Academic Department of Critical Care
Queen Alexandra Hospital

Dr's Induction handbook - Portsmouth ICU

Edited by Drs Helen Peet, Matt Williams & Steve Mathieu – v9.4 June 2016

Portsmouth Hospitals NHS
NHS Trust

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Introduction

Welcome

Department of Critical Care
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Dear colleague,

Welcome to the Department of Critical Care (DCCQ). You will find that working here involves a significant liaison with the Fellows/Registrars and, in particular, the duty consultant. We are very keen to ensure that there is a lot of “hands on” consultant involvement so that the patients receive optimum care and you obtain optimum experience and education under close supervision. The consultants will want to hear of any problems and to help solve such problems and, indeed, to be present when the going gets tough in terms of difficult clinical patients and when the volume of work is excessive.

Many of you will be coming to Critical Care with little or no previous such experience and you will find that help and advice will be forthcoming from your colleagues, be the Fellows/Registrars, consultants, nursing, physiotherapy and pharmacy staff. The nursing staff are invaluable to the Department; many of them are very experienced and knowledgeable. You may well find that the nursing staff give you some useful hints about what we usually do under particular circumstances. If you are not absolutely sure what is the right thing to do at any point in time please ask a Registrar or consultant.

We very much hope that you will enjoy your stay in the Department of Critical Care and we hope that we will also learn from you. During your stay and at the end of your time here we would be grateful for some feedback about what you found useful and what useful improvements you feel could be made.

The Critical Care Consultants, QAH

Meet the team

CONSULTANTS:

Dr Richard Clinton	FICE mentor, Clinical Scientist Supervisor
Dr Jonathon Coates	Lung Ultrasound, ACCP development, Audit lead
Dr Phil Young	Consultant Appraiser
Dr John Knighton	Chief of service CHAT
Dr Kayode Adeniji	Respiratory Lead, Outreach link consultant, Follow Up
Dr Sara Blakeley	Equipment & renal Lead, Surgical High Care link, Outreach, Follow up
Dr Gordon Craig	LNC rep, FFICM examiner.
Dr Steve Mathieu	Clinical Director, ICM Faculty Tutor, IT lead
Dr James McNicholas	Mortality and Morbidity Lead
Dr Peter McQuillan	Deputy Governance lead, LNC rep
Dr Helen Peet	ICM Faculty Tutor, Paediatric Lead, FICE mentor, Medical Lead for ALERT, Transfer Lead
Dr David Pogson	Dept & Specialty Group Research Lead for CRN Wessex MRCS examiner
Dr Paul Sadler	Director of Medical Education. ATLS Director
Dr Nick Tarmey	Governance Lead
Dr Matt Williams	Regional Advisor ICM, Simulation director, APLS director, ACCP development lead

SENIOR NURSES:

Caroline Cawkill	Matron / Operational Manager
Sue Andrews	Transfer team
Sue Catlin	Equipment lead
Carol Gain	Staffing; Military link
Gill Holebrook	Education
Sheena Keates	IT Project Manager
Sara Lilly	Education
Jayne Lindsey	Infection Control
Sue Moorse	Outreach Lead Nurse
Richard Moses	Neuro ICU lead
Sandra Taylor	Follow Up Clinic
Jim Chamberlain	Transfer and e-rostering

AHPs:

Helen McHale	Pharmacy
Matthew Quint	Physiotherapy Clinical Specialist
Susie Calvert	Physiotherapy
Helen McManus	Specialist Nurse Organ Donation (SNOD)
Mick Willcock	Specialist Nurse Organ Donation (SNOD)

SECRETARIES/CLERICAL:

Hannah Bagshaw
Todd Pinhorne

ICNARC:

Allison Hyson

IT:

Michael Lympany
Alan Butler

Critical Care complex E5

The Department of Critical Care (DCC) provides all Level 2 (HDU) and Level 3 (ICU) care within the Trust. It operates in a new, purpose designed and state of the art 24 bed facility. We hope you are similarly inspired by the new department. We operate as two units (East and West side) with a critical care consultant covering each side. We run up to 19 level 3 equivalent beds. The complex has excellent facilities including seminar/teaching rooms, communication rooms, library, well equipped staff room, 2 on call rooms and a doctors' quiet room with computers. You will be shown around as part of an induction.

We admit around 1400 patients each year and our ICNARC (Intensive Care National Audit and Research Centre) data consistently shows that our unit outcome is excellent when compared with other units in the UK. We are particularly proud of our reputation for providing education and support for our doctors and nurses.

Staffing profile

1. Consultant tier. 24 hour dedicated cover. All weeks are covered by two Consultants (on each side of the unit), with a single consultant on at night
2. Middle grade. 4 on duty over a 24 hour period. Full shift rota as follows:

   Day (D) = 08:30-18:00
   Long day (LD) = 08:30 – 21:30
   Twilight (T) = 13:00 – 22:30
   Night (N) = 20:30 – 09:30

   From Intensive Care Medicine training programme or rotating from Anaesthetics Dept. May be separately appointed Fellow post.
3. Junior Specialty trainee tier (termed 'SHO' from now on for simplicity) comprising 12-13 trainees ranging from FY2 through to CT2 across various specialties. Rota can be found on the departmental intranet site under 'doctors rota' or on shared G-drive of your PHT intranet log-in All shifts are 08:30 – 21:30 or 20:30 – 09:30
4. Acute Medicine specialty registrar. Often senior within own specialty but usually no previous ICU experience. Recently the AM Registrars have been placed on the middle grade rota. Whilst these registrars often have no airway experience they come with a wealth of medical knowledge that is a huge asset.
5. FY1 doctors. Mon-Friday. Will be allocated patients will also have an SHO overseeing them for any immediate questions. Monday to Friday shifts are 08:30 – 18:00 (D) for 2 days of the week and 08:30 – 21:30 (LD) on the other 2 days. The individual can decide these but where there are 2 FY1's working during a week, we

expect you to arrange shifts between you so there is always one working a LD Monday to Thursday. On Friday you will attend the academic half day teaching programme (11:00 – 14:30)

6. We have medical students during university term times.
7. There are over 120 nursing staff.
8. We also have a pharmacist, dedicated physiotherapy service, research and follow up team. Allied to our service is Outreach, which is Critical Care nurse led.

To bleep in PHT 88 *bleep no* 7700 *ext.no*. (e.g. 88 *1987* 7700 *6385)*

The Shift System

We currently run a Band 1A (EWTD and New Deal compliant) shift system with a total of 11/12 'SHOs' on 13 hour shifts. 2-3 SHOs are on during the day (0830-2130), and 2 at night (2030-0930). On average, there are 12-14 shifts per month in blocks of 3-5 at a time, with two thirds day to night shifts. There are also three registrars on during the day, two at night and a consultant is available at all times. The hours are intermittently re-monitored. The rota is designed to give optimal continuity/educational value and maintain a reasonable work/life balance. Annual and study leave is already included in what is a relatively fixed system.

The rota also requires attendance at our Friday in-house half-day academic teaching programme. **Essential** swaps are allowed but no swaps should occur in the first two weeks of the job or at the very end of the job. The "rota rules" set out below are for everyone's benefit; please comply with them to ensure the smooth running of the rota.

The rota has been designed to ensure you achieve a good work/life balance while providing quality education and training. The structure of the department's day will enable you to finish your shift on time and take your required breaks (2 breaks of 30 minutes for every 13 hours shift worked). Please do try to prioritise/communicate your work with each other, the duty Consultants and registrars, and with the senior nurses such that you achieve breaks. There may be an emergency when you are unable to take a break or leave on time, but if this is a regular occurrence then you must contact Dr Helen Peet or Dr Steve Mathieu (FICM Tutors), or Medical Workforce.

Rota Rules

1. All swaps to be notified to rota coordinator (Dr K Adeniji) with reciprocal swap date documented. No “owing” of shifts is possible. The rota can be adjusted electronically in real time, this must be coupled with an E-mail to Dr Adeniji. We will show you how to do this during your induction.
2. Not more than 6 day shifts or 6 night shifts are to be worked consecutively unless exceptional circumstances.
3. Very short breaks between two intensive blocks of work are not acceptable
4. Multiple short periods of work (e.g. several 2 day blocks) are not acceptable
5. It is not acceptable to swap shifts to have a long period (e.g. a month) off and then work excessively hard another month
6. The rota is inclusive of prospective cover for annual and study leave, therefore swaps must be arranged for courses, exams, leave etc.
7. The rota will be monitored during your time on the Unit. It is a contractual obligation to complete your monitoring cards to ensure the rota remains compliant
8. The teaching (T = 1100-1430) on Fridays is part of your contracted hours. Attendance is monitored.

What to do if you are sick

Should you become ill and be unable to work your forthcoming shifts, please let us know as soon as possible. Please ring the admin staff during working hours or duty Consultant or Nurse-in-charge if at other times. You may be asked to fill in for an absent colleague at short notice. Depending on hours/shifts, you may be paid extra for this.

The reason for sick leave and anticipated return to duty must be communicated. Please keep the Dept posted of progress. As per Trust policy, you will be expected to complete a return-to-work interview, which will be documented in your E-portfolio as per Deanery guidelines.

General Housekeeping

Conduct on the ICU

Whilst on ICU it is of course expected that you will act in a professional manner at all times under the principles of the GMC guidance for good medical practice http://www.gmc-uk.org/guidance/good_medical_practice.asp
There are some specific areas where your cooperation is expected:

1. Professional dress code. Staff are not expected to wear scrubs unless they want to. Scrubs are, however, comfortable and practical. There is a supply in the changing rooms with a system for their laundry; if deciding to wear scrubs, please change on site. Lockers are also now provided within the new Dept. If not wearing scrubs, DCCQ staff are expected to wear appropriately professional clothing whilst on site.
2. We expect you to arrive at handover promptly and ready to work (i.e. not changing to scrubs afterwards)
3. You should stay until handover is completed regardless of whether you present your patients first or not. This is an educational opportunity and importantly you should be aware of all of the patients on the unit. There may be circumstances where there are outstanding tasks to complete which otherwise would delay you leaving at the end if your shift. Please discuss with the duty consultant before handover and we will support this.
4. No mobile phones in the clinical areas other than duty Consultants. On occasions it may be appropriate to use your mobile devices to refer to medical apps in the clinical area. Whilst this use may be appropriate, we would ask you all to ensure that you do this discretely and not for personal text/telephone communications.
5. Drinks – disposable cups only in the clinical areas
6. Infection control is a priority. Careful attention to hand hygiene should be taken. This includes hand washing and alcohol rubbing the hands between every patient contact and when moving between clinical areas. Lines must be inserted with strict asepsis and in accordance with the Matching Michigan guidance http://www.nrls.npsa.nhs.uk/matchingmichigan/
7. Be cogniscent of noise and confidentiality concerns
8. Everyone can answer the phones!
9. Patients need rest and nursing/physiotherapy interventions – talk to the bedside nurse to time your review / interventions
10. Note keeping and documentation of decision making (see below)

All in a day's work – the 'usual' daily routine

0830 **Handover:** training room (maximum 1 hr!)
Consultants, day and night team and nurse in charge attend

0930 '**SHO's' divide workload**

We expect you to divide patients between you.

Remember when doing this:
1) Think about workload and training opportunities
2) All patients should have an "SHO" assigned to them, even if you are overseeing an FY1 doctor.
3) Enter your name onto CIS in the "doctor tab" to update BRAD

If a patient needs to be discussed with a coroner and/or a death certificate needs to be issued it should be decided at this stage who is going to do this. There is usually only one or two people who are the most appropriate to do this. Please step up and complete in a timely fashion in the morning.

The SpRs and Consultants will oversee all the patients and referrals and admissions to the unit

Immediately after handover, Touch base with each bedside nurse to inform them of handover ward-round plans and complete essential tasks as discussed in handover

10:25 Safety brief on East Side

1030-1230 "Business" ward round on each side of the unit.

Remainder of the shift – to consider

Organisation and prioritisation:

- Think about arranging investigations as soon as possible
- Work together – if one person needs to go to the echo or radiology department then offer to take other forms with you. Ensure you understand (and if not ask) important details as to why the investigations are being requested.
- Review patients /results/x-rays and decide ongoing management with fellow/consultant. Contemporaneous and thorough note keeping and documentation are essential
- If a patient is not examined on a ward round, this must be done and documented in the doctors progress note
- A doctors note should be written for every patient during each shift
- Don't forget lunch and breaks!

1630 Microbiologists do a ward round on Mondays, Wednesdays and Fridays. Please attend and document decisions for your patients

2030-2130 Night handover 'SHOs' with on-call Registrar +/- consultant in training room

Night SHO tasks

Review all patients: unwell and sleepers first
Contemporaneous notes: changes/hand over night goals
Complete & print out blood forms for next day
If no lines, will need venepuncture before handover
Write out CXR forms if required
Populate transfer summary for next day discharges
Ensure drug infusions, maintenance fluids (+ TPN/NG feed) are prescribed every night (default maintenance fluid is dextrose saline +/- KCL)
Take responsibility for bereavement documentation and coroner's officer contact

TARGETS OF CARE *Daily check for all patients on DCCQ*

1. What is the blood pressure and 24 hour fluid balance goal?
2. Is there adequate nutrition?
3. Can we deescalate or stop antibiotics?
4. Can we remove any lines (central and peripheral)?
5. Is DVT prophylaxis being administered?
6. Can we stop gastric ulcer prophylaxis?
7. Have we set a target sedation level?
8. Have we reviewed the drug chart?
9. Have we reviewed and documented any X-rays?
10. Have we considered eligibility for research trials e.g.VANISH, Calories?
11. Have we competed any audit forms e.g. VAP, liver?
12. Is the ICNARC data completed (Fellow or SpR)?

Framework for presenting patients

Name and age of patient No of days on ICU Reason for admission

Main problems: simple list e.g. pneumonia, septic shock, acute kidney injury

Relevant PMH including allergies

Clinical Examination

CNS
Conscious level GCS/AVPU
Sedation and RASS score
Pupillary reflex (important in head injured patients)

RS:
Is the patient self-ventilating/ requiring NIV or mechanical ventilation?
What are the settings? (Mode, FiO2 and PEEP if MV).
Arterial blood gases – trends are important here rather than specific numbers. Providing the pH is normal, much of the other respiratory gases are simply us manipulating figures on MV
Recent CXR findings

CVS
MAP
What support is being given to achieve this? (Inotropes and vasopressors; IABP)
Any issues with arrhythmias – are these new? (review admission ECG); how are we treating this?
What is the troponin if we are concerned about myocardial ischaemia

Renal
Urine out put is per hr and 24 hr balance.
Today's urea and creatinine (the trend here is so important)
? RRT– in which case what is the indication and what is the manipulated fluid balance in 24 hours
Electrolyte and acid/base status: pH, BE, Lactate, Chloride, Na+, K+

GI
Any surgical issues
Bowels last open
Nutrition – are they eating and drinking normally or receiving enteral (NG feed) or parenteral (central or PICC line) nutrition or both
If enteral – are they absorbing their feed? On prokinetics?
LFT's

Micro
Antibiotics and number of days; Previous antibiotics on this admission
Last cultures sent
Recent positive microbiology
WCC and CRP (again trends important here)
Lines – which and for how long? Any concerns (e.g. surrounding erythema)

Haem:
FBC, CS, any recent transfusions
Do they have an active G & S if due for surgery

Radiology Important radiological tests
Communication Important family or patient discussions
Research Any trials patient currently recruited or should be considered
Proposed plan for the day

Note keeping and documentation of decision-making

All notes and drug charts are electronic on DCCQ. We have found this has dramatically improved the legibility of our notes! We have had a computer information system (CIS) for over 10 years and as part of a continuous way of ensuring that we are providing the most up to date facilities and technology, we procured a new system in 2011. Despite this advancement, it is important to remember that the notes we generate are only as good as the person at the end of the keyboard typing away.

Please remember:

1) Notes should almost always be contemporaneous. If this is not possible because of other clinical priorities then a retrospective entry should be recorded with 'retrospective note' and details of timing of actual review/action

2) Write succinct but comprehensive notes.

3) Do not cut and paste from previous note entries

4) If you review a patient on the ward and admit them to the unit then a note on CIS **must** be recorded by that person. This is usually the registrar and the admission entry may be brief if notes have already been recorded in the ward based notes. The patient will be handed over to an SHO with details of management plans. The SHO will be responsible for initiating this plan (with the consultant) and ensuring further and more comprehensive notes (if only brief record by registrar because of other clinical commitments) are completed.

5) A registrar must complete the ICNARC admission note for **all** patients. It is the responsibility of the long day registrar and the night registrar to ensure that they are completed during their respective shifts.

6) Line insertion – all lines must be documented. The CIS system allows boxes to be checked for this and free text to provide standardised and complete data

7) Images – again ensure that these have been reviewed and then documented in the notes with indication and findings. If for confirmation of NGT, then ensure it is clearly documented that the NGT has been visualised in the stomach and that it is safe to use http://www.npsa.nhs.uk/corporate/news/reducing-the-harm-caused-by-misplaced-nasogastric-feeding-tubes-in-adults-children-and-infants/. Please ensure you have read the SOP for NGT and the 'watch out' poster (both available on intranet)

8) Microbiology – it is essential that microbiology ward rounds, antibiotic changes and the rationale for doing this are documented.

9) Any communications with other specialties or family must be recorded.

Remember notes are an important medico-legal document. We believe that our standard of care on DCCQ is exemplary. Our documentation must reflect this high quality.

Referrals and emergency calls to Critical Care

Most referrals are made direct to the unit by telephone (referral phone x5752). Please record all referrals, including telephone advice, in the referrals file (on the QUARTS forms), which is kept close to the phones on the central console in the unit. This allows us to keep abreast of potentially ill patients elsewhere and keeps a record of work outside the DCC itself.

Please ensure you inform the Nurse-in-charge and duty Consultant of any referrals or reviews so that capacity (bed/staffing) plans can be made.

You may, from time to time, be asked to review a patient on the wards and it may well be that the patient needs to be transferred to the Critical Care unit. ***We have a policy that no patient will be declined Critical Care without a consultant being involved in that decision.*** The default position is that all referrals (admissions, reviews or refusals) are discussed with the duty Consultant.

Cardio-respiratory Arrests

All cardio-respiratory arrests are logged in Portsmouth and audited. A form exists on all arrest trolleys and should be filled out by a senior doctor on the arrest team. This small task is frequently not done and our team should ensure it is completed (by someone) at the time of the event. *Arrests should also be entered on a QUARTS form and filed.*

There are 4 ***baton bleeps***, all linked to the arrest team:
1664, 1660 held by SHO
1987, 2003 held by SpR/Fellow – also on link for trauma calls

The Dept has developed “grab bags” of emergency intubation drugs that can be taken to emergent referrals / arrest calls. They are kept in the fridge within the pharmacy store. These *must not* be left on the wards and should be restocked when used. It is the responsibility of the medical team to check these are re-stocked. There are 2 portable end tidal CO2 monitors that should also be taken in the event of a crash call, this means that no patient

should be intubated without the provision of end tidal CO2 monitoring. These machines are expensive and should not be left on the ward.

Trauma Calls

There are triggers to make these calls (copies within the Emergency Dept). The team consist of ED SpR, surgical registrar and DCCQ SpR; the ED Consultant is also alerted. Other specialties have to be called as necessary.

Paediatric Calls

In the past most critically ill children were admitted to the DCC. The majority of this work is now undertaken by the regional PICU at Southampton. However, there is an agreement, supported by a DoH specialist review in 2003, that as a designated Major Acute General Hospital, PHT will continue to provide a supportive role to the PIC service including the provision of Level 2 paediatric care when appropriate. In addition, we maintain the ability to initiate and provide Level 3 paediatric care prior to transfer to PICU. To meet these requirements, we provide a consultant-led paediatric resuscitation and stabilisation service that supports both the Emergency Department at QAH and the Department of Paediatrics. Whenever the DCC becomes involved in the management of a critically ill child, it is always with the help and input of the consultant paediatricians. Currently the Department takes about 130 referrals a year and admits around 50 children a year who are not sent to the regional PICU. All paediatric admissions need to be discussed with PICU at Southampton

QUARTS forms

These forms are found in the QUARTS folders on each side of the unit. They are to be completed for are ALL referrals (including telephone advice, line insertion and cardiac arrests) in order to audit the unit's workload. Name, DOB, referrer, specialty consultant and time of referral should be noted. Referrals for admission to ICU **MUST** be discussed with the consultant on call. Remember to also inform the nurse in charge.

It is vital that all activity by our Dept is recorded on a QUARTS form. Any referrals should be written on one, and any interventions made recorded. The personnel and time off the unit is particularly helpful.

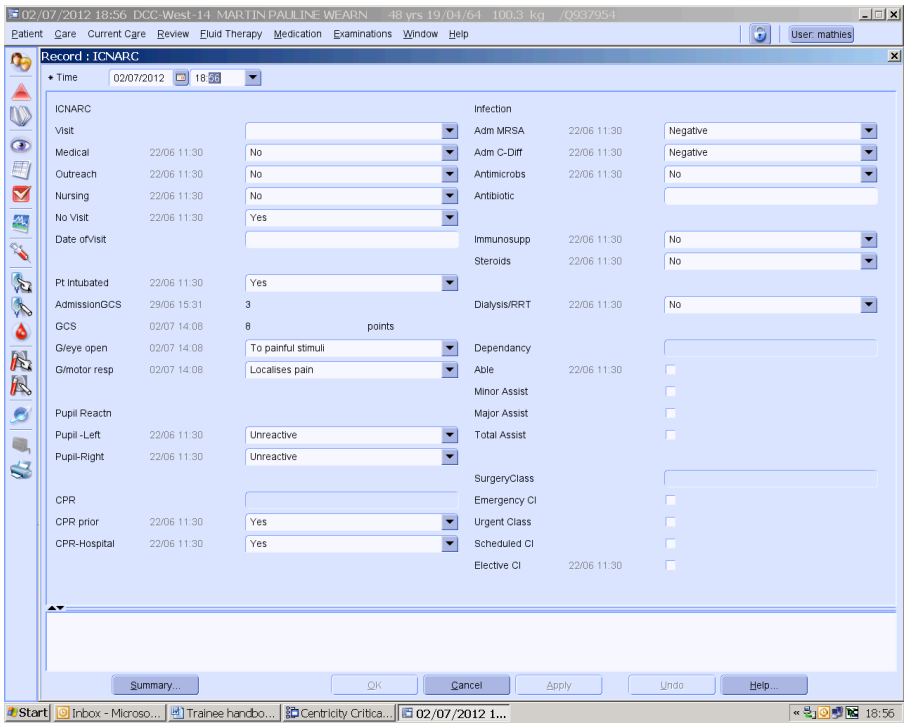
Admissions to ICU

We are a very busy unit and admit over 1400 patients each year to our ICU. The majority of these are emergency cases. You will be involved in managing a variety of both medical and surgical patients. Services in PHT which we are commonly involved with include: Cardiology (24/7 PCI), maxillofacial, bariatric, vascular, renal (PHT is a tertiary renal and transplant centre), hepatology, paediatrics as well as a wide range of general medical and surgical presentations.

All patients requiring admission to ICU must be discussed with the duty consultant

ICNARC data

DCCQ takes part in the ongoing audit and research with regard to intensive care admission as part of the ICNARC (Intensive Care National Audit and Research Centre) case mix programme. A vast amount of demographic and physiological data must be collected on all ICU admissions irrespective of length of stay`. Most of this data will be collected by the audit clerks. However, certain **essential data** must be collected and documented on the ICNARC data collection form on the Clinical Information System (CIS). **The data that will need to be completed by the fellow / SpR is shown here on the CIS.**

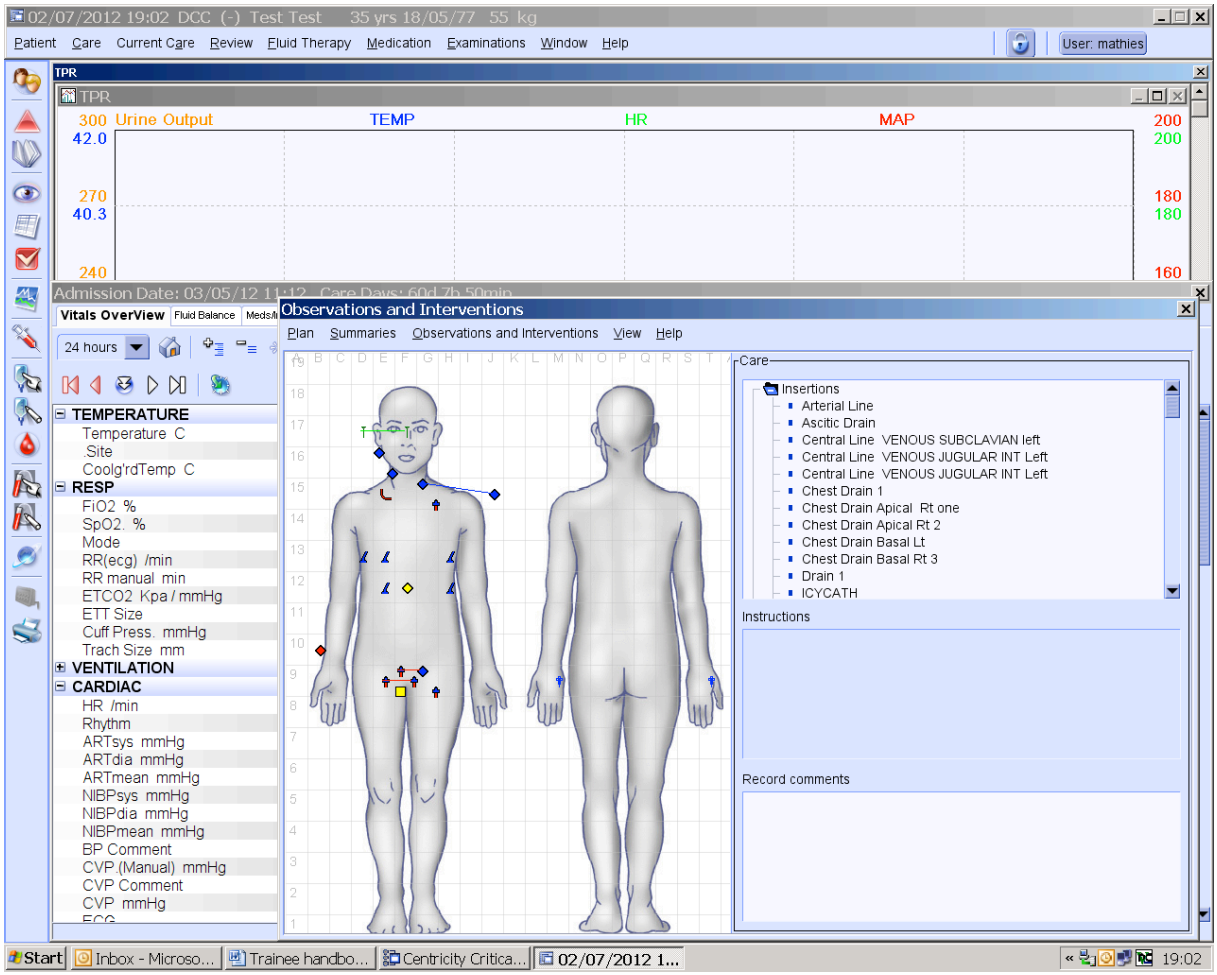


Any queries regarding the completion of the ICNARC form should be directed to the duty consultant.

The Clinical Information System (CIS)

GE Centricity Critical Care

The CIS was first introduced in May 2002. In 2011 we updated this to a system produced by GE (Centricity TM Critical Care). It allows us to be a paperless unit. All multidisciplinary notes, laboratory and blood gas results and physiological recordings are now all inputted directly onto the CIS. The CIS currently links to the bedside monitoring system, pumps, ventilators and the arterial blood gas analyser. All drugs, infusions and fluids are prescribed electronically. We also have an electronic pathology ordering and results service on the ICE and APEX system. You will receive induction training and a personal log in when you start with us. The training will provide you with basic navigational skills and an overview of the system and its capability; please be assured there is always guidance at hand.



Top tips with using CIS

We understand that navigating your way around a clinical information system can initially be daunting, feel more time consuming and ultimately frustrating! You will receive training on this during your induction and we have IT specialists (Sheena Keates, James Johnson, Mike Lymphany and Alan Butler) based in ICU specifically for training and advice. It will not take long and you will quickly get to grips with it and actually reviewing and documenting notes becomes significantly easier. Here are some general tips to help you along your way:

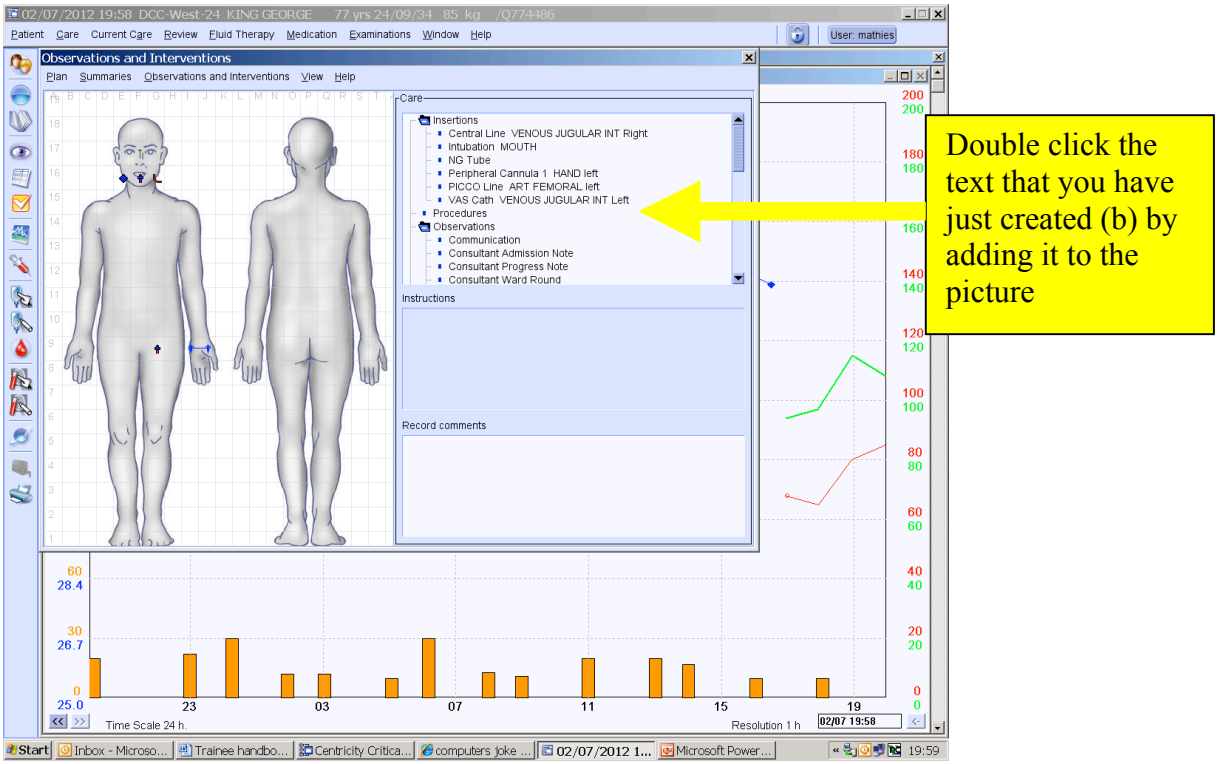
1. If you get lost, click the eye icon  for bringing up a list to write your notes or the care plus  icon for looking at the overall physiology (temperature, BP, heart rate etc). There are lots of menus at the top of this screen to look at more specific charts e.g. fluid balance, infusions, lab results (all the ABG's and lab results can be looked at here)

2. Make sure you write your notes in the correct sections. The main ones (and are accessed via the eye icon) you will use are:
    - Doctor's notes: write 'admission note – Dr Smith (CT1) or 'progress note – Dr Jones (FY2) here. It is essential that you write your name and grade
    - Consultant ward round: (there will be a drop down box with the names of the consultants). See separate note below
    - Microbiology – entry for all micro ward rounds and changes to antibiotics (with rationale)

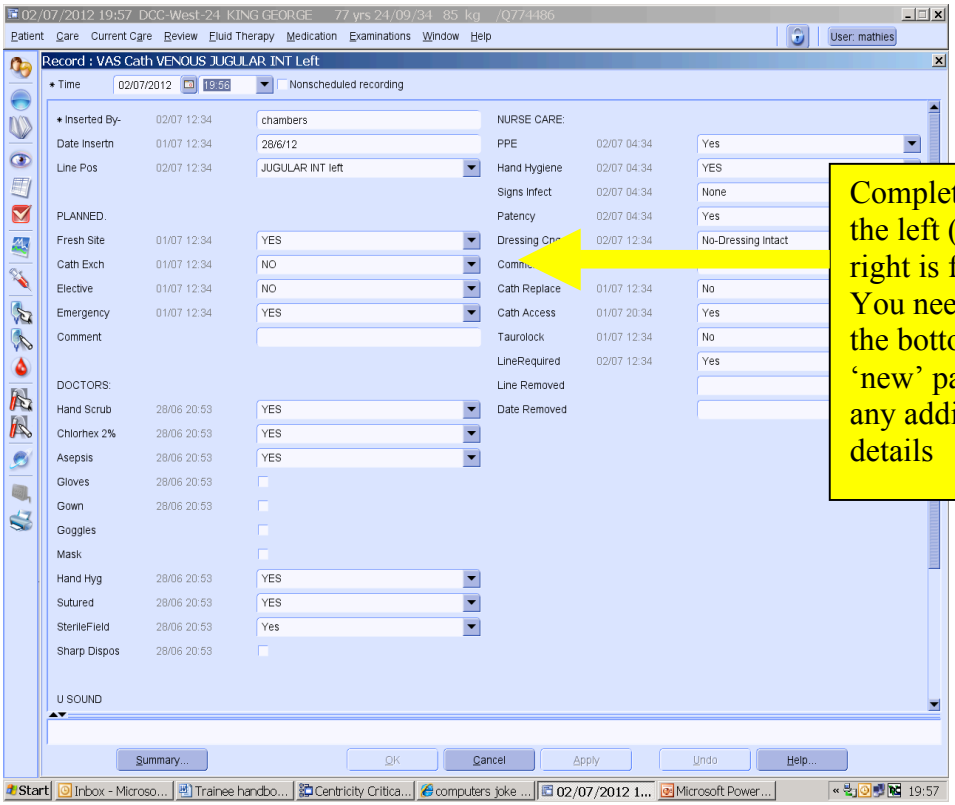
3. Having inserted lines, NGT's and endotracheal tubes you need to first highlight the type of line (peripheral, central, vascath, PiCCO etc) and where you have placed it on the picture. Click the eye icon to see the picture below.

(a) Click on the area of the body that the line is being inserted to create an icon on the body representing a line or tube placement. Here there is an icon pointing to the mouth (endotracheal tube) and red arrow on left side of neck (LIJ vascath amongst others).

(b) This will then create a text box to the right of the picture with the line you have inserted.



(c) You **must now** double click on the text box to the right of the picture in order to record details of your insertion. Otherwise all that will be recorded is the date of insertion and nothing about the procedure itself!



4. Prescribing drugs and fluids – all done on CIS! (see separate handbook)
   - Please ensure that drugs are only prescribed at the bedside computer to avoid prescribing for the wrong patient. Prescribing, using the computer on wheels (COW) is the only exception
   - Prescriptions of continuous intravenous heparin require 2 people (usually the doctor and nurse at the bedside) to check most recent clotting and prescription.
5. Don't forget that the information you get out of the system is only as good as what you put in. It is vital that your notes are clearly documented and that almost always should be contemporaneous. Don't forget to record radiology findings and transfers in the notes as well.
6. Don't forget to record discussions with family or other specialists ('communications' – you guessed it right, click the 'eye' icon to find this)
7. If a doctor from another specialist see the patient, they should be encouraged to document their review in 'non DCC notes' There are some real advantages to CIS other than eligibility of notes! It is much easier to analyse the data for audit purposes. Please discuss further with the IT team as well as your audit supervisor
8. Please ask if you are not sure and need help but don't worry you will training on how to get the most out of CIS.
9. Our CIS makes audits much easier to conduct so use this opportunity to complete one.

Consultant ward round notes

Please make sure that you write your name and grade as well as the consultants name for each ward round entry

You ward round entry structure should be:
1) Working diagnoses
2) Key issues
3) Physiology – write down positive findings and relevant negatives for each system
4) Plan

Also a 'targets of care checklist' should be completed for each patient on the ward round.

If a patient is not fully examined on the responsible junior doctor allocated to them must do the ward round then this. This should be recorded in their doctors progress note together with any important updates or changes throughout the day

Discharge summaries

Discharge summaries of patients who are likely to be discharged the next day should be written by the "SHO" on the previous day as the oncoming SHO may not know the patient very well. This avoids time consuming review. Part of the duties of the intensive care SHO is to complete discharge summaries for all patients, *survivors and non-survivors*. The summary is now completed and can be reviewed electronically on our CIS. You will be shown how to do this. Discharge summaries for patients admitted before August 2014 will still be available in Word format and they can be accessed on all the desktop computers on DCCQ via an icon on the home page.

Good liaison must be made with the medical team due to take over the patient's care i.e. bleep the relevant Reg/SHO to inform them of patient's discharge from ICU. Put their name and bleep on the summary. The summary must be viewed/approved and electronically signed by a SpR or Consultant prior to the patient's discharge. Please remember that the discharge summary is effectively all the other teams get to hear of what has happened in Critical Care. If it is inaccurate, misleading and poorly written it reflects badly on all of us, and potentially compromises patient care. Your name and signature **must** be on the summary.

If a patient is to be discharged home, the “parent” specialty team will be invited to visit the patient on the unit, and be expected to prepare a discharge summary to include follow up arrangements.

Post Mortem Policy

All paperwork related to deaths must be discussed with the Duty DCC Consultant, so that the correct referrals and accurate paperwork (e.g. cause of death entered on a certificate) are completed.

Each patient that dies needs an End-of-Life Coding form please.

It may be appropriate to consider a hospital post-mortem to help further our understanding regarding certain cases; please make sure that this is considered when discussing with the Duty Consultant prior to a patients’ family leaving the hospital. Our patients are usually the sickest in the hospital and post mortems serve a number of purposes, including quality control of clinical care, reassurance for the family that everything has been done above board and, finally, we sometimes throw up some interesting and unexpected findings. In this hospital post mortems have to be requested *in writing* and there is a *consent form* for the next of kin available in Critical Care. It is important that this is completed at the time of the death of the patient. The yield of post mortems is considerably reduced if we have to asked families to come back in order to sign the form.

It is very important that all the relevant paperwork after patient deaths is completed in a timely manner. If a patient dies whilst you are the responsible trainee, please ensure that it is completed; there is a template on the CIS system as a reminder. The ward clerks will also be chasing you if you do not comply! If you have any doubt as to whether a referral to the Coroner is necessary, please ask the Duty Consultant. It is best to contact the Coroner’s officer as soon as possible after death – the same day if possible, or at 0800hrs on the next working day.

PHT “District Spells”

All patients that die, or are discharged home or transferred from the DCCQ to another hospital need a Spell completed please. Soon, this will be superseded by an electronic Trust discharge summary. Patients discharged home now require an electronic hospital discharge

form to be completed; patients who die on DCCQ will need an end-of-life form to be completed and sent to their GP.

Transfers

Intra-hospital (i.e. retrieving from other departments or for imaging)

It is essential that staff familiarise themselves with the transfer bags and equipment. On most occasions a transfer (more recently termed “last admission nurse”) nurse is present to retrieve and transfer patients outside of the unit. Occasionally due to staffing levels a transfer nurse is not available, it is therefore essential to know the kit. Other arrangements can be made for assistance in this situation if required. Please always complete a QUARTS form for any transfer, including for investigations or procedures.

There is kit dedicated for retrievals (red trolleys) and attachment trolleys for departmental transfers (e.g. imaging/theatres)

Inter-hospital transfers (to other hospitals)

Please ensure that Wessex Critical Care Network transfer forms are completed for inter-hospital transfers. This functions as a kind of anaesthetic chart to document the events in transit, as well as an audit form and an aide memoir to make sure that all the items required for a safe transport are taken on the transfer. A Ferno trolley that fits certain ambulances is available. A transfer nurse will always be available to assist.

No critically ill patient should be moved without appropriate kit or personnel.

Insurance for inter-hospital transfers

There is some provision for insurance of team members on transfers by the Trust but it is not vast. The Intensive Care Society (ICS) and Association of Anaesthetists of Great Britain and Ireland have insurance arrangements for their members amounting to £500,000 per individual and a maximum of £2.5m per event. You would be well advised to take out membership of one of these organisations. Forms for the ICS are available from their website. You can offset some of the membership fee against tax as such fees are legitimate business expenses.

Adverse/Critical Incidents

Any events where patients are placed at potential risk of morbidity or mortality should be recorded on a Trust Adverse Incident form (this is now electronic and can be found on the PHT website). These may be completed anonymously if you prefer, but the principle is to ensure that any such events are recorded, lessons are learned and action taken appropriately to prevent recurrence and furthermore for this to be seen to be done. There is a list of trigger incidents that mandate a form be completed, kept within the file (again on the central console). Incidents should be brought to the attention of the duty Consultant.

Training opportunites

We are very proud of our reputation of providing quality training and education on our ICU. You will find that there are a number of ways we deliver this including individual teaching, small group sessions during ward rounds and more formal teaching. These are some specific areas that we utilise for your education but we are also happy to talk through subjects over a coffee – please just ask!

Friday academic half day

Every Friday morning is your formal teaching slot. Teaching sessions are part of your ongoing education, are **part of your contracted hours.** You are expected to attend all available Friday teaching days. The only exclusions are: 1) Annual leave (maximum of 2 Fridays for 3 & 4 month attachment and 3 Fridays for 6 month attachment); 2) Pre or post night 3) rostered for clinical duties. Please clearly document how many teaching Fridays you will be attending based on the Rota at your 1st Appraisal. If you arrange other leave during this period you will be expected to pay back the time clinically. In addition, your attendance and performance is audited and these factors will be used in references/RITA/ARCP reports. Dr Kay Adeniji organises the teaching programme and emails reminders regularly to your PHT account. Details can also be found on the notice board.

10:15 – 11:00 Journal Club (alternate Fridays)

1100 - 1215 Critical Care Core Curriculum
Recurring basic teaching programme: format varies and you may be asked to participate/present.

1215 - 1300 Middle Section
Journal Club, Critical Incidents, Mortality review, Audit
You are encouraged to present to this forum during post.

1300 - 1330 Lunch

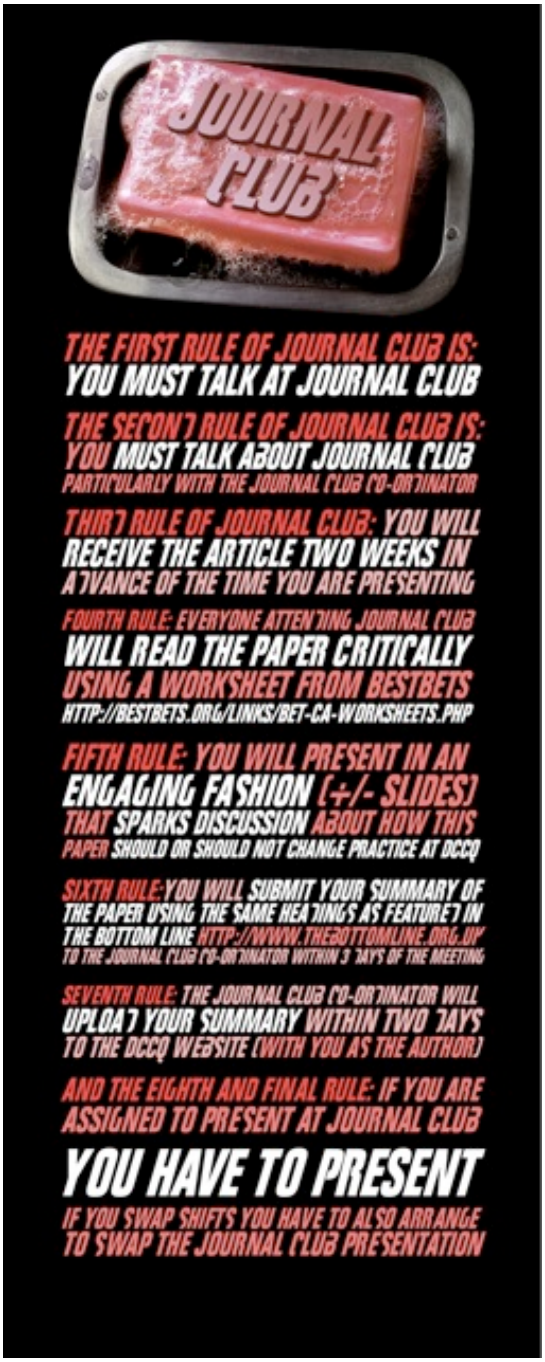
1330 - 1430 Multidisciplinary Session
Tutorial programme for all comers including nursing staff on the ICU

Daily lunchtime education programme aimed primarily at the nursing staff.

Topics are often of interest; this is also an opportune forum to broaden your teaching experience.

Journal Club

All reviews presented at Journal Club should be submitted to 'The Bottom Line' (journal club co-ordinator or Steve Mathieu will advise)



Anaesthetic 'taster' sessions

If you are interested in spending time in theatre during your free time please discuss with Dr Steve Mathieu. He will organise for you to spend a day with one of the anaesthetists (usually one of the critical care consultants).

The Wessex Intensive Care Medicine CCT training programme

A monthly half-day session alternating between Portsmouth and Southampton. The dates and programme can be viewed on the Wessex Deanery ICM extranet site (you'll need a log in). Please discuss with Dr Matt Williams if you would like to attend any of these sessions.

Other educational opportunities

- Outreach – go on rounds with the team
- Nutrition meeting – Tuesday 0930, Dr Trebble's office (Outreach attend)
- Follow up clinic (of DCCQ patients) – 1st and 3rd Monday afternoons of the month. Discuss with Sister Sandra Taylor, Dr K Adeniji or Dr S Blakeley

You will get to experience a good breadth of general ICU cases. You will gain more by making sure you seek opportunities to discuss at the bedside individual cases with more experienced staff, and seek opportunities to see new patients and perform procedures. Good clinical care relies on excellent teamwork; so please distribute workload appropriately for both manageability but also learning opportunities; also offer support to your colleagues to ensure the excellent care is delivered in a timely manner.

There are plenty of other opportunities for teaching/learning, particularly on a one-to-one basis with other staff. Trainees have an increasing responsibility for their own education and must maximise the learning opportunities presented to them. Remember, you will be working only roughly 12-14 shifts per month.

There are a number of courses run locally by PHT and the Wessex Deanery that you can access readily, including APLS.

The Education leads are Dr Matt Williams, Dr Steve Mathieu or Sister Sara Lilly.

Educational Supervision

You will be allocated a Clinical Supervisor amongst the critical care consultants. Please approach your supervisor to arrange a meeting within the first 10 days. We consider that you should have ownership of your training and would ask you to take initiative and responsibility to ensure that your first, mid term appraisals and final assessment takes place and that the appropriate documentation is completed. The mid term appraisal is not always necessary for those on a 4 month rotation.

It is your responsibility to approach your supervisor and arrange a mutually convenient time. All of the paperwork is available on the departmental intranet or G drive and you should come with this as well as ensuring we have access to your e-portfolio. It is part of your professional duty to do this and if you do not, your supervisor report to the ARCP panel will simply record this failing.

The meetings should ideally not be during clinical time. They are an essential part of your record of training and require organisation and the necessary uninterrupted time for them to be conducted properly. Your rota is arranged to provide enough time for this to happen without disruption to your leave.

Intensive care work is stressful and most people feel a little daunted and vulnerable, particularly early in their post. This is normal and we all feel it! Talking about it helps. We try to give you moral and appropriate support so you should not feel exposed and lonely. If you do run into any problems or difficulties, please express these to one of the consultants so that these may be addressed at an early stage.

First appraisal (within 2 weeks of starting post)

- Complete a self-assessment of your abilities
- Prepare your educational agreement form in advance
- Please ensure that your critical care clinical supervisor has access to your e-portfolio

Mid term appraisal (3rd- 4th month) - Review your personal learning plan

Final appraisal and review of assessment reports

- A formal, structured judgement of your work and progress
- Please bring your final appraisal form, portfolio, completed WBPA's and competency forms
- You should circulate either your Specialty/College or our Dept multi-source feedback assessment tools prior to your final appraisal meeting.

All forms are found in appendix 2 but also on our departmental intranet site

For clarification, you line of seeking help/advice can follow &/or include the following:

i) Clinical Supervisor
ii) ICM Faculty Tutors (Dr Peet and Dr Mathieu)
iii) Educational Supervisor (base specialty; usually Consultant appointed from your first post in PHT)
iv) Director of Medical Education (Dr Paul Sadler)

Do feel most welcome to approach any of the consultants if there is anything that you wish to discuss.

Essential Training Documentation

Logbook

We would like you to document the experience you gain here. It is also a requirement of ARCP/RITA reviews to produce logbook evidence of your training. Make sure it is anonymised of patient identifiable data. The recommended logbook is commonly known as the "Sunderland logbook" and can be found at http://www.iccueducation.org.uk

Work based place assessments (WBPA's)

You should aim to get relevant competency documents and work-based assessments completed. WBPA documents can be found on the department intranet site or at http://www.ficm.ac.uk/training-icm/assessments. We have a number of specialties rotating through intensive care training. Each have their personal college e-portfolios and we will complete this work electronically where possible.

It is your responsibility to get these completed; there are ample opportunities. Please be proactive and obtain a spread of grade of assessors to undertake them. Ideally, the trainers should be asked to do them prospectively to make them a more valid tool.

Competency forms

Competency forms will vary depending on your specialty and grade. A number of these can be accessed via the department intranet site or at www.ficm.ac.uk. It is important to discuss your individual competency needs at your first appraisal. The ICM curriculum can be found here http://www.ficm.ac.uk/icm-cct-curriculum If you have an e-portfolio, the majority, if not all WBPAs and competency documents will be completed on-line.

Research and Audit

The rota allows you significant periods away from clinical activity on the unit, and we would like to offer you the opportunity to become involved in some of the research and audit projects within the Department. Audit and research are important aspects of the department's work and your CV is likely to be significantly enhanced by your involvement whether or not a publication results. All trainees are expected to present their projects at the annual audit

meeting with a prize to the best project. Often these projects give the opportunity for publications. Our audit lead is Dr Coates. Please approach him or any of the consultants if you have any ideas or would like help in deciding which audit to do.

The Department is currently involved in multi-centre research including:
REST, ADRENAL, INTEREST

Library & resources

The Department has a small library, computing facilities and a photocopying machine which you are welcome to use. Please note that the library is for reference only and you are *not allowed to take any books away.* The Dept has subscriptions to PACT (European Society ICM) e-learning modules, and toxbase. Ask if you wish to use these resources.

The QuAD centre is currently housing the library and has the usual hospital library facilities. E-journals are available via the library and intranet. "Up-to-date" is a fantastic e-resource of information and is available via the intranet.

There are many other educational resources available on the internet and Dr Mathieu has compiled a few of these on the Wessex Intensive Care Society (WICS) website www.wessexics.com. Life in the Fast Lane is particularly good!

The Portsmouth ICU Website

We launched our very own departmental internet site in October 2013 to complement the trust site and intranet. This can be found at www.portsmouthicu.com. You will find a wealth of educational resources here as well as the training documents you require. In time, this will replace the need to use the intranet/G drive and allow easier access from home for your training resources. We hope that you find this a useful tool for your educational needs and welcome feedback.

The Bottom Line

This is a useful summary and review of the landmark papers in intensive care. Set up in Portsmouth by Steve Mathieu, Duncan Chamber and Dave Slessor

http://www.thebottomline.org.uk/
Critical Care Reviews is another excellent resource for up to date links to papers and guidelines. You can also subscribe to receive weekly email updates

http://www.criticalcarereviews.com/

Critical Care Reviews

Sharps and disposal

Please be vigilant with sharps on the intensive care unit. This is outlined in the trust policy and protocol for the safe handling and disposal of sharps. We can sometimes feel that we are in a high pressured environment with the severity of illness of our patients. However, we should never put ourselves in danger and it is essential that you have a process to minimise risk to yourself and others. This will be covered in your induction a part of central line insertion technique but also please ask any of the senior doctors and nurses if you want further guidance.

Top Tips

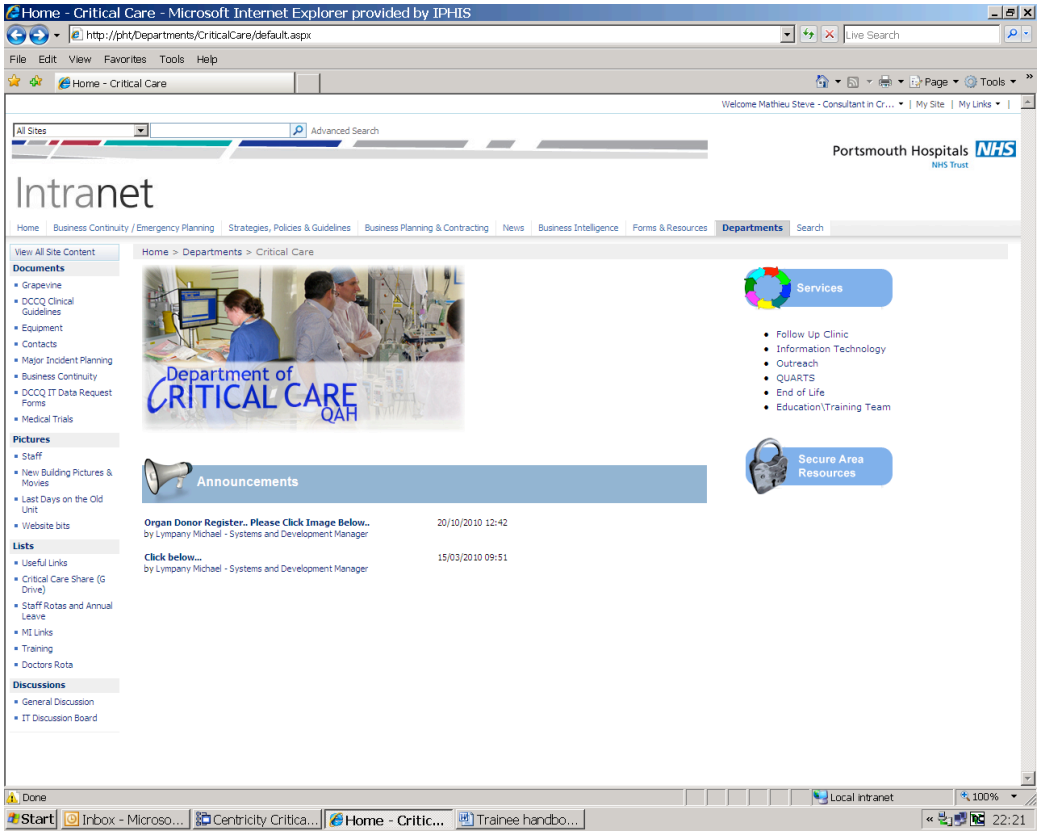
This list of tips is to help you avoid common pitfalls!

1. When presenting a case, always give name, age, duration of stay and diagnosis first-*and avoid waffle!*
2. HANDOVER needs to be structured, concise and precise; all patients (and outliers) in under 1 hour
3. Do not leave handover sheets lying around, nor take them home; they contain confidential information. The Dept has shredding facilities.
4. When quoting ABG results, the pH and base excess are the most important numbers. We manipulate O_2 and CO_2 on the ventilator, but the other values truly reflect the patient's condition.
5. Similarly there is no point quoting a 3h old ABG if the patient is unstable, as things will have changed.
6. It is important to perform Paracetamol and Salicylate levels on comatose patients or overdoses. Remember that a repeat level ***must*** be done 6h later to ensure the level has not risen.
7. If you quote a value for a drug blood level, expect to be asked the reference range, as we cannot remember them all either!
8. Make sure there is an agreed weight with the nurse at the beside documented for every patient on CIS – prescribe appropriately: drugs, fluid, nutrition
9. Quote doses for vasopressor and inotropes, not rate of infusion. This is simple good practice as other units use different dilutions.
10. ***Always*** document communications with other specialists and patient relatives.
11. Try to stick to Dr McQuillan's new fluid management strategy.
12. Please document any microbiology results or antibiotic decisions in the micro template on CIS
13. Oliguria is very common. It is nearly always because the patient is under filled or hypotensive. Fill the tank and give the kidneys a head of pressure. Furosemide worsens perfusion in hypovolaemia. Check the urine osmolality and sodium before thinking of furosemide.
14. Daily sedation breaks are important otherwise the patient accumulates sedatives and stay is prolonged. It is part of the ventilator care bundle and sedation protocol, unless clinically exempt. Please think carefully before prescribing alfentanil (in lieu of morphine) -> ask.
15. Don't use salbutamol for wheeze if the patient is not an asthmatic. Fluid overload and sputum retention can also cause wheeze.
16. Pyrexia is normal when you are ill, post op, or septic. It doesn't always need paracetamol. If the patient is severely hyperthermic, discuss it with the consultant.
17. Albumin use is at best contentious! If you think it is indicated discuss the reason with your consultant. Only 20% is used, albeit rarely. We do not use gelatins or starches!
18. Inappropriate blood product use is expensive and deleterious. Evidence suggests stable critically ill patients have better outcome with a Hb 7-9 gm/dl transfusion strategy. Except in haemorrhage, discuss blood component use with the consultant.
19. Always document the reason blood products have been used in your notes.
20. Always adhere to good Infection Prevention and Control practice and policies

If you want to know more about any of these issues, or why we think they are important, please just ask one of us.

DCCQ Guidelines

DCCQ guidelines (and other relevant information) are available on the intranet (within the departmental website).



There are also many applicable and useful guidelines found within the departmental intranet site. Important guidelines to review please include:

1. Ventilator care bundle
2. Fluid prescription for the critically ill
3. Nutrition guideline
4. Bowel management guideline
5. Renal replacement therapy – prescription & anticoagulation
6. DVT prophylaxis in the critically ill
7. Sedation / delirium
8. Out-of-hospital VF cardiac arrests – please note that ICYCATH (iv cooling device cannula) must be inserted by ICM SpR or Consultant only
9. NGT insertion guidelines (appendix 5)
10. Heparin prescription
11. Insulin sliding scale (appendix 5)

Major Incident

In the event of a major accident or incident involving large numbers of casualties/patients, a major incident plan is initiated. The protocols for this are to be found on the wall of the DCC close to the equipment technicians' room and within this document. Please familiarise yourself with the duties of the DCC trainee in such an event. See Appendix 3.

Infection Control

Infection is an extremely important consideration (and currently very topical nationally) in the prevention of nosocomial infections. The Trust has an Infection Control team that drive this agenda. The unit representatives are Modern Matron Caroline Cawkill, Sister Jayne Lindsay, and Drs John Knighton and Matt Williams; SN Claire Rochester is currently driving various in-house infection control initiatives. The Dept of Health "High Impact Interventions" and HAND HYGIENE (which you may be asked to contribute to, observing your colleagues' practice) are audited on a rolling basis, so adherence to good infection prevention measures is expected, and you will be challenged; moreover you should challenge other staff members performance if necessary.

The High Impact Interventions include:

1. CVC care
2. PVC care
3. Renal dialysis catheter care
4. Prevention of surgical site infection
5. Care for ventilated patients
6. Urinary catheter care
7. Reducing the risk of C.diff

The Trust has guidelines and policies (accessible via the PHT intranet) that you should make sure you are aware of. In particular:

- Naked below the elbow
- Personal protection equipment
- Antibiotic guidelines – PHT and DCCQ
- IV policy
- Blood culture policy - enclosed
- Central venous catheter policy
- Drug administration policy for DCCQ

Appendix 1

Junior Doctors Departmental (Local) Induction Checklist

Name:	
Grade:	
Department:	
Start Date in Dept:	

The checklist below is to ensure that all common aspects of local induction are covered, and may also be supplemented with additional information pertaining to specific clinical areas. Once the local induction is completed, you should scan the checklist to keep on your portfolio as a record. Producing this evidence should form part of your initial meeting with your Educational Supervisor.

The "tear off slip" MUST be forwarded to Paula Thomas, L&D Administrator (Postgrad), Education Centre, Level E, QAH within one month of joining. The slip is required as part of our evidence returns for funding junior doctors posts so it is vital that you complete & return this as soon as possible.

1. ORIENTATION	**Tick When Complete**	**Date Completed**
Introduction to Department including tour of area, meet colleagues, explanation and introduction of key people		
Tour to include location of fire exits, alarms, drills and procedures, incident book location and use		
Issued with details of HR contact for department		
Shown facilities within department including storage of personal belongings, security procedures		
Time off / leave / absence / sickness arrangements including study leave local arrangements. Nominated point of contact within department for leave authorisation / notification of sickness		
Issue of rotas & bleep		
2. THE ROLE	**Tick When Complete**	**Date Completed**
Hours of work		
Familiarisation with relevant equipment, and confirmation of competence in it's application		
Information Systems (IT) Log in / Security		
Shown location of printed policies & procedures (departmental & hospital) and where to access further on intranet.		
Issued with local clinical protocols including infection		

control / personal hygiene procedures		
Sources of help and advice / support available		
3. EDUCATION	**Tick When Complete**	**Date Completed**
Meet with Clinical Supervisor		
Allocated Educational Supervisor (allocated locally by department / specialty tutor except for FY doctors)		
Booked meeting with Educational Supervisor		
Unit Education Programme		
Confirm completed / booked JD Trust Induction and mandatory training		
Issued with copy of local induction pack		
Return slip completed & returned		

✂ -

I confirm that I have completed my local induction and received the information detailed within the Junior Doctors Departmental Induction Checklist:

First Name: ***(please print clearly)***	
Last Name: ***(please print clearly)***	
Grade:	
Department:	
Start Date in Dept:	
Allocated Clinical Supervisor:	
Allocated Educational Supervisor:	
Signature:	
Date:	

The "tear off slip" MUST be forwarded to Paula Thomas, L&D Administrator (Postgrad), Education Centre, Level E, QAH within one month of joining. The slip is required as part of our evidence returns for funding junior doctors posts so it is vital that you complete & return this as soon as possible.

Portsmouth Hospitals NHS
NHS Trust

Trainee self assessment – reflect and complete at beginning of attachment

NAME OF TRAINEE: **GRADE OFTRAINEE:**
SUPERVISOR: **DATE:**

	Strength	Satisfactory	Weakness
KNOWLEDGE			
Basic Sciences			
Clinical			
CLINICAL SKILLS			
History & Exam			
Diagnosis			
Record keeping			
Case presentation			
Clinical judgement			
Psychomotor skills			
ATTITUDES			
Time keeping			
Initiative			
Reliability			
Interest & enthusiasm			
Prioritisation of work			
COMMUNICATION & TEAMWORKING			
Patients & Relatives			
Nurses			
Doctors			
Other Health Profs			
HANDOVER			
Content			
Presentation			

Own comments please (e.g. on areas you wish to develop):

PROCEDURAL SKILLS:	No experience	Performed supervised	Able to perform unsupervised	Able to teach / supervise
RSI intubation				
Arterial line				
IJ CVC				
Femoral CVC				
Intercostal drain				
Lumbar puncture				
Transfers				

Please ensure that concerns are discussed with your supervisor and a plan documented to address and review progress.

Portsmouth Hospitals NHS
NHS Trust

Department of Critical Care, Queen Alexandra Hospital, Portsmouth
Trainee Learning Agreement

Name: **Date**:

Grade: **Clinical Supervisor:**

Previous posts: **Educational Supervisor**:

Career plans:

Has read the Major Incident Plan for DCCQ	☐
Has read Trust Hand Hygiene, uniform, IV & CVC Policies	☐
Has attended the Trust Induction Day	☐
Has undergone CIS user training	☐
Familiar with safe use of ICU equipment (e.g. syringe pumps, infusion pumps, defibrillator, ventilators)	☐
Current for ALS training	☐
Aware of the location and purpose of the unit communication and policy / procedure files	☐
Awareness of the safe behaviour when transferring patients	☐
Has read departmental SOP and 'watch out' safety notice on NGT insertion and CXR interpretation	☐

Undertake to keep a prospective logbook and get competencies signed off prospectively.
Will arrange a mid-term and final appraisal with supervisor, to which portfolio will be brought; prior to each will circulate "360" degree assessment forms to DCCQ staff (minimum of 10).

Trainees Signature: **Educational Supervisor**:

Portsmouth Hospitals NHS
NHS Trust

EDUCATIONAL AGREEMENT – Intensive Care Medicine

Attachment: Hospital & ICU …… Date: / /

Duration of attachment: …… Grade:

OBJECTIVES

Clinical management:

Practical procedures:

ICU management:

Examinations:

Study Leave:

Audit, research, presentations:

Teaching: No. of days scheduled to attend:

Assessments to be held at: months

I agree to complete and keep up to date the appropriate training documents relevant to this ICM attachment and that the result of any assessment of this attachment can be passed on to my next training supervisor.

Date of review of progress in achieving educational goals:

Signature Trainee: ……..

Signature Trainer: ……..

Appendix 2

Major Incident Plan – Department of Critical Care (DCC)

Adapted from guidelines published on departmental intranet site. Please review this for the hospital policy and also role of other members of the team

In the event of a major incident all DCC registrars, Fellows and SHO's and Trust doctors on duty that day will be contacted by the nurse in charge of DCC.

Action To Be Taken By DCC Junior Doctors

(1) If not already present in the critical care area, attend there as soon as possible.

(2) Assist the duty DCC Consultant (or Clinical Director) with the selection and preparation of patients for discharge to the wards or another specialty area within the Trust.

(3) Await assignment by the duty consultant (or Clinical Director) to a team consisting of consultant or fellow, junior doctor and nurse.

(4) Wait with the assigned team in the DCC until required to accompany a patient in transfer, receive a new patient in the DCC or to go with the team to stabilize and retrieve a patient referred from elsewhere in the hospital.

[NOTE: IF THE DUTY CONSULTANT (OR CLINICAL DIRECTOR) IS NOT IMMEDIATELY AVAILABLE FOR SUPPORT DURING A CRITICAL INCIDENT, THE MOST SENIOR FELLOW OR REGISTRAR SHOULD ASSUME RESPONSIBILITY FOR MEDICAL ACTIVITY IN DCC AND, THEN ANY ONE OF THE CRITICAL CARE CONSULTANTS SHOULD BE CONTACTED AS SOON AS POSSIBLE AND ASKED TO ATTEND]

Action to be taken by duty consultant DCC (or by the clinical director)

(1) If not already in the critical care area, attend there as soon as possible.

(2) With the nurse in charge of DCC, review all patients to define

Those suitable for transfer to wards or other specialized nursing care areas of the Trust (for example CCU or respiratory high care QAH).

(3) Ensure that all medical tasks required for patient discharge/transfer are completed. On receipt of information from the co-coordinating centre about the number of casualties expected to be admitted to the critical care area, work with the nurse in charge of DCC to assign teams to accept emergency admissions as they are referred. Each team should consist of a consultant or DCC fellow together with an SHO or Trust doctor and a trained nurse.

(4) Call in additional consultant and junior medical staff as required. Ensure that they are reminded to wear their security cards. If an adequate number of teams cannot be established after attempting to call in extra critical care medical personnel, then additional consultant, registrar or SHO help should be sought from the Department of Anaesthesia.

The telephone numbers of all staff are kept on the unit in the major incident box.

Theatre / Critical care Services and Accident and Emergency staff to be directed to the field at the top of Seven Oaks Road for parking, by Porters.

NOTE: THE MAJOR INCIDENT SITUATION WILL EXIST UNTIL THE ORDER TO STAND DOWN IS RECEIVED FROM THE CO-ORDINATOR.

All staff involved in a major incident /exercise are required to complete an action log form. Photocopies of these are available from Major incident box stored in Sisters office.

Information on the status of a major incident etc. can be found via the trust status bulletin board on the Intranet. Access is via Departments / Operations Centre.

NOTE:

Always keep your call in list up to date. Ensure that the plan is re-sealed, signed, and dated. Send a copy of the current call in list by e-mail to Martin Smalley every 3 months, and as and when the need arises.

Appendix 3: Equipment

Significant kit available:

- Sonosite ICU
- Bronchoscope (we also have an intubating fibrescope, the battery source is located in pharmacy drug cupboard, and the key fob for the bronchosopes live with the nurse in charge – ask when you need them!)
- TTE (transthoracic echo)

Whenever the bronchoscope is used details of the patient must be recorded in the "Bronchoscopy Diary". Details include date, name of patient, DOB, hospital number, doctors involved. There is a column in the diary to record that the scope was subsequently decontaminated and sterilised according to current protocols and by whom. This is to ensure an audit trail exists should there every be an infection issue surrounding the use of such multiuse instruments. The 'scopes must also have water suctioned through them after use (at the bedside) and before being sent for cleaning.

- IV cooling device – logbook to be completed when used. NOTE: the ICYCATH catheters are only to be inserted by an ICU registrar or Consultant
- HFOV ventilator
- Servo I conventional ventilators
- Draeger monitoring
- Braun infusion pumps– currently used for vasoactive drugs (library facility)
- Excel 210 anaesthetic machine
- Oxylog 2000 & 3000s for transport ventilators
- BabyPAC transfer ventilator for children <15Kg

There is an anaesthetic machine in the Emergency Dept and one in the Paediatric Dept in their stabilisation room. The paeds stabilisation room is set out with all necessary resus equipment according to an ABCD system; all necessary drugs are available in the room.

Airway trolleys

There are 3 of these in the dept. Please familiarise yourselves with these and the resus equipment (the defibs all have pacing capability). Make sure you know the whereabouts of important emergency equipment.

Two (distinctively red and marked) of the airway trolleys have difficult airway kit in (excepting the fibrescope, although this is readily available within the DCCQ complex). The kit is exactly the same as the kit available in theatres; the ED has a similar trolley to cope with difficult airways using the Difficult Airway Society guidelines.

Transfer kit

There are 3 streams:

1. Intra-hospital trolleys that attach easily to the beds
2. Retrieval red trolleys
3. Inter-hospital ambulance trolleys

Again, it is important that you familiarise yourself with each. There is an equipment store in which you can source lines etc to perform procedures

Appendix 4:

Wessex Trauma Network - Secondary Transfer Policy

1. Introduction and Scope of Policy

1.1 This document describes the process of transfer of a major trauma victim from a designated Trauma Unit or Local Receiving Hospital. It should be used for victims of trauma only (all ages). This document should be read in conjunction with latest copy of the Wessex secondary transfer tool, The Wessex Critical Care Network Transfer Policy and the Wessex Children's Major Trauma Guidelines (Where applicable).

2. Defining "Secondary" Transfer

2.1 Any Trauma victim who arrives at a hospital (Either Trauma Unit = TU or Local Receiving Hospital = LRH) other than the Major Trauma Centre (MTC = University Hospital Southampton) and needs onward transfer to the MTC is regarded a secondary transfer. All secondary transfers must follow the tool which will be kept under close clinical review.

3. Trauma victims aged 15 years or less

3.1 Where the trauma Victim is aged 15 years or less and the patient has "significant Injuries" (see Wessex Children's Major Trauma Guidelines) the case should be discussed with the PICU consultant at the MTC 02380 775502

3.2 On-going care will be the result of this discussion. The 3 automatic adult acceptance criteria are not to be used in children. It is envisaged threshold for transfer will be lower in children.

4. Operation of the tool

4.1 The Transfer tool will "go live" on the 2nd April 2012 at 08:00 hrs. Due to operational capabilities the tool should not be used before this date.

4.2 The only agreed circumstance in which the tool will be "switched off" and patients not automatically accepted would be declaration of a major incident at the MTC.

4.3 The tool is designed for use by a consultant team leader at the trauma unit. This individual keeps clinical responsibility for the patient until handover at the MTC. In addition, a nominated consultant with responsibility for transfer at the Trauma unit (normally the ICU consultant) must be made aware of the transfer, as per critical care network policy and Intensive Care Society Guidelines (if they are not directly involved in delivery of care to that patient.)

4.4 Clear senior clinician information transfer to the MTC is essential. Calls to the MTC should ideally be made and received at consultant level.

5. Exceeding local capabilities

5.1 Patients will only be transferred if they exceed the capabilities of that unit on that occasion, as assessed by the team leader. Transfers for reasons of capacity only are not permitted by the tool.

5.2 In some units defined as Local Receiving Hospital (Bournemouth Hospital) relatively minor trauma (e.g. fractured neck of femur) may exceed local capabilities. In a Local Receiving Hospital only those patients who exceed the capability of both that hospital and any supporting Trauma Unit (Poole TU in the case of Bournemouth Hospital) may be transferred direct to the MTC, in which case the secondary transfer tool may be applied. In other cases local support arrangements remain in place.

6. Automatic Acceptance Criteria

6.1 Three automatic acceptance criteria have been developed for the Wessex Network. Where one of the three criteria is fulfilled the patient will be automatically accepted by the MTC.

6.2 Careful consideration should still be given to the need for damage control surgery or critical interventions at the TU prior to transfer, even where automatic acceptance criteria are fulfilled. Having balanced the risks decision to transfer lies with the consultant team leader at the Trauma unit.

6.3 Ideally an ATMIST style (As described on the tool) handover to the MTC Emergency Department should be given at the earliest opportunity where automatic acceptance criteria are met. This allows time for teams at the MTC to be activated. If the patient is ready for transfer before this call, the call can be completed after the patient has left the TU.

6.4 The caller to the MTC must identify which of the automatic acceptance criteria have been met, as each criteria leads to a differing response to prepare for the patients arrival at the MTC.

6.5 Where the TU is transferring the patient due to automatic acceptance option 1, the MTC will request the TU contact the Neurosurgical SpR directly with any further information available once the patient has left the TU (02380 777222 bleep 2877). This would allow the neurosurgical SpR to gain any further information required about the exact circumstances of injury or background functioning and to get an updated estimated time of arrival.

6.6 An age/comorbidity limit or upper injury severity cut off has deliberately not been set for automatic acceptance. However in all cases where a consultant in the TU believes the injuries are not survivable, or the patient would not be a candidate for multi-organ support on grounds of co-morbidity, the case should be discussed with the relevant specialist team prior to transfer, even when automatic acceptance criteria have been met.

6.7 The Neurosurgical team at the MTC have suggested that cases of severe head injury where the patient is over 75 years of age are particularly likely to have a poor outcome and pre-transfer advice (even where automatic acceptance criteria are satisfied) is available and may be warranted. Although the decision to transfer lies with the team leader at the Trauma Unit (where automatic acceptance criteria are met) the neurosurgical team can offer advice as to the likely prognosis and hence whether the transfer is in the patient's best interests.

6.8 Where a patient does not fulfil automatic acceptance criteria but is still transferred by existing referral pathways, they will be transferred direct to an inpatient bed (not the ED) at the MTC

7. Pre Transfer Optimisation & In Transfer Management

7.1 This should include aggressive correction of pre-existing therapeutic anticoagulation with Clotting factor concentrates (e.g. Beriplex) and/or other blood products prior to transfer in all cases.

7.2 In the head injured patient, Mannitol is reserved for patients with a fixed pupil. In such cases empirical therapy with 20% Mannitol at 0.5g/Kg should be given immediately (including during transfer) and further treatment advice sought from the neurosurgical registrar on call at the MTC.

8. EXOPACS Image Transfer & Investigation results

8.1 All images taken in the TU should be loaded onto the EXOPACS system by local radiographers immediately. The team leader at the TU is responsible for ensuring that this is done. This should include sagittal and coronal spinal column reformats where applicable.

8.2 Any investigation results obtained after the patient has departed the TU should be phoned though to the transferring team or MTC depending on the patient's location.

9. Spinal Precautions

9.1 Victims of major trauma have a high incidence of spinal cord injury. In the presence of brain or other distracting injury there is no scenario envisaged where a TU would be able to "clear" a victim of significant blunt trauma for spinal cord injury. Full spinal precautions should therefore be continued during transit to the MTC.

10. Arranging the Ambulance

10.1 The ambulance service contact number on the tool should be used to contact the ambulance service. All automatically accepted patients should be transferred using "Time Critical Trauma Transfer" and given a nearest suitable vehicle response by the ambulance service.

10.2 Patients referred and accepted to the MTC by existing mechanisms will be transferred by the ambulance service based on the perceived urgency of each individual case. This will, in the majority of cases be a Time Critical (Immediate) or Emergency (<1 hour) response.

11. Accompanying Personnel

11.1 Staff transferring a patient should be appropriately trained and equipped. Decisions as to who accompanies the patent lie with the named consultant for transfer (usually the ICU consultant on call) in each trust. Transfers should follow Intensive Care Society and other applicable guidance. Given the complexity of many cases, senior input throughout transfer is essential and therefore consideration should be given to ensuring the most senior competent medical / nursing attendants who can be spared by the TU accompany the patient.

12. Use of Helicopters in Secondary Transfer

12.1 Prior consideration by each TU should be given to potential helicopter utilisation in transfer of patients to the MTC. This information should be incorporated into the operational policy of that trauma unit. This should include:

The presence/absence of a helipad or landing site at the TU

Access to TU Helipad (Trolley push vs Ambulance to Helipad)

Local HEMS aircraft response times

Funding Issues

Effect of adverse weather (Fog ; Low cloud) on flying capabilities

Effect of adverse road conditions (Snow; Ice; Blocked Trunk Roads) on road transfer times

Likely availability of trained staff to accompany patient.

12.2 Decision as to mode of transport in individual cases should be taken on a case by case basis.

13. Patients not fulfilling automatic acceptance

13.1 Existing referral pathways will remain in place and should be used in these cases.

13.2 These patients' may still need "time critical" transfer to the MTC

14. Review of the tool

14.1 The Secondary Transfer tool will be subject to near real time monitoring, specifically to consider:

Maximising the sensitivity of the tool identify to automatically transfer all patients who need time critical transfer to the MTC

Maximising the specificity of the tool to minimise un-necessary transfer.

Investigating any critical incidents arising from the use of the tool

14.2 Tool performance will be reported to the Wessex Trauma Network Board meetings (monthly) . Revision versions will be produced as approved by the network board.

Wessex Major Trauma Secondary Transfer Tool

Portsmouth Hospitals NHS Trust

NHS South of England

Wessex Trauma Network

Trauma patient arrives in Trauma Unit

Primary Survey
+/- Critical Interventions
+/- CT Scan
+/- Damage Control Surgery

Significant Injury(s) identified

How old is the patient?

15 or less → Call regional Paediatric Transfer Co-ordinator (PICU Consultant) 02380 775502

16 or more

Do the patient's injuries exceed your Trauma Unit capabilities?

No → Admit and manage locally

Yes

1. Pre intubation GCS **Motor** Score 4 or Less AND evidence from CT of intracranial bleeding (any Variant)?

OR

2. Life threatening haemorrhage not amenable to control at Trauma Unit?

OR

3. Successful resuscitative thoracotomy at Trauma Unit?

All transfer decisions in Trauma Unit should be made at Consultant level (see notes).

No → Urgent Secondary Transfer (May still need "Time Critical" ambulance transfer) by existing mechanisms. Determine patient's main reason to transfer and refer to:

Brain injury	Neurosurgical SpR: 02380 777222 Bleep 2877
Spinal Cord injury	Spinal Surgical SpR: 02380 777222
Pelvic injury	Orthopaedic SpR: 02380 777222 Bleep 2702
Burns	Refer to Burns Protocol
Thoracic injury	Cardiothoracic SpR: 02380 777222 Bleep 9211
Liver injury	General Surgical SpR: 02380 777222 Bleep 9990

Where a referring clinician is unable to obtain a response from the registrar, the relevant on-call consultant should be contacted via the receiving hospital switchboard.

Yes

Patient fulfils automatic acceptance criteria for transfer to MTC.

Actions:

Call Ambulance Service on 01962898226

State "Time Critical Trauma Transfer"

Inform Major Trauma Centre via 02380 796666

State "Secondary Trauma Transfer"

When prompted give ATMIST summary of patient

Transfer patient to University Hospital Southampton. Go to Emergency Department where you will be met and accompanied to final destination where clinical handover will occur.

Notes

All transfer decisions in Trauma Unit should be made at consultant level.

All cases where a consultant in the Trauma Unit believes the injuries are not survivable, or the patient would not be a candidate for multi-organ support on grounds of co-morbidity, should be discussed with the relevant specialist team prior to transfer.

In the Trauma Victim, haemodynamic stability may never be achieved until definitive management. Consider transfer despite instability if the source of instability cannot be managed locally.

Call to MTC to be made by a senior clinician (ideally the team leader).

If patient becomes unstable en-route inform MTC (via 02380 796666). Request full Trauma Team activation and divert into resuscitation room on arrival.

Consider helicopter transfer in time critical transfer if helicopter / appropriately trained accompanying personnel available.

Ensure all imaging done at Trauma Unit is loaded onto EXOPACS including sagittal and coronal reformatting of spinal CT imaging where applicable.

Patients transferred due to brain injury should have full spinal immobilisation maintained in all cases.

Age

Time (Expected to arrive at door of MTC e.g. 12:35)

Mechanism

Injuries Found (Head to toe)

Signs (HR BP SpO_2 GCS Pupils Temp)

Treatment Given

Departmental Guidelines

Some important examples. A comprehensive list is available on the departmental intranet page.

Portsmouth Hospitals NHS
NHS Trust

Critical Care Unit Sliding Scale IV Insulin Infusion

To Prepare Insulin Infusion	Patient Name:
1) Ideally use a pre-filled syringe of soluble insulin 50units in 50ml sodium chloride 0.9%. **OR:** 2) If a pre-filled syringe is not available prepare as below:- • Measure 50 units soluble insulin (e.g. Actrapid) using an insulin syringe. Use a 50ml syringe and make up to 50ml with sodium chloride injection 0.9%. Mix thoroughly. • This solution contains 1 unit soluble insulin in 1ml	Hospital Number: Date of Birth: Ward: **CRITICAL CARE UNIT**

Prescribing Sliding Scale Insulin

1) **Prescription:** Prescribe IV insulin on Critical care CIS prescription chart. A qualified nurse can then administer insulin according to these directions.
The prescription must be reviewed to determine whether the patient needs an individualized prescription, by a doctor, every 6 hours until more than 70% of blood glucose levels are within the target range .
If a patient is admitted with diabetic keto-acidosis (DKA) follow the sliding scale regimen on the DKA pathway.

2) **Fluids: Prescribe fluids (ensure the patient always has glucose containing fluids running while on the insulin infusion- an exception to this may include early stages of DKA)**

Target blood glucose range for patient =.....					
(indicate (circle) which regime is to be used & delete other columns					
Blood Glucose (mmol/L)	**Standard critical care sliding scale Insulin infusion rate (units/hour)**	**Blood glucose (mmol/l)**	**Individualised scale Insulin Infusion Rate (Units/Hour)**	**Blood glucose (mmol/l)**	**Individualised scale Insulin Infusion Rate (Units/Hour)**
Less than or equal to 4.0	0 if not diabetic or 1 if diabetic and normally on insulin				
4.1 - 6.0	2				
6.1 – 8.0	4				
8.1 - 12.0	6				
Greater than 12	8				
Prescribed by Signature					
Name					
Date					

3) **Monitoring:** Blood glucose and insulin dosage to be recorded **hourly** on CIS and **ensure there is ALWAYS a source of glucose running while the insulin infusion is being administered.**

4) **Stopping sliding scale**: see Trust guideline - Glucose, insulin potassium for more details on stopping sliding scale and re-starting patients' usual medication).

For more information on fluid requirements, fluid restricted patients and potassium requirements read the full 'Glucose,

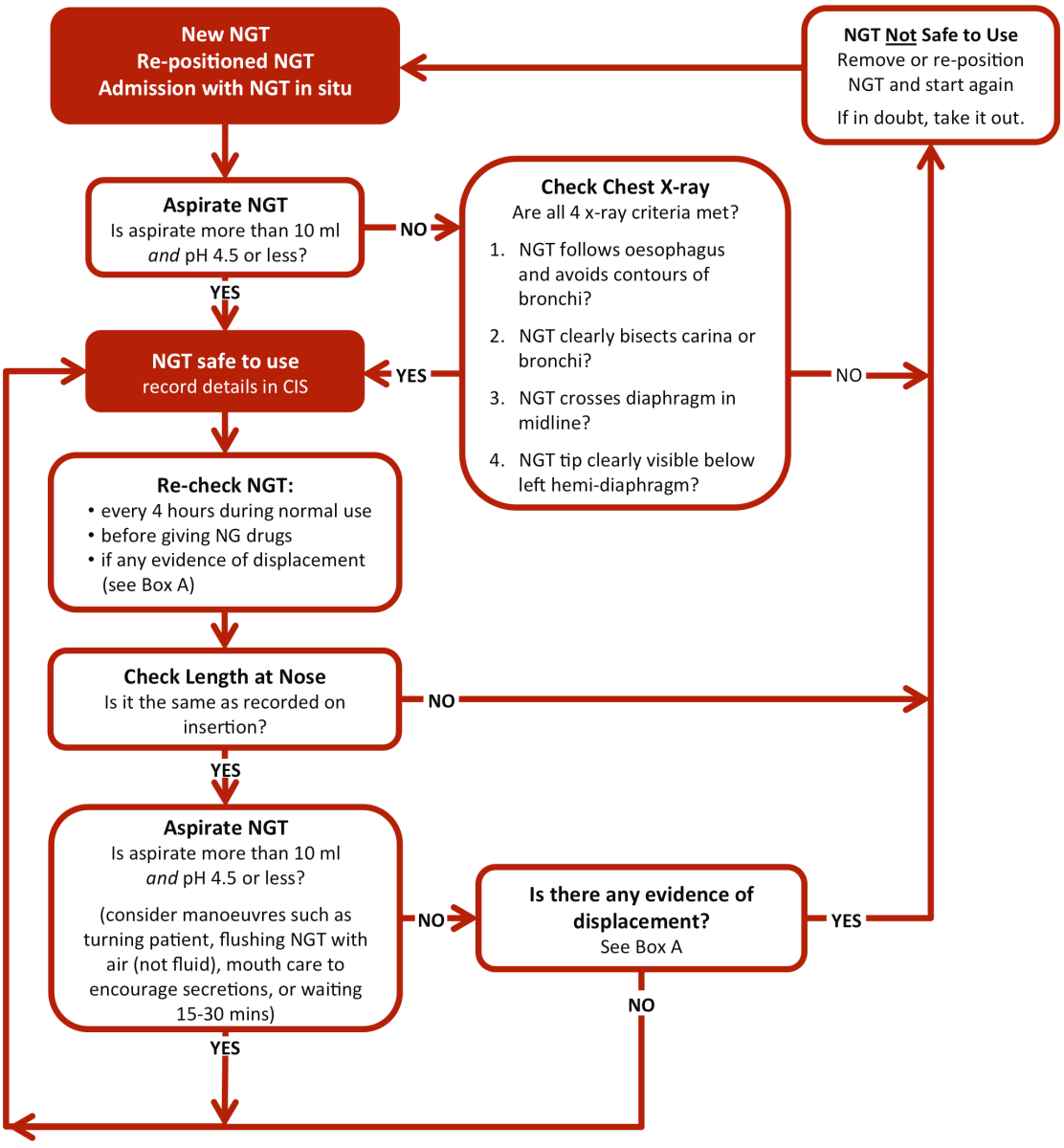
Critical Care Clinical Guideline

Nasogastric Tubes in Critical Care

Aim: To provide guidance on insertion, checking and continued care of nasogastric tubes (NGTs) in Critical Care.
Scope: All adult critical care patients with NGTs. This guideline should not be used outside Critical Care.

Version: 2 | Ratified by: Critical Care Governance Group | Authors: Dr P McQuillan, Dr N Tarmey
Date: 14 June 2013 | Revision due: 14 June 2015 | Produced by: Critical Care Governance Group

An equality impact assessment has been applied to this policy (Appendix B). This guideline is subject to professional judgment and accountability.



Box A: Evidence of Displacement includes:

- new hypoxia, possibly aspiration-related
- unusually severe coughing episode
- head down postural change (eg CVC insertion)
- loosened, tampered or dislodged securing method
- regurgitation or vomiting
- feed or gastric fluid in airway

Critical Care Clinical Guideline

Indications and Contraindications to NGT Insertion

Indications include:

- hydration & nutrition
- enteral drug administration
- confirming tolerance of enteral feeding
- gastric decompression

Elective surgical admissions do not usually need an NGT

Seek senior advice if potential contraindications:

- head injury or base of skull fracture
- maxillofacial surgery (including flaps)
- oesophageal & gastric surgery
- recently bleeding oesophageal varices
- coagulopathy & thrombocytopenia
- agitation & confusion

Insertion Techniques

1. Seek verbal, informed consent if possible.
2. Choose a radio-opaque NGT with numbered depth markings eg Salum Sump Drain for surgical drainage or Corflo size 12 or 14 for feeding in ICU.
3. Estimate distance from patient's nose, to ear, to xiphisternum (NEX length). This is the approximate length needed to reach the stomach (typically 50-60cm).
4. Consider local anaesthetic spray to nose or nasopharynx if patient is conscious.
5. Insert carefully along floor of nose- in posterior & caudal direction, not cranially.
6. Consider sip of water to aid swallowing.
7. Consider a larger NGT or one stiffened by refrigeration if insertion is difficult.
8. Consider laryngoscope & Magill's forceps for intubated patients. Increased sedation may be needed.
9. Record the length of the NGT at the naris.
10. Occasionally an orogastric tube is needed. If so, record the length at the incisors and re-consider changing to an NGT daily.
11. Seek senior experienced help in case of difficulty.
12. Additional guidance is available in the Trust NGT Guideline (available on intranet).

Securing NGTs

1. Use red "trouser" tapes from bridge of nose to NGT. Ensure tape is not bunched, and the NGT hangs free and does not put pressure on naris.
2. Examine skin, mucosa and naris edge pressure areas at least daily and record findings.
3. Tape or adhesive dressing to the cheek can be used instead, but may be less secure.
4. Consider Cavalon to improve tape adherence.
5. Change NGT securing tapes daily.
6. If a patient dislodges their NGT repeatedly, consider alternative securing methods including a nasal bridle.

Confirming Position, Monitoring & Documentation

Competency

- NGT insertion, aspiration and pH testing may be performed by any competent Critical Care staff.
- Only the following staff may certify correct NGT placement based on a chest x-ray:
  - Radiologists
  - Critical Care doctors above FY1 who have completed a DCCQ-approved training package.

NGT Aspirates

- Gastric residual volumes should be recorded 4-hourly to assess absorption & gastric emptying.
- Free drainage should only be used in case of obstruction or large gastric residual volumes.

Documentation

Documentation of placement should include:

- Name & grade of staff inserting & checking NGT
- Length of NGT at naris
- Process and any difficulties during insertion
- Clinical assessment of placement:
  - volume of aspirate
  - pH of aspirate
  - tests confirm acceptable placement (yes/no)
- If chest x-ray used to assess placement:
  - patient ID confirmed
  - most up-to-date image used
  - criteria for satisfactory placement (see flowchart)
  - x-ray confirms acceptable placement (yes/no)

Flushing and Maintaining Patency

- Do not flush the NGT with anything other than air until position has been confirmed.
- NGT patency is best maintained with a continuous infusion of NG feed.
- Where feeds are interrupted (eg for surgery or procedures), the NGT should be flushed with sterile water.
- When NG feeding is not given, NGTs should be flushed 4 hourly with sterile water after re-confirming acceptable position.
- NGTs should be flushed with sterile water before and after giving NG medications.

NGT Removal and Discharge from Critical Care

In all patients:

- The continued need for an NGT should be re-assessed daily.
- NGTs that are no longer required should be removed without delay.

On discharge from Critical Care:

- the presence and rationale for any NGT should be be clearly documented and handed over.
- *consider* changing the NGT to the ward-standard 8 French Corflo tube if prolonged use is anticipated.
- complete DCCQ Temporary Enteral Feeding Regimen form (in discharge pack)

APPENDIX 6

New Starters Induction Checklist

Received and read trainee handbook incorporating DCCQ major incident policy, and relevant trainee target list

1. PHT joining admin paperwork
2. PHT Trust induction
3. ILS / ALS current

IT

4. Have photo taken – for dept intranet site
5. CIS training, including e-prescribing
6. ICE pathology training
7. Sectra PACS training
8. Discharge summary training

Orientation

9. Department walk round

    - Airway trolleys
    - Ventilators: Servo I, Oxylog 2000/3000
    - Pumps: B-Braun, Graseby volumetric
    - Bronchoscopy stack and 'scopes
    - Icycath / Coolguard
    - How to use PACS
    - Pharmacy, grab bags
    - Infection control emphasis – kit, drug admin, line care, hand washing, BC sampling
    - QUARTS forms
    - Current audits
    - Relevant Dept contacts (Matron, CD, secs, Consultants, NIC, pharmacist, rota-meister; lines for getting support)

10. Departmental logistics
    - Ward rounds
    - Referrals/admissions/refusals
    - Retrievals
    - ICNARC (LD or Night registrar to log an entry on the patients admitted on their shift)
    - CIS notes
    - Death paperwork
    - Dept etiquette (drinks, phones, answering phones, noise)

- Arrests
- Bleeps
- Incident reporting – now electronic
- Honesty Bar, Coffee trolley...

11. Departmental guidelines – intranet site

Hospital tour

12. ED resus, Paeds ED, ED majors, MAU, Radiology (RAU; out of hours arrangements), CCU & cath lab, Paeds CAU & Poswillo, maternity, ward lay out, RHCU, SHCU, renal, endoscopy, theatres & recovery, HNU (G4)
13. Food outlets...

Personal / Training

14. Rotas
15. Friday teaching programme
16. Expected targets as per level of training
17. Supervisor – meet 2-3 times
18. Personal responsibility for training
19. Sickness policy

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PACS
(Picture Archiving & Communications System)

NHS IPHIS
"Improving patient care through ICT"

Log In Procedure for PACS

- Double click on the **Sectra PACS** icon on your desktop.
- Select **Start IDS7** link.
- Enter your network (NT) **username** and **password** then click **OK**.

Information Window

- The **Information Window** gives you an overview of everything in the PACS System. You can search for patients, read requests and reports.

1. **Menu Bar** – commands are available on the menus.
2. **Toolbar** – the configurable toolbar contains buttons for the most commonly used commands.
3. **Worklist Tree** – all available worklists are displayed by system, role and user levels (individual users can create their own User worklists).
4. **Patient List** – all patients in the selected worklist are displayed here. This can be sorted and filtered.
5. **Examination List (Patient History)** – all examinations for the selected patient are displayed here, to open one simply double click .
6. **Thumbnail List** – the images in the selected examination are shown as thumbnail images here, double click a thumbnail to open it.
7. **Toolbar Alerts** – information, warning and errors are displayed here.
8. **Request View** – displays scanned request.
9. **Report View** – Radiological report will be displayed here.
10. **Minimise** – you can minimise panes in the information window such as the worklist tree or thumbnail list by clicking the arrows, you can also adjust the size of each pane by dragging the split bars.

TIP!
To reset window layout, click **Window > Reset Window Layout**

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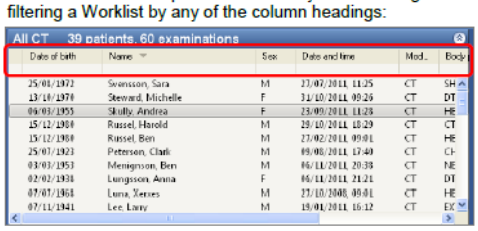
PACS
(Picture Archiving & Communications System)

NHS IPHIS
"Improving patient care through ICT"

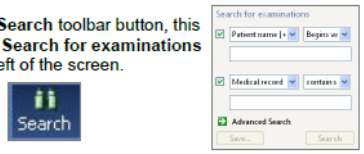
Searching for a Patient

- You can search for a patient in PACS by either sorting or filtering a Worklist by any of the column headings:



or…

- Selecting the **Search** toolbar button, this will bring up a **Search for examinations** pane bottom left of the screen.



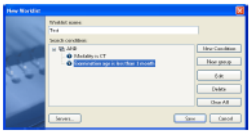
- Use the search parameter fields to find your patient. Once they appear in the list simply click to select them, then select the examination from the **Patient History** pane or images from the **Thumbnail List**..

Creating User Worklists

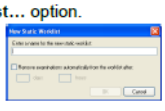
- On the left hand side of your screen you will see the **Worklist Tree**.
- To see the options available in the **Worklist** folders, click the relevant ⊞ symbol.

- Users will be able to create their own worklists in the **User Worklists** folder. There are two options available:
  - **Dynamic** – a constantly updating list of patients or examination data based on your specified criteria.
  - **Static** – generally used as personal/teaching folders (not dynamic).
- To create a **Dynamic Worklist**, right click on the **User Worklists folder** and select the **New Worklist…** option.

- This window will appear allowing you to name and set the criteria for your dynamic worklist.



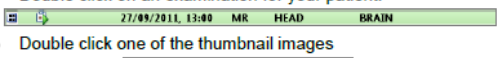
- You can create a **Static Worklist** in a similar way, instead selecting the **New Static Worklist…** option.
- This window will appear for you to name your static worklist, once created simply drag and drop the items you want in here.



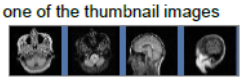
Opening the Image Window

To view images in **PACS**, you can either:

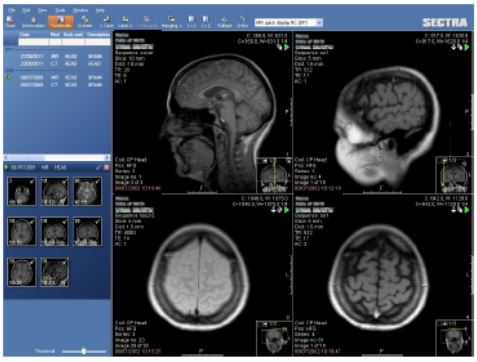
- Select the **Images** button.
- Double click on an examination for your patient.



- Double click one of the thumbnail images



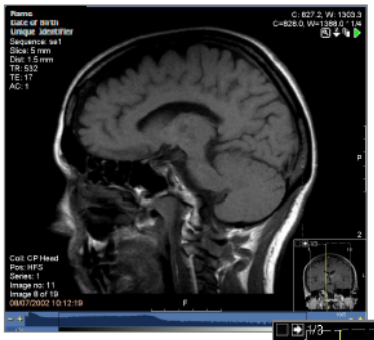
This will open the **Image Window**:



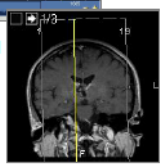
Viewing Images

There are various ways that you can view images on screen in **PACS**:

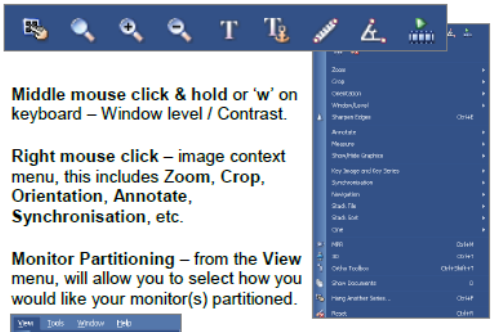
- **Left mouse hold** – move image around screen as required.
- **Scroll mouse wheel** or **both left & right mouse hold & drag** – move through stacked images.



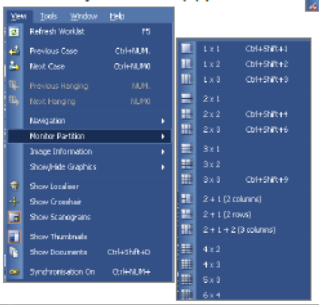
- Small image in bottom right hand corner – the **yellow line** shows the section displayed in the image.



Viewing Images (continued)



- **Middle mouse click & hold** or '**w**' on keyboard – Window level / Contrast.
- **Right mouse click** – image context menu, this includes **Zoom, Crop, Orientation, Annotate, Synchronisation,** etc.
- **Monitor Partitioning** – from the **View** menu, will allow you to select how you would like your monitor(s) partitioned.



One of the benefits of this is that you can display multiple views for a direct comparison or choose to remove the partitioning for a larger image display.

Using MPR

MPR (multiplanar reconstruction) enables you to view image data from any viewpoint without having to rescan the patient.

1. **Image window menu** and toolbar
2. **Reference Views** – the colour of the reference lines corresponds to the colour of the orientation indicator.
3. **Result View**
4. **Toolbox** – most commonly used commands.
5. **Image pop-up menu** – all commands for a view.