

Avian Influenza

WHAT IS CAUSING THE CONCERN?

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 Pathologist in Charge Immunology & Microbiology

At present H5N1 subtype of influenza A dominates the thoughts of the medical and wider public both local and global. Lost amongst the deluge of information is the reason why communities are rightly concerned about this threat.

In dissecting out the reason we need to consider the past history of pandemic influenza and the rise of H5N1 influenza since 1997.

Our thinking about influenza has always been dominated by the great pandemics of 1957 ("Asian flu"), 1968 ("Hong Kong flu"), H1N1 flu (1977) and most importantly of all, the 1918 ("Spanish flu") pandemic. Much has been learned about the virus and the disease from the later pandemics but the key facts about the 1918 pandemic have been illusory until the past few weeks.

The 1918 pandemic was, as everyone knows, the most devastating infectious disease in recorded human history. It stands apart from the subsequent pandemics in many ways – the scale, the epidemiology, the severity - so much so that it has always been felt that there was something different about the influenza subtype (H1N1) responsible. The problem was that it could never be identified in those times. The only possible remaining sources of the virus were in the tissues of victims and the pathology archives.

Now molecular technology has allowed a reconstruction of the 1918 influenza virus from these diverse sources. This fascinating project has confirmed our worst fears.

The 1918 influenza virus was different from the other pandemic subtypes. Those subtypes were clearly the result of intermixing and exchange of genetic material between avian strains and animal strains of influenza. The 1918 influenza subtype appears not to have intermixed but to be an avian subtype that directly infected humans. Of even more concern is that there are close similarities between the 1918 subtype and H5N1.

Turning to the current H5N1 saga the key points are as follows:

- H5N1 has spread widely through the migratory wildfowl population and this in turn has spread the virus geographically far and wide. The virus does not harm the infected birds.
- H5N1 has from time to time infected the domestic fowl population with devastating consequences for the flocks. It would appear that the infecting strain(s) of H5N1 are becoming more pathogenic as a number of bird species that are usually not susceptible have died.
- H5N1 infection of humans is associated with a high mortality. ▶

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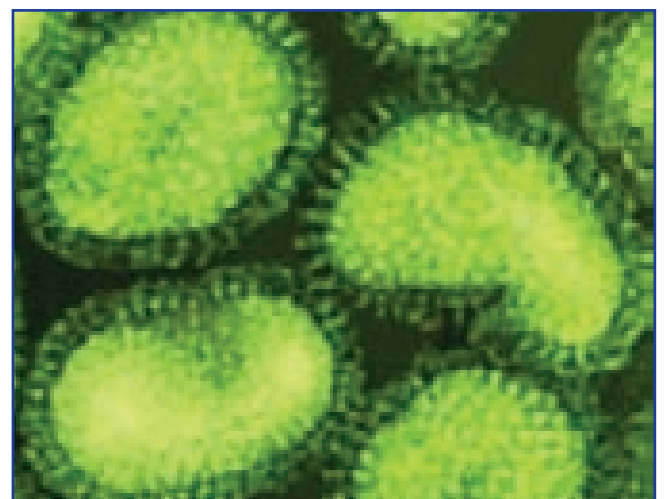


Figure 1: Influenza A subtype cells (H5N1)

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This is set against the context of:

- A global population that has no immunity to this subtype nor do we have a vaccine at present. Antiviral drugs are available but supplies will have to be controlled.
- An epidemiological record indicating that we are long overdue for an influenza epidemic.
- A highly mobile human population.
- Sporadic outbreaks occurring in communities that have inadequate resources to address the problem.
- The impact that the S.A.R.S. epidemic had on the community.

What we have now is a situation where two of the three requisites for building the trigger for an influenza pandemic, namely the lack of immunity and an influenza virus capable of infecting humans, exist.

The last requisite:

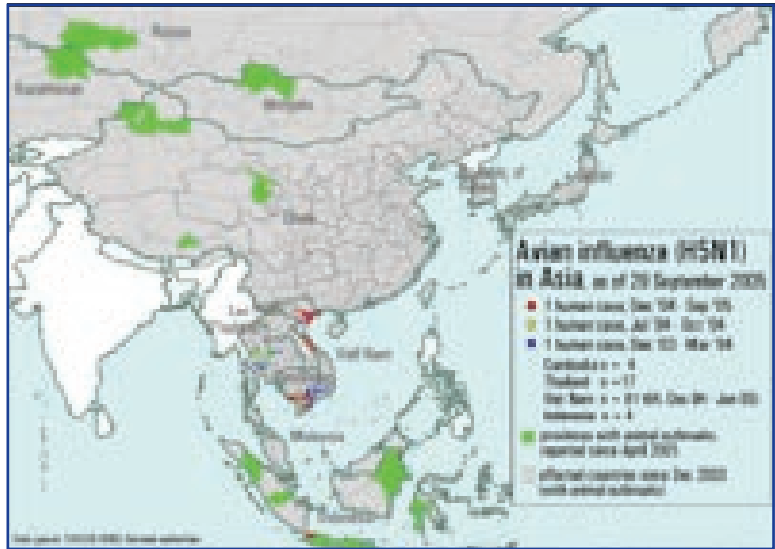
It is the ability to be transmitted readily from person to person that is missing from the picture.

We know that for this to occur either a mutation in the avian H5N1 in the wild or the development of a "genetic hybrid", as a result of coinfection in a human or animal with the avian H5N1 and one of the other human or animal influenza viruses, needs to occur.

To date human to human transmission of H5N1 has been shown to be very rare and hence the reason why we have not experienced any epidemics let alone a pandemic. This latest evidence about the nature of the subtype that caused the 1918 pandemic is a concern. It points to a mutational event in a similar avian subtype that allowed direct infection of humans as well as human to human transmission.

On the other side of the coin, we now have an important tool with which we can begin to understand the pathogenic basis of a deadly pandemic influenza subtype. This allows us to prepare better defences against infection as well as treatment should a future pandemic arise.

Shortly QML Pathology will be releasing an informational pack which addresses Influenza, including the Avian strain. For additional information in the meantime please contact your Medical Liaison Officer. Alternately fact sheets can be obtained on the Queensland Health website at www.health.qld.gov.au/phs/documents/cdu/29300.pdf



Disclaimer: The preparation of this map was not intended to imply the expression of any views whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city, or province or the boundaries of its frontiers or boundaries.

eGFR Update

Old formulae for the estimation of glomerular filtration rate (GFR) require knowledge of the patient's current height, weight and often other data, and are thus impossible to apply to the bulk of samples that pass through the routine Biochemistry laboratory. However the Australian Creatinine Consensus Working Group has determined that the "abbreviated MDRD equation" gives results of acceptable precision and correlation with GFR determined using reference methods, and furthermore requires only parameters available to the laboratory whenever serum creatinine is to be reported.

As of October, QML Pathology will begin routine reporting of the estimated GFR (eGFR) on reports of all adults that include serum creatinine.

From commencement, you will note a change in the "renal section" of the E/LFT report. The creatinine result will become a whole number reported to an extra significant figure (for instance a creatinine of 0.16 mmol/L will become say 158 umol/L) and the eGFR will appear on the line below it. An explanatory note will replace the current lipid remarks at the foot of the report.

For queries please contact the Biochemistry Department on (07) 3840 4444.

Medicare Australia Replaces HIC

On 1 October 2005 the Health Insurance Commission (HIC) became Medicare Australia.

Medicare Australia will perform all the functions and continue to deliver all the services that were the responsibility of HIC.

It is important to note that the way Medicare Australia works with health care providers will not change. There will be no changes to claiming, payment or provider registration systems other than to incorporate the new name. Medicare Australia will honour any cheques

issued by HIC, and any agreements entered into with HIC will continue to apply. Providers need make no changes to their billing or claiming arrangements.

Medicare Australia and it's employees can now be reached at:

Web: www.medicareaustralia.gov.au

Email: firstname.surname@medicareaustralia.gov.au

Note that for a period of time, the www.hic.gov.au web address will be automatically redirected to www.medicareaustralia.gov.au.

QML Pathology Warfarin Support Service Update

As an added service to our referring doctors and their patients, QML Pathology offers free assistance with the monitoring of patient warfarin dosages. This program now has a very large group of warfarin patients and as a result there is often a great demand on our telephone service. At times this causes delays, however we are attempting to address this through educating patients of the following:

- If they have not heard from us on the day they had their blood test, they are to continue taking the same dose.
- If they have not received their results by 12noon the following day they are to contact the Warfarin Support Service on 1300 661 963 and quote their reference number (*we understand that some patients prefer to phone in for their results on the day of their test*).
- If the patient has undergone their blood test in the morning and there is a significant change to their blood test result/dosage, this is treated as urgent and is a high priority phone call with the patient being contacted as soon as possible.

Should patients contact you regarding their result, or new patients be starting on the program, this information may be of assistance.

PLEASE NOTE:

Patients ceasing warfarin: For patients on warfarin we require notification from the doctor as soon as cessation has occurred. Your practice staff may phone on your behalf via the doctors' registration phone number - 1300 795 355.

Patients being discharged from hospital:

If one of your warfarin patients has been discharged from hospital please phone 1300 795 355 to notify us. We require information on when their next blood test is, details of their current warfarin dosage and any medication changes.

For any questions or queries regarding the registration of warfarin patients please contact 1300 795 355.



Delivery of Prophylactic Anti-D

QML Pathology is now delivering prophylactic anti-D injections to metropolitan surgeries and clinics. This is a courtesy service for non-urgent requirements.

If you require anti-D injections to be delivered please call the QML Pathology Blood Bank directly on (07) 3840 4424. At this time please inform staff of:

- quantity and dose of anti-D required
- name and address of clinic

If the injection is for a particular patient, please provide patient's full name, date of birth and weeks gestation.

Anti-D will be delivered to the surgery with the next routine courier.

Young Bloods in Pathology

In recent weeks, Dr Paul Bartley and Dr Nick Mellick have passed their fellowship exams with the Royal College of Pathologists.



Dr Bartley joined QML Pathology in 2003 as a Consultant Physician providing clinical input in the specialty of Infectious Diseases. With the completion of his fellowship Dr Bartley will now assume a position of Consultant Microbiologist.



Dr Mellick joined QML Pathology in 2002 as a member of our registrar program. Having trained under our experienced pathologists, Dr Mellick will now assume a position as Consultant Histopathologist with a special interest in Dermatopathology.

With the awarding of these fellowships QML Pathology's expert team expands to 43. As always our Pathologists are available to be contacted for consultation and advice on your patient's results. To do so please phone your local laboratory.



Doctors' Notice Board

Doctor's Mark Doyle and Isolde Hertess, Plastic and Reconstructive Surgeons specialising in Cosmetic Surgery, have commenced practice on the Gold Coast at John Flynn Hospital, Tugun.

For all appointments please contact:

Ph : (07) 5598 0988

Fax: (07) 5598 0933

Gold Coast Plastic Surgery,
Suite G1, Medical Suites,
John Flynn Private Hospital,
42 Inland Drive, Tugun Q 4224
www.goldcoastplasticsurgery.com.au

Sessional times have become available at the Aspley Specialist Centre located in the Homemaker Centre, corner of Zillmere and Gympie Roads, Aspley.

Session times are from 8.00am to 12noon and 1.00pm to 5.00pm, with a break between sessions to allow preparation for the next consultant.

Current sessional consulting times are available on:

Monday am & pm

Tuesday am & pm

Friday am & pm

Please phone Judy Hamilton on 0423 559 692 or (07) 5532 7655 for further information.

Dr Lucinda Pallis is pleased to advise she will commence specialist Obstetrics and Gynaecology practice in Townsville in October 2005.

Townsville Obstetrics and Gynaecology
Suite 104, Mater Medical Centre
Fulham Road
Pimlico Q 4812

Ph: (07) 4775 7330

Fax: (07) 4775 7333

www.townsvillegynaecology.com.au

Oct/Nov Events...

RACGP – Annual Sunshine Coast Clinical Update Educational Weekend

Date: 29th - 30th October

Venue: Novotel Twin Waters Resort

Topics: Women's Health, Men's Health, Mental Health & Geriatric Health

Contact: Your Registration Desk on (07) 3871 1155

St Andrew's CPD Weekend

Date: 5th - 6th November

Venue: Hyatt Regency Sanctuary Cove, Gold Coast

Topics: Orthopaedics, Cardiology, General Surgery, Neurology and ENT

Contact: Julie Coningham on (07) 3834 4293

The Wesley Hospital Women's Health CPDs

Maternal Screening

Date: 8th November, 6.30pm for 7.00pm

Topic: "Clinical Genetics in General Practice"

Speaker: Dr Michael Gattas – Clinical Geneticist

Topic: "1st Trimester Screening"

Speaker: Dr Frank Carmody

General Gynaecology

Date: 22nd November, 6.30pm for 7.00pm

Topic: "Conservative Management of Menstrual Disorders"

Speaker: Dr Melissa Buttini

Topic: "HRT Update"

Speaker: Dr Anna Burrows

Topic: "Managing Abnormal Cytology Smears - an update on new guidelines"

Speaker: Dr Gordon Wright

Oncology Gynaecology

Date: 29th November, 6.30pm for 7.00pm

Topic: "Screening for Ovarian Cancer"

Speaker: Dr Jim Nicklin

Topic: "Updates in Ovarian, Cervix & Uterine Cancer Management"

Speaker: Dr Paul Vasey

All Women's Health CPDs will be held at Oxley's on the River. To register please contact the Wesley Hospital on (07) 3232 7258.

COLLECTION CENTRE NEWS

For the convenience of our doctors and patients, we have listed the latest changes to QML Pathology's network of clinics:

Albany Creek (07) 3325 0822

1/720 Albany Creek Road
Mon – Fri 7.30am - 1.15pm
1.45pm - 3.30pm

Cairns City (07) 4051 6961

Flecker House,
5 Upward Street
Mon – Fri 8.00am - 12noon
12.30pm - 4.00pm

Parramatta Park (07) 4051 5593

Cairns Family Medical Centre,
Cnr Balfe & Mulgrave Roads
Mon – Fri 7.00am - 6.00pm
Sat 8.00am - 12noon

Please contact your local branch for further information.

