Infection Prevention and Control (IPC)

Standard Operating Procedure for CHICKENPOX (VARICELLA ZOSTER VIRUS) in a healthcare setting

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Title: Standard Operating Procedure (SOP) for Chickenpox (Varicella Zoster Virus) in a healthcare setting

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Approved By: Robert Wilson, Infection Control Manager

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Policy Statement
It is the responsibility of all staff to ensure that they consistently maintain a high standard of infection control practice.

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REFERENCES
   http://www.nipcm.hps.scot.nhs.uk/ (last accessed 01/06/2018)
   American Public Health Association
3. World Health Organisation (WHO) Varicella  
   www.who.int/ith/diseases/varicella/en/ (last accessed 01/06/2018)
4. Centre for Disease Control (CDC) (2016) Chicken Pox  
   www.cdc.gov/chickenpox/about/transmission.html (last accessed 01/06/2018)
## 1.0 GENERAL INFORMATION

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<th>Organism</th>
<th>Chickenpox is an acute highly infectious disease, caused by the varicella zoster virus (VZV). The symptoms are fever and malaise prior to onset of the itchy vesicular rash. In children the rash is often the first sign of the disease. Successive crops of lesions can appear, drying to a granular scab 5 or 6 days after the rash began. Chickenpox is generally not a serious infection, but complication including encephalitis, pneumonia and secondary bacterial infection can occur in previously healthy individuals.</th>
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| Incubation period | • 10 – 21 days  
• May be prolonged as long as 28 days after exposure for those who receive varicella zoster immunoglobulin |
| Period of communicability | • Usually 1-2 days before onset of rash, and continuing until all lesions are crusted (usually about 5 days)  
• Individuals who are unaware of their Immunoglobulin G (IgG) immunity or vaccination history should be considered infectious for 10-21 days following exposure |
| Individuals most at risk | • Those not previously infected or vaccinated  
• Neonates whose mothers are not immune  
• Immunocompromised  
Those at risk of severe disease:  
• Adults  
• Adolescents  
• Pregnant women  
• Patients with leukaemia may suffer severe, prolonged or fatal chickenpox |
| Informing the IPCT | Following implementation of all relevant infection prevention and control precautions you must inform the Infection Prevention and Control Team (IPCT) by phoning (01563) 825765 or by emailing the IPCT mailbox InfectionControl@aapct.scot.nhs.uk |
2.0 INFECTION CONTROL PRECAUTIONS FOR CHICKENPOX (VARICELLA ZOSTER VIRUS)

2.1 Standard Infection Control Precautions (SICPs)

Standard Infection Control Precautions (SICPs), Section 1 of the Health Protection Scotland (HPS) National Infection Prevention and Control Manual, must be used by all staff, in all care settings, at all times, for all patients whether infection is known to be present or not to ensure the safety of those being cared for, as well as staff and visitors in the care environment.

SICPs are the fundamental IPC measures necessary to reduce the risk of transmission of infectious agents from both recognised and unrecognised sources of infection.

Potential sources of infection include blood and other body fluids secretions or excretions (excluding sweat), non-intact skin or mucous membranes and any equipment or items in the care environment that could have become contaminated.

2.2 Transmission Based Precautions (TBPs)

TBPs are implemented in addition to SICPs to provide further protection when Chickenpox (VZV) is known or suspected. TBPs are categorised by the route of transmission of the infectious agents (some infectious agents can be transmitted by more than one route). Chickenpox (VZV) is cross transmitted via direct contact, droplet and airborne spread of vesicle fluid or secretions of the respiratory tract therefore the following TBPs are required:

- **Contact precautions**
  Used to prevent and control infections that spread via direct contact with the patient or indirectly from the patient’s immediate care environment (including care equipment). This is the most common route of cross-infection transmission.

- **Droplet precautions**
  Used to prevent and control infections spread over short distances (at least 3 feet (1 metre)) via droplets (>5μm) from the respiratory tract of one individual directly onto a mucosal surface or conjunctivae of another individual. Droplets penetrate the respiratory system to above the alveolar level.

- **Airborne precautions**
  Used to prevent and control infections spread without necessarily having close patient contact via aerosols (≤5μm) from the respiratory tract of one individual directly onto a mucosal surface or conjunctivae of another individual. Aerosols penetrate the respiratory system to the alveolar level.
| **Patient Placement** | - Where care requirements allow, patients should be transferred to a lobby ventilated isolation suite. Contact IPCT for further information and advice. If not available:  
  - Patients with suspected/confirmed infection should be isolated in a single room with ensuite facilities  
  - The door **must** remain closed.  
  - An isolation notice must be placed on the outside of the door  
  - Continue precautions until all lesions are crusted |
| **Personal Protective Equipment** | Routine care:  
  - Plastic aprons and disposable gloves should be worn when in direct contact with the patient or the patient’s immediate environment  
  - **FFP3** respirator and if there is risk of splashing or spraying from blood/body fluids, include eye protection (goggles or full face visor)  
Aerosol Generating Procedures (AGPs)  
  - Add eye protection (goggles or full visor) during the procedure and for 1 hour following AGP |
| **Hand Hygiene** | Hands must be decontaminated as per your 5 moments for Hand Hygiene:  
  1. Before touching a patient  
  2. Before clean/aseptic procedure  
  3. After body fluid exposure risk  
  4. After touching a patient  
  5. After touching patient surroundings |
| **Patient Care Equipment** | - Where available, use single use/single patient use equipment. All single use/single patient use equipment must be discarded as clinical waste  
  - Equipment should be kept to a minimum  
  - All shared or reusable equipment must be decontaminated between patients using a chlorine releasing agent e.g. Actichlor™ Plus 1 tablet in 1 litre of water (concentration = 1,000 parts per million (PPM)). Please refer to manufacturers’ instructions for compatibility of product  
  - Communal facilities such as baths, bidets and showers should be cleaned and/or decontaminated between all patients |
| **Environmental cleaning by Hotel Services** | - Enhanced routine cleaning of the patient’s accommodation with a chlorine releasing agent e.g. Actichlor™ Plus 1 tablet in 1 litre of water (concentration = 1,000 PPM), should be undertaken by hotel service staff until instructed otherwise (see Actichlor™ Plus General Environment Poster). It is the responsibility of nursing staff to ensure that domestic assistants are aware of this requirement  
  - Following the removal of the patient, the room should have a terminal clean carried out prior to the next patient being admitted |
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<th>Clinical Waste</th>
<th>All waste must be discarded as clinical waste.</th>
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| Linen         | - All linen should be discarded as infected i.e. placed in a water soluble bag then into a clear plastic bag and lastly into a red laundry bag  
- Labels should be attached to each red linen bag on sealing, clearly stating:  
  - Hospital of origin  
  - Ward or Department  
  - Date |
| Safe management of blood and body fluid spillages | Spillages must be decontaminated immediately with a chlorine releasing agent e.g. Actichlor™ Plus using the following dilutions:  
- Blood spillages (or bodily fluid with associated blood); 10 Actichlor™ Plus tablets in 1 litre of water (concentration = 10,000 PPM)  
- Body fluid spillages (with no associated blood); 1 Actichlor™ Plus tablet in 1 litre of water (concentration = 1,000 PPM). Remove spillage with disposable paper roll prior to applying a chlorine releasing agent to reduce the risk of chemical reaction |
| Occupational exposure | - Occupational exposure to Chickenpox (VZV) can be prevented by adhering to precautions outlined above  
- Contact the Occupational Health Department if you have any concerns regarding exposure to Chickenpox (VZV) or require information regarding your current immunisation status, if applicable  
- For those staff who are unaware of their IgG immunity or vaccination history, it is advised that contact with the patient is avoided  
- Pregnant staff and those who are non-immune should avoid contact with the patient |
| Respiratory Hygiene and Cough Etiquette | - Patient should be encouraged to cover their nose and mouth with a tissue when coughing, sneezing or blowing their nose  
- If required: When transferring a patient with Chickenpox (VZV) within the respiratory tract, request patient to wear a surgical face mask, unless they are wearing an oxygen mask |
### 3.0 OTHER RELEVANT INFORMATION

| Transferring Patients | If possible, do not transfer patient until TBP s are no longer required  
|                       | Prior to transfer, staff must inform any receiving ward/department that the patient has a suspected/confirmed infection, as well as a history of specimens taken and Infection Prevention and Control precautions taken  
|                       | Prior to transfer, you must ensure the ward receiving the patient has suitable accommodation  
| Specimens             | Send specimens as clinically indicated (also refer to the [Laboratory Handbook](#)).  
| Care After Death      | A body bag is required unless all lesions are crusted  
| Patient Clothing      | Laundry going home, must be placed into a clear bag and then into a patient clothing bag. The [Washing Clothes at Home Information Leaflet](#) must be issued  
| Visitors              | Those who are immunocompromised, pregnant women and small children, should be advised not to visit  
|                       | Those who are non-immune should be advised not to visit  
| Documentation         | Ensure that the patient is fully aware of their infectious status and that the provision of this information has been documented in the notes  
| Action to be taken    | Patient confidentiality must be maintained at all times. Information concerning any infection must only be given to others on a need to know basis  
| Additional information | None  

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