

Advice for Purchase of Required PPE for Viral Haemorrhagic Fever (VHF) Preparedness

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All hospitals with acute receiving units should be prepared for VHF in travellers and returning healthcare workers from high-risk areas. This document seeks to aid procurement of VHF appropriate PPE by detailing product specifications and suggesting suitable products.

Guidance on required PPE for all stages of VHF (suspected - confirmed) can also be found in the [HPS Viral Haemorrhagic Fever – Precautions Summary](#).

Person-to-person spread of VHF is typically through contact with infectious blood and body fluids therefore the level of PPE required will depend on the risk of exposure to these fluids.

Full Description of Required VHF PPE

All HCWs caring for suspected VHF patients should refer to the [VHF – Precautions Summary for guidance on when to wear PPE](#).

Low possibility case:

When there is a low possibility of VHF, PPE is used to prevent exposure to blood and body fluids and to prevent direct contact with the patient as per Standard Infection Control Precautions (SICPs). The PPE required would be a disposable plastic apron and single use gloves. Face and eye protection should be worn if there is a possible splash or spray risk.

High possibility or confirmed case:

When caring for a patient with a high possibility or confirmed case of VHF, the HCW must wear a disposable, fluid repellent coverall (with hood), scrubs underneath, wellington boots plus overboots, a high-grade disposable plastic apron, double surgical gloves, an FFP3 respirator and full visor/faceshield. PPE must establish a barrier against contact with contaminated surfaces, splash, spray, bulk fluids and aerosol particles and must cover all exposed skin with sufficient integrity to prevent any ingress or seepage of liquids or airborne particles.

Areas Protected	Description of PPE and Product Suggestion(s)
Body, Head and Neck	<p>Low possibility case:</p> <p>The HCW should wear role appropriate uniform as per uniform policy. This should be covered with a disposable plastic apron.</p> <p>High possibility or confirmed case:</p> <p>Coveralls suitable for protection against VHF typically achieve the highest classification for protection against biological agents in accordance with EN 14126:2003; this is usually described in the manufacturer’s technical notes as type 3-B, 4/5/6. This standard relates only to the protective qualities of the coverall material; in addition, the coverall should be designed to provide maximum coverage of the body, head and neck and to protect areas of potential fluid ingress. Coveralls should not have sewn seams; seams should be welded, overlapped or otherwise made impermeable. The coverall zip should be protected by resealable storm flaps. The coverall should have a hood, elasticated cuffs (of the same material as the coverall) and finger loops to prevent sleeves from slipping down. For additional protection to critical areas a high grade disposable plastic apron should be worn over the coverall.</p>
Footwear	<p>Low possibility case:</p> <p>The HCW should wear footwear as per uniform policy.</p> <p>High possibility or confirmed case:</p> <p>Feet should be protected with impermeable footwear such as wellington boots. Additional protection is provided by disposable overboots, these typically have an elasticated opening and a tie fastening designed to prevent potentially infectious fluids from entering the top of the boot.</p>

Areas Protected	Description of PPE and Product Suggestion(s)
Face, Eyes and Mouth	<p>VHF species (e.g. Ebola virus) are not typically transmitted by the airborne route; however, aerosols may be created by the patient vomiting, coughing, sneezing etc. FFP3 respirators should be worn when attending high possibility or confirmed patients and when performing aerosol generating procedures (AGP).</p> <p>Low possibility case:</p> <p>If a splash or spray of blood or body fluid is possible then respiratory and facial protection is recommended: either a full face visor; or a half visor with an integral fluid repellent surgical mask; or goggles and a fluid repellent surgical mask. If performing an aerosol generating procedure HCW should wear an FFP3 respirator and compatible eye protection.</p> <p>HCW should be fit tested in advance of wearing an FFP3 respirator. HCW should perform a fit check every time an FFP3 respirator is donned to ensure an adequate seal has been achieved. FFP3 respirators can be valved or unvalved according to preference</p> <p>Goggles should be fitted tightly to the wearer’s face, indirectly vented and have a manufacturer’s anti-fog coating.</p> <p>High possibility or confirmed case:</p> <p>The HCW should wear an FFP3 respirator and a full face visor/faceshield. HCW should be fit tested in advance of wearing an FFP3 respirator. HCW should perform a fit check every time an FFP3 respirator is donned to ensure an adequate seal has been achieved. FFP3 respirators can be valved or unvalved according to preference; valved respirators are generally not fluid resistant but a full-length visor/faceshield will protect against splash and spray risks.</p> <p>Visors/faceshields must provide crown and chin protection, should wrap around the face and have an anti-fog coating.</p>
Hands	<p>Low possibility case:</p> <p>Disposable non-sterile nitrile, latex or neoprene gloves.</p> <p>High possibility or confirmed case:</p> <p>Double gloving should be performed to protect hands. Disposable surgical gloves that are longer in length and cuffed should be worn, one pair under the coverall and one pair on top.</p>

Purchase Information for Suggested VHF Preparedness Box PPE

Based on a 24-hour time period (pre-ambulance transfer to a High Level Isolation Unit) a hospital preparedness stock of PPE is estimated at 36 PPE sets. This would be a sufficient amount for three staff members per shift to have six sets of PPE available to them.

The following product list is meant to serve as suggestions only; this product list is not mandatory and is intended for those who have not yet made provision for VHF PPE. HPS is proactively monitoring PPE stock levels to ensure adequate supplies of PPE and is available to provide guidance on suitable product alternatives should this be necessary.

Protection	Item	Supplier/Product Code
Body and head	Microgard 2500 coverall	ARCO/1724205
Body, additional protection of critical areas	High Grade Plastic apron	National Procurement/ SKU code 063307
Feet, additional protection	Microgard 2500 overboots	ARCO/1727000
Face, eyes and mouth	Honeywell Vistamax VX dual lens goggles	ARCO/322300
	Honeywell bionic faceshield with clear polycarbonate fog ban	ARCO/339200
	Medline full length, elastic band, faceshield	National Procurement/NONFS300
	Type IIR surgical face mask with half visor attached	National Procurement/148417
	Type IIR surgical face mask	National Procurement/143696
Hands	Protexis surgical gloves (multiple sizes)	National Procurement/ 092949 092956 092963 092970 092987 093007 093014

The following is a list of items/sundries that may be required for the care of VHF patients:

- Clinical waste mattress bag
- Blood/biohazard spill kit
- Clear plastic sheet (to demarcate 'dirty' area for doffing PPE)
- Clinell Chlorox wipes*
- Training coverall blue/red**
- Body bag***
- Operating table cover***

*Disposable wipes that can be used for wiping down coveralls before doffing. These are not for environmental cleaning.

**This coverall is suitable for training purposes only.

***Items to be used for care of the diseased – please refer to [precautions summary](#).

All HPS Viral Haemorrhagic Fever guidance is available at:

<http://www.hps.scot.nhs.uk/travel/viralhaemorrhagicfever.aspx>