UNIVERSITY HOSPITALS COVENTRY AND WARWICKSHIRE NHS TRUST

Induction Information for Cardiology Registrars

Date of preparation: July 2014

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PART ONE – THE DEPARTMENT

List of Consultants
- Dr Dawn Adamson (Intervention and Obstetric Cardiology)
- Dr Thiruraman Rajathurai (Intervention)
- Dr P Banerjee (Heart Failure)
- Dr M Been (Intervention)
- Dr P E Glennon (Intervention and Lead Clinician)
- Dr V Dhakshinamurthy (Cardiac Imaging and Heart Failure)
- Dr F Osman (Arrhythmia)
- Dr H Singh (Intervention)
- Dr A Venkataraman (Visiting Interventionist)
- Dr M Halim (Locum Visiting Interventionist)

Other non-consultant medical staff
There are 6 SpRs, 6 “SHO” grade doctors and the following Clinical Fellows who assist with service provision as integral members of the team:
- Dr Abullah Alzuwam, Clinical Fellow (Dr Been)
- TBC, Clinical Fellow (Dr Singh)
- Dr Gaurav Panchal, Clinical Fellow (Dr Glennon)
- Dr Hanif Mustafa, Clinical Fellow (Dr Banerjee)

Description of Specialised Ward Areas
CCU – 10 beds. All ST elevation MI and high risk cardiac patients are admitted here.
Cardiac Daycase Unit – 10 trollies. Elective daycase admissions and daycase transfers from other hospitals (lower risk ACS in most cases).

Heart Failure Service
Run by Sr Cath Watson (bleep 1713 or ext 25814) under the supervision of Drs Banerjee & Dhakshinamurthy. Refer newly diagnosed heart failure patients for education and initiation/uptitration of beta blockers and spironolactone. Sr Jo McCann covers the service at Rugby St Cross.

Transient Loss of Consciousness (TLOC) Clinic
Referrals to Sr Helen Eftekari, bleep 4424
PART TWO – ACUTE WORK

Acute Cardiology Admissions

- A “Consultant of the Week” is on call 8.30am to 5pm, Mon to Fri (rota enclosed), supported by the allocated Ward 10 Registrar during that week (8am-6pm). There will be a consultant round of all patients on CCU/ITU and any new admissions on Ward 10 every morning (including weekends). All patients admitted during that week remain under the consultant of the week unless handed back to another consultant who has seen them recently or knows them particularly well (see below).
- Out of hours is covered by a separate Consultant/Registrar on call rota (also enclosed). The consultant of the week will be on call Sat/Sun.
- A “Registrar of the Day” (ROD) rota is also in place – this person is available to see inpatient referrals and undertake urgent bedside echos from 08.30 to 5.

Most patients arrive through the Emergency Department on 1st Floor, triaged by Specialist Cardiac Nurse Practitioners (bleep 1302).

A 24 hour primary PCI service for Coventry & Warwickshire is in place. The ambulance notifies ED when a patient with STEMI is picked up, and a “STEMI Alert” is put out to the cathlab team via dedicated pagers (Registrar pager available in cathlab 2, to be signed out and in please). We aim to meet the ambulance crew in ED and transport the patient direct to the lab if appropriate. Any patient undergoing Primary PCI should have a drug chart and clerking completed by the registrar before leaving the lab – this is because the PPCI team are best placed to make a plan and ensure that only appropriate drugs are prescribed.

If you are called to a STEMI false alarm in ED, please ensure that you document your decision clearly in the notes and verbally hand over to the Medical team if the patient is not coming to Cardiology. This will really help the ED team ensure smooth onward transition, and hopefully avoid you receiving any further calls about the patient.

Other high risk Cardiology patients are transferred to CCU. In general the nursing staff will accept the patient and inform the cardiology team when the patient arrives on CCU. In some circumstances the nursing staff will ask the Cardiology Registrar to accept the patient first. If you think a patient is being transferred to CCU inappropriately then please notify the consultant immediately.

Other patients accepted by Cardiology are transferred to Ward 10 as soon as possible. Patients with a suspected primary cardiology diagnosis may be admitted to Ward 10 out of hours but remain under the care of the medical team until referred to, and accepted by, Cardiology. Referrals to Cardiology on Ward 10 may be verbal through either medical or nursing staff, but acceptance by Cardiology should be documented by you in the notes.

Some patients are admitted from ED to the Observation Ward or the adjacent Ward 12 under the Acute Physicians if they need further assessment to establish a cardiac diagnosis, or if no cardiology bed is immediately available. The Cardiology Reg of the Day has a key role in visiting these wards twice a day to pick up any referrals.

On call rota
Rolling rota, ten week cycle, copies provided. The rota is a 24 hour partial shift system, not resident on call, and is designed to be compliant with the European
Working Time Directive as a 1 in 10 (see SpR Working Hours below). Please avoid swaps of on call unless absolutely necessary. You must not swap into two or more consecutive nights on call. You should also not take annual leave during your week on call as this is an important period of intensive exposure to acute cardiology. Please remember to arrange someone to cover your call while you are on annual leave.

**Handover**

Effective handover is more important than ever with the introduction of reduced working hours.

Handover between the overnight registrar and the registrars of the week and day should occur at the 8.30 and 5pm CCU ward rounds. Ward 10 Registrars for the week must handover each Monday morning. The Consultant who has been on call for the previous week will also undertake a full round of Ward 10 with the incoming Ward 10 Registrar each Monday morning.

If cathlab work is still going on at 5pm then the on-call SpR will be required to take over in assisting the consultant (see notes on SpR working hours below). In these circumstances verbal or written handover can take place in the cathlab.

*It is the responsibility of the outgoing reg to contact the incoming reg, even if only to say that there are no problem patients.*

**On Call Roles & Responsibilities**

The following documents are attached:

- Ward 10 Registrar of the Week
- Registrar of the Day (RoD)
- Cardiology Registrar on Call Out of Hours

**Patients on General or Cardiothoracic ITU**

Enclosed is advice for keeping the nurses on ITU happy and improving your chances of an undisturbed day/night.

**CCU Echo round**

If you are scheduled to do a CCU echo round this should start at 9 am. Please complete all the echos on the list (up to a maximum of 5) otherwise a backlog tends to develop. If there are less than 5 on the list then you should go to Ward 10 to do any outstanding there. This is important to support the Ward 10 Reg of the Week.

**Patients admitted out of hours because of ICD shock**

If single isolated shock, patient stable and bloods ok could be discharged home (provided patient/carers happy), but the Dept of Cardiac Investigations must be informed next working day for ICD check at earliest opportunity.

If patient unwell or >1 shock then patient should stay for ICD interrogation on this admission. Dr Osman is happy to be contacted at any time in cases of doubt or difficulty.

**Aspiration of Pleural Effusion**

Due to a recent serious adverse event we now use the cardiothoracic guidelines for all cardiology patients undergoing drainage of pleural effusions. These guidelines (copy accessible on eLibrary) mandate ultrasound-guided drainage using a Seldinger technique. The cardiothoracic team have given their commitment to supervise or undertake this procedure on request.
Transfers
A completed electronic referral form is transmitted to the department by the referring doctor and is picked up by the cathlab co-ordinator for the day. A telephone call to the Registrar may accompany this, but is not strictly necessary providing the form has been properly filled in and the patient is uncomplicated.

Many patients are transferred as day cases – the nursing staff have protocols for deciding who is suitable. These patients arrive between 8 and 10 am and should be taken to the cathlab late morning/early afternoon. The day case transfers should be finished by 4 pm. A radial approach is encouraged since this simplifies care in the referring hospital. Very few patients should need to stay overnight – essentially only if they have critical left main or a complication from PCI/cath. Please note that careful documentation is very important for these patients – the referring hospital needs to understand what has been found, what has been done and what aftercare is required.

If a referring hospital contacts us because of a deterioration in a patient awaiting transfer (e.g. on-going ischaemia) then the patient should be transferred here the same day, if necessary by blue-light, in an attempt to avoid complications such as re-infarction in those awaiting transfer.

Cardiothoracic Nurse Practitioner Role on Ward 11
The Cardiothoracic Nurse Practitioners on Ward 11 are clinically based but also coordinate the inter hospital emergency surgical referrals for the region. If you have a patient that needs surgery please make an electronic referral (Sarah Abbott, Cathlab Manager, can help you with this). You can liaise directly with the consultant on call or with one of the Nurse Practitioners who will ensure the rest takes place. They work Monday to Friday 07.30~20.00 and carry bleep 2995. They will call upon you for referrals and non departmental echoes that have been requested by the surgeons. They may also seek your advice on cardiology matters.

Calling for help
In the event of a cardiac arrest phone 2222. If there is an emergency situation requiring consultant cardiology input, and your own consultant is not available, then contact the on call consultant without delay.
PART THREE – ROUTINE WORK

Admin
Admin duties are a crucial part of patient care and your training. Admin sessions have not been timetabled in order to maximise opportunities for clinical experience in the limited number of working hours available. You therefore need to complete your admin flexibly in any spare time between planned sessions. The morning after a quiet night on call may also present an opportunity to do this. You should call on your secretary at least twice a week to check what needs to be done. If you are struggling to keep on top of your admin (ie regularly falling > 1 week behind) then please discuss with the senior SpR or Dr Glennon at an early stage so we can find ways to help.

Cathlab
0800 – see/consent patients on Day Unit (Ward 10)
0830 – meet cathlab co-ordinator to plan the list
0900 – patient on the table, start procedure

Before undertaking a procedure you are expected to know what procedure is required, the indication for procedure, co-morbidities, and details of history/examination/blood results.

The reports are generated after each procedure, but you should take time to review the reports/images with your consultant at the end of the list.

Please make sure that you review your patients on the ward at the end of your cath session to check for complications, give further explanation and answer any questions.

All list changes must be communicated to the Cathlab Co-ordinator (bleep 1290). He/she will make the necessary changes to the whiteboard outside the lab and inform the ward and other cathlab staff.

In order to provide the best service for patients, and maximise your training opportunity, it is very important that you arrive promptly at 0800 and you do everything possible to avoid delays.

The cathlab workflow is as follows:
Patient and procedural details entered by Cardiac Physiologist
When the Cardiac Physiologist has closed the case (and therefore exported all the information) you can open the Centricity Xi data management programme (also known as CARRDAS).

You can use this software to generate a report for every patient undergoing a cathlab procedure. You will be shown how to do this and given written instructions as well. These instructions can be accessed on the cathlab workstations by clicking on the shortcut “CATHLAB DATA ENTRY CRIB.DOC”. The report will also function as a discharge summary so the information you enter should reflect that. Any changes to medication should be entered in the plan on the report. Except for clopidogrel, this should take the form of a request to the GP to make the change rather than also having to write a prescription/TTO on the ward which delays discharge.

It is not necessary to write in the notes unless the case has been particularly complex, and for this reason you must make sure that ALL the relevant information for any doctor dealing with the patient is in the report. This is your responsibility, and constitutes the legal record of what you have done. It is not necessary to print out the report as this will be done on the ward. A copy is usually given to the patient.
If for any reason the cathlab database is not functioning, then please inform Cheryl Eade the Superintendent Radiographer, and complete a written report on the template sheets provided beside each workstation. This should be filed in the patient notes. An electronic report should be completed once the database is restored.

**Ward Rounds**

The Consultant on call will visit Ward 10 at 8.30 am daily for a board round, and then return later after the CCU round to see new patients - other patients will be seen at the request of nursing or junior medical staff.

Each consultant conducts a weekly ward round (see below) – please ensure the SHO has all the necessary investigation results on hand. If any patient needs an echo this should be done before the consultant round.

<table>
<thead>
<tr>
<th>Mon</th>
<th>Tue</th>
<th>Wed</th>
<th>Thurs</th>
<th>Fri</th>
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</thead>
<tbody>
<tr>
<td>9am – Dr Banerjee</td>
<td>10am Dr Adamson</td>
<td>10am Dr Rajathurai</td>
<td>9am Dr Adamson</td>
<td>10am Dr Glennon</td>
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<td>10am – Dr Singh</td>
<td>10am Dr Glennon</td>
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<td>10am Dr Been</td>
<td>11am Dr Been</td>
</tr>
<tr>
<td>11am – Dr Osman</td>
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</tbody>
</table>

As SpR on call overnight you should undertake a round of CCU at 5pm. During your on-call weekends or bank holidays you are expected to accompany the consultant on a ward round of CCU (all patients) and Ward 10 (selected patients – new patients, potential discharges, particularly ill patients). You should then attend the Clinical Decisions Unit (Ward 12) to see new referrals.

As Registrar of the Day you should undertake a morning and afternoon triage round of Ward 12/Observation Ward.

**Discharge Arrangements and Discharge Summaries**

Patients requiring anticoagulation should be referred directly to the Anticoagulation Clinic – asking the GPs to do it creates logistical difficulties, and should only be done if there is a specific reason for delay or further discussion.

The following arrangements for discharge summaries have been agreed:

- **For elective patients or day case** transfers the discharge summary will be based on the cathlab report (“diagnosis” field moved to the top in bold), so reporting doctors must ensure that all the relevant information is in the report.
- **In the case of non-elective patients, or elective patients with complication/prolonged stay (>24 hours)**, the cathlab report will be supplemented by an electronic discharge summary which is usually done by the SHO.

**Patients not having a cathlab procedure** – electronic discharge summaries usually done by the SHOs, but the SpR/Registrar will sometimes be required to do these if the patient is complicated.

**Echocardiography**

There are nine echo machines in the department, four of which are portable. You will receive training on use of the machines. Images and reports are downloaded to the hospital intranet on a weekly basis by the Cardiac Physiologists.

Dr Dhakshinamurthy will review and audit echo quality to ensure that the machines are being used correctly. He also holds a weekly echo meeting Tuesday lunchtime – it
is important that you attend this if at all possible. Those who do not attend will have their echos scrutinised particularly carefully!

Inpatient echo requests from non-Cardiology teams have to be approved by a Cardiology Consultant or Registrar. Please countersign the request form and mark Urgent, Routine or Outpatient. If you refuse an echo please let DCI know because otherwise clinical teams often try to get approval from other registrars.

**Exercising Testing**
Lists run by SHO with SPR supervision.

**DC Cardioversion**
Weekly list done under sedation, undertaken by SHO and supervised by Dr Osman. You can book patients for this by copying your clinic letter to Wendi Wallace.

**Outpatient Clinics and Follow-up Policy**
Most clinics are on site (Clinic 5), with the facility for “one stop” echo, exercise testing and 24 hour tapes. If a clinic patient needs a test you should make every effort to provide it at that visit. If a technician is not available to do an echo then there is a machine available in the clinic (end room on the right) for you to do it yourself.

Clinics have been set up on computer so that when you see a patient and plan to see them again with a repeat echo, it is all booked for you. All you have to do is write the echo form as you would, and then at the top write “In 6 months with OPA” for example. The Clinic 7 clerk will then look on iPM to confirm their next appointment, then book the echo as appropriate and send out the letter to the patient. If you see a patient, need an echo but no slots are left that day, can you just make it clear on the referral form ie next echo slot please. You can either give the forms to the patient to hand into clinic 7 or to the clinic nurses to take round or hand them in yourself.

At the end of each clinic you should discuss the patients that you have seen with the supervising consultant.

Please keep your letters short and to the point. To reduce the number of unnecessary follow-ups, the following policy has been agreed:
1. No inpatient or outpatient should be given a follow up appointment without the agreement of the consultant.
2. New patients who require a test should **not** routinely be given a follow-up appointment to discuss the results. Most tests are normal – the patient should be told that the result will be reviewed and a letter dictated to the GP. If any abnormality requiring action is found then the patient will be contacted to return to clinic.
3. Patients with left ventricular failure should be referred to the Heart Failure Clinic (Sister Cath Watson) for optimisation of medication. Follow-up in the general clinic is **not** usually required.
4. All patients with valvular abnormalities or congenital heart disease should be discussed with the consultant and follow-up arranged on an individual basis.
5. Very few other patients need follow-up. In particular, **do not** routinely follow-up:
   - Stable angina
   - Post PCI
   - Post CABG
   - Stable heart failure on optimal medication
   - Chest pain with normal coronary arteries
• Hypertension
• Patients with arrhythmia and controlled symptoms

**Anticoagulation**
Explain risk & benefits, complete Warfarin initiation form (available in all clinic rooms) and give to clinic nurse who will pass on to secretary to fax to anticoag.
If patient wants more time to think about starting warfarin or to discuss this with GP, then write this in clinic letter for GP to start warfarin if patient agrees.

**Change of medication**
Please mention in your clinic letter or, to avoid delay, complete a form to the GP requesting the change. Outpatient prescriptions should only be written for emergency indications.

**Symptomatic severe aortic stenosis being booked for coronary angiography**
If there is a clear indication for surgery, consider dictating a surgical referral letter in clinic at the same time as putting on the cathlist. This reduces time to surgery and provides an additional safety net.

**Booking Elective Cardiac Catheters**
Copy your letter to the secretary to book procedure. Clearly state procedure required – eg LV and Cors, cor angio ?PCI, L&RHC. It is not sufficient to say “angio”. All patients must have preassessment - the clinic nurse will arrange this on request.

**Consent**
SHOs should not be asked to consent patients for invasive procedures - this is your (or the consultant’s) responsibility. For elective patients consented in advance, please check that they still wish to proceed and sign the confirmation of consent section on the form. The usually quoted risk of serious complication for PCI is <1 in 200, but this may be higher in patients with significant co-morbidity. Please discuss individual patients with your consultant if you have any doubt. You should familiarise yourself with the Trust Consent Policy on the intranet ([http://webapps/eLibrary/filecon/download.aspx?Doc=100150&DocReturn=/elibrary/index.aspx&VERI=ysbgcfph](http://webapps/eLibrary/filecon/download.aspx?Doc=100150&DocReturn=/elibrary/index.aspx&VERI=ysbgcfph)).

**Box Changes - caution**
Please check the notes and patient carefully looking for the following high risk features:
- Pacing dependent
- Suboptimal lead data (may need repositioning or replacement)
- High BMI
If any of these is present, please notify the consultant prior to the procedure.
PART FOUR - CLINICAL GOVERNANCE

Cardiac Unit Guidelines
Available on Cardiology shared drive under CARDIOLOGY GUIDELINES. Please read as soon as possible.

Clinical Adverse Events (CAE)
If a mistake is made by you, or someone working with you, then you must immediately attempt to correct the error with patient safety being your prime concern. You must then inform your consultant and fill in a Clinical Adverse Event Reporting Form. This form will be treated in strict confidence, and is particularly important because it triggers an investigation into the circumstances leading to the error. The aim of this investigation is not to apportion blame, but instead to find out what changes in the system are needed to prevent the error recurring. All CAEs are reviewed by the Lead Clinician, General Manager and Matron, and selected cases will be discussed at the QIPS Meeting.

Audit and Clinical Governance
A Quality Improvement & Patient Safety (QIPS) meeting is held on the first Friday afternoon of every month from 2-4 pm, and a mortality meeting on the third Friday. SPRs are expected to attend unless involved in urgent clinical commitments.

Active participation in clinical audit is a requirement for your training. Each trainee is invited to choose a topic and discuss with the supervising consultant early in the attachment so that the project can be formulated properly and support resources requested. You are expected to formally present the results of your audit before the end of your attachment.

Note keeping
Good quality note keeping is essential. Every entry in the patient’s notes must include the following information:
- Date
- Time
- Signature
- Doctor’s name (printed)

All sheets of paper in the patient’s notes should be labelled with the patient’s name and unit number (or the patient’s sticker). All ward rounds and plans for care should be recorded, as should all invasive procedures.

Speaking to relatives
When talking to relatives it is extremely important to take a nurse with you. This is for several reasons:
- The nurse looking after the patient often knows the patient’s relatives better than the doctors.
- The nurse needs to know exactly what has been said to the relatives and will therefore be in a position to explain issues brought up in the discussion at a later date.
- The nurse is able to act as witness for any discussion if a relative decides to make a complaint.
All aspects of discussion with relatives should be documented in the communication sheet in the patient’s notes. It is important to always be open and honest when talking to patient’s relatives.

**Bereavement**

When a patient dies, the time of death and the examination you made must be documented in the notes. The cardiology consultant should be informed of the patient’s death immediately. If you are filling in the death certificate then please enter the causes of death in the notes.

The coroner should be informed if:
- The cause of death is unknown.
- Death occurred during an operation or before recovery from an anaesthetic.
- The relatives of the deceased have made, or are planning to make, a complaint.
- The death was violent, unnatural, suspicious or may be due to suicide.
- The death may be due to an accident or neglect by others.
- Death may be due to an industrial/employment related disease.
- Death occurred during or shortly after detention in police or prison custody.

If in any doubt, inform the coroner and record your conversations with the coroner in the notes. If you need advice, discuss with the Cardiology Consultant on call. If the cause of death needs further clarification and the coroner does not intend performing a post-mortem, then the cardiology team may approach the family and request a hospital post-mortem. Consent forms for this are kept in the bereavement office.

Death certificates are normally completed in the Bereavement Office (East Wing) either on the day of the patient’s death or the morning after death. Please be as prompt as possible completing death certificates and cremation forms to limit the family’s distress in a very difficult time.

**IT**

Please note that you must not log in on a PC and leave it unattended. This is a breach of patient confidentiality and could result in disciplinary action. Either log off or lock the computer (Ctrl-Alt-Delete followed by Return).
PART FIVE – SPR TRAINING/WORKING CONDITIONS

SpR Working Hours
The rota is designed to be compliant with a 48 hour working week. Specific steps have been taken to reduce night time calls and reduce time seeing referrals in the evening. These include the Registrar of the Day system and the direction of routine queries to CCU nurses after 10 pm. The on call registrar will relieve you in the catheter lab at approximately 5-5.30pm. **It is important that you then go home unless there is an emergency that no one else can deal with.**

Specialty Competencies
Each SpR will have a nominated supervisor for the year. Please regard this person as your mentor who will be prepared to discuss aspects of your training or career at any time. You should have formal meeting with your supervisor on at least three occasions during the year (beginning, middle, end).

Your Cardiology competencies need to be continuously assessed during your time at UHCW. It is your responsibility to arrange work-based assessments with the consultants, and they should not all be left to the end of the attachment when many people are on annual leave. The consultants will not sign off retrospective work based assessments.

There will be an ARCP assessment in April. In preparation for this an in-house appraisal will be conducted by your supervisor. This will include a 360° appraisal to take into account aspects of your professional performance such as team working, attitude to patients, availability and approachability.

The timetables provided have been carefully designed, and take into account information about training that you require provided to us by the regional training co-ordinator. Any problems with your training programme should be brought to the attention of Dr Glennon as soon as possible.

The department is committed to allowing you to attend SpR training days whenever possible.

Annual Leave
All registrars are entitled to 27 days annual leave per year, unless they are paid on point three or above in which case they are entitled to 32 days per year. Please note annual leave can only be granted with at least six weeks notice. No more than three registrars are to be away at any one time – the secretaries have access to a Microsoft Outlook leave planning calendar on a shared drive so that you can avoid a clash. It is a good idea to book your leave with as much notice as possible and try to avoid the August rush when coming to the end of your rotation. We cannot pay for leave not taken.

Annual leave request forms are available from the secretaries. These are signed by Dr Glennon, countersigned by the General Manager, and the date entered on the Outlook calendar. **Please note that it is not sufficient to date your application six weeks in advance – the countersignature must be dated six weeks in advance to allow for cancellation of clinics.** You therefore need to allow reasonable time for this to be done. Any leave taken without countersignature and entry on the Outlook Calendar will be regarded as unauthorised absence without pay and may result in disciplinary action.
You are strongly discouraged from taking annual leave during the week on call. This is not only for the benefit of the service, but also for the benefit of your training since this is when you will get the most intensive exposure to acute cardiology.

**Study Leave**
Study leave request forms are also available from the secretaries - the same considerations apply as outlined above for annual leave. You are entitled to up to 30 days study leave each year (this includes SpR training days) and a travel/expenses allowance of up to £500 (reclaimable from Postgrad Office – contact Maureen Fern on 28797 for further details). Annual/Study leave to be covered by Clinical Fellows in the first instance, or other SpRs if necessary. All but one SpR (on a rotating basis) will be released to attend specialty training days.

**Sick Leave**
In the event of illness please telephone Janet Johnston (02476 965669) immediately. Do not email as this may not be picked up. Illness of more than 5 days will require a doctor’s note. You may be invited to take part in a “return to work” interview.

**Resuscitation Assessment**
Please contact Catherine Baldock, Resuscitation Training Officer, for your update.

**Research**
You are expected to produce at least one abstract for a national and/or international meeting during your time at University Hospital. This is an important part of your training and will improve your CV. You will be encouraged and supported in achieving this, but the drive and initiative must come from you. Priority for attending meetings will be given to SpRs who are presenting research abstracts.

The department takes part in a number of multicentre trials, and you will from time to time be asked to help recruit patients. This should not take a lot of time or distract from your clinical work/training.

**Student & Postgraduate Teaching**
Cardiology tutorials for medical students are held at 9 am every Tuesday in the large Cardiology seminar room. A rota of registrars together with allocated topics will be circulated by the senior registrar in charge of admin. If you cannot attend it is your responsibility to swap with a colleague. Please handout feedback forms (available from and to be returned to Dr Glennon’s secretary).

Formal and informal medical student teaching is an important responsibility for all registrars. SpRs with a particular interest in education are encouraged to develop this, and there are opportunities for postgraduate qualifications if desired.

You may be asked to help with a weekly SHO journal club, and bedside teaching of SHOs in preparation for MRCP is always well received.
Occupational Health

Detailed information is available on extension 25420, or on the Hospital Intranet: http://webapps/intranet/departments/occupational_health/default.asp

Bullying and Harassment

Employees at work are expected to be able to enjoy a working environment in which the dignity of individuals is respected. Harassment and bullying at work in any form is wholly unacceptable. The Trust Policy “Dignity at Work” is available the intranet: http://webapps/intranet/trust_information/policies_procedures/pdf_policies/sixteen.doc

Whistleblowing

It is the duty of all NHS workers to report bad practice or any mistreatment of patients receiving care from the health service at the earliest opportunity. The Trust, in line with all NHS organisations, is pledged to support staff when raising concerns by ensuring their concerns are fully investigated and that there is someone independent, outside of their team, to speak to; staff have a legal right to raise concerns about safety, malpractice or other wrong doing without suffering any detriment.

Please speak to your supervising consultant or the Training Programme Director in the first instance. Issues of patient safety may also be raised with the College Tutor at UHCW (Dr Ed Simmonds), or with the West Midlands Cardiology Training Programme Chair (Dr Grant Heatlie).
LIST OF ATTACHMENTS
Cathlab timetables
Cathlab Team Emergency Call Procedure
Cardiogenic shock pathway
Pathway for Cardiology Patients Requiring ITU
Cathlab data entry guide
Bleep system
Instructions for Vivid7 echo machines
Instructions for Vividi echo machines

SpR timetable
Consultant on call for week rota
Registrar out of hours rota
RoD Roles & Responsibilities
Reg on call our of hours Roles & Responsibilities
Ward 10 Reg Roles & Responsibilities
Cardiology patients on ITU – a guide for Cardiology registrars
# CATHLAB AND REGISTRAR OF THE DAY TIMETABLES

## CATH LAB 1 TIMETABLE

<table>
<thead>
<tr>
<th>ALL DAY</th>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
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<td>HS</td>
<td>GEH</td>
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## CATH LAB 2 TIMETABLE

<table>
<thead>
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<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
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<tr>
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<td>TR</td>
<td>PB</td>
<td>GEH</td>
<td></td>
<td>ACUTE (GEH Covering)</td>
</tr>
</tbody>
</table>

| PM       | ACUTE  | TR      | ACUTE     | ACUTE    | ACUTE           |

*alternate weeks

DA - Dr Adamson  
MB - Dr Been  
PEG - Dr Glennon  
TR - Dr Rajathurai  
HS - Dr Singh  
GEH - George Eliot Hospital visiting consultants

Afternoon lists to finish by 5 pm - last PCI patient on table 4.15pm, last diagnostic patient on table 4.30 pm.
Cathlab Team Emergency Call Procedure

All on call staff to be provided with a radio pager, which will be kept in the Cardiac Catheter Suite – this should be returned as soon as possible. Do not keep hold of these pagers as there will not be enough to go round.

Switchboard will be informed by Emergency Department staff or Cardiology SpR that they need to call in the Cardiac Catheter Suite team. The Emergency Department staff/Cardiology SpR will use the term “STEMI ALERT”

Switchboard will activate the Cardiac Catheter Team’s pagers using the Group Number 07699 625505

All members of the Cardiac Catheter Suite team will ring switchboard following alert from Radio pager, to inform switchboard that they have received the alert, and are on their way.

Team to arrive within 30 minutes of the alert.

First member of the team arriving to phone switchboard and check that all other team members have confirmed receiving the alert.

NB The same process will be used for calling the team in for temporary pacing wire – in these circumstances the registrar needs to let the consultant know that he/she is not required.
CARDIOGENIC SHOCK in ACS patient (STEMI / NSTEMI)

**RESUSCITATION**
- Cardiac team in attendance?
  - NO
  - Manage appropriately
  - Decision to PCI?
    - NO - Manage appropriately
    - YES - Transfer to Cath Lab
      - Prep both groins RFA and RFV access
      - IABP via LFA recommended
      - ANGIO & PCI As appropriate
      - Haemodynamic / ventilatory stability
        - CCU with handover
      - Haemodynamic / ventilatory instability
        - Handover to both CICU and general ITU consultant

- Fluid Bolus
  - Blood gases (radial ideally)
  - ASA 300mg*
  - Clopidogrel 600mg*
  - IV antiemetic (Ondansetron 8mg)
  - Anaesthetic support BLEEP 2813
  - (?)ventilatory support

- ED staff to manage
- Cath lab nurse to draw up adrenaline (3mg diluted up to 50mls with 5% dextrose, start at 5mls/hr) and inform CTCC and check bed availability – if no IABP, general ITU.
- REOPRO recommended
- Full monitoring
- Resus Drugs
- Anaesthetic staff

*If unable to take po please give antiplatelets via NG or PO ASAP
If not echoed in lab consider doing ASAP on ward
Pathway of Transfer of Cardiology Patients to an Intensive Care Setting

Cardiology patients in any ITU setting should have the benefit of specialised Consultant Intensivist care.

All patients should go to General ITU by default, but patients with an intra-aortic balloon pump (IABP) in situ need to be nursed on Cardiothoracic ITU. At the end of the procedure in the cath lab, the cathlab team will insert a quadruple lumen central venous line in the groin, or a neck line will be inserted by the Anaesthetic team.

A medical member of the Anaesthetic and Cardiology teams should both remain with the patient until transfer to General or Cardiothoracic ITU. When handing over to the staff who will be responsible for the continuing monitoring of the patient, each of these doctors should document a clear plan in the notes, and ensure that all necessary treatments (including sedation, ionotropes and ventilatory settings) are written up.

Arrangements for Patients on CITU

- Patients remain under the care of the Cardiologist but with Consultant Intensivist input from General ITU.

- All Cardiology patients on ITU will have daily review by a Cardiology Consultant (accompanied by the Ward 10 Registrar), and daily review by a Consultant Intensivist who will document recommendations in the notes.

- Significant differences of clinical opinion should be resolved by consultant to consultant discussion, either in person or by phone.

- Day to day care (lines, requesting tests, drug charts etc) will be undertaken by the Cardiology Registrar, with the support of the Cardiothoracic Registrar if required.

- The Cardiology Registrar will remain resident overnight while the patient is on IABP or unstable.

- The Cardiology Registrar on call overnight will hand over to the Ward 10 Registrar who will write the patients name on the CCU/Ward 10 boards and ensure handover in turn to the Cardiology Registrar on call each night.

The pathway for seeking ITU admission is as follows:
Cardiology Patient Requiring ITU care

IABP Required?

Yes

Cathlab Nurse to Contact Nurse Coordinator of CITU

Bed available?

Yes

Cardiology Team Inform General ITU Consultant on call

Transfer to CITU as soon as bed available

No

Refer to General ITU - Contact Consultant Intensivist via switch

General ITU bed available?

No

Transfer to General ITU

Yes

Nurse Coordinator to contact cardiothoracic Consultant on call

NB Anaesthetist and Cardiology Reg should remain with patient to hand over to ITU team on transfer.

Cardiology team (Registrar on duty for W10 for that week) to do joint ward round with Cardiothoracic ITU team at 8 am every day.
Cathlab Data Entry

Starting Out

The Centricity Workstation angio viewing software should already be open.

Open Centricity Xi (CARDDAS) and log on

Enter patient number (using capitals), then press return – this opens the patient details page with a list of studies.

Double click on the correct study (CL for cathlab). This opens the initial examination page and automatically launches the angiographic pictures in the Centricity Workstation angio viewing software.

Exporting Images for Report

Review the images and export the images you want to appear in the report. Do this by:

• Playing video run
• Pause at relevant point
• Click on "Export">"Export Image"
• Repeat process for next image

NB Do not use stills created by radiographers as these take up a lot more memory and are slow to print.

Completing Report in CARDDAS

Single click on “Exam Findings” in the panel on the right hand side.
(NB The stethoscope icon navigates you back to the previous page, the patient icon to the initial patient details page.)

Enter correct “Reported by” and “Consultant” drop down fields.

Enter your report under the following headings. The drop down lists can be used for most things, but an additional free text box is available if needed:

1 Indication – the presenting clinical diagnosis together with brief relevant details of current and previous history
2 Procedure – what was done. The LV and coronary anatomical findings, together with any specific PCI details, should be entered in the free text box.
3 Post procedural care – information for the nurses on the ward
4 Plan – information for the doctors (including GP info to go into the discharge summary)
5 Final Diagnosis – please enter the clinical and anatomical diagnosis eg stable angina, 3 vessel coronary artery disease, good LV function.

Single click save icon (top left) – this causes the report icon to appear beside it.
**Report and Preliminary Discharge Summary**

Single click report icon that appears beside save icon.

A new window opens (may be on the left hand screen) – generate report by single click on report icon just to right of drop down menu.

Carefully check report and amend if necessary.

Insert exported images as follows:

1. Click at end of report to insert cursor
2. Click on "Insert">“Key Image/Waveform Archive”
3. Click and drag relevant images into 4X4 box
4. Click “Insert”

NB Try to avoid putting more than 2 pictures in the report as otherwise printing is slow.

Click on the “File” drop down menu top left of report and select “Confirm Report”. This will:
1. Export in RTF format”(this will go to secretary for d/c summary)
2. CVweb export (this will send to intranet)

You can also choose to print at this stage, but this is not necessary.

**Finishing Off**

Close down the report document (X top right), then click on the patient icon in the report window to return to the front page.

Click on the binoculars to clear the patient detail ready for the next patient.
Bleep system

SWITCHBOARD AND EMERGENCY CALLS

Switchboard - Walsgrave  
Switchboard Manager – Mrs Yvonne Pickering  
Emergency Calls

2222 IS THE NUMBER FOR ALL EMERGENCIES.  
DO NOT HESITATE TO USE THIS NUMBER IN SUCH A SITUATION.  
BY DIALLING 0 FOR THE OPERATOR IN AN EMERGENCY, YOU ARE  
WASTING VALUABLE TIME WHICH IS VITAL IN ANY ACUTE SITUATION.

PRIVATE CALLS
National and international direct dial telephones are available to all medical staff. All  
calls are billed on a monthly basis. To obtain this service, please complete the  
appropriate form available from Switchboard which is located on the Ground Floor of  
the General Hospital to the left of Lift Number 1.

BLEEPS
Bleeps and replacement batteries are issued from Switchboard

To dial a bleep - Walsgrave Hospital and Coventry & Warwickshire Hospital

1. Dial 66.
2. Wait for acceptance tone.
3. Dial bleep number.
4. Dial your extension number.
5. Press # key.
7. Replace handset and wait for return call.

Remember, when your bleep is called Read the Message. Do not call the operator for  
messages.

WARNING: DO NOT REMOVE THE BATTERIES FROM YOUR BLEEP,  
THIS COULD CAUSE DAMAGE INVOLVING REPAIRS OF MORE THAN  
£100 !!

A FULL LIST OF INTERNAL PHONE NUMBERS CAN BE FOUND ON THE  
TRUST INTRANET PHONE BOOK.
USE OF THE VIVID7 ECHO MACHINE

STARTING THE EXAMINATION:

1. Press ‘new exam’. Enter your login ID (and password if stored).
2. Click onto ‘query’. This will load the scheduled patients.
3. Find the patient you are about to scan on the list by scrolling through or entering the first letter of their surname.
4. Click onto the patients name to highlight it on the screen. Check the details entered correspond to your request.
5. Press the ‘select patient’ button on the soft keys.
6. The patient’s details should transfer to the monitor.
7. Before beginning to scan go to archive and exam list to enter/free type requesting consultant, ward or OP and reason for referral.
8. Then press 2D to start scanning.

AT THE END OF THE EXAMINATION:

1. Go to the review screen. Look through the images that you have saved. Delete any that are poor quality or repeated. Then press save on the soft keys to save the images to the image vault.
2. To write your report:
   - Press report button
   - Put cursor in “report” box
   - Enter free text or press insert button to enter prepared text phrases
   - Press insert button again to return to template
   - Put cursor in “summary” and repeat process
   - Type your name at the end of the report
   - You do not need to insert still images in your report.
3. Press print to print out a hard copy.
4. Press store to save the report and images to CV-Web.
5. Press archive, then exam list. Ensure the current study is highlighted. Press more and then excel export. This exports the study to Centricity/Carddas creating an examination.
6. It is particularly important to finish by pressing end exam.
USING THE VIVIDI (Portable echo machines)
You do not need to enter Centricity Data or pull up a worklist for Vividi.

To Start:
- Power on
- Press Patient button
- Enter username and password
- Select New Patient from screen
- Enter hospital number, date of birth, forename and surname – please take care to do this accurately otherwise your data may be lost.
- Press Create Patient

Carry out your echo study as usual

To Review and Report:
- Press Review to see images, then Save (this saves the images on the hard disc)
- Press Report button (top row of keyboard)
- Type your report (click more then insert text for standard phrases. Click insert text again to come back to the report template). Remember to type your name at the end of the report.
- Print
- Store (this stores the report on the hard disc)
- Press Patient button then End Exam
- You can then close the lid of the machine which puts it into hibernate mode (but crucial that you end exam first otherwise data may be lost).

To Download Your Study:
Please download your study (or studies) to the central archive after you have used the machine – this is important because it makes your report and the images immediately available on CRRS at any computer in the Trust.
- Plug the VIVIDI into an allocated data-point using the cable on the machine. These are located:
  a. In the catheter suite review room,
  b. In the first floor echo/TOE/tilt room (door code C3142Y)
  c. In the echo review room, clinic 7.
- Press Patient button then click on Patient List.
- The following prompt should appear: “You have x patients that should be transferred to the central archive….” – click Yes
- This opens the Import/Export list of patients on the hard disc.
- Press the Select All button at the bottom of the screen.
- Then Copy – it may take a minute or two for the images to be transferred from the machine to the archive.
- Click Done
- Then power down, uplug the cable and return the machine to its usual place.