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| C:\Users\z9801168\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.Outlook\D90HK2AH\UNSW Landscape.png | | Internal Transport Protocol (SoMS\_HS\_027) | | | | |
| **Faculty/Division** | | | | **School/Unit** | | |
| Medicine | | | | Medical Sciences | | |
| **Document number** | **Initial issue date** | | **Current version** | | **Effective date** | **Next review date** |
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1. **Purpose – context for development of the protocol**

This document indicates how laboratory items are transported within Wallace Wurth building and around the precinct.

1. **Scope – to which positions/groups does the protocol apply**

This applies to all persons who transport items within Wallace Wurth and around the precinct. This does not apply to transport beyond the precinct by road, rail, sea or air.

1. **Definitions and acronyms used**

Precinct: Wallace Wurth, Lowy and Bioscience buildings.

Primary container: Container holding the sample (i.e. immediately surrounding it/ in contact with the material to be transported).

Secondary container: The container immediately surrounding the primary container. It may have absorbent material within.

GMO transport: This includes movement between two different PC facilities, movement between a PC facility and a storage area (e.g. Lowy tunnel), movement of a GMO to a place where it’s going to be disposed of or decontaminated

Sealed: Able to contain the contents and remain closed during all reasonably expected conditions of transport and storage.

Unbreakable: Able to withstand all reasonably expected conditions of transport such as forces, shocks and impacts expected during handling

Infectious substances: Substances which are known or reasonably expected to contain pathogens. Pathogens are micro-organisms (including bacteria, viruses, rickettsiae, parasites, fungi) and other agents such as prions, which can cause disease in humans, animals or plants.

Biological materials: Those products derived from living organisms which are manufactured and distributed in accordance with the requirements of appropriate national authorities, which may have special licensing requirements, and are used either for prevention, treatment, or diagnosis of disease in humans or animals, or for development, experimental or investigational purposes.

Category A: Infectious substances which are transported in a form that, when exposure to them occurs, are capable of causing permanent disability, or a life-threatening or fatal disease to otherwise healthy humans or animals. Infectious agents of plants that could cause significant damage to the environment or agriculture are included in this category.

Category B: Infectious substances that do not meet the criteria for inclusion under Category A.

Category C/Exempt: Biological material with a low probability of causing disease in humans, animals or plants. This covers human, animal or plant samples, including excreta, secreta, blood and its components, tissues and tissue fluids, not belonging to Category A or B biological material. (When transporting by surface it’s referred to as Category C, when transported by air it’s referred to as Exempt)

CASA: Civil Aviation Safety Authority

Patient specimens: Specimens collected directly from humans or animals, being transported for purposes such as research, diagnosis, investigational activities, disease treatment and prevention.

1. **Protocol statement**
   1. Items that are transported about the building and within the precinct are carried by hand or pushed in a trolley, are accompanied by a staff or student and are not subjected to the usual rigours of transport by a service provider (e.g. excessive movement, shock, vibration etc). For this reason, the same level of packing required for road, rail, sea and air is not required for transport within the building/precinct, however it is good practice to follow the general principals.
   2. There are national and international requirements on transport of dangerous goods by road, rail, sea and air. If you are planning on transporting beyond the precinct then specialist advice must be sought from UNSW Health and Safety. *Note: Only persons who have an up-to-date certificate of completion of a CASA-approved training course may transport certain dangerous goods by air.*
2. **General requirements**
   1. Do not wear laboratory gowns/coats or disposal laboratory gloves in public areas when transporting items, this includes the goods lift.
   2. Do not transport gas cylinders or liquid nitrogen in the Wallace Wurth passenger lift, use the goods lift. Do not transport in the goods lift when there are passengers inside.
   3. Do not carry anything using the staircase unless you can always have one hand free.
   4. Do not transport heavy items unless you have completed a hazardous manual tasks assessment and have received manual handling training.
   5. Do not leave laboratory items, dangerous goods or hazardous substances unattended when transporting around the precinct.
   6. Always decontaminate and examine transport containers for integrity before and after transport.
   7. Transport should be planned to avoid busy periods e.g. lunch-time and the start/end of teaching classes.
   8. When transporting large volumes ensure there is a spills kit readily available (e.g. carry one with you or ensure there are some along the route).
3. **Chemical transport**
   1. Chemicals shall be in a primary container with original label or ChemAlert label. A single plastic sealed container with a handle may be carried by hand. Glass bottles or containers that have already been opened must be transported within a transport esky or on a trolley. The trolley shall have a bund (e.g. the blue trolley) or the primary container is stored within a secondary container (e.g. the 25 L plastic black bunding bin’s) on the trolley.
   2. When a number of primary containers are being transported do not mix incompatible chemicals within the same bund or transport bin.
4. **Gas cylinders**
   1. The goods lift shall be used for transporting gas cylinders following the safe work procedure for transporting gas cylinders.
5. **Liquid nitrogen**
   1. Dewar flasks shall be transported using the stair case.
   2. Where it is not practical to use the stair case then the goods lift may be used to transport liquid nitrogen of a volume no greater than 0.5 litres
   3. Where volumes larger than 0.5 litres need to be transported, the dewar must be secured safely in the lift and travel unaccompanied. Place a large clear sign on the dewar indicating that persons must not enter the lift.
   4. Containers holding liquid nitrogen (or dry ice) should be vented or not fully sealed.
6. **Radioactive substances**
   1. The substance must be in a primary container, which is appropriately shielded.
   2. This must then be placed within a secondary container.
7. **Biological substances**
   1. Biological material for transport by road, rail, sea and air are separated into categories A, B or C/Exempt, Genetically modified, waste and exempt substances. Each category has different packaging requirements. Category’s B & C substances for surface transport require primary, secondary and outer packaging. Within SoMS we apply this general principal for transport within the precinct.
   2. All biological substances shall be packaged as follows:
   3. Primary receptacle – the container holding the substance e.g. screw capped container or blood tube.
   4. Secondary container – a snap lock plastic bag or a screw cap jar. Snap lock plastic bags are available from the SoMS Research Manager.
   5. Outer packaging – Plastic esky (or sturdy box if more appropriate). Plastic esky’s are available from the SoMS Research Manager.
   6. If transporting infectious materials they shall be either double bagged, both of which must be sealed during transport, or a sealed bag placed in a sealed unbreakable secondary container.
   7. If multiple primary containers are being transported use a rubber band to secure them or individually wrap each primary container or separate the primary containers with absorbent material/bubble wrap. Then place in secondary container.
8. **Genetically Modified Organisms**
   1. Access to GMOs must be restricted only to those with appropriate training, this includes situations where a GMO is left unattended (e.g. for collection/disposal). This can be achieved by having it in a locked/restricted access area.
   2. The material should be labelled to indicate that it is or contains a GMO.
   3. When transporting PC2 GMOs within a building a biohazard label is not needed (in any other situation attach one to the outermost container).
   4. When transporting within a building there is no need to label with the sender’s details.
   5. GMOs must be wholly contained inside a sealed unbreakable primary and secondary container.
   6. The external surface of the primary and secondary container must be decontaminated prior to transport (a visual inspection may be used to confirm if decontamination is necessary).
   7. Containers must be decontaminated after transport.
   8. GM waste being transported for decontamination inside the same building (with only trace amounts of liquid and no aerosol potential) must be contained in two unbreakable containers, one of which must be sealed e.g. a sealed bag inside a bin with a secure lid (this doesn’t need to be leak-proof or airtight).
   9. Any materials transported with the GMO (e.g. animal bedding) must be either retained with the GMO or decontaminated after transport.
   10. Live animals and animal tissues must not be moved to a facility of a lower level of containment, e.g. from PC2 to PC1 or PC3 to PC2.
   11. When transporting GMOs within a building and accompanied by a trained person there is no need to have procedures in place to log the movement. (Otherwise a formal procedure is needed to ensure that all GMOs and cell cultures can be accounted for and that a loss of GMOs during transport or the failure of delivery can be detected).
9. **Laboratory gowns and linen** 
   1. When laboratory gowns are due for autoclave (then laundering) they must be put into the linen bags located throughout the lab. The linen bags must be double contained. This is achieved by using two linen bags and closing the tie on both bags.
   2. The double linen bags are taken out of the lab onto a trolley and transported to Lowy Services for autoclaving. Transport is via the Lowy tunnel or Lowy links and therefore is considered “transport within the building”. The trolley (and items on the trolley) must not be transported outside the Wallace Wurth or Lowy buildings.
   3. If a laboratory gown or linen is known or reasonably suspected to be contaminated (e.g. linen used for freezer defrosting), it must be double contained inside two autoclave bags, both bags individually tied and taken directly to the Lowy Services for autoclaving. Refer to the Biological Spills Safe Work Procedure.
10. **Heavy/bulky items**
    1. The Medicine Research Support team transports items using a specially-designed trolley; these include waste bins and stories deliveries.
    2. For large or bulky items (e.g. furniture) the UNSW day gang must be contacted to arrange movement by trained people with proper equipment.
11. **Emergency arrangements**
    1. If there is a spill of dangerous goods during transport, follow the relevant spills procedure. Only staff/students that have been trained on the spills procedure should transport substances around the building.
    2. Minor biological, chemical and radiation spills kits are available within individual laboratories in the Wallace Wurth building.
    3. The major spills kit is available in the Lowy Building in the 4th floor first aid room.
    4. If you come across an unknown spill, isolate the area and make all attempts to identify the person responsible for the substance. If the responsible person cannot be found the supervisor of the area shall initiate the clean-up.
    5. All incidents (e.g. loss, spill or escape) must be reported in the online hazard and incident reporting system.

## Roles and responsibilities

## Workers:

## To follow instructions within this protocol and SWPs that outline transport requirements.

* To decontaminate and examine transport containers for integrity before and after transport.
* To use all equipment provided for transport.
* Report any problems or faults with transport containers to their supervisor.

## Supervisors:

## To ensure workers are inducted and trained on transport arrangements for their area

* To ensure that transport arrangements are adequately assessed through risk management or safe work procedures.

**Head of School:**

To ensure that workers and supervisors are following the internal transport protocol.

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| Accountabilities | | | | | |
| Responsible Officer | | Peter Gunning, Head – School of Medical Sciences | | | |
| Contact Officer | | Cristan Herbert, Chairperson SoMS Level 3 HS Consultation Committee | | | |
| Supporting Information | | | | | |
| Related Documents | | Work Health and Safety Act and Regulation 2011  [OGTR Guidelines for the transport, storage and disposal of GMOs](http://www.ogtr.gov.au/internet/ogtr/publishing.nsf/content/tsd-guidelines-toc)AS2243.3:2010 Section 13 Transport of infectious and other biological materials  AS4834 Packaging for surface transport of biological material that may cause disease in humans, animals and plants  Australian Dangerous Goods Code, 7th Edition  Australia Post Dangerous and Prohibited Goods and Packaging Post Guide  IATA (International Air Transport Association) Packaging instructions  HS629 Dangerous Goods (Transport by Air) Guideline | | | |
| Superseded Documents | | SoMS\_HS\_027 (v1.2.0) 05/08/2014 | | | |
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| 2.0 | Chairperson, SoMS L3 HS Consultation Committee | | 29/01/2018 | 29/01/2018 | Review. |