THE ROYAL COLLEGE OF PATHOLOGISTS OF AUSTRALASIA

OCTOBER 2016 | Published by RCPA

Issue #063

## In This Issue


- Cancer Australia Statement provides 12 reasons to put breast cancer management under the microscope
- HTLV-1 virus needs awareness raising to uncover its risks to Indigenous health
- Emergent meat allergy is ticking people off
- New Zealand's melanoma news has downstream effects for pathologists


## Interesting Facts

**16,084**

The estimated number of new cases of breast cancer diagnosed in 2016 in Australia (150 males and 15,934 females)

**12.3%**

The estimated proportion of breast cancer in terms of all new cancer cases diagnosed in Australia in 2016

# Welcome to the October edition of ePathWay

Cancer Australia has harnessed the collective knowledge of 11 clinical colleges, cancer and consumer organisations to launch a new statement titled Cancer Australia Statement - *Influencing best practice in breast cancer* on this year's Pink Ribbon Day. The Statement outlines 12 practices that are either appropriate or inappropriate for providing patient-centred breast cancer care in Australia, and our College had a seat at the table when it was being developed.

Our other stories cover:

- The 'invisible' retrovirus HTLV-1 affecting our First Peoples.
- Emergent allergy alert - Mammalian Meat Allergy.
- Increased histology workloads in NZ after it took the world's top spot for melanoma rates.

Heads up - International Pathology Day is Wednesday 16 November this year. Check out the website to see what is being organised and to find out how you can participate.

Don't forget to check the topical posts on our Facebook page and follow our CEO Dr Debra Graves (@DebraJGraves) or the College (@PathologyRCPA) on Twitter to keep up to date with pathology news.

# Cancer Australia Statement provides 12 reasons to put breast cancer management under the microscope

90%

The chance of surviving at least 5 years after a breast cancer diagnosis in Australia (2008–2012)

*Source: Cancer Australia*

## Important Message

RCPA has an important message for you. Click to see the message!

## Suggest to a friend

Know someone who might be interested in this website? Why not suggest the website to them.

## Previous Editions

Did you miss something from last month? You can view our previous editions at any time.

## Subscribe Now!

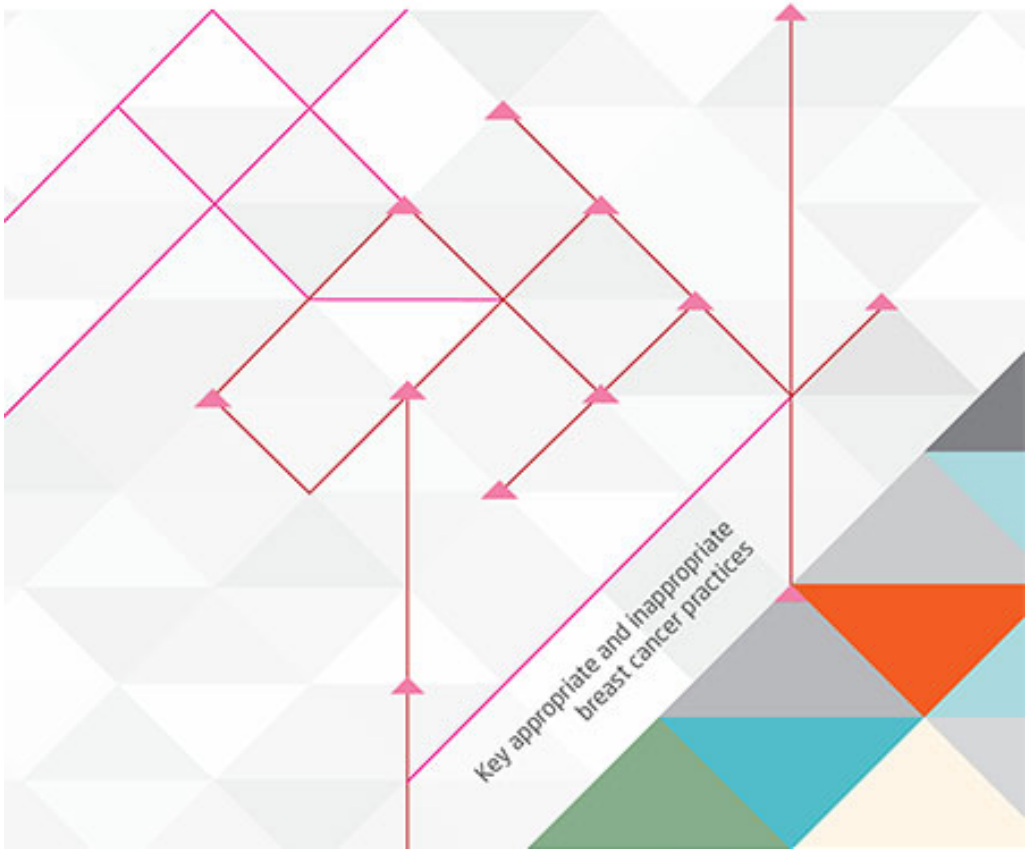
Subscription is easy! Simply fill in our subscription form.

## Links

RCPA Manual

Lab Tests Online

Know Pathology Know Healthcare




A new first-of-its-kind Statement launched on Pink Ribbon Day (October 24) aims to iron out unwarranted variations in breast cancer care in Australia through 12 key practices. Called the Cancer Australia Statement - *Influencing best practice in breast cancer*, it also represents agreed priority areas in breast cancer practice, from diagnosis to palliative care.

read more »

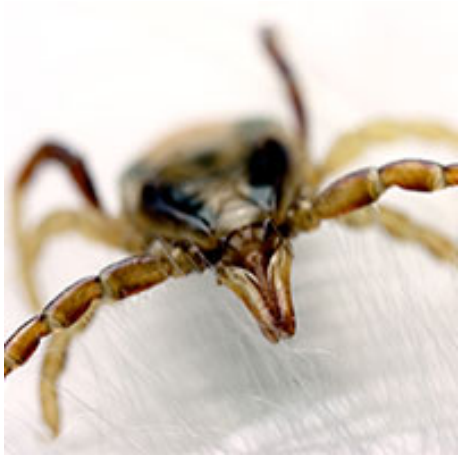
# HTLV-1 virus needs awareness raising to uncover its risks to Indigenous health

While many of the health challenges facing Australia's Indigenous population are well documented, some are still flying under the radar. HTLV-1 is an example. This ancient retrovirus1 occurs in Indigenous communities around the world, and our First Peoples are no exception.

read more »

## Emergent meat allergy is ticking people off

Mammalian meat allergy (MMA) sufferers have a right to be ticked off. They risk serious health effects, including anaphylaxis, if they eat mammalian meat or are exposed to mammalian derived products, after being bitten by a tick.



read more »

## New Zealand's melanoma news has downstream effects for pathologists

Research that revealed New Zealand had pipped Australia for the highest per capita rate of melanoma has prompted more people to have their moles checked. That's good news for public health, but an often-invisible downstream effect is the sudden increase in skin biopsies that must be interpreted by anatomical pathologists.

read more »

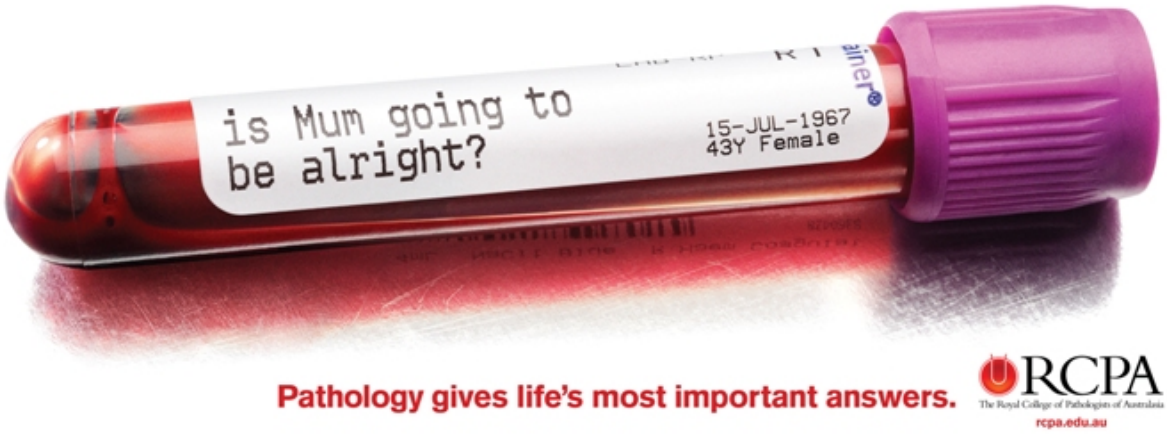


RCPA - Durham Hall - 207 Albion St Surry Hills NSW 2010 AUSTRALIA | (+61) 2 8356 5858 | www.rcpa.edu.au

ePathWay
THE ROYAL COLLEGE OF PATHOLOGISTS OF AUSTRALASIA

Published by RCPA

# RCPA Message




« Back to Latest Issue

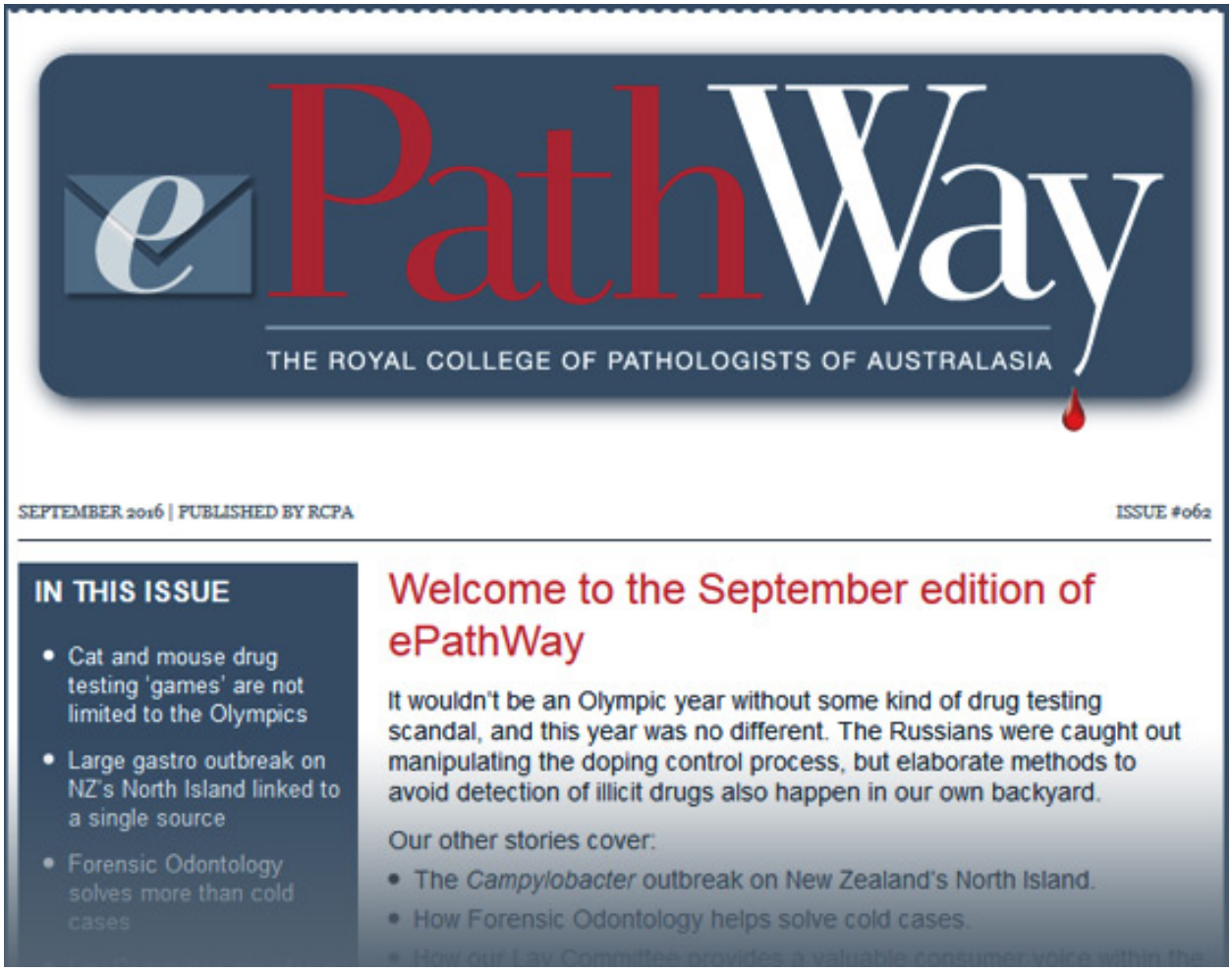


RCPA - Durham Hall - 207 Albion St Surry Hills NSW 2010 AUSTRALIA | (+61) 2 8356 5858 | www.rcpa.edu.au

ePathWay
THE ROYAL COLLEGE OF PATHOLOGISTS OF AUSTRALASIA

Published by RCPA

# Previous Editions




2016

055 - February 2016 | 056 - March 2016 | 057 - April 2016

058 - May 2016 | 059 - June 2016 | 060 - July 2016

061 - August 2016 | 062 - September 2016

## 2015

044 - February 2015 | 045 - March 2015 | 046 - April 2015

047 - May 2015 | 048 - June 2015 | 049 - July 2015

050 - August 2015 | 051 - September 2015 | 052 - October 2015

053 - November 2015 | 054 - Dec 2015/Jan 2016

## 2014

033 - February 2014 | 034 - March 2014 | 035 - April 2014

036 - May 2014 | 037 - June 2014 | 038 - July 2014

039 - August 2014 | 040 - September 2014 | 041 - October 2014

042 - November 2014 | 043 - Dec 2014/Jan 2015

## 2013

022 - February 2013 | 023 - March 2013 | 024 - April 2013

025 - May 2013 | 026 - June 2013 | 027 - July 2013

028 - August 2013 | 029 - September 2013 | 030 - October 2013

031 - November 2013 | 032 - Dec 2013/Jan 2014

## 2012

010 - Dec 2011/Jan 2012 | 011 - February 2012 | 012 - March 2012

013 - April 2012 | 014 - May 2012 | 015 - June 2012

016 - July 2012 | 017 - August 2012 | 018 - September 2012

019 - October 2012 | 020 - November 2012 | 021 - December 2012

## 2011

001 - March 2011 | 002 - April 2011 | 003 - May 2011

004 - June 2011 | 005 - July 2011 | 006 - August 2011

007 - September 2011 | 008 - October 2011 | 009 - November 2011

« Back to Home Page



RCPA - Durham Hall - 207 Albion St Surry Hills NSW 2010 AUSTRALIA | (+61) 2 8356 5858 | www.rcpa.edu.au


Published by RCPA

# Subscription Form

Full Name:

Email address:

Subscribe

# Unsubscription Form

Email address:

Unsubscribe

« Back to Home Page



RCPA - Durham Hall - 207 Albion St Surry Hills NSW 2010 AUSTRALIA | (+61) 2 8356 5858 | www.rcpa.edu.au

ePathWay
THE ROYAL COLLEGE OF PATHOLOGISTS OF AUSTRALASIA

OCTOBER 2016 | Published by RCPA Issue #063

# Cancer Australia Statement provides 12 reasons to put breast cancer management under the microscope

A new first-of-its-kind Statement launched on Pink Ribbon Day (October 24) aims to iron out unwarranted variations in breast cancer care in Australia through 12 key practices. Called the Cancer Australia Statement - *Influencing best practice in breast cancer*, it also represents agreed priority areas in breast cancer practice, from diagnosis to palliative care.

Cancer Australia CEO Professor Helen Zorbas says the Statement encourages health professionals to reflect on their clinical practice to ensure it is aligned with the evidence and delivers appropriate care for individual patients.

“Importantly, it also supports people with breast cancer to engage with their health professionals to make informed, evidence-based decisions that deliver the best outcomes for them,” explains Prof Zorba.

Professor Sandra O’Toole, Chair of the RCPA’s Cancer Advisory Committee who was a member of the working group that developed this Statement, says the process to determine the final 12 practices was both exhaustive and evidence-based.

“We chose to focus on the areas with the capacity to improve existing practice rather than those that were already being effectively implemented,” she explains.

The Statement is intended to complement relevant clinical practice guidelines, and highlights what ‘ought to be done’ in breast cancer care to maximise clinical benefit, minimise harm and deliver patient-centred care. This is because while survival rates for women with breast cancer in Australia are among the highest in the world, there is evidence that not all patients are receiving the most appropriate care. This unwarranted variation can potentially impact patient outcomes and experience.

“Some practices are of particular relevance to pathology such as statement number two which refers to the optimal fixation of breast cancer specimens before they are tested. This is because poor fixation of breast cancer tissue can result in inaccurate

and inconsistent assessment of histological grade, hormone receptor and HER2 status, and this increases the risk of suboptimal treatment," says Prof O'Toole.

RCPA President Dr Michael Harrison says the Statement provides evidence- based, practical guidance to all those professionals working with breast cancer patients.

"For pathologists the Statement reinforces the importance of the highest quality pathological diagnosis for the best outcomes for breast cancer patients, and identifies those issues that are most important," he says.

The organisations involved in producing the Statement are:

- Royal College of Pathologists of Australasia
- Royal Australian College of General Practitioners
- Royal Australian and New Zealand College of Radiologists
- Royal Australasian College of Surgeons
- Medical Oncology Group of Australia
- Consumer Health Forum
- Clinical Oncology Society of Australia
- Cancer Nurses Society of Australia
- Breast Surgeons Society of Australia and New Zealand
- Breast Cancer Network Australia
- Australian College of Rural and Remote Medicine.

Cancer Australia has also released a series of short videos on each practice of the Statement.

« Back to Home Page



RCPA - Durham Hall - 207 Albion St Surry Hills NSW 2010 AUSTRALIA | (+61) 2 8356 5858 | www.rcpa.edu.au

ePathWay
THE ROYAL COLLEGE OF PATHOLOGISTS OF AUSTRALASIA

OCTOBER 2016 | Published by RCPA Issue #063

# HTLV-1 virus needs awareness raising to uncover its risks to Indigenous health

While many of the health challenges facing Australia's Indigenous population are well documented, some are still flying under the radar. HTLV-1 is an example. This ancient retrovirus[1] occurs in Indigenous communities around the world, and our First Peoples are no exception.

According to Associate Professor Rob Baird, Microbiologist, Infectious Diseases Physician and Director of Pathology for Territory Pathology in Darwin, the problem in Australia is that the incidence and impact of HTLV-1 has not been recognised. He says the virus should also receive more attention than it does based on increasing evidence about its negative impacts on health.

"HTLV-1 is a classic neglected tropical disease, and it is also a disease of poverty. In Australia HTLV-1 mostly affects Indigenous communities in Central Australia, Western Australia and those at the top of South Australia. It's easy to ignore HTLV-1 because infection is usually asymptomatic, but it can lead to serious illness in some persons," he explains.

"However, there is increasing evidence that HTLV-1 infection is associated with chronic, subclinical immunosuppression. The problem is compounded as we don't know its real incidence, or common modes of transmission in Central Australia, as detailed seroprevalence surveys have not been done since the virus was first documented in Australia in The Medical Journal of Australia in 1993."

HTLV-1 stands for Human T-lymphotropic virus type 1. It is a blood-borne virus that infects a type of white blood cell called a T-lymphocyte. HTLV-1 can also lead to serious disorders including a rare form of blood cancer and a range of inflammatory diseases. It is believed to be associated with bronchiectasis (abnormal widening of the bronchi or their branches), strongyloidiasis (a human parasitic disease) and infective dermatitis.

A/Prof Baird says a retrospective observational study looking at serology requests made to the Northern Territory Government Pathology Service between 2008 and 2011 found 368 confirmed positive HTLV-1 cases from 3,555 individual patients. Most of these positive results occurred in Indigenous patients.

Because HTLV-1 is a blood-borne virus, it can be transmitted through breast-feeding, from person-to-person through sexual intercourse, and rarely via blood transfusion and sharing contaminated needles. Diagnosis is through a blood test to look for HTLV-1 antibodies. There is no known treatment, though Japan and Brazil have introduced controls on breastfeeding to reduce transmission.

“Cultural and ethical issues around widespread testing exist, and HTLV-1 is one of numerous infectious diseases, and health hardware issues, facing the Central Australian Indigenous population,” says A/Prof Baird.

He says HTLV-1 does receive attention and intervention in other countries where it is also endemic. For example, it is controlled in Japan through limiting breast-feeding to six months post partum, and Japan and Brazil both provide basic education for adolescents around sexual behaviour. Brazil also assigns health care workers to oversee the health of HTLV-1 positive mothers and their babies.

To help raise its profile, here is a snapshot of HTLV-1:

- This virus is estimated to affect around 5-10 million people worldwide.
- It is endemic in Japan, the Caribbean, central Africa, Iran, Iraq, southern India, China, the Seychelles, Papua New Guinea, the Solomon Islands and Australia.
- Two diseases associated with HTLV-1 are adult T-cell leukaemia/lymphoma (ATLL), and HTLV-1 associated myelopathy/ tropical spastic paraparesis (HAM/TSP).
- It is transmitted from a positive mother to her child in an estimated 15-25% of cases, mostly through breastfeeding.
- HTLV-1 was listed as an emerging issue in the Australian Government Department of Health’s Fourth National Aboriginal and Torres Strait Islander Blood-borne Viruses and Sexually Transmissible Infections Strategy 2014–2017. This report noted that: ‘Improved estimates for local prevalence and a better understanding of the risks of infection are necessary to guide control efforts in Australia.’
- Co-infection with HTLV-1 speeds up the clinical progression of disease in HIV carriers.
- HTLV-1 is a distant relative of the human immunodeficiency virus (HIV), which causes acquired immunodeficiency syndrome (AIDS), but HTLV-1 does not cause AIDS.

[1]A retrovirus is an RNA virus that inserts a DNA copy of their genome into the host cell in order to replicate.

« Back to Home Page

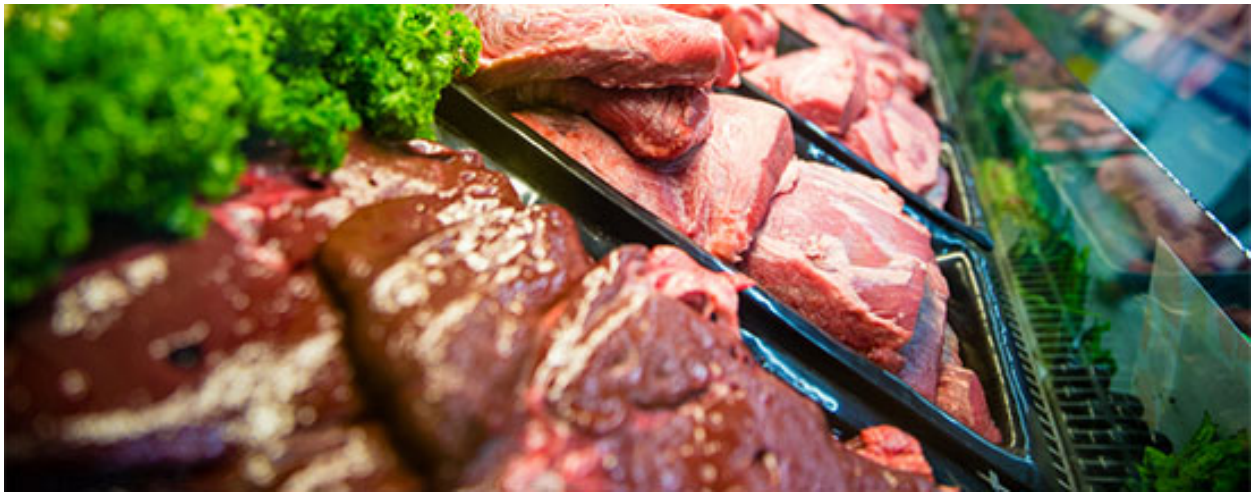


RCPA - Durham Hall - 207 Albion St Surry Hills NSW 2010 AUSTRALIA | (+61) 2 8356 5858 | www.rcpa.edu.au

ePathWay
THE ROYAL COLLEGE OF PATHOLOGISTS OF AUSTRALASIA

OCTOBER 2016 | Published by RCPA Issue #063

# Emergent meat allergy is ticking people off



Mammalian meat allergy (MMA) sufferers have a right to be ticked off. They risk serious health effects, including anaphylaxis, if they eat mammalian meat or are exposed to mammalian derived products, after being bitten by a tick.

"MMA is an emergent allergy that has become increasingly prevalent around the world, particularly up and down Australia's eastern seaboard, and in the south-eastern states of the United States," explains Clinical Associate Professor Sheryl van Nunen from the Tick-induced Allergies Research and Awareness (TiARA) Centre in Sydney.

"I saw my first person with MMA in 1987, and then one person every couple of years before it really took off around 2003. I now see about two people per week, although in the last week alone I've seen six people with MMA."

MMA develops from sensitisation to the sugar carbohydrate galactose-alpha-1,3-galactose (alpha-gal). Alpha-gal is found in commonly farmed mammals such as cows, sheep and pigs, and is a recognised target of IgE antibodies. Humans, Great Apes and Old World monkeys, the higher primates, do not contain alpha-gal. Chicken, turkey and fish don't contain alpha-gal because they are not mammals.

"Man has lost the ability to make alpha-gal, probably so we could eat meat safely," explains Prof van Nunen.

"You need to have been bitten by a tick to trigger the immune reaction. In Australia the culprit is *Ixodes holocylus* (Australian paralysis tick), while in the US it's *Amblyomma americanum* (Lone Star tick)."

The chain of events that leads to MMA goes like this. When the tick bites a person, it transfers alpha-gal from its stomach into the person's tissues. This prompts the person's body to produce antibodies to fight the alpha-gal. Then, the next time that person eats mammalian meat or mammalian derived products, their immune system responds to the alpha-gal. The response can range from mild, such as itching and hives, to severe stomach cramps, to life-threatening anaphylaxis.

An important point to remember is this reaction doesn't happen when the tick first bites the person. It happens after they eat

mammalian meat or are exposed to mammalian products after the tick bite, and even then, the reaction can take a further two to 10 hours to occur.

“We are now seeing cases of MMA all around the world including France, Spain, Germany, Korea, South Africa, Japan and Costa Rica, but I haven't heard of a case in New Zealand from my colleagues yet.”

Prof van Nunen says diagnosis of MMA is through a blood test for the antibody to alpha-gal to confirm clinical findings. Treatment is avoiding mammalian meat, and if indicated by sensitivity, products derived from mammals such as gelatine and milk, but this can be tricky.

“Mammalian derived products are present in a wide variety of goods such as heart valves, gelatine capsules for medicines, cancer treatment (cetuximab), and white wine. It is therefore difficult for people who have MMA to avoid their allergen. For example, restaurants could put a tablespoon of butter into a vegan meal and this can lead to a life threatening reaction for someone with MMA. Some people can’t handle liver treats for their dogs because offal has the most alpha-gal per gram,” she says.

Although MMA is becoming increasingly prevalent, there is some good news. It is largely preventable through tick avoidance measures, and when these fail, using appropriate tick removal techniques to limit the amount of alpha-gal injected by the tick. Understanding the factors that cause MMA could also shine a light on potential factors essential in causing allergies in general.

You can find information about appropriate tick removal techniques, and tick-induced allergies, on the TiARA website.

« Back to Home Page

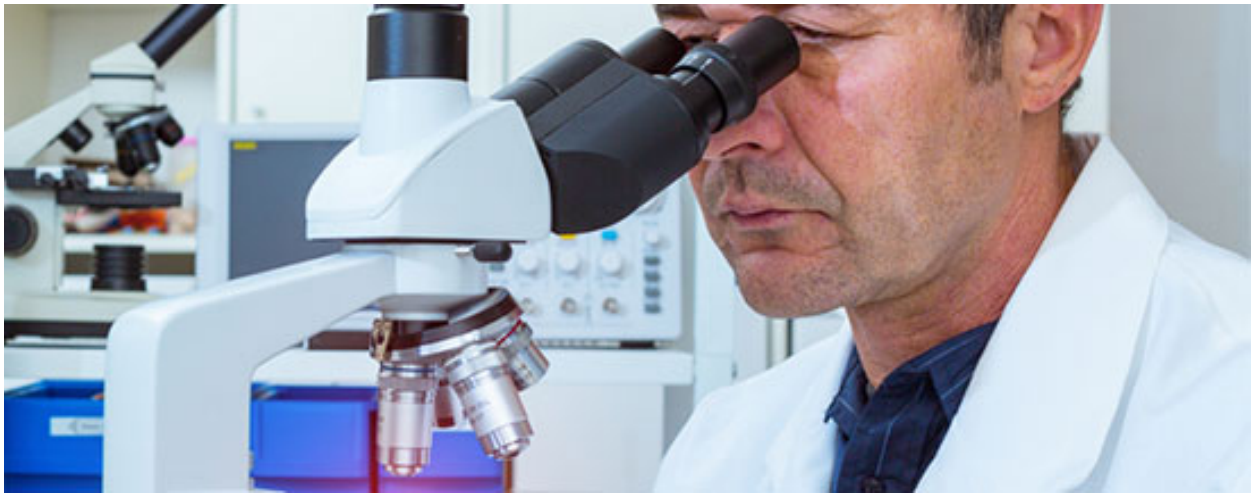


RCPA - Durham Hall - 207 Albion St Surry Hills NSW 2010 AUSTRALIA | (+61) 2 8356 5858 | www.rcpa.edu.au

ePathWay
THE ROYAL COLLEGE OF PATHOLOGISTS OF AUSTRALASIA

OCTOBER 2016 | Published by RCPA Issue #063

# New Zealand's melanoma news has downstream effects for pathologists



Research that revealed New Zealand had pipped Australia for the highest per capita rate of melanoma has prompted more people to have their moles checked. That's good news for public health, but an often-invisible downstream effect is the sudden increase in skin biopsies that must be interpreted by anatomical pathologists.

Anatomical pathologists are highly trained medical doctors whose role is mostly focused on interpreting tissue biopsies and diagnosing diseases, including skin cancers. When a suspicious looking mole is excised and sent to a pathology laboratory, a machine does not analyse it. The specimen is examined by one of these specialist doctors who determine the diagnosis, including whether it is benign (ordinarily harmless) or malignant (cancerous).

"For patients with melanoma, how they are managed is principally determined by the features documented in the pathology report. The time invested to review each specimen at a laboratory varies. Simple cases can take five to 10 minutes to review, interpret and diagnose, and more difficult cases can take a number of hours," explains Professor Richard Scolyer, skin pathologist at the Royal Prince Alfred Hospital (RPAH) and Melanoma Institute Australia.

Prof Scolyer says it is logical to expect a domino effect when there is an announcement such as New Zealand taking the top melanoma spot from Australia.

"It is likely that increased awareness about getting suspicious moles checked translates into an increased workload for pathologists, but being tested early, diagnosed accurately and treated properly leads to good outcomes with skin cancers," he says.

Prof Scolyer said he is aware of the domino effect on anatomical pathology workloads after Australia's first public health skin cancer campaign in the 1980's.

"There was an increase in melanoma rates at that time, probably due to the public being more conscious of skin cancer screening. This meant a lot more specimens were being sent to laboratories resulting in many melanomas being diagnosed earlier than they otherwise would have been," he explains.

It is also not possible to quickly train more anatomical pathologists to cover workload spikes because it takes at least 13 years of training to become one of these specialist doctors. However, Prof Scolyer says the public can be confident that pathologists use their skills to diagnose correctly, no matter the workload or time investment required.

New Zealand's melanoma rate increase was reported in the May 2016 edition of ePathWay.

« Back to Home Page



RCPA - Durham Hall - 207 Albion St Surry Hills NSW 2010 AUSTRALIA | (+61) 2 8356 5858 | www.rcpa.edu.au