TERM DESCRIPTION MANUAL FOR REGISTRARS, RESIDENTS AND STUDENTS IN RENAL MEDICINE, ST GEORGE HOSPITAL

DEPARTMENT HEAD: Professor Mark Brown **Phone:** 9113 2622

TERM SUPERVISOR – Registrars: A/Prof George Mangos **Phone:** 9113 2409

TERM SUPERVISOR –JMOs : Dr Franziska Pettit **Phone:** 9113 2290

DURATION OF TERM: 10 weeks Residents, 12 weeks Registrars

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PERSONNEL, TEAM STRUCTURE AND SUBSPECIALTIES IN THIS UNIT

Medical Staff	
Professor Mark A Brown	Prof Medicine/Staff Nephrologist Head of Department
Associate Professor J Kelly	Conjoint Assoc. Professor/Staff Nephrologist
Dr Sunil Badve	Staff Specialist
Associate Professor Ivor Katz	Staff Specialist
Associate Professor George Mangos	Senior Lecturer in Medicine, Staff Specialist
Dr Cathie Lane	Staff Specialist
Dr Parthasarathy Shanmugasundaram	Staff Specialist TSH and STGH
Dr Franziska Pettit	Staff Specialist STGH
Dr Frank Brennan	Renal Palliative care specialist SGH & TSH
Medical Staff Attachments (see attached timetables)	Teams are: • Pettit, Badve • Brown, Mangos • Katz, Kelly
Medical Students	

Phase 3 (Y6) Student (4 weeks/swap) Phase 3 (Y5) Student (4wks/swap)	
Nursing Unit Managers Sarah Massey Louise Jordan Tracey Blow **Senior Nursing Staff** Shelley Tranter Yanella Martinez & Justin Rossington Elizabeth Josland	 Ward 4 South Sutherland Dialysis Unit 4 West dialysis Renal CNC Vascular Access Nurses; **pager 310** Renal supportive Care CNC
Department Secretaries Jodie Hendley & Nikki Jovanovski Kathy Karagiannis Kim Regan	 32622 32990 33281
Dietetics Maria Chan Su Bahceci	 Pager 009 x32635 Pager 006 x32752

Jessica Stevenson (for RSC)	Pager 1166 x32752
Social Work	
Hannah Burgess (for RSC)	Pager 526 x32494
Danni Horne (Dialysis)	Pager 5109 x32494
Millie Smith	Pager 742 x32494
Pharmacist	
Ms Maha Rofael	Pager 438 x33055

1. AVERAGE PATIENT LOAD

The Department of Renal Medicine cares for an average of 25 direct admission and 25 'consult' inpatients at any one time. There are about 16 outpatient clinics per week, 110 in-centre haemodialysis patients, 290 chronic dialysis and 200 chronic transplant patients and an active obstetric medicine and hypertension service.

2. ORIENTATION TO TERM

There will be a term orientation for ALL registrars and residents. This will be held on Ward 4 South at 8 am on the first Monday morning of your term. The following will be covered:

1) Introduction to key members of Staff and to each other.

2) Term Arrangements and teams.

3) Leave and ADOs

4) Education: planning your learning, bedside teaching, meetings, feedback, formal assessment.

5) Responsibilities and ward communication; weekly handover meetings

6) Discharge planning and how to do a discharge summary! This is a very important aspect of a medical term and good habits will stay with you for your career.

7) Renal IT System (RISC and RISCDOC) – Prof Mangos will take you through a demonstration of how things work.

Any questions you have can be answered in this session.

3. INVOLVEMENT IN OUTPATIENT CLINICS

Each registrar is expected to attend the outpatient clinics, as per the specific term timetable which is provided on Day 1. JMOs are encouraged to attend but should ensure ward work is completed first. In clinic, you should discuss all ***new patients*** at the time with the consultant who will then see the patient with you. All patients are discussed at the end of each clinic and you will be required to dictate a letter on each patient you see. You are expected to leave the files and dictation with the secretary by 9am the day after clinic. It is Unit policy that all letters reach the patient's GP within one week of their clinic visit.

4. EDUCATION AVAILABLE DURING THIS TERM

This term will provide you with an opportunity to learn a large amount of renal, general and obstetric medicine. Therefore, always ask questions if you do not understand why the patient is being managed in a certain way.

Emphasis is placed upon **bedside learning** but more formal learning is provided in the **renal clinical meeting each Thursday 1pm**, Medical Grand Rounds at 8am Thursdays, **the Friday (2pm) x-ray review** and the physician-training program. There is a further teaching seminar with **Prof. Brown most Tuesday**

mornings 8am. **Dr Brennan teaches renal Palliative care**. **Professor Katz will also take you for a session on dialysis and will go through RISC on the Thursday or Friday of week 1.**

Advanced Trainees will be expected to present on a regular basis at the clinical meeting. The roster is done by Dr Cathie Lane and is saved on RISCDOC. It is your responsibility to know when you are rostered to present and to be prepared. If you are on leave during a week you are presenting please swap with your colleague in advance. This roster is subject to change so please check this now and again and your email were changes will be communicated.

The Renal Unit management protocols are held on the Renal website (**http://stgrenal.org.au/**) accessed via the SESIAHS Intranet and you should familiarise yourself with these.

You are expected to attend Medical Grand Rounds, Kidney school (for advanced trainees), the physician training program (for BPTs) and the renal clinical meetings listed above.

Renal advanced trainees must now register their training program with RACP; www.racp.edu.au/traineeregistration; this should be discussed with Prof Mangos in the first 2 weeks of term.

As per the college you will be required to complete a project while at St George Hospital. We will help you decide on one ideally prior to the start of term.

5. PROTOCOLS & POLICIES

An extensive list of protocols for the management of renal disorders is kept on the Unit's website **(http://stgrenal.org.au/)** and the Intranet. These cover a wide range of topics from hypertensive crises to urinary tract infection to dialysis and transplantation. You should familiarise yourself with these and consult them whenever necessary.

Some of these are protocols that are due for review and we will allocate one protocol/policy to each AT and fellow each 6 months. This will be a good opportunity to review the relevant literature. We will ask you to present your updated protocol at the end of your 6 month rotation at our Thursday meeting.

6. INFORMING YOUR CONSULTANT

Consultants wish to be notified regarding changes in their patient's condition. In particular please contact at any time of day regarding the following:

1) New consultations

2) Renal transplant patients

3) Dialysis complications

4) Hypertensive crises

5) Pregnant women

As your experience increases your consultant may be happy for you to manage issues without daily notification. This needs to be negotiated between you and your consultant. However there are some principles that MUST BE ADHERED TO:

1. A consultant MUST BE INFORMED if there is a patient admitted under his care. It is not acceptable to notify of a ward admission the next day, for example.

2. Ward consults MUST BE SEEN BY A CONSULTANT. This is good practice, both for consultations we have been asked to see, and consultations we have requested. Before requesting a consult it is good manners to ensure that the caring renal physician actually wants it to occur.

7. JMO PARTICIPATION IN CLINICAL MEETINGS

JMOs and Registrars are expected to present cases or review journal articles in the renal clinical meeting on Thursday afternoons. Dr Lane will co-ordinate these meetings.

8. ADVANCED AND BASIC TRAINEE SUPERVISION

This will be provided by Dr Mangos. Please make arrangements to meet him in the first 2 weeks of commencement of your term (ext 32409, page 706).

9. FEEDBACK

Progress will be assessed both formally and informally, through discussion with consultants. This should be discussed with you during your term (mid-term assessment) and at the end of term when your appraisal form (for JMOs and for registrars) is completed. Dr Pettit will co-ordinate feedback and appraisals for JMOs.

10. PATHOLOGY ORDERING POLICY

In general, renal inpatients should have their biochemistry and hematology checked only **twice weekly, Mondays and Thursdays**. Occasional patients may need more tests (e.g. transplants, acute renal failure, treatment of acute hyperkalemia etc) – you should discuss ordering of these tests with your registrar or consultant. Test results should be recorded in the pathology results progress sheets, held in folders in the RMO/registrar room.

11. EDUCATIONAL RESOURCES

Renal texts and journals are kept in the department offices or electronically – you may use any of these provided you ask the secretaries first. Some good texts are held in the JMO/registrar room on 4 West, along with access to CIAP and UpToDate.

12. RENAL BIOPSIES

Elective renal biopsies generally take place each Tuesday 9am in Ambulatory Care Unit, done under ultrasound guidance. Some inpatient biopsies are done by the Radiologists using CT. Consultants or advanced trainee registrars do the biopsies. Please see the Renal Biopsy information sheet for patients on the website (**http://stgrenal.org.au/**), which summarises the procedure and complication rates. The biopsy service is overseen by Dr Partha Sundaram. He will take new registrars through the biopsy process and there will be a formal credentialing of skills before you will be allowed to undertake biopsies unsupervised.

13. DISORDERS THE JMO IS EXPECTED TO BE ABLE TO DIAGNOSE AND MANAGE BY THE END OF THIS TERM

a) Perform and interpret urinalysis and urine microscopy

b) Assess the volume status of a patient and understand the different intravenous solutions and their uses.

c) Record the blood pressure accurately and understand the significant causes and treatment of hypertension, particularly in patients with renal impairment.

d) Understand the clinical approach to the differential diagnosis and management of patients with acute kidney disease.

e) Understand the causes, systemic manifestations and conservative management of patients with chronic kidney disease.

f) Know the basic principles, types and complications of dialysis.

g) Understand the principles and potential complications of renal transplantation.

h) Understand the treatment and investigations of patients with urinary tract infections and/or renal calculi.

i) Be able to interpret routine biochemical and hematology reports, know the causes and therapy of common electrolyte and acid-base disorders.

j) Have a basic understanding of imaging of the renal tract including ultrasound and CT scanning, and their indications.

k) Know the causes and management of nephrotic syndrome.

l) Know the indications for, and potential complications of renal biopsy.

14. PROCEDURES THE JMO IS EXPECTED TO BE ABLE TO PERFORM BY THE END OF THIS TERM

1) Urinalysis and Microscopy
2) Cannulation
3) Venepuncture

15. DEPARTMENTAL WEEKEND 'HANDOVER' ROUND

This is held **Fridays 2pm in the Radiology Department Seminar Room**. The JMO is expected to prepare a brief list of his/her patients for discussion at that meeting. This should be done under the guidance of the registrar and **each patient entry should be no longer than 3 lines**. This meeting begins with a review of radiology followed by discussion of all inpatients so that the consultant and registrar 'on-call' for the weekend will know which patients to see and what the main concerns are. **Be on time!**

At the end of the weekend on call the registrar is required to email a summary of patient progress to the on-call consultant and then distribute that to all teams.

16. REGISTRAR HANDOVER AND PACE CALLS

Weekdays: It is very important that ongoing patient issues are handed over to the evening MOIC registrar during weekdays.

Weekends: ***Registrars must meet with the JMOs by 7.45am each Monday morning*** to discuss any change in patient condition over the weekend across the various teams.

JMOs must attend Medical handover at 8am each morning; one JMO from the Unit should attend and report back to other members any change in their patients' condition from the previous night, or any new admissions under that team. JMOs should arrange their own roster for this attendance. Registrars are not expected to attend this handover.

The department Policy for PACE calls is as follows:

During normal working hours, all PACE activations will be sent to all Renal RMO and

registrar pagers as a bundle as listed below. (Group supplied by communications

dept).

NEPHROLOGY PACE Group 949 644 633 643 645 843 397

• The Renal team will respond using the following system/ roster:

For the Dialysis Units the resident attends the call as below:

o Mondays and Wednesdays page 397 - Brown/Mangos

o Tuesdays and Thursdays page 645 - Katz/Kelly

o Friday page 643- Pettit/Badve

For ward patients:

o The above system will apply except that an RMO may recognise that the call

is for their patient and then notify the 'on-call' RMO that they will attend

instead

• **The resident is required to complete the following –**

o Assess the patient

o Discusses the situation with the registrar responsible for that consultant's patients as soon as the RMO has completed their review. This is true for both inpatients and dialysis patients.

• This process applies only to daytime PACE calls between 8am and 4.30pm. After hours the usual hospital PACE policy applies whereby a registrar must attend and review the patient within 30 minutes.

• Any change to the PACE calling criteria remains the responsibility of the admitting specialist or the primary care team Registrar

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17. WEEKEND "ON-CALL" FOR REGISTRARS

A registrar is on-call each weekend (Friday-Sunday) and advanced trainees will generally receive 1st calls from ED and the wards. This will be listed on the hospital roster system. This registrar is expected to do a round of all patients each day on the Saturday and Sunday. The consultant will generally do one of these rounds also. **Registrars are not on-call after hours during the week (Monday-Thursday)**.

18. REGISTRAR & JMO RESPONSIBILITIES

a) Have full knowledge of the up-to-date progress of your patients, including consultations, at all times.

b) Be in attendance for all ward rounds, which commence in the Renal Unit (see attached timetable).

c) Be responsible for documenting and interpreting the results of investigations on the day in which they are performed. If results are not available the **onus is upon you** to arrange with a colleague to check these results later in the evening.

d) Attend and participate in all your education programs.

e) Attend clinics as required and dictate letters on patients seen there. Tapes must be left with the secretary by 9am the day after the clinic.

f) Attend 4 West dialysis centre as required.

g) Prepare lists for relevant patients prior to the hand-over ward round on Friday afternoons, listing each consultant's patients, including consultations, for discussion at the meeting. This list should have the patient's name, age, MRN, ward and a one-line summary of their clinical problems and relevant results.

h) Participate actively in teaching of medical students.

i) Ensure medication charts are kept up-to-date and the orders are legible.

j) Ensure that an ordered typed discharge summary accompanies the patient upon their discharge.

k) Ward Communication

- To allow doctors to manage their time better to complete tasks and ensure that phones don't have to be answered every few minutes, and to save nursing and allied health staff from waiting for JMOs to respond or answer their pagers or phones:

1. There will be 3 trays in the doctors room in 4S for the current consultant teams Kelly/Katz; Brown/Mango; Chan/Ong
2. All requests for investigations, prescriptions, consults, antibiotic ID dept approval etc. will be placed in a tray.
3. There will also be a whiteboard for each team, where messages can be written.
4. Obviously all urgent messages will still be communicated by phone/pager or direct communication with a person.
5. It will be the resident in each team's responsibility to go through the box and book, and make sure the requests for the day are handled and completed by 4pm that day. No new messages/tasks must be placed after 4pm.
6. Residents should check the 'inbox' in the morning (8am), and then at regular time intervals during the day e.g. 10pm, 12pm, 2pm and 4pm, ensuring that the box is empty at the end of the day.
7. Additional communication regarding teaching, lectures, events will usually be via email. Please ensure that both your personal and hospital emails are checked on a regular basis. Notification that your letters have been typed will also come via email.

PACE

PACE and the Renal Patient.
All PACE calls on any given renal patient goes to all of the renal residents and all of the renal registrars. Attendance by all is not required.

Areas covered by PACE;

4S, 4W, other wards with inpatient renal patients, ED if patient admitted, radiology, Renal House (South Street between MHU and St George Private Hospital)

Roster is as follows to attend as the first contact to these PACE calls

Monday; Brown-Mangos team – resident and registrar
Tuesday; Kelly-Katz team – resident and registrar
Wednesday; Brown-Mangos team – resident and registrar

Thursday; Kelly-Katz team – resident and registrar
Friday; Chan-Ong team – resident and registrar

Note the resident is the first attendee to all PACE calls and may request the assistance of the registrar. If the registrar is at clinic and not available the rostered resident may request the assistance of a registrar who is free at the time.

If the patient bed is clearly known to a particular team it is reasonable for that team to attend and relieve the rostered team of the responsibility – this may be the case when the patient is an inpatient. However patients move frequently so do not rely on this – the rostered team must attend in all cases unless told otherwise. The ongoing review of the inpatient should be by the treating team.

Dialysis patients do belong to specific consultants however this will not be clear at the time of the PACE-call. The rostered team must attend. If the resident requires the assistance if a registrar they may request their own registrar as per the roster or ask for assistance from the registrar primarily responsible for that patient.
Please note the addition of Renal House. This is the site of the peritoneal dialysis unit and is covered by the teams for PACE calls. This building is off site so on review of the patient a decision must be made as to how to manage the patient further.

1. If very sick get an ambulance , notify ED consultant and send patient there
2. If a bit sick, stay there where there are nurses until bed available. Do NOT go to ED as it blocks up their work practices for no good reason
3. If a semi-elective admission registrar can be delegated to decide if safe to go home and await a phone call when bed available

All PACE tier 2 and recurrent PACE tier 1s should be discussed with the consultant.

19. DUTIES OF MEDICAL STUDENTS

1) Students should commence work by 8am each day. Ward rounds generally commence in the Renal Unit and students should be familiar with all patients each day.

2) Students should attend all ward rounds, where possible.

3) Students should attend the Renal Unit Clinical meeting on Thursday afternoons and present cases, where possible.

4) Students should attend the Renal Clinics. There students can sit with any of the doctors as part of the learning process. At the end of this clinic all patients are discussed and this provides another learning opportunity for the students.

5) At all times students should be well attired and courteous to staff and patients.

6) During the last week of term students should arrange for an interview with Prof Mangos, to discuss overall performance and to provide feedback on the term.

20. DISCHARGE SUMMARIES

These have a standard format (see below) and can be accessed at any computer in the hospital (go to the St George Hospital intranet page then access the Renal Unit homepage : ***http://stgrenal.org.au/***, then access 'RMO documents' then 'Discharge summary template'). The summary should be no more than 1 page, highlighting the key issues of the case.

The most important issue is to ensure these actually get to the appropriate GP and consultants, whose names should be listed on the bottom of the discharge summary. ***JMOs should ring the GP to notify them of the discharge and that a discharge summary will follow***.

The secretary in the renal ward will fax these for patients treated in that ward and the secretary in 4 West will fax the remainder for you; the list of GP and consultant fax numbers is held by the secretaries and is on the Area intranet.

The discharge summary must be saved in the correct network (RISCDOC) folder, see below for details.

21. LEAVE, ROSTERS, ADOS

All leave must be approved by the Head of Dept as well as the JMO management Unit (for JMOs) or the Registrar manager (for BPTs). In general, approval will be on a 'first come, first served' basis. Ideally either the registrar or the JMO should be on leave at any one time to ensure continuity of patient care.

Registrars are on-call 1 in 3 or 4 weekends. Advanced trainees (but not BPTs unless otherwise arranged) take 1st on call during this time. Consultants take 1st on call Mon-Thurs.

Registrars are to do their own weekend roster in the 1st week **which needs approval by the Head of Dept**. The registrar weekend roster is held on RiscDoc.

ADOs need be discussed in advance with the consultant for whom you are working. These need be coordinated so that both team members are not away the same or consecutive days. In general, ADOs will not be provided on Mondays or Fridays due to busy patient workloads on those days.

		Ward Rounds & Teaching	Clinics
Monday			
	7.45am	weekend registrar & JMO handover in 4 south	
	8.30am	Obstetric Medicine WR	Acute transplant clinic
	9:00 AM	WR - Badve/Pettit team	
		WR - Brown /Mangos team	
	12 md		DAU
	12 -2pm		Obstetric Medicine clinic - Prof Brown/Pettit
	2-5pm		Renal & Hypertension clinic - Prof Brown
	2-4pm	WR - Kelly/Katz team	
	1-4pm		General nephrology clinic - Dr Badve
Tuesday	8am	**Teaching - Prof Brown**	
	8.30am	Renal Biopsies (ACU)	
			Dialysis & transplant clinic - Prof Brown
	11am	4 south discharge planning meeting	
	12 - 1pm		
	1-4pm		Dialysis & transplant clinic - Prof Katz
			Renal Supportive Care - Dr Brennan
Wednesday	8am	**Teaching - Dr Brennan**	
	8.30am	Obstetric Medicine WR	Acute transplant clinic
	9am	WR - Badve/Pettit team	
	9am	WR - Brown/Mangos team	
	9am -1pm		general nephrology - Prof Katz
	12 Md		DAU
	1-4.30pm		General nephrology - Dr Pettit
	2-4pm	WR - Kelly/Katz team	

Thursday	8am	**Grand Rounds**	
	9.30 - 12md		Donor assessment/general nephrology - Dr Lane
			Dialysis & transplant clinic - Dr Badve
	1-2pm	**Renal meeting**	
	2pm -5pm		Dialysis & transplant & general clinic - Prof Mangos
			Dialysis & transplant & general clinic - Dr Pettit
Friday			
	8.30am	Obstetric Medicine WR	Acute transplant clinic
	9am	WR - Badve /Pettit team	
	9am	WR - Brown/Mangos team	
	9am - 12 md		General nephrology - Prof Kelly
	12 md	WR - Kelly/Katz team	DAU
	2pm	Handover & Xray meeting	

Notes:

Times for WR may vary slightly - consultants will notify

Registrars allocated to clinics at beginning of each term - may vary from term to term

DAU times may vary - usually decided at end of 8.30am maternity round M/W/F

Renal fellow will do 2 clinics per week

22. RISCDOC AND RISC EXPLAINED FOR JMOs AND STUDENTS

Saving files in RISCDOC, the RISC database and the Renal Biopsy database

The Department of Nephrology at St George Hospital has a secure and accessible system of storing patient data. This includes Discharge Summaries, clinic letters, and dialysis and transplant summaries. There is a database of renal biopsies (and outcomes) and staff rosters. **All of this information is stored on the network folder RISCDOC,** available to staff within the Renal Unit and on computers in renal wards.

As Junior Medical Officers within the Department, you have a responsibility to ensure your patients' Discharge Summaries and other relevant data are stored safely and securely. Please observe the following guidelines.

1. Discharge Summaries

(a) Saving Discharge Summaries in RISCDOC

Discharge Summaries should be saved in the sub folder RISCDOC/200x (eg. 2006). The format of the Discharge Summary name should be as follows;

SURNAME (CAPS) **First name MRN discharge date.doc**.

For example, a Discharge Summary on John Artificial who was discharged on the 1st April 2006 would be as follows;

ARTIFICIAL John 123456 01042006.doc.

If the above format is adhered to, patients will appear in alphabetical order according to their surname within each calendar year of their discharge. This is a sensible way of archiving these files and allows an easy search facility.

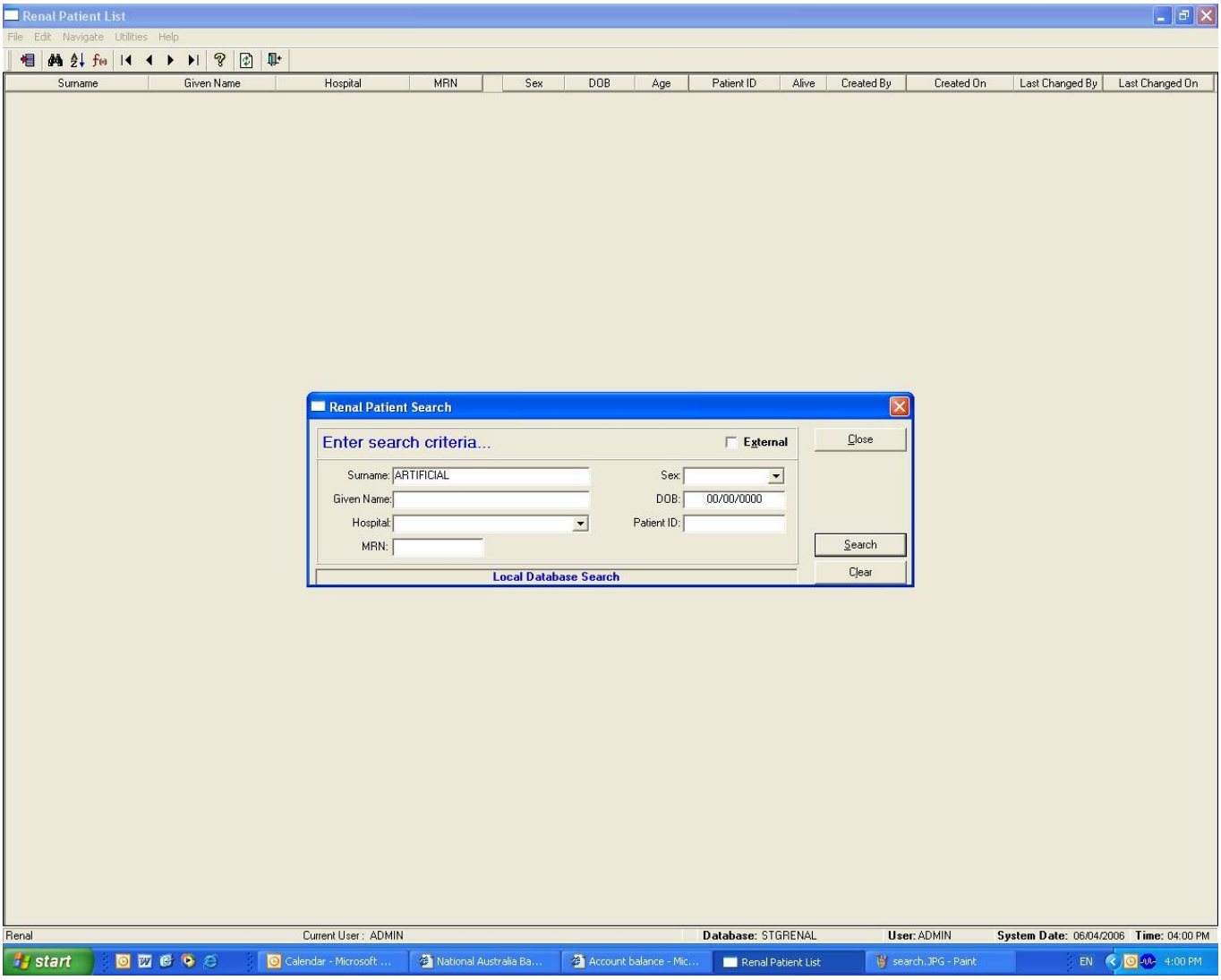
2. Using the RISC database

Dialysis and transplant patients each have a file in the RISC database. All discharge summaries and clinic letters should be attached to the RISC file. The generic log in for RISC for Junior Medical Staff is as follows;

User name: **RENALRMO**

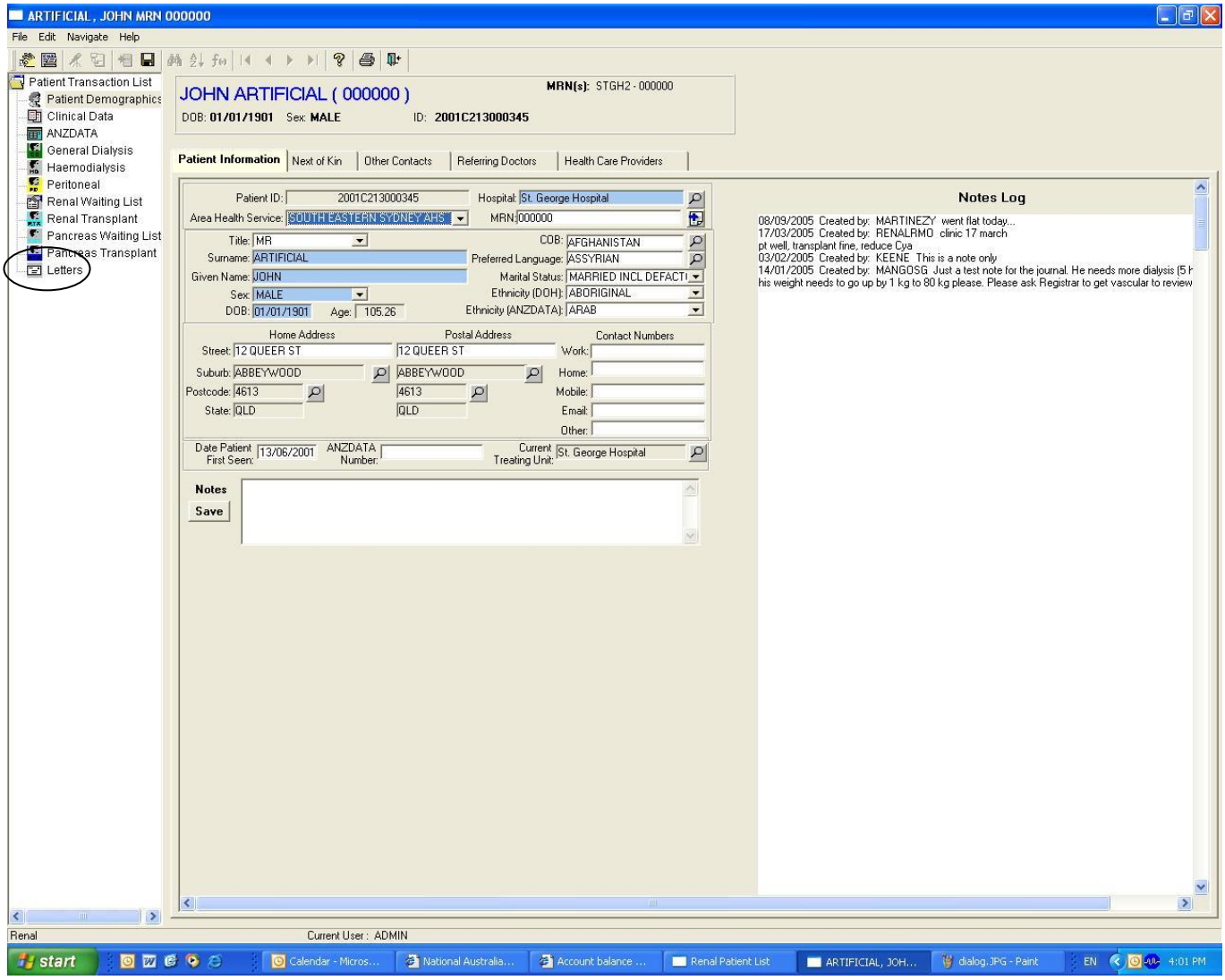
Password: **DIALYSIS**

To open a patient's file in RISC, first open the patient file by typing the name into the search dialog box (see below);



Open the patient file by double clicking the name.

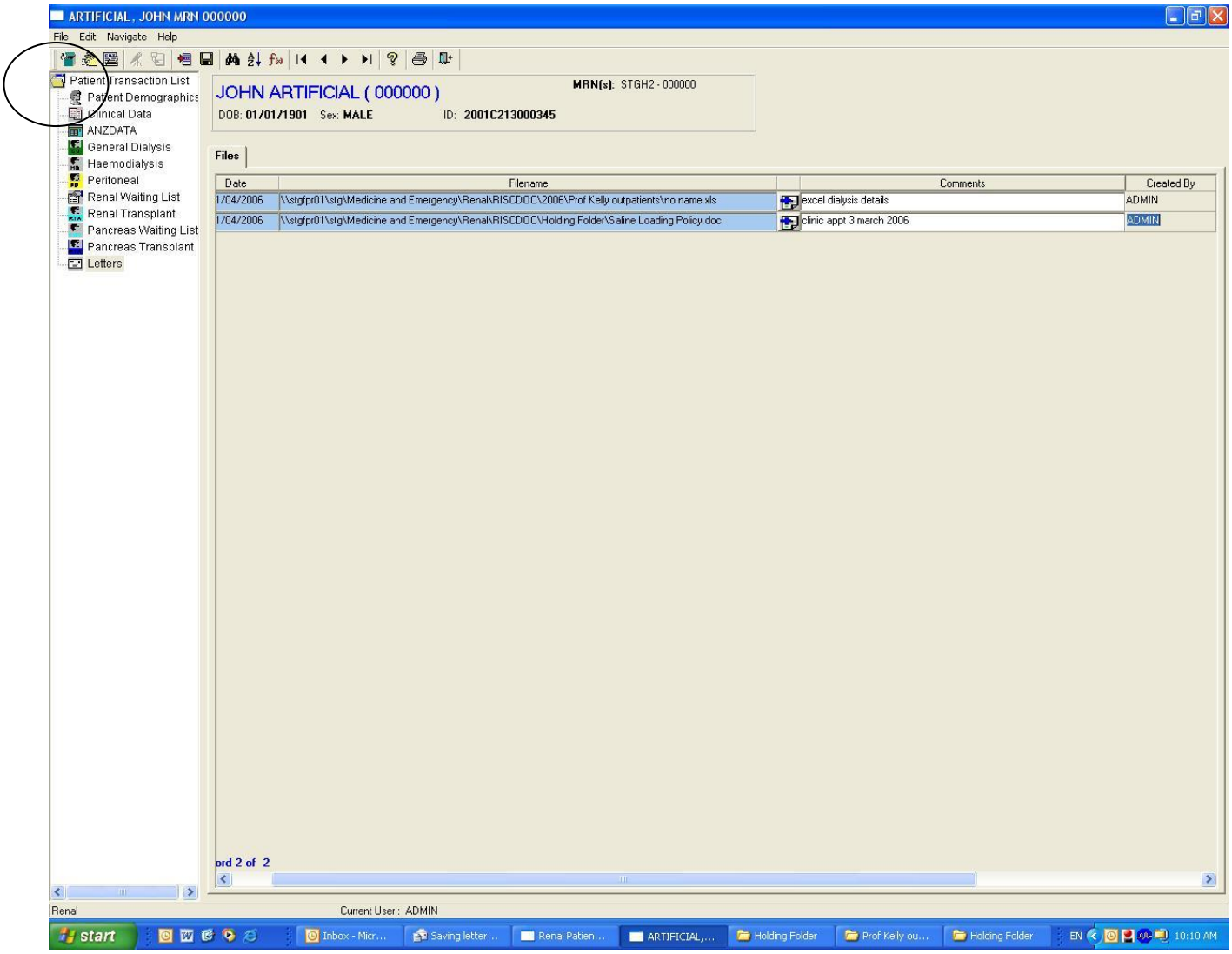
Click the “Letters” icon in the left panel (see below);



A list of attached letters or excel spreadsheets will appear. These can be opened by clicking on the button with the blue cross. These are documents that have previously been attached and saved in the RISCDOC folder. Note that the file itself is saved in RISCDOC and is only attached to the database, the file is not actually saved in the RISC database. Therefore, you must save the letter or discharge summary in the RISCDOC folder first.

To attach a letter or excel spreadsheet;

Click the green box in the top left hand corner of this screen to attach another letter (see attached):



A dialogue box appears, find the relevant file in the RISCDOC folder and click save. The letter should now appear below the existing attached letters. It can be given a description in the comments section eg Dr Mangos' Clinic Review 1/4/2006 which will assist in archiving these files.

This has to be saved using the small disk icon in the tool bar at the top of the screen or by using right click and save.

Once this is done the patient's file can be closed and the letter that has been attached now becomes a permanent part of that patient's clinical file.

3. Renal Biopsy data

Every renal biopsy performed must be recorded in the renal biopsy spreadsheet. This is also found in a sub folder of RISCDOC/Renal Biopsy Spreadsheet. The data to be collected is self-explanatory and should be done on the day the biopsy is performed. This is a useful resource when making up a list of biopsies to be reviewed at our monthly biopsy meeting.

STOP – sensible test ordering.

2016 Pathology Test Cost Sheet

Pathology Test	Cost
Admin Fee	**$17.15**
EUC	$20.56
Single Electrolyte	$10.12
CMP	$14.24
Single (Ca/Mg/Ph)	$10.12
LFT	$22.65
Bilirubin	$10.12
FBC	$17.69
Single Hb	$8.19
ESR	$8.19
Coagulation Profile	$21.24
Single APTT or INR	$14.30
CRP	$10.12
Glucose/ Lipase	$10.12
Troponin	$20.92
HDLC (HDL Chol)	$11.53
CK	$20.92
ABG/VBG	$35.17
POC GAS	$52.32
Group & Hold	$42.79
Cross Match	$113.65
NT-proBNP	$72.03
Anti-Xa	$39.55
MRO Single swabs (MRSA/VRE)	$18.51
UMCS	$21.45
Sputum MCS	$35.22
Stool MCS	$55.41
Skin/Wound/ Nasal swabs	$22.96
Blood Cultures	$32.09
Urine Osmolarity	$25.78
Serum Osmolarity	$25.78
Histology	$101.38
Iron Studies	$34.09
B12	$24.63
Folate	$24.63
Serum B12 & Red Cell Folate	$44.67
Vitamin D	$31.36
Drug Level Monitoring	$18.94
PSA	$21.03
TSH	$26.14
TFT	$36.32