

Timely and accurate pathology results are critical to the functioning of our entire medical system.

Pathology informs the clinical decisions of medical practitioners across the healthcare spectrum.

Given its critical role, the risks of not adequately supporting a strong national pathology system are:

- Incorrect diagnoses;
- Delayed diagnoses and reduced patient throughput;
- Patients receiving incorrect treatment;
- Inappropriate transfusion and adverse blood transfusion reactions; and
- Avoidable patient morbidity and mortality.

These issues may impact upon the physical, emotional and financial well-being of individual patients, their families and the community at large.

As the peak body representing the profession, the RCPA believes the underlying principles of a world class pathology service are:

- A commitment to patient safety and quality
- A highly trained and sufficiently resourced workforce
- Efficient services that ensure timely and accurate results
- Equity of access and choice of provider
- Timely adoption of appropriate new tests reflecting international best practice
- A commitment to ongoing education, research and teaching

“You get to meet the patient, actually physically get to take the specimens yourself, bring them back to the laboratory, be the one to process, to make the diagnosis down the microscope and take that information, go back and manage the patient in a meaningful way.”

Dr Ellen Maxwell

Pathology disciplines

70% of all diagnoses are made using a pathology test. All chronic conditions require monitoring via pathology testing. Pathologists work across a range of different specialities in addition to haematology. These include:

Anatomical pathology, which looks at tissue analysis of disease;

Chemical pathology, which deals with the entire range of disease, and encompasses detecting changes in a number of substances in blood and body fluids (such as electrolytes, enzymes and proteins);

Forensic pathology, which seeks to investigate and define the cause of unexpected death;

Genetics, which looks at chromosomes and DNA from cells to diagnose genetic diseases;

Immunopathology, which deals with the diagnosis and management of conditions in which the immune system does not function properly;

Microbiology, which deals with diseases caused by infectious agents such as bacteria, viruses, fungi and parasites; and

General pathology, which covers the profession as a whole.

For brochures and videos about each discipline, go to the RCPA website at www.rcpa.edu.au.

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Medicine is Pathology 

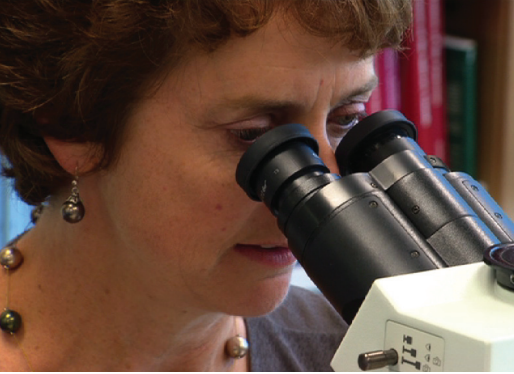
**PATHOLOGISTS ARE INDISPENSABLE
TO QUALITY PATIENT CARE**



The Haematologist

 **RCPA**
The Royal College of Pathologists of Australasia

PATHOLOGISTS ARE INDISPENSABLE TO OUR MEDICAL SYSTEM – BUT WHO ARE THEY, AND WHY ARE THEY SO CRUCIAL?



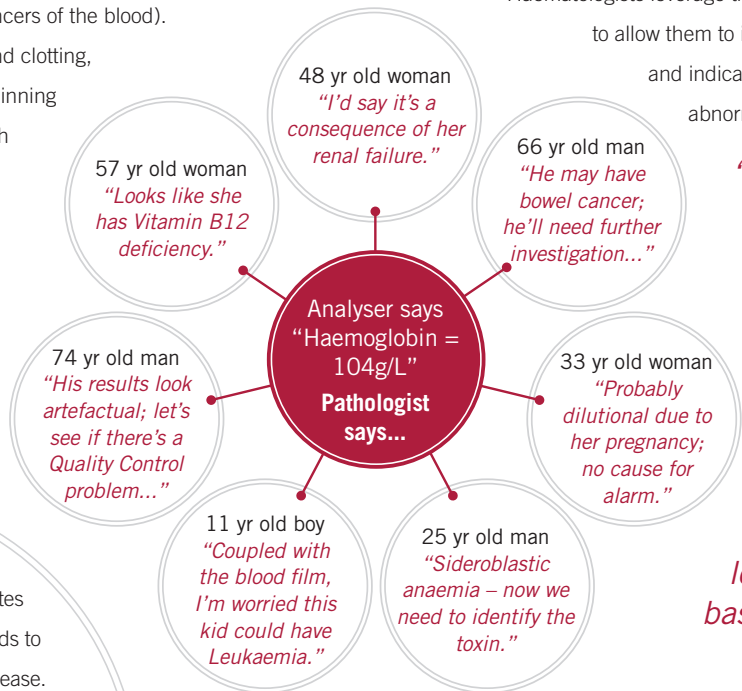
Haematologists specialise in diseases affecting the blood.

The work of a haematologist covers a broad spectrum, from malignant to non-malignant conditions. They perform and analyse bone marrow biopsies to diagnose and manage bone marrow disorders such as leukaemias (cancers of the blood).

They treat disorders of bleeding and clotting, managing and monitoring blood thinning medications, and investigating both bleeding and clotting episodes.

They process blood cells for transfusion and plasma to assist clotting, provide routine antenatal investigations like antibody screens during pregnancy, and manage genetic blood diseases such as thalassaemia.

In fact, in almost every disease process, the blood system contributes in some way to the disease, responds to the disease or is affected by the disease.



Many aspects of haematology are “hands on” and interpretive. Some areas include direct patient care and contact while some involve advice and guidance to other clinicians about the most appropriate patient care, such as transfusion management, or appropriate investigation, such as for anaemia.

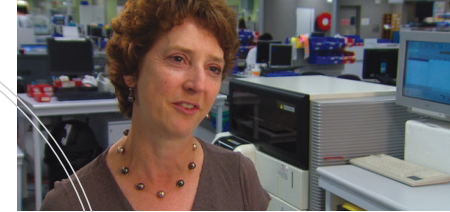
A laboratory haematologist’s day could include looking through a microscope at blood films or bone marrows, analysing coagulation samples, reviewing results of other specialty tests, and direct consultation with other doctors. They analyse not only the blood cells but other parts of the blood such as blood proteins. Flow cytometry is one of the specialised techniques to analyse the various cell types in the blood, bone marrow and lymph glands.

Interpretation

Haematologists leverage their expertise and experience to allow them to interpret abnormalities in a test and indicate what the implications of that abnormality are for that patient.

“Machines can't give a clinical perspective of what those abnormalities mean related to the patient. Our job really is to take that information, to try and give perspective, and to guide those looking after the patient based on what we find.”

Dr Ellen Maxwell



Blood Banking

Some haematologists are involved with blood banks, which support the

transfusion needs of hospitals far and wide. Blood for surgery or acute bleeding (for example for road trauma or bleeding after childbirth) is cross matched for thousands of patients per year.

Research

Many haematologists are involved in the research of blood disorders. Australian haematologists were at the forefront of revolutionary work involving white blood cell stimulation needed in the context of chemotherapy. This has revolutionised the ability to deliver bone marrow transplantation, and has saved hundreds of thousands of lives over the last few decades.



“One of the most exciting aspects of working in pathology is the opportunity to undertake cutting-edge research that has a direct bearing on patient care. We have studied the use of genes to cure bleeding disorders such as haemophilia, and the cell biology of leukaemia and stem cells.”

Professor John Rasko