

## WHO list of Personal Protective Equipment for Infection and Prevention Control with focus on Ebola classified by Donation Priority

## Main references

http://apps.who.int/iris/handle/10665/137410#sthash.84IQyIL7.dpufnote: related only to clinical care
http://apps.who.int/iris/bitstream/10665/137411/1/WHO_EVD_Guidance_SpecPPE_14.1_eng.pdf?ua=1
http://apps.who.int/iris/bitstream/10665/137410/1/WHO_EVD_Guidance_PPE_14.1_eng.pdf
http://apps.who.int/iris/bitstream/10665/137379/1/WHO_EVD_GUIDANCE_Burials_14.2_eng.pdf?ua=1
http://www.who.int/csr/resources/publications/who-ipc-guidance-ebolafinal-09082014.pdf
http://www.who.int/csr/resources/publications/clinical-management-patients/en/
http://www.who.int/medicines/publications/emergencyhealthkit2011/en/

Category	Generic item name	Generic item image	Example of Type of activity	WHO Detailed description	Sizes	Minimum certification or minimum testing (or equivalent)	Minimum Quantities	Transport measures
	*** Recommended ** Alternative * Optional		Standard patient care confirmed patients with VHF Cleaning, waste or dood brockmanneed					
ield)	Goggles			face contours with even pressure, Enclose eyes and the surrounding areas, Accomodate wearers with prescription glasses, Clear plastic lens with fog and	One Size	EU standard directive 86/686/EEC, EN 166/2002,     ANSI/ISEA Z87.1-2010, or equivalent	10 000	
Eye protection (Goggles or Face sh	Full faceshield		OR         OR         OR           ****         ****         ****         ****	Made of clear plastic and provides good visibility to both the wearer and the patient, Adjustable band to attach firmly around the head and fit snuggly	One Size	EU standard directive 86/686/EEC, EN 166/2002,     ANSI/ISEA Z87.1-2010, or equivalent	10 000	Freight cost covered by the donor. If not, goods should be packed and ready to be collected fron an international airport
(90	Spectacles		OR ****	Made of clear, lightweight plastic and provides wide field of vision, Fog and scratch resistant coating (preferable), May be re-usable (made of robust material which can be cleaned and disinfected) or disposable.	One Size	EU standard directive 86/686/EEC, EN 166/2002,     ANSI/ISEA Z87.1-2010,     or equivalent	10 000	
I	Anti-fog spray		* *	Anti-fog spray for glasses bottle of abt 100ml	100 ml		5 000	

Category	Generic item name	Generic item image	Example of Ty activity		WHO Detailed description	Sizes	Minimum certification or minimum testing (or equivalent)	Minimum Quantities	Transport measures
	*** Recommended ** Alternative * Optional		Standard patient care confirmed patients with VHF	Cleaning, waste or dead body management					
	Mask, surgical, flat rectangular with folds	Q	***		Minimum 3-ply face mask with at least 95% filtration efficiency, aluminum nose bar along absorbing band	S, M, L	• EN 14683 Type I or II • ASTM F2100 or equivalent	50 000	Freight cost covered by the donor. If not, goods should be packed and ready to be collected from an international airport
otection	Mask, medical/surgical, fluid resistant, structured design			***	High fluid resistance, Good breathability, Internal and external faces should be clearly identified, Structured design that does not collapse against the mouth (e.g. duckbill, cup-shaped)	S, M, L	EN 14683 Type IIR performance ASTM F2100 level 2 or level 3 or equivalent; • Fluid resistance at minimum 120 mmHg pressure based on ASTM F1862-07, ISO 22609, or equivalent • Breathability: MIL–M-36945C, EN 14683 annex C, or equivalent • Filtration efficiency: ASTM F2101, EN14683 annex B, or equivalent	50 000	Freight cost covered by the donor. If not, goods should be packed and ready to be collected from an international airport
Nose and mouth protection	OR Respirator		*** (used for aeroso Is with full face shield)	for aeroso ls with full face	Shape that will not collapse easily (e.g. duckbill, half-sphere), High filtration efficiency, Good breathability To be used only during procedures that generate aerosols of body fluids. Only to be used together with a full face shield.	range of sizes with fit test kit	Performance: NIOSH N95, EN149 FFP2, or equivalent: Test method: • Filtration efficiency: US 42 CFR Part 84 for N95, EN149 clause 7.9.2, or equivalent • Breathability: US 42 CFR Part 84 for N95, EN149 clause 7.16, or equivalent	50 000	Freight cost covered by the donor. If not, goods should be packed and ready to be collected from an international airport
	OR Surgical N95 respirator		** (used for aeroso Is)	** (used for aeroso Is)	Fluid resistant, Shape that will not collapse easily (e.g. duckbill, half-sphere), High filtration efficiency, Good breathability To be used only during procedures that generate aerosols of body fluids.	range of sizes with fit test kit	"Surgical N95 respirator" cleared by the US FDA and NIOSH, or equivalent • Fluid resistant surgical N95 respirator with minimum 80 mm Hg pressure based on ASTM F1862, ISO 22609 , or equivalent	50 000	Freight cost covered by the donor. If not, goods should be packed and ready to be collected from an international airport
	Alcohol-based hand rub		*** ***	***	Preferably made locally (refer to main reference), Fulfils recognized standards for microbiological efficacy (ASTM or EN standards), contains minimum 80% ethanol OR 75% isopropyl alcohol, can be liquid, gel or foam (and HCW tolerability & acceptability has already been tested), can be in 100ml (personal) bottles (should be able to be opened with one hand, e.g. flip top bottle), 500ml bottles (preferably with wall/bed/trolley mounted bracket) or 1L bottles	100 mL 500 mL 1 L	• ASTM E2315 • ASTM E2755 - 10 • EN 1500 or equivalent	5 000	Considered a dangerous good by IATA. Donors may consult WHO representatives prior to donations.

Category	Generic item name	Generic item image		le of Type o ctivity	WHO Detailed description	Sizes	Minimum certification or minimum testing (or equivalent)	Minimum Quantities	Transport measures				
	*** Recommended ** Alternative * Optional			confirmed patients with VHF Cleaning, waste or									
	Gloves, examination, non sterile	Mar 3	*** (single ( )	*** doubl e) glove )	wrist, ideally to the mid fore-arm. In order to protect the wrist area from	S, M, L	<ul> <li>EU standard directive 93/42/EEC Class I, EN 455,</li> <li>EU standard directive 89/686/EEC Category III, EN 374,</li> <li>ANSI/ISEA 105-2011,</li> <li>ASTM D6319-10,</li> <li>or equivalent</li> </ul>	100 000	Freight cost covered by the donor. If not, goods should be packed and ready to be collected from an international airport				
	OR								1				
Hand protection	Gloves, surgical, length to forearm large	longer than examination gloves			Gloves, surgical, nitrile, powder-free, single use Preferably, the outer glove should have long cuffs, reaching well above the wrist, ideally to the mid fore-arm. In order to protect the wrist area from contamination, the inner glove should be worn under the cuff of the gown/coveralls (and under any thumb/finger loop) whereas the outer glove should be worn over the cuff of the gown/coveralls.	range of sizes 5 to 8.5	EU standard directive 93/42/EEC Class I, EN 455, ANSI/ISEA 105-2011, ASTM 6319-10, or equivalent	50 000 pairs	Freight cost covered by the donor. If not, goods should be packed and ready to be collected from an international airport				
<b>–</b>	OR												
	Gloves, obsteric elbow, large	longer than surgical gloves			Gloves, gynaecological, nitrile, powder-free, single use Preferably, the outer glove should have long cuffs, reaching well above the wrist, ideally to the mid fore-arm. In order to protect the wrist area from contamination, the inner glove should be worn under the cuff of the gown/coveralls (and under any thumb/finger loop) whereas the outer glove should be worn over the cuff of the gown/coveralls.	S, M, L	EU standard directive 93/42/EEC Class I, EN 455, ANSI/ISEA 105-2011, ASTM 6319-10, or equivalent	50 000 pairs	Freight cost covered by the donor. If not, goods should be packed and ready to be collected from an international airport				
	Gloves, heavy-duty, rubber	Carlos Contraction			Heavy duty gloves, covering forearm. Fabric: cotton or polyester, rubber coating, waterproof, and chlorene resistant, minimum cuff length 15cm	M, L	EU standard directive 89/686/EEC Category III,     EN 374 (AS/NZS 2161.10.1.2005) chemical resistance for AKL     EN 374 (AS/NZS 2161.10.1.2005) for biohazards Level 3 performance, or above     EN 388 (AS/NZS 2161.10.3.2005) 3111 for abrasion, blade cut, tear and puncture, or above     EN 420:2004+A1:2009 or equivalent, or above	10 000 pairs	Freight cost covered by the donor. If not, goods should be packed and ready to be collected from an international airport				

Category	Generic item name	Generic item image		ole of T activity		WHO Detailed description	Sizes	Minimum certification or minimum testing (or equivalent)	Minimum Quantities	Transport measures
	*** Recommended ** Alternative * Optional		Standard patient care	confirmed patients with VHF	Cleaning, waste or dead body management					
	Scrubs, tops/pants		**	***	**	Tunic/tops and trouser/pants, woven, scrubs, reusable or single use, short sleeved (tunic/tops), worn underneath the coveralls or gown	S, M, L		10 000	Freight cost covered by the donor. If not, goods should be packed and ready to be collected from an international airport
	Gown, disposable, with elastic wrists		***			Single use, Length mid-calf to cover the top of the boots, Avoidance of colours which are culturally unacceptable, e.g. black, Light colours preferable to better detect possible contamination, Preferably thumb/finger loops or elastic cuff to anchor sleeves in place.	M, L, XL	<ul> <li>Option 1: fluid penetration resistant: EN 13795 standard performance, or</li> <li>Option 2: AAMI PB70 level 2 performance or above, or equivalent</li> </ul>	50 000	Freight cost covered by the donor. If not, goods should be packed and ready to be collected from an international airport
	Gown, fluid resistant, disposable, with elastic wrists			***	**	Single use, Length mid-calf to cover the top of the boots, Avoidance of colours which are culturally unacceptable, e.g. black, Light colours preferable to better detect possible contamination, Preferably thumb/finger loops or elastic cuff to anchor sleeves in place.	M, L, XL	Option 1: fluid penetration resistant: EN 13795 high performance, or AAMI PB70 level 3 performance or above, or equivalent • Option 2: blood borne pathogens penetration resistant: AAMI PB70 level 4 performance, or (EN 14126-B) and partial body protection (EN 13034 or EN 14605), or equivalent	50 000	Freight cost covered by the donor. If not, goods should be packed and ready to be collected from an international airport
<b>Body wear</b> (Gown or Coverall with apron)	OR Coveralls, fluid resistant, disposable, with elastic wrists, ankles and hood			•••		Single use, Avoidance of colours which are culturally unacceptable, e.g. black, Light colours preferable to better detect possible contamination, Thumb/finger loops to anchor sleeves in place, good freedom of movement Different sizes available – large size especially important.	M, L, XL	<ul> <li>Option 1: blood and body fluid penetration resistant: meets or exceeds ISO 16603 class 4, 5 or 6 exposure pressure, or equivalent</li> <li>Option 2: blood-borne pathogens penetration resistant:meets or exceeds ISO 16604 class 4, 5 or 6 exposure pressure, or equivalent</li> <li>Breathability of RET less than 30 m2.Pa/W according to ISO 11092, or equivalent</li> </ul>	10 000	Freight cost covered by the donor. If not, goods should be packed and ready to be collected from an international airport
	Aprons, disposable			***		Disposable or single use, Made of polyester with PVC-coated, or other waterproof material, Straight apron with bib, Minimum basis weight: 250g/m2, waterproof, Covering size: 70-90 cm (width) X 120-150cm (height), or standard adult size	One Size		5 000	Freight cost covered by the donor. If not, goods should be packed and ready to be collected from an international airport
	Aprons, heavy-duty, reusable			**	***	Heavy duty non-woven apron, Straight apron with bib, Fabric: 100% polyester with PVC coating, or 100% PVC, or 100% rubber, or other fluid resistant material, Waterproof, Sewn strap for neck and back fastening Minimum basis weight: 300g/m2 covering size: 70-90 cm (width) X 120-150cm (height) Reusable (provided appropriate arrangements for decontamination are in place)	One Size	may comply with EN ISO 13688:2013 or equivalent	5 000	Freight cost covered by the donor. If not, goods should be packed and ready to be collected from an international airport

Category	Generic item name	Generic item image	Example of Ty activity		WHO Detailed description	Sizes	Minimum certification or minimum testing (or equivalent)	Minimum Quantities	Transport measures
	*** Recommended ** Alternative * Optional		Standard patient care confirmed patients with VHF	Cleaning, waste or dead body management					
Foot wear	Boots, rubber			***	Nonslip sole pattern, having a PVC or polyurethane sole which is completely sealed and waterproof, Knee-high in order be higher than the bottom edge of the gown, Range of sizes available to improve comfort and avoid trauma to the feet, Materials of construction include rubber, PVC, neoprene, nitrile, polyurethane, Favor light colours to better identify possible contaminations.	Women: 37(6US), 38(7US), 40(9US) Men: 42(8US), 44(10US)		5 000 pairs	Freight cost covered by the donor. If not, goods should be packed and ready to be collected from an international airport
cover	Hood			***	Single use, Facial opening constructed without elastic, reaching the upper part of the gown or coverall, Adjustable and immovable once adjusted, Preferably fluid-resistant.	One Size		20 000	Freight cost covered by the donor. If not, goods should be packed and ready to be collected from an international airport
Head cover	OR Head cover			***	Single use, Facial opening constructed without elastic, Reaching the upper part of the gown or coverall, Adjustable and immovable once adjusted, Preferably fluid-resistant.	One Size		20 000	Freight cost covered by the donor. If not, goods should be packed and ready to be collected from an international airport
and dignified burials	Body bags (suitable for burial or cremation)				Cadaver bag, linear enforced, U-shape zipper and 2 zipper pulls with tie ribs. Protector Body Bag specifications: • Impermeable, linear reinforced LLDPE, LDPE, EVA, PEVA, (avoid PVC), minimum thickness 400 microns; • Should be able to hold 100-125 kilos (200-250 lbs), • Should contain no chlorides: burning of chlorides pollute the environment and can cause damage to retort chambers. Body bags should be non carcinogenic to health of funeral workers when used for cremations. • At least 6 handles included in the body bag to allow burial team to hand carry it safely • Heat-sealed: insure superior strength and safety, • Provide full containment of blood borne pathogens • Cracking point of 25 - 32 degrees below zero • Shelf life: minimum 10 years • Bag and hands should be white color	adult 250x120cm child 150x100cm		500	Freight cost covered by the donor. If not, goods should be packed and ready to be collected from an international airport
Safe	Absorbent pad for body bags			*	Absorbent lining for body bag, • Absorbs body fluids in case of contagious haemorrhagic fever, cholera, • Can absorb at least 5 litres of liquid.			500	Donnations are subject to the recipient's protocole. WHO may be consultated prior to donation.
	Strecher, foldable			**	Foldable strecher, Reusable (provided appropriate arrangements for decontamination are in place) , Capacity to carry minimum 150kg, Approx. length 180cm x width 50cm (90 cm x 50cm when folded), Adjustable bands	180x 50cm		100	

Category	Generic item name	Generic item image		ple of T activity		WHO Detailed description	Sizes	Minimum certification or minimum testing (or equivalent)	Minimum Quantities	Transport measures
management	*** Recommended ** Alternative * Optional Safety Box / Sharps container, must be labelled biohazard Bag, disposable for		** Standard ** patient care	* confirmed patients with * VHF	* Cleaning, waste or * dead body management	Puncture resistant container for collecting and disposing of used disposable syringes and needles Container with 5 L capacity Disposal bag for bio-hazardous waste 30x50cm with "Bio Hazard" printed,	5 Litres 30x 50cm	WHO/UNICEF standard E10/IC2 AS 4031:1992 BS 7320:1990 DHHS (NIOSH) Publication No. 97-11 or equivalent tear resistance of minimum 480 grams in parallel	5 000	Freight cost covered by the donor. If not, goods should be packed and ready to be collected from
Waste m	biohazardous waste (PPE and clinical waste without sharps)	<b>1</b>	***	***	***	yellow, autoclavable polypropylene for reusable materials (disinfection) and for disposable material (destruction)		and perpendicular planes (ISO 6383-2, ASTM D1922 or equivalent) impact resistance of minimum 165 grams (ISO 7765- 1 , ASTM D1709 or equivalent)		ready to be collected from an international airport
	Chlorine in HTH (calcium hypochlorite) form, granular				***	Chlorine, HTH 65-70%, granules, packaging IATA approved or according to mode shipment	N/A		5 000 kg	
Cleaning	Sprayer, hand, disinfectant, portable, small	Ō		***	***	Compression hand sprayer 1.5L Similar to Goizper IK	1.5 Litres		2 000	Freight cost covered by the donor. If not, goods should be packed and ready to be collected from
0	Sprayer, backpack					Backpack/Knapsack (12 liters) with leakproof lid, acid resistance, lever- operated, preferably with spray control valve, adjustable nozzle allowing in line or circular spraying. Similar to Goizper IK-12BS	12 Litres		500	an international airport