



## QML PATHOLOGY TO BEGIN REPORTING OF ESTIMATED GLOMERULAR FILTRATION RATE

Dr Charles Appleton Chemical Pathologist

**The Australian Creatinine Consensus Working Group has recently published a Position Statement<sup>1</sup> which has been widely promoted in the medical and general press.**

*“Chronic kidney disease (CKD) is a morbid condition that is common and may be preventable. In the general population, there is evidence of at least one indicator of CKD ... in about 16% of adults aged over 25 years”<sup>1</sup>. It is well recognised that early diagnosis gives a patient the best chance of avoiding progression to end-stage renal disease, dialysis and associated conditions.*

Older 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 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.

Consequently, QML Pathology is pleased to announce that we will begin routine reporting of the estimated GFR (eGFR) on reports of all adults that include serum creatinine. This is planned to take place within a month.

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  $\mu$ mol/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.

### Notes:

As no acceptable formula has yet been determined for children, patients under the age of 18 years will not have eGFR calculated.

The formula has been validated only for Caucasians and African Americans – as the laboratory has no knowledge of racial background, and as no work has yet been done on Australian races other than Caucasian, we will not be performing a race-related adjustment.

As the precision deteriorates in patients with normal renal function, values in excess of 60 mL/min/1.73m<sup>2</sup> (i.e. normal) are more variable and higher values will simply be reported as >90 mL/min/1.73m<sup>2</sup>.

For information on this testing, or feedback regarding it, please call our Chemical Pathologists on (07) 3840 4444 or contact your local medical liaison officer.

### References

1 Med J Aust 2005; 183:138-141

### Also in this issue:

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# AUTOLOGOUS BLOOD COLLECTION: Assessing Patients for Suitability

**Autologous blood is blood that is collected from a person and stored specifically for that person's use during or following surgery.**

**Homologous (allogeneic) blood is blood that is collected from donors and stored for use by any patient. This blood is collected by the Australian Red Cross Blood Service (ARCBS).**

Autologous blood:

- can provide an alternative to the supply of allogeneic blood
- may reduce the risks of blood transmissible diseases
- collection should be restricted to situations where there is a reasonable chance of transfusion

Before considering autologous blood collection for a patient scheduled for elective surgery, the following should be considered:

- 1 Patients undergoing surgery who would not normally require crossmatched blood should not be offered autologous collection
- 2 Patients should be in good general health
- 3 Transfusion of autologous blood should only occur where there are clinical indications, not merely transfused because there is autologous blood available

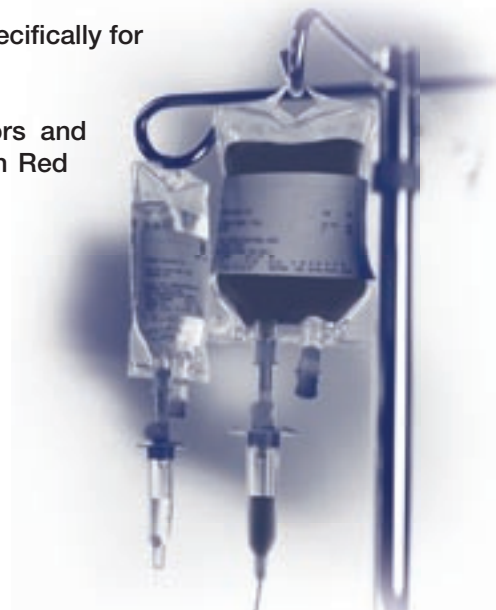
Autologous blood collection has its own inherent risks and the situation should be assessed in accordance with the relative risk of autologous collection and transfusion against using blood from voluntary donors. Patients should also be informed that blood replacement requirement may be greater than their autologous collection and the allogeneic transfusion may still be necessary.

Autologous blood collection is aimed at minimising the use of allogeneic blood but there are still some associated risks that are the same as for any blood unit, such as bacterial contamination, incorrect collection, incorrect storage and transportation, clerical/human errors or incorrect infusion.

Autologous blood is often more readily transfused as autologous patients tend to reach surgery with a lower haemoglobin/haematocrit and physicians may transfuse products more readily when autologous blood is available.

In 2000, the Australian Health Ministers Advisory Council (AHMAC) investigated whether it was beneficial to collect and store a person's own blood for possible use during or following surgery. The Committee found that pre-donation had limited blood use and concluded the following goals:

- 1 prevent bleeding
- 2 manage bleeding without transfusion
- 3 when less than 2 units required – use a blood alternative where possible
- 4 if more than 2 units required – use red cells from random donor or pre-donated blood



AHMAC decided that pre-donation should not be encouraged for most people in the community. There is a very low risk of infection from the general blood supply and as medical techniques improve, blood transfusion should be necessary on fewer occasions.

The collection of pre-deposit autologous donations can be collected at any ARCBS in Australia and transported to any other ARCBS location in Australia. Patients must fall within the exact specification of all donor criteria specified by them.

*Refer:* [http://www.transfusion.com.au/resource/library/tmm\\_ch10\\_techniques.asp#guidelines](http://www.transfusion.com.au/resource/library/tmm_ch10_techniques.asp#guidelines) (this takes you specifically to the Red Cross info re: autologous collection) or <http://www.transfusion.com.au/> (This is the home page of Red Cross information)

Pre-deposit blood collection is also performed at some QML Pathology collection clinics under physician supervised conditions and by appointment only. QML Pathology generally follows the same criteria as ARCBS but does offer some flexibility with patient criteria and each patient is assessed on their own general health and surgical procedure.

In general, pre-deposit autologous blood collection can only be used for elective surgery but not all patients can pre-donate. The biggest advantage is that individuals are not exposed to the blood of other people.

Disadvantages are that significant time is required for collection prior to surgery, it is costly and uses significant resources. Patients may not be able to pre-donate all the blood they require and blood is discarded if not transfused back to the donor. There is also an increased probability of the patient receiving a transfusion if the blood is available.

The patient must be well informed and give consent to the process.

Each unit of blood is generally collected a week apart and may start up to 42 days prior to surgery date and stored at 2-4°C.

In general, the patient must be of good health. Patients over 65 years old are considered in context of their health and clinical condition. Ideally, patients should be over 50 kg and their veins must be able to tolerate several venesections over a short period of time. It is highly recommended that patients donating autologous units take iron and folate supplements before, during and after the process.

Other considerations to health, but not necessarily contra-indications are:

- Pulse
- Blood pressure
- Pregnancy
- Cardiovascular conditions
- Cerebrovascular conditions
- Respiratory disease
- Haematological conditions

Limitations to collection by QML Pathology are:

- No patient over 80 years old will be considered
- Patients between 70 and 80 years old can donate a maximum of 2 units and must maintain a haemoglobin greater than 120 g/L
- Patients on multiple cardiovascular medications will not be accepted
- Blood can only be collected in the region where it will be used, eg. blood collected in north Qld can only be used in north Qld - it cannot be transported to Brisbane for example, as safety and quality cannot be guaranteed

More extensive lists of contra-indications or deferrals are available, if required.

All units collected are positively identified with patient details and with a unique identifier barcode label. All units are tested for group and antibody screen and transmissible disease markers (Hepatitis B and C, HTLV, HIV, syphilis). Any unit testing positive for any disease marker is discarded and the patient's physician is notified.

Compatibility testing is performed with all units donated against a patient sample collected up to 3 days prior to surgery before units are released from the lab. All units undergo exactly the same testing process as allogeneic blood units.

For any queries regarding our Autologous Blood Service please call the laboratory on (07) 3840 4471.

**Reference:**

Australasian Society of Blood Transfusion Inc  
Topics in Transfusion Medicine Special Edition: Guidelines for Autologous Blood Collection, April 2002, Vol 9, No2

## Introducing our Newest Member of the Pathology Team

### Dr Megan Turner

MBBS FRCPA

Consultant Anatomical Pathologist  
(07) 3840 4467

Megan.Turner@qml.com.au



Dr Megan Turner joined the team of pathologists at QML Pathology, West End branch in July 2005.

A graduate of the University of Queensland (MBBS 1991), Dr Turner trained in Anatomical Pathology at the Royal Brisbane Hospitals Complex and the Prince Charles Hospital, attaining fellowship in 2001. She has worked as a Staff Specialist at the Princess Alexandra Hospital for the past 3 years.

#### Special Interests

Genitourinary Pathology  
Renal Pathology  
Dermatopathology

## Wesley Stat Laboratory: Supporting Relocation Preparations

Every day QML Pathology Stat Labs across Brisbane are responsible for processing a large number of specimens. The role of these labs is to provide a support mechanism for the central laboratory in order to maintain a time efficient workflow of processing across the network.

One such lab is located within the Wesley Hospital.

With the impending move to Murarrie in April 2006 we are reviewing our current processes in both the laboratory and support services. In order to ensure the time efficiencies gained through a state-of-the-art laboratory are exemplified across the network of services, the Wesley Stat Lab is set to play a more critical role in the processing of specimens originating in the western suburbs. More specimens from this region will now be received at the Wesley Stat Lab with the majority of urgent tests being processed on site. This will ensure the processing of critical specimens is completed in a timeframe reflecting their importance to your patient care.

While the move to our purpose built laboratory is still eight months away, we are committed to ensuring every aspect of our service continues to meet and exceed your expectations.

For any questions regarding this, please contact your local Medical Liaison Officer on (07) 3840 4943.

## AND THE WINNER IS...

### Ms Caroline Brand!

By guessing the correct number of M&M jars in a 50 litre esky at our stand at the recent AMAQ Health Expo, Caroline has won herself that esky full of over 250 specimen jars packed with M&Ms.

Caroline, a Specialist's Secretary at the Redcliffe Hospital, is no stranger to the AMAQ Health Expo, having been a regular attendee over the past few years.

No doubt the doctors in the Redcliffe Hospital Directors Office will be able to assist with eating those M&Ms. That's a LOT of chocolate.

Congratulations Caroline!!

## COLLECTION CENTRE NEWS

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

### NEW CLINIC

#### **Tewantin (07) 5442 4581**

68 Poinciana Ave

Mon – Fri 7.00am - 12 noon  
12.30pm - 5.00pm

### CLINIC CHANGES

#### **Airlie Beach (07) 4948 0845**

283 Shute Harbour Rd

Mon – Fri 8.00am - 1.00pm  
2.00pm - 4.30pm  
Sat 8.00am - 12noon

#### **Ingham (07) 4776 0999**

Shop 6, Southern Cross Shopping Centre, 1 Arthurs St

Mon – Fri 7.30am - 12.30pm  
1.00pm - 5.00pm  
Sat 8.00am - 11.00am

*Please contact your local branch for further information.*



## Doctors' Notice Board

**Dr Michael Keogh** (Endocrinologist) wishes to advise that he will be commencing practice at Level 5, Sandford Jackson Building, Wesley Hospital, 30 Chasley St, Auchenflower and consulting on a sessional basis at the Aspley Specialist Centre. All appointments can be made on (07) 3871 0050.

The following doctors from Logan Specialist Centre would like to announce their relocation from Logan Private Hospital to Shop 10, Springwood Plaza, 3 Dennis Rd, Springwood.

Ph: (07) 3208 5552

Fax: (07) 3208 7775

**Dr Desmond Soares** Orthopaedic Surgeon

**Dr Zak Boules** Pain Specialist

**Dr Mahomed Khatree** Gynaecologist/ Obstetrician

**Dr Peter Landsberg** Rheumatologist

**Dr Kerry Taylor** Haematologist

**Dr John Bingley** Vascular Surgeon

**Dr Tony Leece** General Surgeon

**Dr Mary Jessop** would like to announce that she has recently opened her new practice:

Child, Adolescent and Adult Psychiatrist

Kids in Mind Private,

Level 5 Link, Mater Private Annerley Rd Campus,  
41 Annerley Rd, South Brisbane 4101

Ph: (07) 3840 6102

Fax: (07) 3840 6122

**Gold Coast Hearing and Audiological Services** would like to announce the recent opening of a full time practice within the Tweed Specialist Centre. This site is permanent with visiting sites at Burleigh, Murwillumbah, and Lismore.

Bulk billing is available to eligible pensioners and veterans, with a Medicare rebate offered to all other patients. The practice also provides free and subsidised hearing aids to pensioners as per a contractual agreement with the Office of Hearing Services. To speak to Dylan Deinert, Audiologist, or obtain a referral pad please phone (07) 5536 8368.

**Malouf Medical** has a recently refurbished professional medical suite (1 or 2 rooms) available for sessional use at the Tweed Day Surgery and Specialist Centre, 38-44 Boyd Street. For further information please contact (07) 5536 8368.



This newsletter has been prepared and published by QML Pathology for the information of referring doctors. Although every effort has been made to ensure that the newsletter is free from error or omission, readers are advised that the newsletter is not a substitute for detailed professional advice.

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