



patho nomics

COLLECTION AND TRANSPORT OF SPECIMENS

Version 1.5

Abstract

To provide accurate guidelines in the transport and collection of specimens for both internal and external users to ensure that the specimens are treated properly as to ensure they are not damaged or lost.

Classification: Public

Author: Mr. Christopher Evagora
chris@pathognomics.com

TABLE OF CONTENTS

Introduction 3

Procedure & Safety 3

Procedure 3

Post Office Regulations 5

Post Office Regulations For The Transport of Class 6.2 Products (Diagnostic Specimens, Infectious Substances and Biological Products) 5

Royal Mail Statement on Biological Material ^[2] 7

Transport of Specimens in Vehicles by courier 7

Risk Assessment 10

Outcome 10

Patient preparation 10

HAZARDS IDENTIFIED 10

RISKS 10

 Infection 10

 Chemical 11

 Injury to Patients 12

Material Transport Log 13

References 15

Document History 15

INTRODUCTION

It is likely that at any given time there will be a number of specimens that present a risk of infection but are not identified either because at this stage a diagnosis has not yet been made or because the hazard is present in a latent state. There is therefore a need to ensure that all specimens are safely contained and transported.

It is recognised that a problem exists, in that, in many instances we have no control over the condition of the specimens received into the department.

Specimens are received via the post and courier. As the department does not supply the containers for all our Users, we have no direct control over the type of container used or the packaging employed.

Our only recourse is to refuse to accept specimens that are unsatisfactorily presented and to return them once they have been safely re-packed. Obtaining an ideal situation can therefore only be achieved by the education of the people sending specimens to us. To this end, this procedure includes two types of statements. That which we have complete control over and is therefore adopted as the procedure for the department and that which all members of the department will encourage outsiders to adopt. Obviously, any specimens sent out from the department will conform to all aspects of the procedure.

For further information for external Users in regards to state of specimens to be sent in, time frames, temperatures etc please refer to DOC 48 Users Guide.

PROCEDURE & SAFETY

PROCEDURE

1. All specimen containers must be sufficiently robust to withstand the stresses likely to be put on them and must not leak during normal use.
2. The person who sends the specimen must ensure that the container used is appropriate, is properly sealed and is not externally contaminated.
3. Specimen containers apart from buckets will be used once only.
4. Buckets and lids must be thoroughly cleaned and checked for damage before being re-used.

5. For patient safety, all labels on buckets and lids must be completely removed before the containers are re-used.
6. All labels used must be self-adhesive.
7. The container and request form must contain sufficient information to uniquely identify the patient, nature of the specimen and the name and location of the sender.
8. It is the responsibility of the person who requests the laboratory examination to ensure that both the form and container are correctly labelled to indicate any danger of infection.
9. Labels indicating a danger of infection must only be used for specimens that are suspected of containing a Hazard Group 3 pathogen see table below ^[1].

Route of Infection

Examples

Contact: either direct via hands of employees, or indirect via equipment and other contaminated articles

Airbourne: small particles that can remain airborne and travel considerable distances

Blood-bourne: either direct contact with blood or body fluids (or via skin-penetrating injury) or indirect via contaminated articles, eg dressings

Type of Disease	Organisms	Hazard Group
Gastrointestinal disease	<i>E.Coli O157</i>	3
	<i>Salmonella typhi</i>	3
Respiratory tract infection	<i>Mycobacterium tuberculosis</i>	3
	<i>Mycobacterium bovis</i>	3
	Avia flu	3
	<i>Chlamydia psittaci</i>	3
Hepatitis	Hepatitis B	3
	Hepatitis C	3
Immune system disease	HIV	3
	HTLV	3

10. The labels should be positioned so that they are visible without removing the specimen or form from its transport bag.
11. Each request form relating to a specimen that presents a danger of infection must give sufficient clinical information to enable laboratory staff to know what special precautions to take.
12. All specimens must be placed in an individual transparent plastic transport bag as soon as they have been labelled.
13. The bag must be sealed by a means that enables it to be opened without the use of sharp pointed instruments.
14. Bags must not be sealed with pins, staples, metal clips etc.
15. The form must be placed in a separate pocket, integral to the bag and must not be pinned or stapled to it.
16. Large buckets must be enclosed in individual transparent plastic sacks tied at the neck. The form should be placed in a separate bag, which is then securely tied to the neck of the sack.
17. Any specimen container or bag, which shows signs of external contamination, should be refused until such time as it has been confirmed that there is no risk of infection.
18. Specimen transport bags should not be used more than once. If required they must be decontaminated before disposal.
19. All used bags and other material used for packaging must be placed into orange clinical waste sacks for disposal.
20. All specimens posted from the department must conform fully with the current post office regulations.

POST OFFICE REGULATIONS

POST OFFICE REGULATIONS FOR THE TRANSPORT OF CLASS 6.2 PRODUCTS (DIAGNOSTIC SPECIMENS, INFECTIOUS SUBSTANCES AND BIOLOGICAL PRODUCTS)

1. Deleterious substances are normally prohibited from transmission by post. An exception is made for pathological specimens excluding those known or suspected to contain Hazard Group 4 pathogens. Pathological specimens may be sent for medical examination or analysis to a recognised medical laboratory or institution; or to a qualified medical practitioner; or to a registered dental practitioner; or to a veterinary surgeon.

2. **Only the FIRST CLASS LETTER POST or DATAPOST services may be used. The parcel post service may not be used for sending biological materials.**
3. **Only packaging approved by the Post Office may be used. See additional information below.**

In all cases, the following must be strictly observed:

4. Every pathological specimen must be packaged to meet Packing Instruction 602 in the International Civil Aviation Organisation's Technical Instructions and the International Air Transport Association's Dangerous Goods Regulations. For Dry Ice shipments Packing Instruction 904 must be followed.
5. Specimens must be enclosed in a primary container. This may be glass, plastic or metal in construction. The closure may be screw cap, push-on or snap-on in their design type which must have been tested within the U.N. Certified Packaging and shown to be watertight and leak-proof in performance tests. Each primary receptacle must not exceed 50ml, unless packing instructions allow.
6. Secondary packaging must be watertight and capable of withstanding 95kPa (0.95 bar, 13.8lbs/in²) in the range -40°C to +55°C temperatures. Secondary packaging must contain cushioning material, for the primary receptacles. Also it must contain sufficient absorbent material to absorb the entire contents. These units must not contain dry ice.
7. Outer packaging must be subjected to water spray, temperature, puncture and drop testing. It must be capable of protecting the inner packagings. The box must be correctly marked to include the name and telephone number of a responsible person and have a Regulation Class 6.2 Hazard Label. These units must have the U.N. mark on the box.
8. Overpacks with thermal control insulation must be used to transport specimens requiring packaging in ice packs or with dry ice. Dry ice or solid carbon dioxide is a Miscellaneous Class 9 Hazard. In addition to hazard labels, overpacks require "inner packagings conform to prescribed specifications" marking on the outer casing and the U.N. Dry Ice Number and its weights.

ROYAL MAIL STATEMENT ON BIOLOGICAL MATERIAL ^[2]

Biological Substances (Category B)	Diagnostic specimens including blood, urine, faeces and animal remains. Category B (UN3373) as classified in the latest edition of the Technical Instructions for Safe Transport of Dangerous Goods by Air published by the International Civil Aviation Organization (ICAO).
------------------------------------	---

May only be sent by, or at the specific request of, a qualified medical practitioner, registered dental practitioner, veterinary surgeon, registered nurse or a recognised laboratory or institution. The total sample volume/mass in any parcel must not exceed 50ml/50g. All biological substances must be posted in packaging that complies with Packaging Instruction 650, such as our Safebox product. The sender's name and return address must be clearly visible on the outer packaging.

IATA packing instructions see DOC 49.

WARNING

Any package containing biological material not conforming to these regulations, will be stopped and may be destroyed with all its wrappings and enclosures. Any person who sends by post a deleterious substance for medical examination or analysis without conforming to the above regulations, may be liable to prosecution resulting in a fine and imprisonment.

TRANSPORT OF SPECIMENS IN VEHICLES BY COURIER**GENERAL HISTOLOGY WORKSTREAMS**

Pathognomics Ltd has an account with an accredited medical courier 'City Sprint' and is used for anything sent within the UK or abroad. We also offer this service to some of our users.

City sprint accreditation (ISO 9001 and ISO14001) :

<https://www.citysprinthealthcare.co.uk/Aboutus/Qualitycompliance/>

Details for contacting City Sprint can be found in DOC 51.

All jobs booked by Core Pathology or packages sent via the post are logged via the material transport log found in this document.

All items waiting to be collected by a courier (booked either by Core Pathology or user) are placed in the basket in the main reception area. And the log (which is found in this document) is filed in. They are then filled in a folder and kept on a two year rotation.

Note: A confirmation of receipt form (found in this document) needs to be sent with every sample sent by courier by us. Once returned it should be matched up with the relevant material log sheet and scanned and attached to the clinical details section of the case in the LIMs system.

CYTOSPONGE™ WORKSTREAM

Cytosponge™ samples are transported from the client to Pathognomics via DX Courier.

A specific designated pick/drop off point is allocated at each site and a individual 'DX address' is generated by DX. The drop of point is checked daily at allocated times in the afternoon or evenings.

The clients are supplied with pre labeled transport box that has Pathognomic's DX address on them.

DX drops of at Pathognomic's point between the hours of 5am-7am every day.

We can print of manifests from the DX system. We also receive email notifications of what is coming.

To set up a DX the following table should be sent to the client as to capture all the necessary information required to set up the account.

DX Collection point request form

All boxes must be completed to allow a DX collection point to be assigned (including a photo of the pick-up point)

<i>Contact Name:</i>	
<i>Contact Number:</i>	
<i>Contact Email:</i>	
<i>Full collection address including postcode:</i>	
<i>Access times:</i>	
<i>Access limitations:</i>	
<i>Access notes other:</i>	
<i>Photo of pick-up point:</i>	

RISK ASSESSMENT

OUTCOME

Name of Assessor Mr Christopher Evagora (Laboratory Manager)

Checked by Mr Alec Hirst (Program Director)

Groups at Risk All personnel but specifically those directly involved in the collection and transport of specimens. This includes couriers and postal workers and patients.

Overall risk rating **Acceptable**

PATIENT PREPARATION

HAZARDS IDENTIFIED

1. Infection from unfixed or inadequately fixed material.
2. Formal saline solution. Harmful if ingested or if exposure to the vapour is prolonged. Irritating to skin and eyes. Has been found to cause cancer in laboratory animals.
3. Formaldehyde solution. Toxic by ingestion and inhalation. Prolonged exposure to vapour can cause conjunctivitis, laryngitis, bronchitis or bronchial pneumonia. Causes burns to eyes and skin, with cracking and ulceration, particularly around fingernails. Has been found to cause cancer in laboratory animals. Flammable liquid which reacts with hydrochloric acid to produce a carcinogenic compound. Can react vigorously with oxidising agents.
4. Injury to patients through incorrect identification.

RISKS

INFECTION

The Advisory Committee on Dangerous Pathogens has confirmed that the Human immunodeficiency viruses currently known as HIV1 and HIV2,

Mycobacterium tuberculosis and Hepatitis B virus should remain in Hazard Group 3. These are the three most likely Category III pathogens to be encountered in Histopathology. In cases where the handling of such material is vital to the welfare of the patient, the procedure will be carried out by the Senior Chief Technician or such persons as he deems to be adequately trained. When dealing with inadequately fixed tissue there is also the possibility that other infectious organisms not classified as above may be present. Therefore it is essential that all staff carrying out the procedure are adequately trained and are aware of the Safety Rules, particularly the section on the prevention of infection, and that they follow the procedure laid down in the Standard Operating Procedure. If the guidelines contained in the Standard Operating Procedure and Local Rules for Safety at Work are followed, the risk of infection is reduced to a minimum.

EXISTING CONTROL MEASURES INCLUDE:

1. Only specimen containers specifically designed for the purpose are used.
2. Specimen containers apart from buckets are used once only.
3. Buckets and lids are thoroughly cleaned and inspected before re-using.
4. All labels used are self-adhesive.
5. Danger of Infection labels are used where appropriate.
6. All specimen containers are placed in transparent plastic bags before transporting.
7. Documentation is placed in a separate compartment of the plastic bag.
8. All waste is disposed of into appropriate clinical waste sacks.
9. Specimen containers are transported in boxes.
10. Specimen containers and bags, which show signs of external contamination, are not dealt with until it is confirmed that they are free of infection.
11. Full postal regulations are employed when sending specimens.

CHEMICAL

Formal saline presents a small risk during this procedure as normally the container and bag will protect the operator. However, this risk is increased when containers are broken in transit. The Procedure and Risk Assessment for the Reception of Specimens outlines the method of dealing with such incidents. The risk of excessive inhalation is minimal due to the small volumes employed and the short exposure time.

The guidelines contained in the Standard Operating Procedures and Local Rules for Safety at Work have been formulated to reduce these risks to a minimum compatible with undertaking the task.

EXISTING CONTROL MEASURES INCLUDE:

1. Those as listed under existing control measures for infection.
2. Spillage control kits and eye wash bottles are available
3. Preparation of Formal saline stock solution is carried out in a fume cupboard.

INJURY TO PATIENTS

The risk of causing harm to a patient during this procedure is minimal. However, failure to completely remove patient identification labels from re-usable containers could lead to confusion when the container is re-used. A further possibility of causing harm arises when sending specimens from the department. Care must be taken to ensure that the documentation and specimen match.

EXISTING CONTROL MEASURES INCLUDE:

Doc 52: Collection and Transport of Specimens Version
1.5 - Page 12 of 16

CONFIRMATION OF RECEIPT

Pathognomics
 Unit 11 Halcyon court
 St Margaret's Way
 Huntingdon
 Cambridgeshire
 PE29 6DG
 Tel:

Details of Sample Sent

Patient Name:	
Record Number:	
Slides Sent:	
Blocks Sent:	
Tissue Sent:	
Copy of Report Sent:	
Dispatch Authorised by:	
Name and Signature of Dispatcher:	
Date:	

Please return all samples sent to the address above when the investigation has finished.

Confirmation of receipt: - Please confirm receipt by emailing this form to enquiries@pathonomics.com

I confirm the receipt of the samples outlined above.

Received by:

Signature of receiver:

Date:

REFERENCES

1. DOC 49. Biological agents: Managing the risks in laboratories and healthcare premises
2. DOC 50. IATA packing information

DOCUMENT HISTORY

Version	Author	Date	Authorised
1	Chris Evagora	17/10/2016	Chris Evagora 
1.1	Chris Evagora	12/12/2017	Chris Evagora 
1.2	Chris Evagora	12/12/2018	Alec Hirst
1.3	Chris Evagora	8/12/2019	Alec Hirst
1.4	Chris Evagora	17/07/2020	Alec Hirst
1.5	Chris Evagora	21/07/2020	Alec Hirst

