**PACKAGING OF PATHOLOGICAL SPECIMENS FOR TRANSPORT BY MAIL**

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**LOCATION OF COPIES**

1. Electronic copy on QWB
2. H&S Manual, Pathology General Office GRH
3. H&S Manual, Pathology General Office CGH
4. H&S Manual, Phlebotomy, GRH
5. H&S Manual, Phlebotomy, CGH

**REVIEW HISTORY**

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## AMENDMENT HISTORY

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PACKAGING OF PATHOLOGICAL SPECIMENS FOR TRANSPORT BY MAIL

Principle

The packaging of pathological specimens referred to other laboratories for diagnostic or investigational purposes are subject to regulation primarily through The Health and Safety at Work etc Act 1974 and the International Air Transport Association (IATA) Dangerous Goods Regulations (DGR), the Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2007 and the European Directives (ADR (road) 2011 and RID (rail)), 2005.

In principle the consignor must, using risk assessment analysis, assign the pathological specimen to a risk group and adopt the appropriate packing instruction.

Purpose

The purpose of this policy is to provide guidance and assign responsibility for the packing and dispatch of dangerous goods. Samples and micro-organisms dispatched from the Department of Pathology are transported for diagnostic or investigational purposes only.

Responsibility

Departmental managers must ensure that appropriate arrangements are in place to identify material that falls within the scope of the IATA Dangerous Goods Regulations.

Principle Stakeholders

All Healthcare employees involved in the handling, despatch and transportation of diagnostic specimens must ensure that they are packaged according to the guidance provided.

Employees of the Royal Mail, and other Courier Services much have access to adequate information to enable them to deal safely with any breakage or spillage.

The IATA Dangerous Goods Regulations and risk group consignment

Diagnostic specimens, including those taken from apparently healthy individuals, may contain pathogens that meet the criteria for risk groups 1, 2, 3 or 4.

- **Risk group 1**: although organisms in this group are not subject to regulations if it is required to send these through the post they will packaged in accordance with packing instruction 650.

- **Risk group 4**: pathogens are consigned to UN2814 and are considered “infectious substances”. They must be packaged and labelled in accordance with the infectious substances standard below. This has been drawn up to comply with packing instruction 620.
• **Risk group 2 and 3**: pathogens being transported for diagnostic of investigational purposes only, are consigned to UN3373 and must be packed in accordance with the general standard. This has been drawn up to comply with packing instruction 650.

• **Specimens** containing, or suspected of containing, pathogens consigned to UN2814 are considered “infectious substances” and must be packed in accordance with the infectious substances standard.

**Consignment procedure**

Under the regulations the consignor must make a judgement, (based upon known medical history, endemic local conditions, symptoms of the patient or use professional judgement concerning the individual circumstances of the patient), regarding the presence or suspected presence of risk group 4 or UN2814 consigned pathogens.

If a diagnostic specimen contains or is suspected of containing risk group 4 pathogens or UN2814 consigned pathogens it **must** be treated as an “infectious substance” and must be packed in accordance with the infectious substance standard.

No such judgement is required with regard to the presence or suspected presence of risk groups 2 and 3 pathogens provided that:

• The specimen is being transported for diagnostic or investigational purposes only.

• The pathogen or infectious substance is not already consigned to UN2814.

• Samples are packed in accordance with the general standard i.e. in accordance with packing instruction 650.

**Classification of specimens**

For the purposes of this procedure, it must be assumed that diagnostic specimens may potentially contain pathogens associated with risk groups 1, 2 and 3, and must therefore be packaged according to the general standard. ADR 2011 uses a new shipping name for diagnostic specimens, which it is reasonable to infer do not contain Risk Group 4 or UN2814 consigned pathogens.

**UN3373 BIOLOGICAL SUBSTANCES, CATEGORY B**

**General standard packing**

This method of packing and labelling applies to those samples, which are defined as “Biological Substances, Category B” and must be packed in accordance with Packing Instruction 650.

**General standard – applies to all samples**
1. Assess the possible presence of risk group 4 pathogens and check suspected pathogen is not consigned to UN2814.

2. Every pathological specimen must be enclosed in a primary leak-proof container (e.g. screw-cap universal container, Greiner blood bottle etc) and hermetically sealed or securely closed. The capacity of the primary container must not exceed 50 ml.

3. Ensure that all sample vials/bottles are labelled in accordance with the laboratory labelling policy with patient’s name, DOB or hospital number and laboratory number.

4. The primary container must be packed in sufficient absorbent material to absorb any leakage, and sealed inside the rigid plastic ‘mailer’. The mailers are available in different styles to accommodate single or multiple blood tubes, or universal bottles.

5. The Mailer will then be sealed in a leak-proof plastic bag (Minigrip) with the request card attached to the outside. If ice or pre-frozen packs are used the packaging must be leak-proof.

6. The package will then be placed in a secure, padded mailing bag (Mailite or Jiffy).

Labelling and Documentation

7. The package must be clearly marked with the Senders Name, Address and Contact Telephone Number, the UN3373 logo and the words:

   “BIOLOGICAL SUBSTANCE, CATEGORY B”

   This will be achieved by the provision of pre-printed labels.

8. The entire package should be clearly labelled with its destination address.

9. The contents, destination and despatch date must be documented to provide an audit trail.

Sending method

1. Samples packed in accordance with the above procedure may be sent by either Royal Mail or Courier Service.

2. Packaging of samples for transport by Road between GP Surgeries and Hospital sites are dealt with in a separate policy- ‘Packaging of Pathological Specimens for Transport by Road’.

Infectious substances standard – “High risk samples”

This method of packing and labelling applies to those samples, which are defined as “infectious substances”, are risk group 4 pathogens, are confined to UN2814 and must be packed in accordance with Packing Instruction 620.
For purposes of the GHNHST Department of Pathology this packaging standard also applies to:

- All cultures referred to other laboratories by post including all enteric pathogens, meningococci and mycobacterium
- Serum samples referred by post for confirmatory testing for HIV
- Serum or plasma samples referred by post for Hepatitis C PCR and HIV viral load testing

**Infectious substances standard – “High risk samples”**

1. Ensure that all sample vials/bottles are labelled in accordance with the laboratory labelling policy with patient’s name, dob or hospital number and laboratory number and labelled with a “High-risk” sticker

2. All screw-cap vials/bottles must be further sealed with stretch sealing tape (Para film)

3. The vial/bottle must be wrapped in sufficient absorbent material sufficient to absorb all possible leakage. This is then sealed in a leak-proof Minigrip plastic bag

4. The sealed bag must be placed in a screw-capped sample container of suitable size. If necessary further absorbent material should be packed inside this secondary container to prevent the sample bottle(s) from moving around in transit. This secondary container may contain multiple samples provided they individually wrapped in absorbent material and sealed in individual leak-proof plastic bags before being placed in the screw-capped container

5. The request forms should be fixed to the outside of the secondary container using elastic bands

6. The entire package is then placed in a UN approved transport box with sufficient packing material to hold the container in place during transit. This does not need to be absorbent, bubble wrap or polystyrene is acceptable. Seal the box with adhesive tape.

**Labelling**

1. The box used is UN approved and already printed with the UN code and “Infectious Substances” label

2. In addition to the normal address label also label the package with:
   - Consignor’s address and contact telephone number
   - A description of the contents:
     - Organisms name (if known)
     - Infectious human serum

**Sending method**
Samples packed in accordance with the above procedures may either be sent by First-Class post or by courier e.g. Hays DX.

**Safety policy of reference or recipient laboratory**

The Department of Pathology throughout Gloucestershire Hospitals NHS Trust operates a “universal safety policy” and as such there is no requirement to identify “high risk” specimens.

This may not necessarily be the case at another laboratory used for referral.

It is therefore incumbent upon Departmental managers to research and obtain from the referral laboratory(s) health and safety policies and identify any differences or requirements regarding notification and handling of “high risk” samples. The Departmental managers must then ensure that appropriate arrangements are in place to comply with that laboratory’s health and safety policy. In order to inform receiving laboratories of our policy a note stating the following should be included with all serum samples referred out:

“The Department of Pathology of GHNHST operates a policy of universal precautions with regard to sample handling. We cannot guarantee samples referred to you do not contain blood borne viruses and should be handled in accordance with your local Health and Safety procedures.”

**References**

Advisory Committee on Dangerous Pathogens  
*Categorisation of pathogens according to hazard and categories of containment*  
Second edition 1990

Health Services Advisory Committee  
*Safe working and the prevention of infection in clinical laboratories and similar facilities*  
Second edition 2003

HSE Books

International Civil Aviation Organisation (ICAO)  

**References**

Advisory Committee on Dangerous Pathogens  
*Categorisation of pathogens according to hazard and categories of containment*  
Second edition 1990

Health and Safety Executive  
*Biological Agents: Managing the risks in laboratories and healthcare premises* (2005)
Safe working and the prevention of infection in clinical laboratories and similar facilities
Second edition 2003
HSE Books

International Civil Aviation Organisation (ICAO)

Pathology Department GHNHSFT
Specimen Labelling Policy – QMS POL 012