition this should be discussed with the OHD who will then arrange for the submission of the specimen. Specimens must **ONLY** be submitted by the Occupational Health Department. There have been instances where microbiology specimens have been taken from staff members by ward nursing or medical staff. These are often sent with inadequate clinical details and can delay the recognition of a potential cross infection hazard. This practice should be strongly discouraged. If it is essential that specimens are collected outside the normal working hours of the Occupational Health Department then this should be discussed with the on-call Microbiologist. All results should however be directed to the OHD.

2.4. Antimicrobial treatment

Infected staff members have on occasion received antibiotics prescribed by hospital medical staff. This is not permissible. Not only are antibiotics inappropriate for certain conditions, but inadequate or erroneous treatment may put patients at risk of being infected by staff.

3. Specific Infections

Infections in hospital staff which may be spread to other staff or to patients include:

- upper respiratory infections (viral and bacterial)
 - skin infections
 - gastrointestinal infections
 - infestation by fleas, lice, and scabies mites
 - methicillin resistant *Staphylococcus aureus* (MRSA) colonisation or infection
 - bloodborne viral infections
 - tuberculosis
- communicable diseases such as Varicella, Measles, Rubella

These infections are discussed in more detail below.

3.1 Upper respiratory tract infections

3.1.1 Viral respiratory infections

Infections such as the common cold spread rapidly in institutions such as hospitals. Other infections (for example, influenza) may be particularly serious in elderly or debilitated patients. Staff with mild acute viral infections should avoid working with immunosuppressed patients and should refrain from work or be re-deployed in low risk areas if their clinical condition permits. Decisions with regard to refraining from work or redeployment will be made by OHD following liaison with the Infection Prevention and Control team on an individual basis. Staff with clinical influenza (i.e. fever, headache, prostration, muscle pains etc) should not be at work. Influenza

vaccination is offered to all staff annually to reduce the risk of infection of patients. Vaccination is highly recommended, and this is especially important for staff working in high risk areas, vaccinations are free and can be accessed throughout the trust..

Where there is a suspected outbreak of Influenza A prophylactic treatment may be considered for staff with direct patient contact following discussion with OHD, Infection Prevention and Control and Microbial Pharmacist.

3.1.2 Bacterial respiratory infections

The most important of these is a sore throat due to group A streptococcus, an organism capable of causing outbreaks of potentially fatal infection in hospitalised patients. Members of staff with a sore throat should when possible see their own general practitioner in the first instance. Those unable to attend their GP should be referred to Occupational Health for assessment. Throat swabs should be taken if this diagnosis is suspected especially if the staff member works in high risk areas e.g. Intensive care, obstetrics, surgery. If specific treatment is required this will be discussed between the Medical staff in Microbiology and the OHD.

3.2 Bacterial skin infections

The usual cause of infected cuts, boils and other minor skin infections is *Staphylococcus aureus* and more rarely MRSA. Large outbreaks of infection have been known to occur in patients as a result of spread of staphylococci from infected staff. A member of staff suffering from such infections should be referred to OHD for assessment of the possible risk to patients. Cellulitis is often due to group 'A' streptococcal infection. Staff with cellullitic lesions should not work in high risk areas and should report to the OHD for advice.

3.3 Herpes Simplex infections (including cold sores)

Healthcare workers with herpetic whitlow (herpetic lesion on finger) or extensive (usually primary) oral herpes are at highest risk of transmitting HSV, and should be excluded from all direct patient contact until the lesions are fully crusted.

Healthcare workers with oral HSV reactivations (cold sores) who follow strict universal precautions are unlikely to infect a patient; however as a precautionary measure staff with active lesions should be excluded from **direct** contact with the following high-risk patient groups until lesions are fully crusted:

- Women during delivery (to avoid infection of the newborn)
- Neonates
- Immunocompromised Patients
- Patients with extensive burns or skin conditions which compromise the skin barrier

There is no need to exclude healthcare workers from contact with other patients, including pregnant women (other than at delivery).

3.4 Varicella Zoster virus (VZV, chickenpox/shingles)

Staff with chickenpox or exposed areas of shingles should not be in work until lesions have crusted (usually about 5 days). Those with active shingles which can be covered may work but should avoid contact with susceptible individuals.

Cases of chickenpox or shingles in staff should be reported to the Infection Control Team. Both chickenpox and shingles can cause serious problems in hospitals, and staff who may be suffering from VZV infection, or who have been in contact with it and who are not aware of their immune status **MUST** be referred to the OHD for assessment. Where staff are found to be not immune and have had contact with Varicella they will be excluded from work until they no longer pose a risk of infection.

Varicella vaccine is now available for staff and those who are not immune to Varicella will be vaccinated by the OHD.

3.5 Other viral rashes

Measles and rubella although uncommon now, may also cause serious problems in hospitals and staff who are thought to be suffering from these conditions or who have been in contact with it, **MUST** be referred to the OHD for assessment. Staff who have not had two vaccinations containing Measles and Rubella will be screened for immunity by the OHD. Staff who are found to be not immune to Rubella or Measles will be vaccinated with MMR by the OHD.

Other viruses – a number of other viruses including Coxsackie A and B may cause specific rashes e.g. Hand, foot and mouth disease. For advice contact OHD.

3.6 Gastrointestinal infections

“Loose stools” can be caused by a variety of mechanisms of which infectious agents (bacteria, viruses and protozoa) provide only one. Diarrhoea and vomiting can spread rapidly among both staff and patients with some of the latter being very vulnerable.

In the case of viral infections excretion in faeces may be brief and easily missed. If infection is suspected (from clinical details, or evidence of linked cases), the members of staff involved should be referred urgently to the OHD for appropriate investigations, both bacteriological and virological.

Staff must not return to work until they have been asymptomatic for 48 hours.

Were there is evidence of a salmonella or campylobacter infection staff must discuss all stool specimen results with OHD prior to returning to work.

If cases of diarrhoea and vomiting occur in staff or where a possible outbreak is suspected the Infection Prevention and Control Team should also be informed without delay.

3.7 Infestation with insects or mites

Three types of infestation, fleas, lice, and scabies mites may cause problems for hospital staff. Of these, by far the most important is scabies, since this has the greatest potential to cause very large outbreaks of disease. See the additional Trust policy– Guidelines for the management of infestations of lice, fleas, and scabies mites.

The Infection Prevention and Control Nurse **MUST** be informed about any cases of hospital acquired louse infestation of staff or patients, or if a problem with flea bites occurs on a ward.

If one or more cases of scabies occurs on a ward in either staff or patients (other than a patient newly admitted with the disease) the Infection Prevention and Control Nurse, or in her/his absence the Infection Prevention and Control Doctor, **MUST** be informed immediately. Infection Prevention and Control will liaise with OHD regarding the need for treatment of staff.

Staff members who may be infested with scabies, or who have an itchy skin rash the cause of which is unknown, **MUST** attend OHD as soon as possible. Such staff should be referred to an Occupational Health Physician, who will make the diagnosis, taking advice if required from a Dermatologist. If the diagnosis of scabies is confirmed, the OHD will inform the Infection Prevention and Control Team, who will in turn visit the ward to assess the extent of the problem and arrange for any necessary treatment of patients. If it is necessary to give treatment to staff following a ward outbreak appropriate advice and a prescription will be issued by the OHD. All other intimate contacts (including family) of established cases of scabies should receive appropriate treatment through their general practitioner.

3.8 MRSA

Staff member will be screened for MRSA where indicated at the request of the Infection Prevention and Control Team. This will consist of nose and throat swabs, and swabs from any skin lesions. Additional swabs may be requested in certain situations on the advice of the Infection Prevention and Control Team. Staff who have been requested to screen should do so prior to clinical contact.

Staff who are screen positive may be excluded from working in certain high risk areas until their swabs prove to be negative. For further information please refer to the MRSA policy.

3.9 Tuberculosis

Staff who have had close contact with patients with open pulmonary tuberculosis must contact the OHD for advice. Staff who themselves suffer from the infection

must ensure that the OHD and the IP&CD/PCN are informed so appropriate action may be taken. Specific advice is available in the policy "Control and Prevention of Tuberculosis.

3.10 Blood borne viral infection

Blood-borne viruses (BBVs) include HIV or hepatitis B or hepatitis C viruses. Staff who have any reason to believe that they may have been exposed to infections must promptly contact the Occupational Health Department, or out of hours the duty medical microbiologist, for advice.

Staff who have good reason to believe (having taken steps to confirm the facts as far as practicable) that a worker who has a BBV infection is practising in a way which places patients at risk, or has done so in the past, must inform the Consultant Occupational Health Physician.

3.11 Other infections

Although the majority of common problems have been covered above, there exist other potential infective hazards which have not been mentioned. If in doubt, the Occupational Health Department, Infection Prevention and Control Team (or out-of-hours the duty medical Microbiologist) should be contacted for advice.

3.12 Cytomegalovirus (CMV)

CMV is a common virus and a member of the Herpes virus group. The mode of transmission is usually by intimate exposure from mucosal contact with infectious tissues, secretions or excretions. Congenital infection may also occur by trans-placental spread. It is a common infection and in Western Europe 40-60% of adults will be immune by the age of 40. Infection acquired later in life, in otherwise healthy individuals, is usually asymptomatic or may cause a glandular fever like illness. However primary infection during pregnancy results in transmission to the foetus in 40% of cases with serious consequences in 5-10%. There is no available vaccine against CMV at present.

There is controversy in the literature about the risk of infection to susceptible paediatric staff. Some papers suggest that there is evidence of an increased occupational risk of infection for staff working with children, or nursing patients with a high risk of infection, compared to other people of similar ages. However there are also studies which indicate that CMV is not an occupational hazard for paediatric staff as sero-conversion to CMV positive does not occur more frequently than in the general population. The consensus is that there is no reason why pregnant staff should be excluded from contact with known excretors of CMV provided universal precautions are taken to prevent exposure to contaminated secretions.

Viral excretion may continue for months after a primary infection especially in children. There will be many healthy children who are in hospital for other reasons e.g. routine surgery, who will be actively excreting virus at any one time, hence the importance of universal precautions. As with any transmissible infection in adults or children, it would be good practice to inform a receiving ward or department of the patient's infectious state, prior to transfer, to highlight the importance of adhering to universal precautions. In addition, pregnant staff who are particularly concerned about caring for patients excreting CMV should contact occupational health. Routine serological screening of female staff nursing children or adults who may be excreting CMV is not indicated. The most important means of preventing CMV in health care workers is education of all staff especially those handling young children. CMV is excreted in many body fluids including urine, saliva, blood, tears, semen and breast milk. Universal precautions should be used for handling all body fluids. Good hand hygiene should also be practised routinely and the importance of avoiding close physical contact with young children emphasised

4. Summary of Relevant Infection Control Policies

More detailed information can be found in the following trust policies available on the Trust intranet site.

- [Policy for the Control of MRSA in Newcastle Hospitals](#)
- [Guidelines for the Management of Infestations in Newcastle Hospitals](#)
- [Immunisation Policy for Health Service Staff](#)
- [Prevention and control of tuberculosis in Newcastle Hospitals.](#)
- [Hepatitis B, Hepatitis C and HIV policy for Healthcare Workers](#)
- [Standard Precautions Policy \(Previous Universal Precautions\)](#)

5. Monitoring and Review

All incidents of potential occurrences as outlined in this policy need to be reported on an incident form to the Clinical Governance and Risk Department. This policy will be monitored on an annual basis by the infection control committee.

Authors: Infection Prevention and Control
Occupational Health
Consultant Virologist

Useful Contacts

Occupational Health Department NGH Ext 21188

Occupational Health Consultant Dr Hamish Paterson - Ext 21188

Occupational Health Clinical Nurse Lead Manager Ray Fagg – Ext 21188

Deputy Lead Nurse Barbara Goodfellow – Ext 21188

Out of hours contact switchboard for on-call staff.

Infection Prevention and Control Doctors

Dr M Raza for NGH Ext 48878

Dr N Narayananan for RVI Ext 29436

Prof K Gould for Freeman Ext 31248

Out of hours contact switchboard for on-call Medical staff.

Infection Prevention and Control Nurses

Nurse Consultant Infection Prevention and Control Dect 48855 - Sheila Morgan

Lead Nurse Infection Prevention and Control Dect 20584 – Sharon Gordon

RVI Infection Prevention and Control Nurses Dect 24994/24477/21622/21623

NGH Infection Prevention and Control Nurses Dect 21801/21925

Freeman Infection Prevention and Control Nurse Dect 27431/48892/48893

Health Protection Agency

Health Protection Unit

Dr Meng Khaw, Consultant in Health Protection 0191 273 3584

Anne Halewood, Health Protection Nurse 0191 516 3333

THE NEWCASTLE UPON TYNE HOSPITALS NHS FOUNDATION TRUST
IMPACT ASSESSMENT – SCREENING FORM A

This form must be completed and attached to any procedural document when submitted to the appropriate committee for consideration and approval.

Policy Title:	Policy for the control of infection in healthcare workers	Policy Author:	S Waugh
		Yes/No?	You must provide evidence to support your response:
1.	Does the policy/guidance affect one group less or more favourably than another on the basis of:	No	No significant differences in management for the infections discussed in any one group.
	• Race		
	• Ethnic origins (including gypsies and travellers)		
	• Nationality		
	• Gender		
	• Culture		
	• Religion or belief		
	• Sexual orientation including lesbian, gay and bisexual people		
	• Age		
	• Disability – learning difficulties, physical disability, sensory impairment and mental health problems.		
2.	Is there any evidence that some groups are affected differently?	No	
3.	If you have identified potential discrimination, are any exceptions valid, legal and/or justifiable?		
4(a).	Is the impact of the policy/guidance likely to be negative? <i>(If “yes”, please answer sections 4(b) to 4(d)).</i>	No	
4(b).	If so can the impact be avoided?		
4(c).	What alternatives are there to achieving the policy/guidance without the impact?		
4(d)	Can we reduce the impact by taking different action?		

Comments:	Action Plan due (or Not Applicable): Not Applicable
------------------	--

Name and Designation of Person responsible for completion of this form:Dr Sheila Waugh (Locum Consultant Virologist)..... Date:12.02.09.....

Names & Designations of those involved in the impact assessment screening process:.....Infection prevention and control (Angela Reed), Occupational Health (Barbara Goodfellow) and Consultant virologist (Sheila Waugh).....

(If any reader of this procedural document identifies a potential discriminatory impact that has not been identified on this form, please refer to the Policy Author identified above, together with any suggestions for the actions required to avoid/reduce this impact.)

For advice on answering the above questions please contact Helen Lamont, Deputy Director Nursing & Patient Services, or, Christine Holland, Senior HR Manager. On completion this form must be forwarded electronically to Steven Stoker, Clinical Effectiveness Manager, (Ext. 24963) steven.stoker@nuth.nhs.uk together with the procedural document. If you have identified a potential discriminatory impact of this procedural document, please ensure that you arrange for a full consultation, with relevant stakeholders, to complete a Full Impact Assessment (Form B) and to develop an Action Plan to avoid/reduce this impact; both Form B and the Action Plan should also be sent electronically to Steven Stoker within six weeks of the completion of this form.