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| **OPS20** | **Use and operation of hydrogen peroxide decontamination system Risk Assessment** |
| **Type of HPV machine Used** |  |
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| **Unit Address** |  |
| **Risk Assessment Completed** | Date | Signed |
| **1st review** | Date | Signed |
| **2nd review** | Date | Signed |

**Note** - Risk assessments must be reviewed every 3 years, whenever there is a significant change in the activity, and following any incident involving the activity. Risk assessments must be retained for a period of 6 years.

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| **Step 1 - Workplace Safety Hazards** |
| **What are the hazards?** | **Who might be harmed?** | **How might they be harmed?** | **What are you already doing to control the risks?** |
| Exposure to Hydrogen peroxide vapour or liquid | Compass employeesUsers in the area | AsphyxiationRespiratory tract damage Chemical burnsEye burns and irritation | Only fully trained operators who are listed on the Authorised User List on page 3 of this Risk Assessment to use these machines, training delivered by supplier/ manufacturer**Delivery**All canisters must be checked against order sheet and accounted for.Canisters must be immediately moved to secure storage room with temperature controlled to maintain temperature below 20c Only the supplier purpose canisters to be used in the machine. Seal to be broken in machine and residue to be handled with gloves to EN374 chemical resistance to 30 minutes and disposed of via the chemical waste stream.**Storage**secure storage room with temperature controlled to maintain temperature below 20c Restricted access or key control must be maintained.Stock and equipment checks to be completed weekly to maintain integrity of system.Spill kit to be in area – spill aid and respirator to be available.Minimum of 1 trained spill handler to be on shift during use of the appliances.**Use**Ensure the machine has an annual Preventative Maintenance Plan in placeNo person should be present or enter the room while the system is in useAll room access doors must be closedDoors and vents /fire detectors to be sealed to prevent accidental exposure.All pre-process checks to be completed as per control documents and checked and signed by senior operativeCaution signs (supplied with unit) must be located outside the door (2 such signs are supplied with each unit) Confirm safety cut out time frame with manufacturer and document accordingly Vapour levels must be checked prior to entry to the room a level of 1ppm or lower must be achieved.Levels must be checked in corners where ‘pockets’ may have formed if levels above 1ppm showing operative to leave room and machine to be set to vent again. If machine does not have process to vent separate to full cycle – where possible windows to be open to release residue into atmosphere. Minimum 30 minutes to be left with windows open or machine to complete vent cycle.Levels to be checked again prior to entering room. **Spillage /emergency**All operational team to be aware of correct procedure in event of spillage or vapour leak.Minimum of 1 trained spill handler while machines in operation.**Level controls**All gas gun/dragers to be annually calibrated and records held on file.Operating units to forward readings document to Jeanette.whitehead@compass-group.co.uk monthly to confirm levels rooms are being accessed.**Disposal** If any residue after cycle completed Attention to be observed that some droplets may be present on the ‘empty’ container; any small spillage should be wiped with a damp cloth and rinsed well straight away. The empty container needs to be triple rinsed and disposed of according to local regulations.To be handled with gloves to EN374 chemical resistance to 30 minutes and disposed of via the chemical waste stream.**Security**If any cannister is identified as missing this must be reported immediately to the Unit manager and HSE manager full investigation started. If can not be located within 6 hours the police must be notified via the police notification form.**Movement** Canisters can not be transported by vehicle – if urgent requirement for infection control reasons. Contact HSE team who will monitor and review the process to ensure enhanced controls under ADR are being followed.If the machine is to be moved internally with residue H2o2 the plunger must be fully engaged to lock down the bottle. If bottles need to be removed replace yellow screw caps prior to storing. Residue can be disposed of by diluting H2O2 at a ratio of 1:20 with water down sink. Follow the light indicators for the levels within the bottle – for each cycle there must be minimum to manufactures guidelines.**First Aid** Must be easily available on trolley while in use Spill kit and respirator to be ready while machine in operation. |
| **What are the hazards?** | **Who might be harmed?** | **How might they be harmed?** | **What are you already doing to control the risks?** |
| Slip, Trip or Fall on same levelTethered cable for device | Compass employees | Sprains, strains, bruising and impact injuries | Operatives are vigilant for slip, trip and fall hazards and can organise their work area to reduce the risk. Ensure cable is fully extended when in use and deployed by trained operativeCheck cables and plug for any defects before starting up the machine, if any damage to the cabling or to the plug, contact supplier/ manufacturer for repair. In both situations, take the machine our of use until repaired.No one will enter the room during disinfection, therefore no footfall and no riskCables to be stowed as per training, coiled on retention hooks on the device was use is finished before moving back to storage |
| Manual Handling from pushing and pulling | Compass employees | Back, arm and muscle strains | Unit weighs 22kg with additional 11kg per each aeration unit however, the unit is on four easy glide wheelsThe aeration units can be stacked for transportation and secured using the black rubber straps provided, where possible these should be moved by two people. Aeration units MUST not be operated in stacked position but separated and distributed in the area being decontaminated.Ensure wheels are kept clean and free of any debris or materials that may cause them to jamOperatives to ensure they have a clear field of vision when moving the machine around the locationOperatives to ensure they continually observe for any hazards on the routeAssessment for extra assistance in the event of slopes and uneven surfaces must be completed prior to movement of the appliance. |
| Persons hit by equipment when being moved | Compass employees, hospital staff, members of public | Impact injuries | Operatives to ensure they have a clear field of vision when moving the machine around the locationOperatives to ensure they continually observe for any hazards on the routeOperatives to use good verbal communication if anyone approaches or looks to be getting in the way of the equipment and advise politely to stand clearEnsure wheels are kept clean and free of any debris or materials that may cause them to jam |
| Contact with electricity  | Compass employees | Electric shock | All portable electrical equipment is tested as per PAT Testing Assessment and visual checks are made prior to use to ensure plugs, cables and connections are free from damageCheck cable during device deployment for any visual damage. If any damage is found, do not use and remove from operation and contact supplier for repair. |
| Exposure to biological agents within the hospital environment | Compass employees | Viral or bacterial infection | Work areas have been previously cleaned to required IPC requirements with appropriate detergent and disinfection processAny specific direction given by the ward / department staff would be followed by the operator.Operatives undertake standard precautions such as hand cleansing and the wearing of gowns when available outside the target area and gloves at all times when setting up. |

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| **Step 2 - Additional Measures**Do you need to do anything else to control this risk? |
| **Additional Controls Required** | **Action by who?** | **Action by when?** | **Done** |
| Ensure the use of this machine has been reviewed and approved by the site HSE team  | Cleaning Manager | Before purchase |  |
| All operatives to receive full training session on use of and cleaning of HPV machine from supplier/ manufacturer | Cleaning Manager | Before first use |  |
| Once operatives are fully trained and deemed competent then their names and date of training should be added to the Authorised User List below in Step 3. | Cleaning Manager | When training is completed |  |
| All relevant control documentation to be implemented -  | Cleaning manager | Refer to HSE sector lead Head of healthcare cleaning and infection control  |  |
| Respirator of spill control and gas reading purchased and training completed | Cleaning Manager | Before first use |  |

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| **Step 3 – Authorised User List**All team members who have received the required training from Ecolab and have been deemed competent to use the machine should be named below with the date of training recorded |
| **Name of Operator** | **Date Training Completed** | **Name of authorising manager** | **Signature of authorising manager** |
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