TRANSPORT & DISPOSAL OF SPECIMEN CONTAINERS & SPECIMENS POLICY

October 2016

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<tbody>
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</tbody>
</table>
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1. INTRODUCTION

This Policy describes the minimum standards which staff and others should apply when transporting specimens within and between hospital premises, to and from community sources and to outside (non NHSGG&C) agencies.

It is recognised that the large and varied area and practices covered cannot be served by a prescriptive policy document. The Policy, therefore, does not prescribe the mechanisms or precise means of transport of specimens in the various areas and activities covered. It seeks, rather, to encourage local managers to design and document their own safe working procedures in accordance with 'model rules', and reminds them of their statutory legal obligation to assess and document any risk involved and audit/monitor the success of their standard operating procedures.

Several sets of model rules are provided in this document and should be used where general staff functions are discharged in a manner that is not determined by geographic or local differences.

The Policy aims to provide a uniform structure and define standards, for all of NHSGGC, to transport and receive biological specimens in a legally compliant and safe manner.

1.1 Access to document

Available within the relevant NHS GGC HR Connect Health and Safety section.

1.2 References:

1. United Kingdom Accreditation Service (UKAS) : ISO15189 and CPA Standards C5 and E4
3. The European Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixture.
4. The Approved List of Biological Agents, for the purposes of Control of Substances Hazardous to Health Regulations 2002, 2004, 2013 HSE.
5. Safe Working and the Prevention of Infection in Clinical Laboratories and similar facilities, Health Services Advisory Committee, 2003
7. Biological Agents: Managing the Risks in Laboratories and Healthcare Premises, Advisory Committee on Dangerous Pathogens, 2005
8. Management of Health and Safety at Work Regulations 1999
9. Control of Substances Hazardous to Health Regulations 2002 (as amended)
12. TRANSPORT OF INFECTIOUS SUBSTANCES A guidance document produced by the Department for Transport, the Civil Aviation Authority and the Maritime and Coastguard Agency Revision 3: November 2006.
1.3 **Review**

This Policy will be reviewed at least every three years or when circumstances dictate a review is necessary.

1.4 **Communication and Implementation**

The Policy will be included in general health and safety awareness training and in staff induction programmes, for all staff who are involved in the transport and disposal of specimens. Line managers are responsible for identifying relevant staff and arranging such training. Staff must be made aware of how to access the Policy. Where appropriate, paper copies must be provided.

1.5 **Monitoring**

Implementation of the Policy will be subject to an annual audit procedure. The Health and Safety Service will be responsible for undertaking a programme of Policy Audits.

Significant findings will be forwarded to NHSGGC Health & Safety Forum and relevant line managers.

1.6 **Specimen tracking**

The Laboratory shall have a documented procedure for monitoring the transportation processes.

This should be in accordance with UKAS standards which state:

*The Laboratories instructions for collection activities shall include: ‘instructions for labelling of primary samples in a manner that is an unequivocal link with the patient and recording of the identity of the person collecting the primary sample and the collection date, and where needed, the time’.*

1.7 **Definitions**

**Royal Mail**

Transport of W.H.O. Risk group 3 and 4 specimens/materials, by public mail systems, is prohibited. These materials must be transported, following appropriate packaging, by specialist courier/transport companies.

W.H.O. Risk Group 1 and 2 materials/specimens can be sent by public postal systems provided they are wrapped properly and are labelled according to the instructions (following) in this policy.

Specialist couriers may have different requirements and a standard operating procedure, for making materials/specimens safe for transport, should be agreed with the courier before sending.

W.H.O. Risk groups classifications may found at:


**Category A Substances:**

Refer to the Appendix 1 (page 10) Indicative Examples Of Infectious Substances.
The higher risk infectious micro-organisms is defined as “an infectious substance, which is carried in a form that, when exposure to it occurs, is capable of causing permanent disability, life-threatening or fatal disease in otherwise healthy humans or animals”. Any specimen that might reasonably be considered to harbour such organisms should also be treated as Category A.

W.H.O. Risk Groups’ classifications may be found at:  

Infectious substances including those containing new or emerging pathogens, which do not appear in the list within appendix 1 as described defined above, but that meet the same criteria as category A substances, should be treated as Category A substances. These must be transported as UN2814 (Infectious substance affecting humans) and labelled as “Infectious substance affecting humans” Pack according to Packing Instructions P620.

Category B Substances:
Refers to any micro-organism that does not meet the criteria for category A. It includes human material such as, but not limited to, excreta, secreta, blood and its components, tissue and tissue fluids, and body parts being transported for purposes such as research, diagnosis, investigational activities, disease treatment or prevention. These are assigned to UN3373 and must bear the marking “Biological Substance – Category B” and be packed to Packing Instructions P650

Substances not subject to the regulations:
- Non-pathogenic organisms
- Blood and blood components for transfusion or transplant and tissues or organs for use in transplants
- Samples (non-human/animal derived) where there is only a low probability of infectious substances being present
- Decontaminated clinical or medical waste

2 SCOPE

This Policy describes the requirements for methods of transport of specimens and containers to and from laboratories within the NHSGGC area and to laboratories out with that area. This covers employees and others involved in the transport of specimens.

Deliberate Exclusions:
1. Techniques of specimen collection: physical collection of specimens, from patients, must be determined on geographical, individual and clinical basis to suit the circumstances of collection. It is therefore out with the scope of this policy to prescribe methods of collecting specimens.
2. Biological material, e.g. organs or tissue (solid or liquid), and their products, that are harvested for therapeutic purposes, from either cadaveric or living donors, require special modes of preservation and transport and are therefore not included in this policy.
3. Storage and transport of cadavers is not included in this policy.
4. Transfer of specimens, in a working situation and wholly within laboratory premises, is excluded.
5. Couriers who are contracted by NHSGGC, who stipulate special conditions for specimen uplift and transfer, and who provide all consumables required, are excluded from this policy.
6. Cultures prepared for the intentional generation of pathogens may not be transported as diagnostic specimens. Special packaging instructions (P620) apply to these materials (See Appendix-4, Picture 2).

3 ROLES AND RESPONSIBILITIES

Responsibility:

All those involved in specimen transportation are responsible for ensuring the safe transport of the specimens to their intended destination.
All health care workers who handle or transfer specimens are responsible for doing so in a safe, appropriate and confidential manner.
Procedures designed during the process, for transfer of specimens, must be risk assessed formally by appropriate managers and recorded.
The Policy document has been designed and edited by groups from the Laboratory Directorate, Procurement, Health & Safety Service, Transport Services and General Management.

Applicability:

The Policy applies primarily to the collection of specimens within ward or community clinical areas, their transport to laboratories, and their final disposal after analysis.

While it is expected that everyone dealing with specimens will observe the Policy it is also recognised that, from time to time, circumstances or geographic restrictions or peculiarities may make certain parts of the Policy challenging to achieve. The principles of best practice should always be applied.

There may also be methods of transfer of specimens involving cryogenic materials. Refer to Appendix 4, page 18, Refrigerants. Senior managers must assess risk of alternative procedures and make suitable, sufficient and safe adjustments to the policy at a local level. Such alterations must be recorded and lodged with Senior Managers, including Quality/Health and Safety Managers for the areas concerned.

Additionally managers of staff who collect specimens within the residence of the patient must ensure adequate systems are in place to enable staff to transport collected specimens back to their clinical base, for onward transportation to laboratories, in a manner that achieves the standards set out in the introduction to this policy.

Refer to Appendix 2, page 13 for Flow chart of the Processes covered by this Policy.

4 CONSUMABLES IDENTIFIED AND SOURCED

Local supplies required for the transportation of specimens can be obtained via the NHS GGC Procurement department using the appropriate PECOS product code - examples of products are detailed in Appendix 3, page 14.
5 HEALTH & SAFETY PROCEDURES

Specimens must be transported in such a way as to ensure the safety of the courier, the general public and the receiving laboratory. This procedure is in place to ensure specimen integrity and the safety of all those coming in contact with the specimen during transportation. It takes account of ADR Regulations 2015 and all other relevant health & safety regulations.

5.1 Courier

Primary and secondary specimen containers are ordered through Procurement/PECOS using the appropriate PECOS product code.

Specimens must be packed for transport in a way that prevents cross contamination of forms or other specimens when a specimen leaks. As far as is possible, all specimens should be kept within a leak-proof container and be separate to their own request form. Reasonable care should be taken that the specimen is closed properly, that its primary transport container is sealed properly and can contain any leaks or spills, and that all documentation accompanying the specimen is clean and unlikely to be contaminated. These principles should also be applied to secondary and tertiary containers that may be required for onward transport. Do not put more than one set of patient specimens in one bag.

Model Rules for Couriers are detailed in management instructions and are published as a separate controlled document, and also within this document. (Appendix 5)

Instructions in case of accident or incident, where the Laboratory Courier is unable to communicate, are detailed in Management Instructions and within this document. (Refer to local document control system)

Instructions for use of Pneumatic Tube Systems (PTS) are detailed in the Hospital Site Operational Policy. It should be noted that there are restrictions in type of specimen (governed by pathology or analysis) that can be transferred using this type of system. Note that local circumstances will dictate precise use of these systems. Local guidance and SOPs must define what specimens can and cannot be transferred using the PTS.

5.2 Patients and others

Patients and others will be issued with guidelines on the collection and transport of specimens as required. This includes the use of urine collection bottles containing acid preservatives. Safety Data Sheets should be issued with each specimen container. These should include instructions, for patients and others, on how to collect a 24 hour specimen of urine and how to use the bottles.

Patients should be encouraged to use Hospital or Health Centre facilities for transport of specimens to laboratories. They should be discouraged from bringing specimens to the laboratories by their own means of transport.

Model Rules for visitors to the laboratory are detailed in a separate controlled document and at the end of this document. (Refer to local laboratory document control system)
5.3 Receiving laboratory
Clinical laboratories’ staff are trained in the proper method of opening the sealed specimen transport boxes. Boxes contain wadding, which is changed when the box is cleaned and/or in the event of a spillage.

Specimen containers that are visibly soiled will be dealt with as per departmental procedure. The source of origin will be notified should action be required.

Biohazard Spill kits are located within laboratory reception areas. All staff are trained to use these kits. Laboratory staff will not clean spills outside of the laboratory area unless a formal agreement has been made for them to do so.

Model Rules for Laboratory Staff are detailed in a separate controlled document within each laboratory as Standing Operating Procedures.

5.4 Packaging Labelling and Despatch
All specimen boxes have an identifying label containing the biohazard symbol: - Refer to Appendix 4, page 14, Picture 1.

Instructions in case of accident or incident are published as a separate controlled document. Refer to model rules.

Leak-proof secure containers must be used when specimens are transported outside of hospital bounds using UN3373 compliant packaging.

All hazardous specimen containers are identified with appropriate hazard warning. 24-hour urine bottles are transported in individual carrier boxes containing sufficient packaging material to soak up any liquid spillage. Formalin bottles are transported in leak proof containers capable of containing the effects of a spillage.

5.5 Incident Reporting
Incidents and accidents are reported via the Datix Incident Management System, ensuring the appropriate line managers involved in sending and receiving samples are included as investigators.

All incidents and accidents must be investigated locally.

5.6 Regulatory requirements
Specimen transport complies with the Transport of Infectious Substances, 2015-2016, Department of Communicable Disease, Surveillance and Response, World Health Organisation.

Specimen containers are packaged to comply with The European Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixture.
Specimen Uplift Including Hubs & Spokes: Collection times and points must be agreed in conjunction with Laboratory Managers and Facilities Management.

6 PNEUMATIC TUBE SYSTEMS

All specimens should be placed in sealed specimen bags and placed using the appropriate pneumatic tube carrier (pod) as described in the Hospital Site Operational Policy for use of such systems. 

*In the event of breakdown contact the appropriate persons as described by Hospital Site Operational Policy.*

If a spillage is suspected in a carrier pod do not open the pod unless within the laboratory environment and under the instruction of a qualified and experienced person. If the spillage is suspected within the clinical environment refer to the Hospital Site Operational Policy.

7 TRANSPORT AND TRACKING OF PRECIOUS/ IRREPLACEABLE SPECIMENS

The efficient transport and transfer of precious and irreplaceable specimens depends upon good communications and a partnership between all parties which requires an adequate means of tracking the specimen journey. At present, manual tracking systems are employed within GGC.

**The sender**
- Refer to appendix 3 – packaging information
- Make advance arrangements with receiver where appropriate
- Make advance arrangements with courier (if not a routine service)
- Prepare appropriate documentation (tracker sheets)
- Notify receiver if appropriate of expected time of arrival

**The carrier**
- Provide sender with shipping documentation if appropriate (private courier)
- Is familiar with the contents of the shipment (external markings on packages)
- Is familiar with SOPs appropriate to the task (full set of instructions relative to specimen transportation)
- In the event of a spillage refer to TREM card Notifies sender of any problems with specimens or delays in delivery

**The receiver**
- Informs sender (by Datix / telephone) if there is any discrepancy where the contents are not in accordance with the accompanying documentation

Laboratory Standard Operating Procedures are tailored to the requirements of the service.
8 DISPOSAL

Local service arrangements:
As part of the service arrangements an assessment should be undertaken to determine what type and volume of wastes will be generated from within the service area, from those assessment outcomes it will be identified which waste stream storage and disposal support services are required.
Local service managers should also be cognisant of the Boards sustainability initiatives, particularly relating to recycling of wastes.

See Waste Management Guidance. (Section 1.2/13)
## Appendix 1 – Indicative Examples of Infectious Substances (section 1.7 Definitions)

<table>
<thead>
<tr>
<th>Substance Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bacillus anthracis (cultures only)</td>
</tr>
<tr>
<td>Brucella abortus (cultures only)</td>
</tr>
<tr>
<td>Brucella melitensis (cultures only)</td>
</tr>
<tr>
<td>Brucella suis (cultures only)</td>
</tr>
<tr>
<td>Burkholderia mallei–Pseudomonas mallei–Glanders (cultures only)</td>
</tr>
<tr>
<td>Burkholderia pseudomallei–Pseudomonas pseudomallei (cultures only)</td>
</tr>
<tr>
<td>Chlamydia psittaci–avian strains (cultures only)</td>
</tr>
<tr>
<td>Clostridium botulinum (cultures only)</td>
</tr>
<tr>
<td>Coccidioides immitis (cultures only)</td>
</tr>
<tr>
<td>Coxiella burnetii (cultures only)</td>
</tr>
<tr>
<td>Crimean-Congo hemorrhagic fever virus</td>
</tr>
<tr>
<td>Dengue virus (cultures only)</td>
</tr>
<tr>
<td>Eastern equine encephalitis virus (cultures only)</td>
</tr>
<tr>
<td>Escherichia coli, verotoxigenic (cultures only)</td>
</tr>
<tr>
<td>Ebola virus</td>
</tr>
<tr>
<td>Flexal virus</td>
</tr>
<tr>
<td>Francisella tularensis (cultures only)</td>
</tr>
<tr>
<td>Guanarito virus</td>
</tr>
<tr>
<td>Hantaan virus</td>
</tr>
<tr>
<td>Hantavirus causing hemorrhagic fever with renal syndrome</td>
</tr>
<tr>
<td>Hendra virus</td>
</tr>
<tr>
<td>Hepatitis B virus (cultures only)</td>
</tr>
<tr>
<td>Herpes B virus (cultures only)</td>
</tr>
<tr>
<td>Human immunodeficiency virus (cultures only)</td>
</tr>
<tr>
<td>Highly pathogenic avian influenza virus (cultures only)</td>
</tr>
<tr>
<td>Japanese Encephalitis virus (cultures only)</td>
</tr>
<tr>
<td>Junin virus</td>
</tr>
<tr>
<td>Kyasanur Forest disease virus</td>
</tr>
<tr>
<td>Lassa virus</td>
</tr>
<tr>
<td>Machupo virus</td>
</tr>
<tr>
<td>Marburg virus</td>
</tr>
<tr>
<td>Monkeypox virus</td>
</tr>
<tr>
<td>Mycobacterium tuberculosis (cultures only)</td>
</tr>
<tr>
<td>Nipah virus</td>
</tr>
<tr>
<td>Omsk hemorrhagic fever virus</td>
</tr>
<tr>
<td>Poliovirus (cultures only)</td>
</tr>
<tr>
<td>Rabies virus (cultures only)</td>
</tr>
<tr>
<td>Rickettsia prowazekii (cultures only)</td>
</tr>
<tr>
<td>Rickettsia rickettsii (cultures only)</td>
</tr>
<tr>
<td>Rift Valley fever virus</td>
</tr>
</tbody>
</table>

UN2814, Infectious substance affecting humans.
<table>
<thead>
<tr>
<th>Virus/Pathogen</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russian spring-summer encephalitis virus</td>
<td>(cultures only)</td>
</tr>
<tr>
<td>Sabia virus</td>
<td></td>
</tr>
<tr>
<td>Shigella dysenteriae type 1</td>
<td>(cultures only)</td>
</tr>
<tr>
<td>Tick-borne encephalitis virus</td>
<td>(cultures only)</td>
</tr>
<tr>
<td>Variola virus</td>
<td></td>
</tr>
<tr>
<td>Venezuelan equine encephalitis virus</td>
<td>(cultures only)</td>
</tr>
<tr>
<td>West Nile virus</td>
<td>(cultures only)</td>
</tr>
<tr>
<td>Yellow fever virus</td>
<td>(cultures only)</td>
</tr>
<tr>
<td>Yersinia pestis</td>
<td>(cultures only)</td>
</tr>
<tr>
<td>African swine fever virus</td>
<td>(cultures only)</td>
</tr>
<tr>
<td>Avian paramyxovirus Type 1–Velogenic Newcastle disease virus</td>
<td>(cultures only)</td>
</tr>
<tr>
<td>Classical swine fever virus</td>
<td>(cultures only)</td>
</tr>
<tr>
<td>Foot and mouth disease virus</td>
<td>(cultures only)</td>
</tr>
<tr>
<td>Lumpy skin disease virus</td>
<td>(cultures only)</td>
</tr>
<tr>
<td>Mycoplasma mycoides–Contagious bovine pleuropneumonia</td>
<td>(cultures only)</td>
</tr>
<tr>
<td>Peste des petits ruminants virus</td>
<td>(cultures only)</td>
</tr>
<tr>
<td>Rinderpest virus</td>
<td>(cultures only)</td>
</tr>
<tr>
<td>Sheep-pox virus</td>
<td>(cultures only)</td>
</tr>
<tr>
<td>Goatpox virus</td>
<td>(cultures only)</td>
</tr>
<tr>
<td>Swine vesicular disease virus</td>
<td>(cultures only)</td>
</tr>
<tr>
<td>Vesicular stomatitis virus</td>
<td>(cultures only)</td>
</tr>
</tbody>
</table>

UN2900, Infectious substances affecting animals

<table>
<thead>
<tr>
<th>Virus/Pathogen</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>African swine fever virus</td>
<td>(cultures only)</td>
</tr>
<tr>
<td>Avian paramyxovirus Type 1–Velogenic Newcastle disease virus</td>
<td>(cultures only)</td>
</tr>
<tr>
<td>Classical swine fever virus</td>
<td>(cultures only)</td>
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<tr>
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<td>(cultures only)</td>
</tr>
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<tr>
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<tr>
<td>Goatpox virus</td>
<td>(cultures only)</td>
</tr>
<tr>
<td>Swine vesicular disease virus</td>
<td>(cultures only)</td>
</tr>
<tr>
<td>Vesicular stomatitis virus</td>
<td>(cultures only)</td>
</tr>
</tbody>
</table>
Appendix 2 - FLOW CHART OF PROCESSES COVERED BY THIS POLICY

Specimen Collection from patient

Specimen collection (e.g. Hospital Ward/G.P. Surgery) Clinical Site

Choose as appropriate

Portering

Pneumatic Air Tube System

Driver*/Courier

LABORATORY

Disposal

External Reference Laboratory

* Only pre-contracted courier and taxi services should be used
## Appendix 3 - Examples of products obtained via NHS GGC Procurement department using the appropriate PECOS product codes

<table>
<thead>
<tr>
<th>Product Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twin pocket plastic bag “Re-sealable Specimen Bags)</td>
<td></td>
</tr>
<tr>
<td>For form if applicable and blood tubes</td>
<td></td>
</tr>
<tr>
<td>Opaque blue plastic bag for (manual) ward to lab transfer</td>
<td></td>
</tr>
<tr>
<td>From ward to lab by portering staff with multiple collections on multiple floors</td>
<td></td>
</tr>
<tr>
<td>Box for courier/van transport or soft sided pack Gusset Style Envopak</td>
<td></td>
</tr>
<tr>
<td>GP/Community to Lab transfers</td>
<td></td>
</tr>
<tr>
<td>Envopak pouch, flat style, long edge zip</td>
<td></td>
</tr>
<tr>
<td>Alternative GP/Community to lab or ward to lab transfers</td>
<td></td>
</tr>
<tr>
<td>Griff Bin</td>
<td></td>
</tr>
<tr>
<td>Sharp Safes</td>
<td></td>
</tr>
<tr>
<td>Autoclave boxes</td>
<td></td>
</tr>
<tr>
<td>Pathopak (for GPO)</td>
<td></td>
</tr>
<tr>
<td>Disposal of analysed specimens</td>
<td></td>
</tr>
<tr>
<td>For sending by GPO or non NHS courier.</td>
<td></td>
</tr>
</tbody>
</table>

The details for ordering via PECOS for the colour coded polythene transport bags, compliant to UN3373 with specimens packaged in appropriately colour coded bag relevant to Laboratory is as below.

<table>
<thead>
<tr>
<th>PECOS ORDER CODE</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>191949</td>
<td>WHITE - TRANSPORTATION BAG CERVICAL CYTOLOGY ALL GG&amp;C</td>
</tr>
<tr>
<td>194940</td>
<td>PURPLE TRANSPORTATION BAG HISTOPATH / CYTOLOGY ALL GG&amp;C</td>
</tr>
<tr>
<td>194957</td>
<td>GREEN - GP TRANSPORTATION BAG BIOCHEM &amp; HAEMO South &amp; Clyde Sectors only</td>
</tr>
<tr>
<td>194919</td>
<td>GREEN - GP TRANSPORTATION BAG BIOCHEMISTRY - North Sector only</td>
</tr>
<tr>
<td>194926</td>
<td>PINK - GP TRANSPORTATION BAG HAEMATOLOGY - North Sector only</td>
</tr>
<tr>
<td>194933</td>
<td>BLUE - GP TRANSPORTATION BAG MICROBIOLOGY - North &amp; Clyde Sectors only</td>
</tr>
<tr>
<td>198665</td>
<td>BLUE - GP TRANSPORTATION BAG MICROBIOLOGY/VIROLOGY North Sector only</td>
</tr>
<tr>
<td>198668</td>
<td>TEAL - GP TRANSPORTATION BAG VIROLOGY</td>
</tr>
<tr>
<td>191932</td>
<td>GREY - GP TRANSPORTATION BAG IMMUNOLOGY</td>
</tr>
</tbody>
</table>
Appendix 4 - Transportation of Laboratory Specimens – Labelling, Packaging and Transport Instructions

The packaging requirements are determined by the United Nations (UN) and are contained in ICAO (International Civil Aviation Authority) and IATA (International Air Transport Authority) regulations in the form of Packaging Instructions PI 620 and PI 650. (refer to Guidance on Regulations for the Transport of Infectious Substances 2015-2016, World Health Organisation in ref section)

NOTE: an exposure occurs when an infectious substance is released outside of the protective packaging, resulting in physical contact with humans or animals.

GG&C Transport Bags UN 3373 Compliant Colour Codes – refer to appendix 3, table 1 above.

Picture 1

BIOHAZARD
PATHOLOGICAL SPECIMENS

IN THE EVENT OF AN ACCIDENT OR INCIDENT
PLEASE CONTACT: - Local Contact details to be inserted

Picture 2
Packaging instruction – P620
Hazard Group Classification i.e. - UN 6 (infectious)
Packaging instruction – **P650**

Hazard Group Classification i.e. - **UN 6** (infectious)

---

**Picture 3**

UN3373

**BIOLOGICAL SUBSTANCE**
**CATEGORY B**

---

**Picture 4**

- **Formaldehyde content**
  - Packaging Instruction P 650

  The packaging for pathological specimens containing formaldehyde is as for Category B substances with additional hazard labels.

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**Picture 5**

- **Refrigerants (dry ice)**
  - Packaging Instruction

  When specimens are being transported in dry ice (solid carbon dioxide) it is mandatory that the packaging is designed and constructed to permit the release of carbon dioxide gas and prevent a build up of pressure that could rupture the package. The dry ice must be placed outside the secondary receptacle. If wet ice is used, all packaging must be leak proof.
If dry ice is used for infectious substances, the details must appear on the packaging, the word “MISCELLANEOUS” and Hazard Group classification UN 9 (Dry Ice)

1. Packaging

The Packaging Instruction is determined depending on the infectious categorisation or risk category as follows

- **Category A substances - Packaging Instruction P620**

Packaging should be UN type approved and consist of –
1. Leak proof primary receptacle either glass, metal or plastic
2. Leak proof secondary receptacle either metal or plastic – If screw caps are used, they should be secured by positive means e.g. tape
3. Other than solid infectious substances, absorbent material in sufficient quantity to absorb the entire contents placed between the primary receptacle and the secondary packaging
4. An itemised list of contents shall be enclosed between the secondary packaging and the outer packaging
5. Specimens of unknown infectious risk but suspected of meeting the criteria for inclusion in Category A, the words (suspected Category A infectious substance) must be shown on the outer packaging

Empty containers showing signs of contamination must be destroyed rather than being returned to the original consignor.

- **Category B substances – Packaging Instruction P650**

The packaging shall consist of 3 components –
1. A primary receptacle of suitable material appropriate to the specimen
2. A secondary packaging to contain the primary packaging in such a way that under normal handling the primary packaging will not break or leak. Absorbent material should be placed between the Primary and the Secondary as a precaution to leaking fluid.
3. An outer packaging to contain the secondary packaging and suitable cushioning material to secure the secondary packaging. This should not be compromised by breakage or leakage of the primary packaging

2. Labelling

When specimens are being transported, the following information should be evident on the outside of the transport container (the tertiary packaging)

1. United Nations risk of infection shipping classification (the level of risk)
2. How the specimen was packaged – Packaging Instruction Classification
3. Identification of the hazard type – UN Hazard Class number Picture
4. Orientation Arrows – Keep specimen upright – not required if fluid is less that 120ml and
3. **Transporting**
   There are several reasons why specimens require to be transported –
   - Doctor’s surgery to laboratory
   - From hospital to diagnostic laboratory
   - From one laboratory to another
   The principles for safe transport are the same as for air or international transport – the material should not have any possibility of escaping from the package under normal conditions of transport.

**General Principles**

- Specimens should initially be packaged in individual specimen bags which should then be placed in an appropriately colour coded outer padded bag according to laboratory discipline. Specimens should be packaged according to their risk.
- Where indicated, specimens should be transported upright secure
- Specimens should be secured within a watertight and leak proof transport box with a “secure tag” type lid
- Specimen boxes should be secured in a suitable dedicated laboratory vehicle
- Each transport box should be labelled appropriately consistent with its contents
Appendix 5 - MODEL RULES

• Porters and Couriers (internal and external)

The Model Rules for porters and couriers may differ by location. Local rules will not form part of the policy but will have to be agreed both at local level and with partnership input.

The Model Rules, given below, are published as a separate controlled document which is displayed within the Porters Office and Transport Office.

1. Patient confidentiality, privacy and dignity must be maintained at all times

2. For internal collection carry all specimens in opaque plastic bags or the appropriate colour coded plastic bag (refer to section 5) or the boxes provided - large boxes for ward collection, small boxes for collection of emergency specimens. Pathology specimens are transported to the Pathology Department in specialised, sealed boxes. Theatre and Day Surgery Unit boxes must be transported flat on the trolley provided. At the Pathology Department, the boxes are exchanged on a one for one basis.

Sealed boxes must not be opened by unauthorised staff

3. Any cuts or grazes on your hands should be covered with a waterproof dressing at all times

4. Touch specimen bags as little as possible and if you do touch any specimens wash your hands as soon as possible following NHSGGC Hand Hygiene Technique.

5. Wash your hands often (following NHSGGC Hand Hygiene Technique) - before meal breaks, and at the end of a spell of duty

6. If a specimen leaks into the box, or if you drop or break a specimen, do not touch it or attempt to clear up the spillage. Quarantine the area and call for assistance in having the spillage cleaned by people trained for that task who will take steps to make the spillage safe.

7. Handle specimens carefully at all times

8. Never eat, drink or smoke when carrying specimens, or when in the laboratory

   If you cut yourself or have an accident, however small, tell your line manager and follow the NHS GGC Guidance for the Management of Needlestick Injuries and Exposures to Blood and High-Risk Body Fluids.

1. For drivers in the event of an accident or incident, Refer to the TREM card for contact details.

2. COURIERS - in the event of a breakdown or accident do not let anyone touch the specimens unless they are an authorised hospital employee

3. Always ensure specimens are not subjected to extreme heat, cold or left in direct sunlight. Report all incidents that may affect the quality of the specimens or the safety of personnel to laboratory managers, who will liaise with the sample source and destination

4. Couriers should uplift sufficient empty colour coded Specimen Transport Containers for each laboratory discipline
5. Couriers should ensure that the transport box is sealed before carrying. If required, leave a replacement empty box for the next collection/delivery.
6. Deliver sealed boxes / bags to laboratory reception.

- **Hubs/ Reception areas**

1. Patient confidentiality, privacy, and dignity must be maintained at all times
2. Specimens must be kept in a stable and suitable manner especially having regard to requirements of temperature and exposure to bright light.
3. Equipment and materials must be on hand, readily, to deal with breakage of, or spillage from, specimen containers for the trained attendee to utilise
4. Specimen collection points must be easily recognisable and, as far as is reasonably possible, must be in a constant position within the area.
5. Design of the collection points, and their positions, will be the responsibility of the local manager but must be agreed with those, e.g. porters, couriers, etc., who will collect specimens from it.
6. A timetable for collection of specimens should be agreed with those responsible for collecting the specimens and should be published adjacent to the specimen collection point.
7. The specimen collection point must be sited so as not to be accessible to casual passers by or other unauthorised persons. All materials kept at the collection point must be stored in a way that does not allow casual observation of identification or clinical details on individual specimens.
8. Persons leaving specimens at collection points must ensure, by careful visual examination, that the specimen containers, wrappers, bags and request forms are clean and free of visible contamination.
9. Persons collecting specimens should visually inspect for obvious defects and that the specimens containers, wrappers, bags and request forms are clean and free of visible contamination. The specimen must not be uplifted from the specimen collection point if there is any obvious contamination or soiling on it or its associated wrapper and documentation.
10. Any deviation from any of these rules should be reported, immediately, to the manager in charge of the area in which the collection point is placed.
• Visitors or others delivery directly to laboratories

1. All visitors should report to reception on arrival.

2. Children are not allowed in the laboratory working area and must be supervised closely at all times if present in other areas.

3. All visitors should:
   - refrain from eating, drinking, chewing, smoking or running in any laboratory working area
   - Wear appropriate protective clothing in the laboratory working area but not in the common room or hospital dining areas
   - Avoid hanging protective clothing beside coats, jackets etc. (pegs are provided for protective clothing)
   - Wash hands (following NHSGGC Hand Hygiene Technique) after removing protective clothing or handling specimens.
   - Keep all areas clean and uncluttered
   - Not obstruct exits or floors
   - Remain under supervision
   - Report any incidents including any personal injury to the Laboratory Health & Safety Officer and documented through Datix Web
   - Refer to the local fire safety procedure

End of policy.