# Patients in isolation

**ANTHONY CARR continues the series with an outline of Newcastle Health Authority's policy on isolating patients who are likely to infect others and those who are highly susceptible to infection and need protection.**

ALL WARD STAFF need to know the policies that are established in the district for the isolation of patients who are identified as having infection.

The Newcastle Health Authority policy uses two classes of isolation: source isolation – this is for patients who are sources of pathogenic micro-organisms, which may spread from them and infect others; and protective isolation – for those patients who are rendered highly susceptible to infection by disease or therapy.

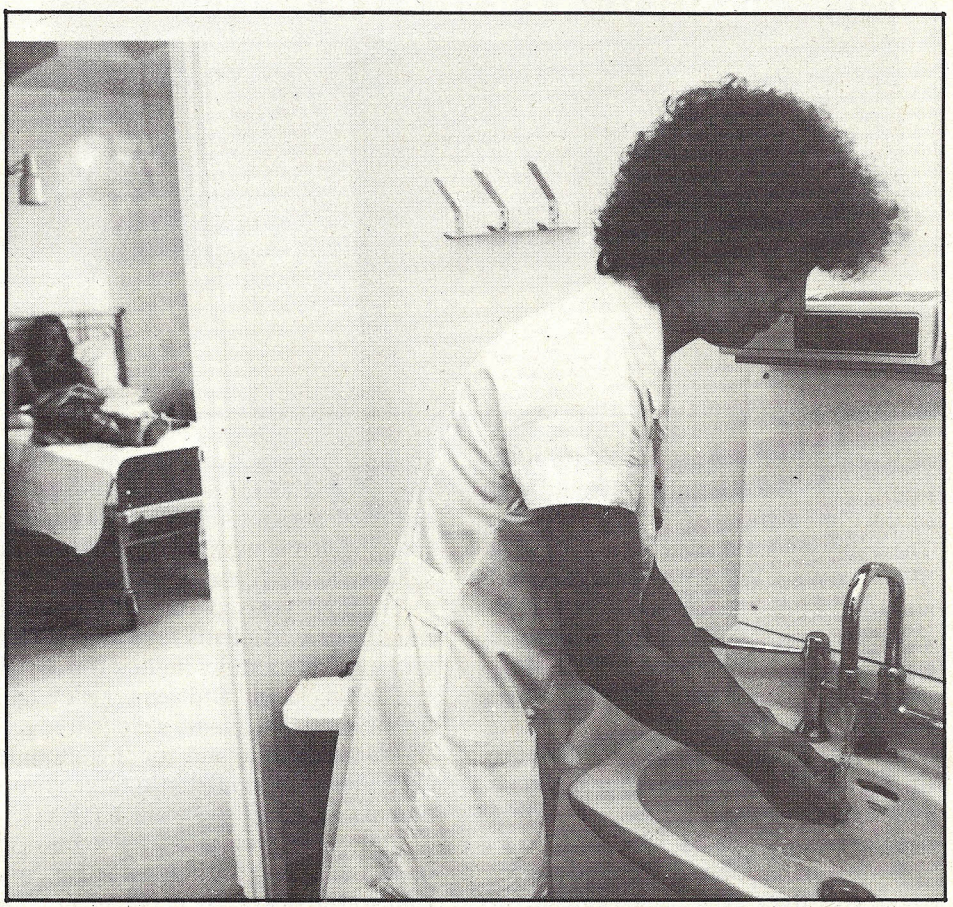
Source isolation should be of two types: strict – for highly transmissible or dangerous diseases, and standard – for other communicable diseases. It is expected that resorting to strict isolation will only be temporary, pending transfer to the district infectious diseases unit.

The Newcastle HA policy statement has three appendixes (Tables I, II and III). The first table lists the conditions for which standard isolation is necessary, describing whether it is a notifiable disease and indicating when isolation should end. For instance, chicken pox is not a notifiable disease and isolation can be ended seven days after the rash has erupted. Table II identifies conditions of strict isolation and Table III deals with protective isolation.

High safety isolation facilities are provided at the Newcastle General Hospital for the isolation of suspected cases of viral haemorrhagic fever, which should be suspected in patients developing fever within 20 days of return from Africa. If this diagnosis is suspected, the infection control officer in your hospital should be contacted.

The type of isolation is indicated by coloured cards, bearing the list of precautions to be taken, affixed to the cubicle door: standard isolation (blue card); strict isolation (red card); protective isolation (white card).

The conditions to which these types of isolation apply are listed in the booklet provided for each ward, on pages corresponding in colour to the isolation cards (see Tables I, II, III). Cards are obtained from the infection control nurse or her deputy.



It is essential that thorough washing of hands takes place after treating source isolation patients.

It is the consultant's ultimate responsibility to decide whether a patient should be isolated, but guidance is given in the policy document.

When patients are isolated, it is strongly recommended that the infection control nurse should be informed, so that any variation in the recommended precautions required in a particular case can be discussed.

A patient in either of the two types of source isolation should be nursed in a single room, preferably with extract ventilation (with outlet to exterior) and an air lock anteroom. The door should normally be kept closed; if there is an air lock vestibule, only one of the doors should be open at a time and windows should be kept closed.

For protective isolation, a single room is necessary and the patient must remain in it. This should not be in the proximity of infected patients and should, if possible, have an air lock.

Isolated patients should not leave their rooms, except for essential visits to departments such as X-ray, electrocardiogram, operating suite or obstetric delivery rooms. Before any such visit is arranged, first ask: "Is the visit absolutely necessary?" and "Can the special procedure be carried out in the isolation room with portable apparatus?"

The minimum amount of cleaning should be carried out in isolation rooms by nursing personnel at the discretion of the ward sister. In some hospitals trained domestic staff may undertake these duties. Separate cleaning equipment should be reserved for each isolation room to deal with accidental spillages. When the patient moves out, cleaning should be carried out by domestic staff, dressed according to the rules given in Table IV (page 32). Everyone entering an isolation room must comply with the recommended procedures listed □

*Anthony Carr, SRN, NDNCert, QN, is chief nursing officer, Newcastle Health Authority.*

| Condition<br>Proven or suspected cases | Notifiable disease | Indications for ending isolation |
|---|---|---|
| Cutaneous anthrax | Yes | Consistently negative swabs |
| Burns<br>Wounds – with extensive sepsis<br>Bedsores | | Negative swabs and two negative specimens |
| Bronchiolitis in infants | | Clinical recovery |
| Childhood infectious diseases | | |
| Chicken pox | | Seven days after onset of eruption |
| Measles | Yes | Seven days after onset of rash |
| Mumps | | Nine days after appearance of swelling |
| Rubella | Yes | Seven days after onset of rash |
| Scarlet fever | Yes | 24 hours antibiotic therapy |
| Whooping cough | Yes | Clinical recovery |
| Encephalitis | Yes | Clinical recovery |
| Erysipelas | | Negative cultures |
| Gonococcal conjunctivitis/pharyngitis | | 24 hours antibiotic treatment |
| Gastrointestinal infections (excluding exotoxin food-poisoning) | | |
| Cholera | Yes | Negative cultures |
| Bacillary dysentry | Yes | Discharge from hospital or clinical recovery |
| Salmonellosis | Yes | Negative cultures or discharge from hospital |
| Campylobacter | Yes | Negative cultures or discharge home |
| Enteric fever | Yes | Negative cultures or discharge home |
| *E coli* | | Negative cultures or discharge home |
| Hepatitis (viral) | Yes | Discharge home |
| Herpes simplex in infants | | Clinical recovery |
| Herpes zoster (under certain circumstances) | | Until lesions dry |
| Impetigo | | Negative cultures |
| Influenza | | Clinical recovery |
| Leprosy (smear positive) | Yes | Smears microscopically negative |
| Leptospirosis | Yes | Discharge from hospital |
| Meningitis – meningococcal | Yes | 24 hours antibiotic treatment |
| – viral | Yes | Clinical recovery |
| Poliomyelitis – acute | Yes | Seven days from onset |
| Psittacosis | | Clinical recovery |
| Puerperal sepsis | | Negative cultures or discharge home |
| Scabies | | Clinical recovery |
| Staphylococci – multiresistant | | Negative cultures or discharge home |
| Tuberculosis – open | Yes | Smears negative or discharge from ward |
| Typhus | Yes | Effective delousing |

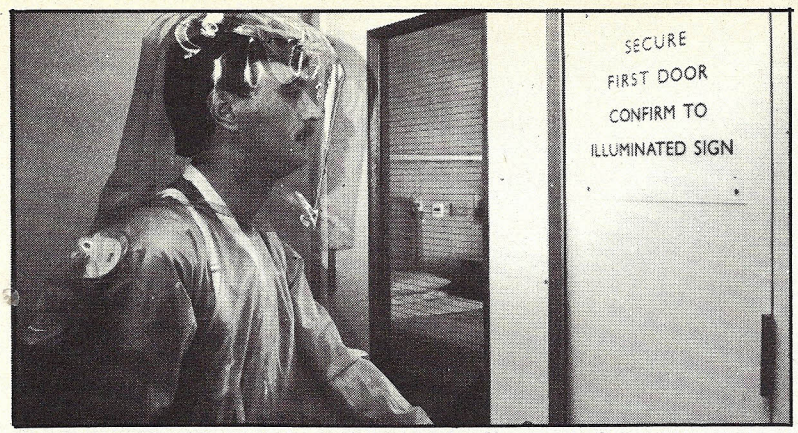
**Table I: Conditions for which standard isolation is necessary.**

| Condition<br>Proven or suspected cases | Notifiable disease | Indications for ending isolation |
|---|---|---|
| Diphtheria | Yes | Negative cultures |
| Generalised vaccinia | | Clinical recovery |
| Pulmonary anthrax | Yes | Clinical recovery |
| Rabies | Yes | |
| Viral haemorrhagic fevers | | |
| Lassa | Yes | Negative cultures and clinical recovery |
| Ebola | Yes | |
| Marburg | Yes | |

**Table II: Conditions for which strict isolation is necessary.**

| Condition |
|---|
| Agranulocytosis |
| Immunodeficiency – primary |
| – associated with leukaemia, lymphoma or immunosuppressive therapy |
| Severe uninfected – dermatitis |
| – burns |

**Table III: Conditions for which protective isolation is necessary.**




High isolation facilities for a Lassa fever ward at Newcastle General Hospital.

The suit is immediately autoclaved on leaving.

| | Standard isolation | Strict isolation | Protective isolation |
|---|---|---|---|
| **Hand washing** | After contact with patient. With Betadine or Hibitane detergent followed by careful drying | | Before entering and after leaving room. With Betadine or Hibitane detergent |
| **Clothing** | Disposable plastic aprons, to be disposed of on leaving room. No gowns. Shirt sleeves rolled above elbows | Plastic aprons beneath gown. Cotton gowns. Place in alginate bags and treat as contaminated | Long sleeved cotton gowns worn by everyone entering room |
| **Masks** | Not necessary | Limited application of filter type when examining mouth or carrying out sigmoidoscopy | Filter type must be worn |
| **Gloves** | Disposable plastic gloves only (NOT Surgeon's gloves) for handling infected sites/ contaminated material/ bedding or if nurse has skin lesions | Plastic gloves used for procedures involving patient or materials in contact with patient | Disposable plastic gloves used by all persons handling patient and objects in contact with patient |
| **Caps/hats/shoe covers** | Not necessary | Not necessary | Disposable paper theatre hats to cover hair completely |
| **Linen** | All items sealed in alginate stitched bags taking care not to contaminate outside, then dispatched in the foul linen red bag. Autoclaving not necessary when foul linen washing facilities are available | | Clean linen from the laundry is usually satisfactory |
| **Equipment** | Full diagnostic kit and once taken into room should remain there until patient is discharged | | |
| **Crockery and cutlery** | Disposable items or if hot wash facilities are adequate (check with infection nurse) standard items to be taken to kitchen in plastic bags | Disposable items must be used | Food and crockery from kitchen is satisfactory |
| **Infective secretions** | Used paper handkerchiefs, sputum cartons and so on, for pulmonary tuberculosis are sealed in orange bags marked "for incineration" | | |
| **Charts** | Patients charts kept outside room | | |
| **Exclusions** | | | No person, staff or visitor allowed in room if he has any infection or potentially exposed lesion |
| **Disposal of used items** | | All items to be placed in large orange bags marked "for incineration" | |

Table IV: Procedures for standard, strict and protective isolation.