Specimen Collection and Transport Procedure

1. Purpose

The purpose of this procedure is to outline the requirements to be adhered to by all healthcare workers (HCWs) involved in specimen collection and transport in WA Country Health Service (WACHS) facilities and related services.

2. Procedure

A specimen is defined as a portion or quantity of material for use in testing, examination, or study. Specimen collection is often the first crucial step during investigations that define the nature of a disease, determine a diagnosis and guide treatment modes.

Pathology plays a vital role in both diagnosis and in forensic investigations, as specimens provide critical information that guides appropriate patient treatment and can significantly impact clinical outcomes. NB: for the purposes of this procedure the term patient refers to patients, residents or clients.

Specimen collection may be invasive, and the risks and benefits to the patient must be considered prior to a specimen collection being ordered. When collecting specimens, HCWs should work within their scope of practice. This procedure is to be used in conjunction with PathWest Manuals, WA Health notification of infectious diseases and the Patient presentation and specimen collection guidelines including the Silver book STI/BBV management guidelines.

2.1 Cultural considerations

The following recommendations are suggested to strengthen cultural considerations:

- ensuring the use of culturally safe and responsive practices during specimen collection, including engaging Aboriginal Health Workers (AHWs) or Aboriginal Liaison Officers (ALOs) where possible, to support communication, consent and comfort of Aboriginal patients
- interpreters should be engaged where required, but consideration should be given also to the importance of non-verbal communication, family decision-making, and allowing time for explanation relating to the procedure to be performed, prior to specimen collection, to enhance culturally responsive care.

Some Aboriginal people may experience distress from invasive procedures due to previous negative experiences in health service delivery and staff should be trained to use trauma-informed, person-centred approaches. Engaging local Aboriginal communities at each site to discuss the procedure and transport logistics can help tailor the approach to local needs, improving patient understanding, trust and participation.

2.2 Request forms

Before any clinical samples are collected from a patient, the collector must ensure an appropriately qualified medical or nurse practitioner or endorsed midwife is named on the request form or electronic order, so that there is adequate clinical governance of testing

and results. Allied health professionals are not permitted to order tests directly and must do so via a registered practitioner. Any requests without an identifiable registered practitioner will not be actioned.

All samples must be accompanied by a request form, letter, or electronic order. The request must detail the specific tests required, relevant medical history, clinical diagnosis or indication for testing, and sufficient information to identify the patient (see section 2.3). Refer to PathWest SOP-057 minimum requirements clinical samples and request forms.

The qualified requestor must authorise the paper or digital request with their physical or digital signature and valid provider number (electronic requests us the health employee (HE) number as digital signature).

Exceptions are:
- pathology requests made through the Community Health Information System (CHIS), where the public health physician's provider number may be used by public health nurses who have completed sexual health orientation and training, as these forms are usually not signed.
- where there is no paper request form for electronic ordering (eOrder or SoftID) and no signature is required on the transfusion samples.

Urgent specimens must be clearly marked as 'URGENT', and it is recommended to phone ahead to alert the laboratory. Some situations may require a discussion with the pathologist on call to facilitate the most appropriate and timely processing of a specimen.

2.3 Patient identification

The patient's identity must be confirmed prior to the specimen collection and completion of the specimen request form and the specimen container label.

Before collecting a specimen, the collector must confirm the patient's identity by:
- asking the patient to state their full name and date of birth and cross-checking identifiers with the specimen request form or
- cross checking three core identifiers (name, date of birth and UMRN) on the patient identification band with the specimen request form.

If a patient is unable to state their name and date of birth, an accompanying family member or carer may provide the identifying information.

The collector must not:
- complete the specimen request form or label specimen containers until the patient identity has been confirmed
- proceed with specimen collection unless satisfied they have confirmed the patient identity.

Patient identity unable to be confirmed

In settings where an identification band is not worn (for example in outpatient, community or residential care) or if the patient's identity cannot be reliably confirmed for any reason, refer to WACHS Patient Identification and Procedure Matching Policy for guidance on appropriate processes to be implemented.

2.4 Pre-specimen collection

Prior to specimen collection:

- explain the planned specimen collection procedure to the patient and/or the family/carer and provide written material regarding the intended procedure, as appropriate
- allow the patient time to ask questions and confirm their understanding of what is proposed to be undertaken
- ensure they have given consent - refer to MP 0175/22 Consent to Treatment Policy
- review the need for a chaperone for the patient - refer to the WACHS Chaperone Policy
- review the need for an interpreter and/or Aboriginal Liaison Officer – refer to MP 0051/17 Language Services Policy
- where possible, undertake specimen collection prior to commencement of treatment or administration of medicines that could affect pathology results such as antibiotics
- confirm that all the required equipment, including appropriate sample containers required for the collection, is assembled and readily available
- ensure strict adherence to appropriate IPC practices, including standard precautions and in particular sharps safety, and the use of transmission-based precautions where relevant, to minimise the risk of harm to both patients and staff.

A risk assessment should be undertaken before collecting a specimen to ensure appropriate personal protective equipment (PPE) is worn during the collection procedure. Refer to the WACHS Personal Protective Equipment Procedure.

2.5 Specimen collection

All WACHS staff should ensure standard infection prevention and control (IPC) practices are utilised in line with the National Health and Medical Research Council. Australian Guidelines for the Prevention and Control of Infection in Healthcare. These practices help minimise the risk of occupational exposure during specimen collection and include the use of appropriate personal protective equipment (PPE), safety-engineered medical devices (SEMDs), and safe disposal of sharps. SEMDs are a broad range of devices that have been designed with built-in safety features demonstrated to reduce the risk of injury involving a sharp. WACHS supports the use of SEMDs in all WACHS health facilities and related services.

Errors in specimen collection or identification of a patient at the time of specimen collection can lead to delays in diagnosis and treatment, misdiagnosis or incorrect treatment. HCWs must refer to relevant resources prior to specimen collection to ensure appropriate specimen collections are facilitated.

Appropriate specimen collection practices include:

- using aseptic technique to avoid contamination of the specimen
- collecting a sufficient quantity of specimen
- containing specimens in an appropriate leak-proof container, placed into a sealed, leak-proof biological hazard bag, with pathology request form placed into the outside pocket of bag (do not place a request form inside a biohazard bag with a specimen)
- if the outside of a container is inadvertently contaminated, using aseptic technique to avoid contamination of the specimen when placing the specimen into a new, relabelled container.

Refer to the PathWest Test Directory, PathWest PSCP036 Order of Draw, WACHS MRO Swabbing - What to use and how to do it information sheet and PathWest MRSA Screening Policy and the WACHS Specimen Collection Table for additional specimen collection information.

2.6 Transmission-based precautions

For patients managed under transmission-based precautions there are additional considerations for specimen collection. These include:

- collecting all required equipment before entering the patient's room, including a pen and sufficient identification labels for all specimens
- wearing the PPE specified on the transmission-based precautions card, at a minimum, and performing a risk assessment to determine any additional PPE required to prevent exposure to blood and body fluids or pathogens during the collection
- leaving the biohazard bag opened outside the room to facilitate specimen placement directly into the bag without contaminating its outside surface
- ensuring adherence to aseptic techniques and the 5 moments for hand hygiene, which includes changing gloves between different care activities to prevent cross contamination.

2.7 Sexual assault patient specimens

In the event of an alleged/suspected sexual assault there are specific requirements for collecting specimens. Please refer to the WACHS Responding to Sexual Assault Policy.

2.8 Management of blood and blood products

There are specific requirements for collecting specimens for blood group and screen. Please refer to the WACHS Blood Management Policy.

2.9 Specimen labelling

Laboratories have minimum identification standards for clinical samples received for testing. Specimen requests that do not meet the correct labelling requirements or specimens that are leaking, cracked, soiled or broken will not be processed.
Refer to PathWest Labelling of Specimens procedure and Minimum Requirements for Clinical Samples and Request Forms procedure.

The specimen collector is responsible for:

- confirming the patient's identity (refer to Section 2.5)
- labelling specimen containers at the bedside immediately after the specimen has been collected
- including the date, time and site of specimen collection on the label
- labelling the specimen container with minimum patient identifiers by handwriting or using a printed patient identification label (handwritten labels must be legible and written in indelible ink)
- ensuring that identifiers on the specimen container match identically with the specimen request form
- initialling or signing the specimen container label
- initialling or signing the collector's declaration box on the request form/CPOE order
- ensuring that the initials or signature on the specimen label and request form match.

Note: Unlabelled/mislabelled transfusion medicine specimens will not be processed under any circumstances.

Neonatal specimen labelling

Specimens may be collected from a neonate before their patient identification labels are created. In this circumstance the specimen must be labelled with the mother's identification label, and then "baby of" must be hand-written clearly on the label, along with the date and time of collection.

If the sample is not urgent, the preferred process is to delay sending the sample until the neonate's patient identification labels have been printed and placed over the top after the mother's label is double-checked and confirmed.

The following considerations apply to maternal and neonatal specimens:
- where blood gas testing is performed on cord or fetal scalp samples on the blood gas analyser, the maternal identification label is to be used
- cord blood specimens must be labelled at the bedside with the neonatal identification label and double checked before leaving the birth suite.

Refer to the Women and Newborn Health Service (WNHS) Labour and Birth:Third stage Clinical Practice Guideline.

2.10 Irreplaceable specimens

Anatomical pathology samples are deemed irreplaceable. Where unlabelled, mislabelled or damaged specimens are forwarded to pathology, and repeat specimen collection cannot be readily undertaken due to the nature of the sample or site (i.e. tissue biopsy or any other sample collected by invasive procedures) the pathology provider in discussion with the patient's treating consultant will determine if the specimen will be processed. Refer to PathWest Processing irreplaceable or difficult to collect specimens that do not meet minimum standards procedure.

2.11 Packing and transport

Specimens collected at WACHS sites may need to travel considerable distances and by several modes of transport to reach the laboratory where they will be processed. Specimens must be packed and transported appropriately to protect the integrity of the specimen and the safety of handlers.

Packaging of all specimens and associated materials that will be transported by air or surface transport methods, including Pneumatic Tube Transport (PTS) systems, must consist of three components:
- primary receptacle (specimen container)
- secondary packaging (biohazard bag/s)
- outer packaging (transport container/s).

In accordance with the best practice requirements outlined in the Australian Commission on Safety and Quality in Health Care (ACSQHC) Packing and Transport Standard specimens must be:
- transported to the laboratory promptly, or stored in the appropriate designated specimen fridge or holding area until transport can be arranged

- sealed in a leak-proof biohazard bag and
- secured in a robust, sealed transport container for transport to offsite laboratories.

Packaging must be:
- good quality and strong enough to withstand the shocks and loadings normally encountered during transport
- constructed to prevent any leakage of contents that might be caused by conditions of transport (such as vibration, or changes in temperature, humidity or pressure).

Appropriate packaging, storage and transport will optimise the yield of culture specimens and interpretation of results. Delays in processing may result in overgrowth of normal flora.

Refrigerated or frozen specimens

When ice, dry ice or liquid nitrogen is used to keep specimens cold:
- Ice or dry ice must be placed outside the secondary packaging in the outer packaging or in an overpack.
- Packing material must be used to supports the secondary packaging to remain in its original position after the ice has dissipated.
- The outside packaging or overpack must be leakproof (if ice is used).
- The outside packaging must be designed and constructed to allow the release of carbon dioxide gas to prevent a build-up of pressure that could rupture the packaging (if dry ice is used).

Note: Care must be taken when packing with dry ice. Direct contact with dry ice can cause severe burns to skin. An accumulation of carbon dioxide gas may lead to the displacement of oxygen in unventilated spaces, which could result in asphyxiation. If improperly packaged, carbon dioxide gas can build up and pressurise a container, potentially causing the container to burst.

Some types of specimens must not be refrigerated as doing so can compromise the integrity of the specimen and the results. Some specimens will require additional processing steps at the collection site, for example, remote locations with a delayed time to transport. Please refer to the PathWest Test Directory for specifications or contact a laboratory team member for advice.

Supporting documents include:
- PathWest SOP-043 Transport and packaging of routine diagnostic specimens
- PathWest APCYT1025 Laboratory: packaging and transport of slides and specimens
- PathWest APMP0009 Specimen transport and packaging
- PathWest DGMD1240 Transporting of cell cultures
- PathWest COU025 Packing of CAPD Fluid from Dialysis units for transport
- PathWest COU063 Transport of samples in courier vehicles
- PathWest MQM008 Samples and other test Items.

Empty specimen transport packaging that will be returned to the sender or sent elsewhere must be cleaned and disinfected and have specimen related labels removed.

Specimen transport temperature logging

In regional areas, temperature logging is conducted once a year, with hotter regions monitored during the hotter months and colder regions during the colder months.

This quality assurance process is to ensure specimen are packed appropriately and to prevent degradation of specimens. A temperature logger shall be placed inside a biohazard bag with the PathWest Temperature logger instructions and temperature logger form (FRM-2250) and sent to the nominated regional location. Refer to PathWest Specimen transport temperature logging procedure for more information.

Pneumatic tube transport systems

Specimens to be transported by PTS must adhere to the triple packaging instructions described in section 2.3. Fluid specimens, such as urine samples, must be in carefully sealed specimen containers and leakproof biohazard bags. Please note that there are certain circumstances when specimen transport by PTS is not appropriate.

Items that **can** be sent via PTS include:
- clinical samples for pathology (i.e. all specimens other than those listed below
- items weighing less than one (1) kilogram
- samples packaged in ice.

Items that **must not** be sent via PTS include:
- items exceeding one kilogram in weight
- specimens that cannot be shaken vigorously or are fragile
- specimens related to diseases of high consequence (e.g. specimens from suspected or confirmed cases of Middle East respiratory syndrome (MERS) or viral haemorrhagic fever). The Public Health Laboratory network (PHLN) specifies these specimens should be hand delivered. Any doubts or concerns about transporting a specimen in PTS should be discussed with laboratory staff

Key safety precautions when using the PTS include:
- loading specimens carefully into PTS canister ensuring both the samples and the request form remain securely sealed in a biohazard bag
- closing canister lids securely
- not inserting hands/arms up into the sending station tubing
- not sending sharp objects or glass that is not well padded and secured
- not placing items inside a canister that is damaged
- not overloading carriers (where required, use two carriers sent separately).

Contamination of the PTS may occur if broken samples spill and leak out of canisters into the system. Open and handle with care any PTS canisters containing broken samples to prevent sharps injuries and exposure to biological hazards. Ensure the use of appropriate PPE, spill kit and cleaning agents to manage the spill.

Refer to PathWest Pneumatic tube decontamination procedure.

2.12 Peri-operative environment

In the peri-operative environment, specimen collection principles include:
- assessment and planning of specimen handling prior to the commencement of the scheduled procedure/list
- appropriate labelling of specimen containers and pathology request forms as per section 2.9
- the circulating and scrub nurse verbally confirming with the surgeon:

  - the name of the specimen
  - related details/labelling required
  - type of medium (or dry specimen container) required
- placing the specimen into the specimen container with appropriate transport medium and then into a biohazard bag for transport, along with the completed request form
- ensuring details of the specimen collection are recorded on the Theatre Management System (TMS) where available, or on the perioperative paperwork and in a specimen register that is signed by pathology staff at the time of collection.

Refer to the Australian College of Perioperative Nurses (ACORN) 2023 Standards Specimen identification collection and handling

2.13 Results and reporting

It is the responsibility of the requesting health care professional to follow up the results of all specimens collected, inform the patient of the results, take appropriate action on results returned, and document appropriately in the medical record.

If this is not possible during rostered working hours, it must be included in the clinical handover. Additionally, the requesting HCW must adhere to any legislative requirement for reporting of notifiable diseases. Refer to the WA Health Notification of infectious diseases and MP 0095/18 Clinical Handover Policy.

3. Roles and Responsibilities

Specimen collectors and requestors must ensure compliance with the requirements of this procedure.

All staff are required to comply with the directions in WACHS policies and procedures as per their roles and responsibilities and in respect to providing culturally responsive client interactions and support. If staff are unsure which policies, procedures and guidelines apply to their role or scope of practice, and/or are unsure of the application of directions they should consult their manager in the first instance.

4. Monitoring and Evaluation

Monitoring and evaluation of IPC related procedures and risk management strategies must be undertaken as outlined in the relevant IPC strategic management plan/s and will include (but is not limited to):

- auditing to monitor adherence to standard precaution practices
- reporting of outcome measures related to transmission of infectious diseases.

Outcomes should be escalated as applicable, with actions implemented, documented and monitored via the regional IPC Committees and other relevant committees. Notification of serious or significant events must occur via Datix Clinical Incident Management System (CIMS).

The WACHS Infection Control Advisory Forum (ICAF) will review this policy every five years or sooner, as required.

5. References

National Health and Medical Research Council. Australian Guidelines for the Prevention and Control of Infection in Healthcare (2019). https://files.magicapp.org/guideline/d7b40232-519c-4c56-9061-03a6e7f02f5b/published_guideline_9393-11_26.pdf [accessed: 17 October 2025]

Australian College of Perioperative Nurses Ltd (ACORN). *The New ACORN Standards*: Volume 3 – 2023. Standards for Safe and Quality Care in the Perioperative Environment SSQCPE) for Organisations. Adelaide South Australia: ACORN; 2024. WACHS Library [accessed: 17 October 2025]

Australian Commission on Safety and Quality in Healthcare (ACSQHC). Requirements for medical pathology services (Third Edition 2018). https://www.safetyandquality.gov.au/publications-and-resources/resource-library/requirements-medical-pathology-services-third-edition-2018 [accessed: 17 October 2025]

Australian Commission on Safety and Quality in Health Care (ACSQHC) - Requirements for packaging and transport of pathology specimens and associated materials 5th edition, 2023. https://www.safetyandquality.gov.au/sites/default/files/2023-02/requirements_for_the_packaging_and_transport_of_pathology_specimens_and_associated_materials_fifth_edition_2023.pdf [accessed: 17 October 2025]

6. Definitions

Term	Definition
Aboriginal	Within Western Australia, the term Aboriginal is used in preference to Aboriginal and Torres Strait Islander, in recognition that Aboriginal people are the original inhabitants of Western Australia. No disrespect is intended to our Torres Strait Islander colleagues and community.
Clinical handover	The transfer of professional responsibility and accountability for some or all aspects care of a patient to another person or professional group on a temporary or permanent basis.
Culture	Growing microorganisms from a specimen in an optimal environment (medium) so that pathogen/s present in the sample can be identify and to enable testing for susceptibility to antibiotics or antifungals.
Dry ice	The frozen form carbon dioxide (–79.5°C) which changes directly from a solid to a gas as it warms. It is used for cooling due to its very low temperature and because it does not form a liquid.
Liquid nitrogen	The liquid state of nitrogen which is extremely cold (boiling point –150°C), inert, colourless, odourless, non-corrosive, and non-flammable. It used for cooling and freezing things without electricity and becomes nitrogen gas as it warms.

Pathogen	An organism or agent that can cause disease in a host, such as a bacterium, virus, fungus or parasite.
Pathology	A disease or medical condition, and the study of the causes and effects of disease through examination of body tissues and fluids.
Secondary packaging	Leak-proof packaging that provides additional protection for the primary receptacle(s); it may include absorbent material.
Specimen	A sample of tissue or fluid collected from a patient that is for pathology testing.
Transport media	A specialised substance used to preserve and protect the viability of specimens and microorganisms during transport to a clinical laboratory.

7. Document Summary

Coverage	WACHS-wide
Audience	All staff involved in specimen collection or transport
Records Management	• Clinical: Health Record Management Policy
Related Legislation	• *Health Services Act 2016* (WA) • *Public Health Act 2016* (WA) • *Therapeutic Goods Act 1989* (Cth) • *Work Health and Safety Act 2020* (WA) • Work Health and Safety Regulations 2022
Related Mandatory Policies / Frameworks	• MP 0095/18 Clinical Handover Policy • MP 0134/20 National Safety and Quality Standards Accreditation Policy • MP 0172/22 Respiratory Personal Protective Equipment Policy • MP 017/23 Screening and Management of Multi-resistant Organisms Policy
Related WACHS Policy Documents	• Aseptic Technique Policy • Blood Management Policy • Environmental Cleaning Policy • Hand Hygiene Policy • Infection Prevention and Control Policy • Patient Identification and Procedure Matching Policy • Personal Protective Equipment Procedure • Responding to Sexual Assault Policy • Waste Management Policy • Work Health and Safety Policy
Other Related Documents	• ACORN Standards for Safe and Quality Care in the Perioperative Environment, Specimen identification, collection and handling standard I • ACSQHC Requirements for packing and transport of pathology specimens 5th ed • Department of Health Silver book STI/BBV management guidelines

	• PathWest APCYT1025 Laboratory: packaging and transport of slides and specimens • PathWest APMP0009 Specimen transport and packaging • PathWest COU025 Packing of CAPD Fluid from Dialysis units for transport • PathWest COU063 Transport of samples in courier vehicles • PathWest DGMD1240 Transporting of cell cultures • PathWest MQM008 Samples and other test Items • PathWest PQPF032 Temperature logger instructions 32 • PathWest FRM-2250 temperature logger form • PathWest PSCP014 – MRSA screening • PathWest PSCP036 Order of Draw • PathWest SCP016 – Labelling of Specimens • PathWest SOP-043 Transport and packaging of routine diagnostic specimens • PathWest SOP-057 Minimum requirements clinical samples and request forms. • PathWest SOP-213 Specimen transport temperature logging • PathWest SOP-393 Processing irreplaceable or difficult to collect specimens that do not meet the minimum standards • PathWest Test Directory • Royal Perth Bentley Group (RPBG) Pneumatic Tube System: Use of Policy • WACHS Infection Prevention and Control Policies, Procedures and Resources List • WACHS poster MRO swabbing: What to use and how to do it • WNHS Clinical Practice Guideline Labour and Birth: Third stage.
Related Forms	Nil
Related Training	Available from MyLearning: • Hand Hygiene Declaration (CICHH EL2) • Basics of Infection Prevention and Control Orientation Module (CICB EL2) • Correct Use of Personal Protective Equipment (PPE EL1) • Blood Safe: Collecting Blood Specimens Declaration (BLDCB EL2)
Aboriginal Health Impact Statement Declaration (ISD)	ISD Record ID: 4550
National Safety and Quality Health Service (NSQHS) Standards	1.09, 1.10, 1.15, 3.01, 3.02, 3.04, 3.05, 3.06, 3.07, 3.08, 3.09, 3.10, 3.11, 3.12, 3.14, 3.15, 3.16, 3.17, 5.07

Aged Care Quality Standards	1(1)(2a)(2b)(2c); 3(1)(2); 4(1)(2); 5(1)(2); 7(1)(2); 8(1)(2).
Chief Psychiatrist's Standards for Clinical Care	Nil
Other Standards	Nil

8. Document Control

Version	Published date	Current from	Summary of changes
4.00	25 November 2025	25 November 2025	• change of title • transfer ownership to Nursing and Midwifery • updated guidance in line with Australian Guidelines for the Prevention and Control of Infection in Healthcare (2019) • updated references

9. Approval

Policy Owner	Executive Director Nursing and Midwifery
Co-approver	Executive Director Clinical Excellence
Contact	Clinical Nurse Consultant Infection Prevention and Control
Business Unit	WACHS Nursing and Midwifery
EDRMS #	ED-CO-17-54541

This document can be made available in alternative formats on request.