

## Transport of Pathology Specimens to Laboratories

**Summary** This Policy Directive provides a consistent statewide approach to the safe and timely transport of all pathology and forensic specimens such that there is no deterioration in the quality of the specimen.

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**Applies to** Ministry of Health, Local Health Districts, Specialty Network Governed Statutory Health Corporations, Affiliated Health Organisations, NSW Health Pathology, Public Hospitals

**Distributed to** Ministry of Health, Public Health System

**Audience** All Clinical, Laboratory, Central Specimen Reception and Transport Staff involved in Transport of Pathology Specimens

## Transport of Pathology Specimens to Laboratories

### POLICY STATEMENT

NSW Health Pathology provides specialist pathology services for NSW Health organisations, NSW Police, private pathology providers, community based medical practitioners and private hospitals. It ensures a consistent state-wide approach to the safe and timely transport of all pathology and forensic specimens in compliance with relevant regulatory requirements.

### SUMMARY OF POLICY REQUIREMENTS

Pathology specimens must be transported by the NSW Health Pathology Transport Service to NSW Health Pathology's on-site laboratory or to the appropriate laboratory providing the required diagnostic testing.

Other transport services can only be used to transport specimens to the appropriate laboratory providing the required diagnostic analysis in the following circumstances:

- Where the NSW Health Pathology Service is not operating
- Where there is no on-site NSW Health Pathology laboratory
- When the NSW Health Pathology laboratory is closed.

To ensure the integrity of specimens and the safety of staff and transport personnel, specimens must be appropriately handled, prepared, stored, packaged, labelled and transported in compliance with all legislative and regulatory requirements and this Policy.

### REVISION HISTORY

Version	Approved By	Amendment Notes
PD2023_001 January-2023	Deputy Secretary, Population and Public Health	Updated policy directive required due to full implementation of the Akuna specimen tracking system across NSWHP laboratory locations.
June 2018 (PD2018_020)	Deputy Secretary, Population and Public Health	New Policy

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## 1. BACKGROUND

### 1.1. About this document

The Central Specimen Reception (CSR) and transport staff at all sites are responsible for ensuring that specimens arrive in a safe, timely manner at the laboratory so as to limit deterioration in the quality of the specimen and delay in testing.

This Policy also applies to The Children’s Hospital Westmead and Sydney Children’s Hospital Network – Pathology.

### 1.2. Key definitions

<p><b>Category A Infectious Substances</b></p>	<p>Infectious substances in a form that, when exposure to it occurs, is capable of causing permanent disability, life threatening or fatal disease in otherwise healthy humans.</p> <p>It is not relevant to the packing and transport of routine specimens by NSWHP staff (<i>IATA Guidance Document – Infectious Substances</i>) but is applicable in rare circumstances.</p> <p>Refer to the International Air Transport Association <a href="#">IATA Dangerous Goods</a> for indicative examples.</p>
<p><b>Category B Infectious Substances</b></p>	<p>An infectious substance which does not meet the criteria for inclusion in Category A. This includes Category B infectious substances transported for diagnostic purposes.</p> <p>This applies to specimens routinely collected and transported by NSWHP staff (<i>IATA Guidance Document – Infectious Substances</i>).</p> <p>Refer to the International Air Transport Association <a href="#">IATA Dangerous Goods</a> for indicative examples.</p>
<p><b>Central Specimen Reception (CSR)</b></p>	<p>Designated specimen reception area for each laboratory whether this is a dedicated laboratory area or a function within a wider laboratory such as a core laboratory.</p>
<p><b>Central Specimen Reception Staff</b></p>	<p>All staff involved in the receipt, accessioning, registration and transfer of pathology specimens.</p>
<p><b>Chain of Custody</b></p>	<p>A series of procedures to account for the integrity of each specimen by tracking its handling and storage from point of collection to final disposal (<a href="#">AS/NZS 4308: Procedures for specimen collection and the detection and quantitation of drugs of abuse.</a>)</p>
<p><b>Consignment</b></p>	<p>One of more transport packs travelling together with the same origin and destination.</p>

<b>NSWHP Akuna Specimen Tracking System or Akuna</b>	NSWHP’s electronic state-wide Specimen Tracking System known as Akuna, monitors the location of specimens in real time and ensures the fast reconciliation of deliveries by displaying alerts for overdue items.
<b>Specimen</b>	Specimens that are collected directly from humans (including, but not limited to excreta, secreta, blood and its components, tissue and tissue fluid swabs, and body parts) that are transported for purposes such as research, diagnosis, investigations, disease treatment and prevention.
<b>Transport Pack</b>	The outer container handled by the transport staff.
<b>Transport Staff</b>	Transport staff includes the NSWHP Transport Service staff and the staff of other transport providers such as Local Health District transport staff and commercial courier or freight services.

### **1.3. Legal and legislative framework**

Specimens must be appropriately handled, prepared, stored, packaged, labelled and transported to ensure the integrity and safety of specimens in accordance with:

- The National Pathology Accreditation Advisory Council (NPAAC) [Requirements for the Packaging and Transport of Pathology Specimens and Associated Materials \(Fourth Edition 2013\)](#)
- The International Air Transport Association [IATA Dangerous Goods](#) - regulations apply whether the containers are sent by air, road or sea - Infectious substances fall under either category A or B as described in this Policy.
- The [Australian Civil Aviation Amendment Regulations 2003 \(Part 92\)](#) – these regulations apply to staff packing infectious substances or dry ice.
- Specimens for Viral Haemorrhagic Fever (VHF), commonly known as Ebola Virus, must be collected, packaged and transported in accordance with the NSW Health Guideline *NSW Contingency Plan for Viral Haemorrhagic Fevers (GL2016 002)* and in the *Ebola virus disease - Information for Laboratories* [webpage](#).

## **2. TRANSPORT PROCESS**

### **2.1. Initial receipt of specimens**

Specimens collected for pathology and forensic testing must be sent to the Central Specimen Reception.

The Central Specimen Reception staff will determine whether the specimen can be analysed on-site or whether it is referred to another laboratory for diagnostic analysis.

## **2.2. Registering specimens**

Specimens requiring diagnostic analysis must be registered in the relevant NSW Health Pathology Laboratory Information Systems (LIS) upon receipt at a NSW Health Pathology Laboratory facility.

## **2.3. Storing and packaging specimens**

Storing and packaging of specimens must be in accordance with appropriate guidelines and regulations.

Central Specimen Reception staff must comply with all regulatory requirements (see Section 1.3).

The laboratory must have protocols and appropriate facilities for securing custody of specimens and avoiding deterioration, loss or damage during handling, preparation, storage, packaging and transport.

## **2.4. Transporting specimens**

Transport staff are responsible for the safe transport and delivery of specimens.

When transporting specimens to laboratories, transport staff must comply with this Policy and local protocols in relation to:

- Dispatch (registering specimens out of the referring laboratory) and
- Receipt (registering specimens into the receiving laboratory).

## **2.5. Transport Services**

### **2.5.1. NSW Health Pathology Transport Service**

The NSW Health Pathology Transport Service must transport specimens to the nearest NSW Health Pathology laboratory or to the appropriate laboratory providing the required diagnostic testing.

NSW Health Pathology is responsible for coordinating transport arrangements including other commercial courier, freight or taxi services.

### **2.5.2. Other transport services**

Other transport services can only be used to transport specimens to the appropriate laboratory providing the required diagnostic analysis in the following circumstances:

- Where the NSW Health Pathology Transport Service is not operating
- Where there is no on-site NSW Health Pathology laboratory or
- When the NSW Health Pathology laboratory is closed.

Other transport services include:

- [Toll Delivery Services](#) (for Category A Infectious Substances)

- [TNT Courier Services](#)
- Other commercial courier, freight and taxi services
- Local Health District courier services
- Surface transport (foot or trolley) by NSW Health staff.

The following procedures in relation to dispatch, receipt and tracking of specimens apply whether the NSW Health Pathology Transport Service, or other transport services are used.

## 2.6. Dispatching specimens

Staff dispatching specimens must register the specimens out of the referring laboratory.

When dispatching specimens between CSRs, the referring staff must:

- Build a consignment using the NSW Health Pathology Akuna Specimen Tracking System including:
  - Create a transport pack using Akuna
  - Ensure correct use of the system to facilitate appropriate record keeping. Where Akuna is not available, the [NSWHP Downtime Procedure](#) must be followed to ensure records of all consignments dispatched are kept.
- Monitor the timely delivery of that consignment into the receiving location.
- Investigate any delivery delays or failures.

### 2.6.1. Dispatching specimens outside normal hours of operation

The dispatching [laboratory](#) must notify the receiving laboratory in advance if the specimen is to be received outside the normal hours of operation.

## 2.7. Receiving specimens

Transport staff must register the Consignment and Transport Packs into the receiving laboratory using the NSW Health Pathology Akuna Specimen Tracking System.

If a third-party courier is being used, NSW Health Pathology staff MUST perform the drop off process in Akuna.

On receipt of any consignment, the receiving location will register the receipt in Akuna on arrival.

Akuna will provide an alert where the delivery does not reconcile with the dispatch records.

The location will monitor the timely delivery of all consignments and investigate any delivery failures that do not reconcile in Akuna.

The CSR staff must reconcile the delivery on receipt regardless of the system in use.

## 2.8. Tracking specimens

NSW Health Pathology tracks all specimens transported between NSW Health Pathology Central Specimen Reception staff using a combination of Laboratory Information Systems transfer list and Akuna.

For consistent tracking across the state, Akuna must be used for all transport of pathology specimens and follow the business rules below:

- Akuna must be used to track to specimen level, when specimens are transported across sites that sit in different Laboratory information Systems.
- Akuna must be used to track to specimen level, when considered to be an urgent, critical and or precious specimen.
- Akuna must be used to track all consignments and transport packs moving between any NSW Health Pathology location when individual specimen tracking is not required.
- The receiving site is responsible for identifying and investigating delayed, missing and lost specimens.
- The NSW Health Pathology Electronic Tracking System, where operational.

The Central Specimen Reception and transport staff must comply with both state-wide and the local Electronic Tracking System protocols where applicable:

- Transfer lists when transported between Central Specimen Reception with compatible Laboratory Information Systems.
- The Akuna Specimen Tracking system when transported between Central Specimen Reception locations where the Laboratory Information Systems are not compatible.
- The NSW Health Pathology Electronic Tracking System, where operational.
- The manual downtime procedure when the electronic systems are unavailable.

## 2.9. Escalation process

Both the sending and receiving site are responsible for monitoring the Akuna dashboard and identifying any delays in a timely fashion.

The receiving site is responsible for investigating delayed, missing and lost specimens.

The *Delayed, Misplaced and Lost Specimen Management Policy* ([NSWHP PD 027](#)) provides guidance to staff about the management and reporting requirements when a delayed, misplaced or lost specimen event occurs.

## 3. TRAINING

The Central Specimen Reception and transport staff responsible for the packaging, transporting and receipt of pathology specimens by air or surface transport must be trained, and maintain currency, in the International Air Transport Association (IATA) Regulations and National Pathology Accreditation Advisory Council (NPAAC) Requirements.



Staff must be assessed as competent to perform tasks including the use of the Akuna Tracking System. Internal training is conducted in accordance with [ISO 15189, Medical laboratories – Requirements for quality and competence](#).

Where staff are required to transport pathology specimens by air, certification is required, accredited with the Civil Aviation Academy (Australasia), [Safe Transport of Infectious Substances by Air Course](#), and renewed every 2 years.

Training records must be maintained by the organisation and available on request by the Civil Aviation Safety Authority of Australia.

## **4. NON-CONFORMANCE AND AUDIT**

Any non-conformances with these procedures and related policy documents must be recorded. Internal audits will be undertaken to ensure ongoing compliance.

Non-conformances must be reviewed in accordance with local procedures to identify the root cause and enable corrective action to be implemented. The progress of actions must be reviewed in accordance with [Compliance Management Framework \(NSWHP CG 010\)](#).

Investigation and trend analysis will also be undertaken to promote the elimination of root causes including the identification of incidents and near misses as recorded in Akuna.

The NSW Health Pathology Clinical Governance unit will review incidents and complaints recorded in ims+ in relation to these procedures.

## **5. ROLES AND RESPONSIBILITIES**

### **5.1. Central specimen reception staff**

It is the responsibility of Central Specimen Reception staff to:

- Comply with all specimen storage, packaging, tracking and transport legislative, regulatory and policy requirements including the International Air Transport Association Regulations, the National Pathology Accreditation Advisory Council Requirements, National Authorities Testing Australia (NATA) Regulations, this Policy and other relevant local protocols
- Ensure transport services comply with all regulatory and policy requirements in relation to receiving and tracking of specimens for laboratories
- Report any incidents in accordance with the NSW Health Policy Directive [Incident Management \(PD2020 047\)](#) that do not support the safety of staff, the integrity of the specimen, and relevant regulatory storage, packaging, tracking and transport requirements
- Be trained in the safe handling and packing of specimens in accordance with these procedures.

### **5.2. NSW Health Pathology transport staff**

It is the responsibility of NSW Health Pathology transport staff to:

- Ensure prompt, safe delivery to the laboratory or service
- Handle the specimen in a manner that ensures the integrity of the specimen and safety of all persons with whom it may come in contact
- Ensure all appropriate protocols for chain of custody of specimens are followed
- Be educated in, and comply with, these procedures and local protocols in relation to the dispatch and receipt of specimens for laboratories
- Report any incidents in accordance with the NSW Health Policy Directive *Incident Management* ([PD2020\\_047](#)) that do not support the safety of staff, the integrity of the specimen and relevant regulatory storage, packaging, tracking and transport requirements.

### **5.3. NSW Health Pathology Operations Managers**

It is the responsibility of NSW Health Pathology Operations Managers to manage any concerns in relation to the transport of specimens such as delivery delays or failures.

## **6. REFERENCES**

1. [Dispatch Advice - akuna Downtime Form – NSWHP F\\_014](#)

## **7. APPENDICES**

1. Implementation Checklist
2. Transport of Specimens to Laboratories Flowchart

**7.1. Appendix 1: Implementation Checklist**

<b>LHD/Facility:</b>			
<b>Assessed by:</b>		<b>Date of Assessment:</b>	
<b>IMPLEMENTATION REQUIREMENTS</b>	<b>Not commenced</b>	<b>Partial compliance</b>	<b>Full compliance</b>
Develop local protocols and provide appropriate facilities for securing specimens and avoiding deterioration, loss or damage during pre-examination activities and during handling, preparation, storage, packaging and transport (including chain of custody) in accordance with these procedures.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<u>Notes:</u>		

**7.2. Appendix 2: Transport of Specimens to Laboratories Flowchart**

