



Queen Margaret University

EDINBURGH

School of Health Sciences

**MSc DIAGNOSTIC RADIOGRAPHY
(Pre-registration)**

**MANAGEMENT OF
CLINICAL EDUCATION**

HANDBOOK

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1 CLINICAL EDUCATION FOR STUDENTS OF DIAGNOSTIC RADIOGRAPHY

1.1 INTRODUCTION

Clinical education placements have a theoretical as well as a practical focus. They provide clear opportunities for students to develop, evaluate, organise and build upon academic learning in a progressive fashion. They enable integration of theory with practice and the safe, effective assimilation of the student into the multidisciplinary health care team.

Clinical and academic blocks are integrated programme elements and should not be viewed as standing alone. Lecturers, Clinical Tutors, Student Liaison Officers, Assessors, Supervisors and all members of the multidisciplinary department teams facilitate continuous linking of theory with practice and provide sound student support. Clinical education for students of diagnostic radiography is delivered from imaging departments in Ayr Hospital, Ayr; Crosshouse Hospital, Kilmarnock; Borders General Hospital, Melrose; Forth Valley Royal, Larbert; Leith Community Treatment Centre; Queen Margaret Hospital, Dunfermline; Roodlands Hospital, Haddington; Royal Infirmary of Edinburgh; Royal Hospital for Sick Children, Edinburgh; St John's Hospital, Livingston; Stirling Royal Infirmary; Victoria Hospital, Kirkcaldy; Western General Hospital, Edinburgh; Perth Royal Infirmary, Perth and Ninewells Hospital, Dundee. Information regarding staffing and available modalities may be found in the Clinical Placement Handbook.

These organisations provide guided experiential learning through supervised direct patient contact and allow opportunities to develop personal confidence and professional competence. They facilitate the acquisition of clinical judgment skills and the expertise required to become a competent practitioner and effective member of the multidisciplinary health care team.

The clinical education programme includes elements of clinical supervision, clinical workshops, tutorials and clinical assessment and, with emphases on communication and reflection, enables students to acquire the clinical competencies required for registration by the Health Professions Council. Students will also acquire the investigative and analytical skills necessary to enhance the knowledge base of the profession.

1.2 Quality Assurance in Clinical Education

Clinical Placements

To ensure the quality and effectiveness of practice placements all new and current placements are required to be approved. The module coordinator or a member of the Diagnostic Radiography team will complete a clinical monitoring report, in conjunction with a named representative from each clinical placement (Appendix A). Placements will be monitored on an annual basis, unless there is a major change within the placement provision, or there is cause for concern.

The following individuals have key roles and defined responsibilities with regard to implementing, coordinating and monitoring clinical education programmes.

Module Coordinator

The module coordinator has responsibility for placing students appropriately to ensure achievement of learning outcomes, organising workshops for students, supervisors and assessors as well as coordinating, implementing and supervising the assessment systems. A key aspect of the role of this individual is effective collaboration with managers and clinicians to ensure that common aims and outcomes are established and achieved. Close liaison with clinical tutors / liaison officers is essential to plan and monitor clinical education appropriately. The individual must interact effectively with the students to encourage development of skills in self-appraisal and reflective practice.

Lecturers / Clinical Tutors / Student Liaison Officers

In addition to providing pastoral care and support, lecturers / clinical tutors / student liaison officers have responsibility for management and education of students on clinical placement and must adopt a key role in collaborating with practitioners to ensure equity of student experience and learning opportunity. They will contribute to the continuous evaluation and development of clinical education and will establish effective relationships with members of the multi-professional team.

Clinical Supervisors

Radiographers are responsible for the teaching and effective supervision of the student on a daily basis as well as monitoring their performance and progress. They have a key role within the continuous assessment scheme, being responsible for the daily appraisal of performance and the provision of continuous feedback to students. All clinical supervisors should undergo training with periodic updates.

Clinical Assessors

Radiographers, having undergone appropriate training, who are responsible for planning, implementing and conducting staged assessments in partnership with the module coordinator, lecturers and clinical tutors.

Notification of Concern

Any supervisor or assessor who has concerns about student performance levels in any of the domains of clinical practice has a clear responsibility to notify the module coordinator. A reporting proforma is available for staff completion (Appendix B). After completion, the individual will notify the module coordinator who will arrange a meeting to discuss their concerns and explore possible actions.

Academic Staff Areas of Clinical Liaison

Catherine McClintick; Module Coordinator	All areas
Alanah Kirby; Senior Lecturer	Ayrshire and Tayside
Alison Scott; Lecturer	Lothian
Dawn Walker; Lecturer	Forth Valley and Fife
Simon Holmes; Lecturer	Borders

Contacting the University

Details of the clinical programme including practice educator training, QMU staff contact details, QMU Practice Placement Handbook, clinical documentation and communication forms are located on the QMU Practice Educator website: www.qmu.ac.uk/pbl .

When an incident occurs outside of normal working hours, and there is an urgent requirement to contact the University, please telephone (0131) 474 0000. When prompted, ask for reception.

1.3 Clinical Education Framework

Practice Based Learning 1

The student undertakes 6 weeks of clinical placement. The student begins to develop knowledge and skills in general radiography, by closely integrating theory with practice. The learner commences the safe, effective integration process into the multidisciplinary team and starts to develop a profile of professional identity.

Practice Based Learning 2

The student undertakes 11 weeks of clinical placement. The learner continues to develop their general radiographic expertise and further integrates into the multidisciplinary team. Theory is closely related to practice through critical reflection.

Practice Based Learning 3

The student undertakes 5 weeks of clinical placement. Close integration of theory with practice is facilitated with experience of specialised radiodiagnostic imaging modalities.

Practice Based Learning 4

The student undertakes 17 weeks of clinical placement. The learner continues the safe, effective and efficient integration into the multidisciplinary health care team whilst consolidating a general knowledge and skills base. The development of high level skills in problem-solving, critical analysis, evaluation and appraisal will prepare the student for continuing professional development and life-long learning in a multi-professional environment. An elective placement enables the student to expand their analytical and evaluation skills in a new environment, which broadens the experience and enables recognition of individual approaches to clinical practice (Appendix C).

2 FITNESS TO PRACTISE

The University has an obligation to ensure that graduates from its pre-registration healthcare programmes are fit to practise. This means we need to consider whether students:

- have a long-term health condition or disability which could prevent them from practising safely without supervision;
- have any criminal convictions or cautions which could make them unsuitable for registration;
- have demonstrated that they can maintain the standards of conduct expected of a health professional.

The students' behaviour on placement and in private life has the potential to affect their suitability for registration. If the University becomes aware of an issue regarding a student's behaviour it may initiate Fitness to Practise proceedings. Where there are serious concerns, a Fitness to Practise panel may be convened. The Fitness to Practise panel has the authority to impose a range of sanctions, including requiring a student to suspend study or even to leave the programme.

For more information, see the QMU Fitness to Practise Policy (Table 1).

The Health and Care Professions Council (HCPC) publishes guidance for students and registrants about Fitness to Practise (Table 1).

Health and Disability

Students should keep their Personal Academic Tutor or Programme Leader informed of any changes to their health or disability status. The University will seek to put in place measures to support students with health problems or disabilities so far as is practical. It is essential that you discuss any concerns you might have with staff as early as possible.

To protect patient safety, you must inform your placement supervisor immediately if you contract a communicable disease.

Conduct

Concerns may arise about a student's fitness to practise if any of the following situations occur:

- conviction of a criminal offence, particularly one involving dishonesty or violence;
- found in breach of the student discipline code, e.g., for your behaviour towards other students or for cheating in an exam / plagiarism;
- behave in an unethical or unprofessional manner on placement;
- breach of patient confidentiality.

The above list is not exhaustive. Each case will be dealt with according to the individual circumstances.

Radiography is a profession regulated by the HCPC and therefore statutory requirements exist for the regulation of practice to protect patients and their carers. The titles 'Radiographer' and 'Diagnostic Radiographer' are legally protected and may only be used by individuals who have completed an approved course of study and are subsequently registered by the HCPC. Students can access the following resources; the first is considered essential reading.

Table 1: Links to essential documents

Guidance on Conduct and Ethics for Students	<u>http://www.hpc-uk.org/publications/brochures/index.asp?id=219</u>
Guidance on Health and Character	<u>http://www.hpc-uk.org/publications/brochures/index.asp?id=220</u>
Standards of Education and Training guidance	<u>http://www.hpc-uk.org/publications/brochures/index.asp?id=195</u>
Confidentiality - Guidance for Registrants	<u>http://www.hpc-uk.org/publications/brochures/index.asp?id=164</u>
QMU guidance on Fitness to Practise	<u>https://www.qmu.ac.uk/media/3973/fitness-to-practise-policy.pdf</u>
HCPC Guidance on Fitness to Practise	<u>http://www.hpc-uk.org/publications/brochures/</u>

3 APPEARANCE AND DRESS CODE

- 3.1 It is important for the student to develop the personal discipline and professional attitudes necessary for successful clinical practice. Patients attach great importance to the appearance of hospital staff and a high standard of personal hygiene and appearance should be maintained. Students should therefore dress in a manner which is likely to inspire public confidence and appropriate steps should be taken to minimise the risks of infection and cross contamination for patients and the public.
- 3.2 During clinical placement, students are required to wear the stipulated uniform. Name badges and dosimeters must be worn.
- 3.3 Duty shoes will be soft-soled, closed toe in black, navy or white. Fashion footwear or canvas shoes are not permitted.
- 3.4 Uniform and footwear **MUST NOT** be worn outside the hospital.
- 3.5 Hair must be clean and tied up, the hair must not touch the uniform collar
- 3.6 Nails should be short, clean, well manicured and devoid of nail polish. False nails are not permitted.
- 3.7 With the exception of small stud earrings and plain wedding bands, no hand, wrist or neck jewellery is permitted. One set of earrings are permitted. Facial piercings are considered to be inappropriate in the clinical environment. Visible tattoos which might be perceived as being offensive should be covered.
- 3.8 Students are permitted to wear short sleeve t-shirts under their uniforms. T-shirts should be black, white or navy in colour.
- 3.8 Consideration must be given to the cultural and religious requirements of students.
- 3.9 In addition, students **must** adhere to any local and national dress code and uniform policy.
- 4.0 Mobile phones **must not** be used or taken into the clinical environment. Mobile phone can be used in designated rest / staff rooms only.

4 ATTENDANCE

- 4.1 Prior to clinical placement, the student will be given a timetable illustrating weekly clinical placements. These may not, except under exceptional circumstances and after discussion with the module coordinator, be altered.
- 4.2 For the 38 weeks of clinical placement in Practice Based Learning 1, 2, 3 and 4 100% attendance is required. All absence MUST be notified to the module coordinator and the clinical supervisor. A medical certificate is required for absence of more than 5 working days, this must be submitted to the module coordinator. All sick leave will be re-timetabled appropriately to ensure 100% attendance. Occasional absence of a day may be recovered by foregoing study half days; this must be negotiated with the module coordinator. Requests for consideration of extenuating circumstances should be made according to the QMU regulations.
- 4.3 Students who require time off for legitimate reasons such as health related appointments (General Practitioner or Dentist, for example) and personal issues must negotiate with QMU programme leader or module coordinator. Reported attendance/absence is recorded for each student for future reference.
- 4.4 The student must have complied satisfactorily with the conditions attached to all clinical placements and assessments prior to recommendation for the award of MSc in Diagnostic Radiography.
- 4.5 The student will follow the normal work pattern of clinical staff and will typically work from 09.00 until 17.00 with 30 minutes for lunch. Morning coffee breaks are normally of 20 minutes duration and all breaks are negotiated with the clinical supervisors.
- 4.6 If a student needs to leave placement early, before 17,00hrs, this should be discussed with the module coordinator in the first instance.
- 4.7 The student must be prepared to alter any part-time working hours to suit a particular clinical placement situation and to perform periods of clinical experience out with 'normal' working hours.
- 4.8 One half day during each clinical week is allowed for study and reflection and is either specified by the module coordinator or is negotiated with the clinical supervisor. If a statutory holiday falls within the clinical placement, this half-day is **not** allowed. The student will work until 13.00hrs.
- 4.9 The programme team is concerned that students demonstrate appropriate professional behaviour and prospective employers frequently request information regarding attendance as part of reference information.

5 CLINICAL EDUCATION STANDARDS

5.1 Prior to Clinical Placement

- In Year1, prior to clinical placement, students are required to complete a Practice Education Passport (Appendix B). The passport has been developed in conjunction with placement providers to ensure students are aware of their responsibilities within the practice setting and take an active role in practice placement preparation. Failure to complete any element of the Practice Education Passport precludes the student from attending practice placement.
- Students are required to take a copy of the completed passport and PVG certificate to placement. If a student is unable to produce their passport or PVG they may be asked to leave the placement.
- The Module Coordinator will provide a timetable indicating the students' location for each placement week.
- Teaching schedules for each semester and learning outcomes for each placement will be provided to enable clinical staff to support students appropriately.
- The Module Coordinator will collaborate with the clinical staff and ensure relevant, current site information is available to the student.
- Clinical Tutors, Liaison Officers, Practice Assessors, Practice Educators and Supervisors will indicate their availability and agree tutorial times with the student.
- The Clinical Tutors, Liaison Officers, Assessors, Educators and Supervisors will discuss and agree personal learning outcomes for the student at the start of every placement.
- The student is responsible, at the beginning of a placement, for notifying the Clinical Tutor or Clinical Assessor that an assessment is due. The Clinical Tutor or Assessor is responsible for ensuring sufficient preparation precedes the assessment process.

5.2 During Clinical Placement

- The student's identity is verified on the first day of each placement week. The student is required to present their matriculation card to the practice educator / supervisor responsible for their training. If the matriculation card is not available another suitable form of identification (i.e. driving licence or passport) will suffice. The practice educator is asked to sign the front page of the student's clinical assessment sheets to confirm identification.
- The Clinical Tutors, Liaison Officers, Assessors and Supervisors will discuss and agree personal learning outcomes for the student at the start of every placement.
- The Clinical Supervisor is responsible for obtaining, according to local protocol, patient consent prior to a student observing, assisting with or performing a procedure.
- The Clinical Supervisor is responsible for supervising the student and ensuring safe and successful completion of all procedures.
- The Clinical Supervisor is responsible for taking over the examination if it becomes apparent that the student is experiencing difficulty or is placing the patient at risk. The Clinical Supervisor will subsequently have a reflective discussion with the student regarding the reasons for this action.
- The Clinical Supervisor and the student are jointly responsible for completion of the Continuous Assessment forms and will have a reflective discussion both at the mid point and at the end of the placement.

- Any supervisor or assessor who has concerns about student performance levels in any of the domains of clinical practice has a clear responsibility to notify the module coordinator (Appendix C). After completion, the individual will notify the module coordinator who will arrange a meeting to discuss their concerns and explore possible actions.
- On occasion a student may have concerns about the clinical placement experience they are having. If this cannot be rectified through communication and negotiation with the radiography team or they feel there may be a risk of them failing a component of their assessment then they must notify the module coordinator.
- If a student is involved in a radiation incident, or near miss, the supervisor and the student must advise the module coordinator and the QMU Radiation Protection Supervisor (RPS) as soon as possible (Appendix E). The student is required to complete a radiation incident form and email the completed form to the module coordinator and the RPS within 48hours of the incident occurring (Appendix F).
- If during placement the student has concerns about their well being or the well being of patients there is a support network in place to ensure the situation is dealt with quickly and efficiently (Appendix G).

5.3 After the Clinical Placement

- The student will submit Continuous Clinical Assessment Documentation (Section 14) to the assignment drop-box outside the school office in accordance with the assessment timetable published on the Hub. Penalties will be incurred for late or non-submission of this material according to QMU regulations.
- At the conclusion of each clinical placement block, the module coordinator will verify attendance and schedule additional clinical experience as required under the attendance regulations (Section 4).
- At the end of every clinical week, the student will complete the Clinical Placement Evaluation Form (attached to the Continuous Assessment pack), which is returned to the module coordinator. The form will be detached from the continuous assessment document to assure anonymity and for collation of site reports. This information is made available to the clinical placement providers.
- The student must return their dosimeter as soon as possible to the designated return point when the dosimeter expires or at the end of the clinical placement, whichever date is first.

6 INSURANCE

- Due to professional requirements, students on Nursing, Allied Health Profession and Healthcare Science qualifying programmes are required to hold professional indemnity insurance as a pre-condition of progressing to placement. This is most easily gained through the joining of the appropriate professional body, and information on this will be provided during the induction process into your programme.

- If a student chooses to travel overseas for an elective placement, the overseas placement provider should insure the student for public liability insurance as a minimum. The University has in place travel insurance, the student should notify the Finance Office that they are going on placement where and when and obtain Insurance Policy Number and Emergency Contact information. Details can found on the Finance area of the intranet:
<http://intranet.qmu.ac.uk/sites/finance/Insurance/Forms/AllItems.aspx>

7 COMPLAINTS

- The University has a Complaints Handling Procedure which can be found here: <http://www.qmu.ac.uk/quality/gr/default.htm>. The Procedure has three stages: frontline resolution, investigation and external review.
- If a student has a complaint, they should discuss this with someone in the area which the student wishes to complain about (for example, for a complaint relating to speech and hearing sciences, this should be discussed with the Programme Leader or Module Coordinator for the module concerned).
- The complaint will be considered under frontline resolution (unless complex) and a response will usually be given within 5 working days. If the complaint is complicated, it is the student's choice to take it to investigation stage immediately or it may be referred to the investigation stage by the person the student determined to discuss the complaint with at frontline resolution. Should the complaint be considered under the investigation stage, a response will normally be received within 20 working days.
- Any queries about the complaints procedure or any complaints written on the Complaints Form may be emailed to complaints@qmu.ac.uk.

8 GENERIC LEARNING OUTCOMES

8.1 By the end of Practice Based Learning 1, the student will be able to:

- **identify** the key components of X-ray tubes, tables and accessories and **describe** their operation;
- **identify** the display components of generator control consoles and **demonstrate** their functions;
- **demonstrate** safe and effective handling and positioning of X-ray tubes;
- **demonstrate** safe and effective use of collimation devices;
- **Describe and demonstrate** correct utilisation of moving and stationary secondary radiation grids, erect buckys and cassette holders;
- **make** X-ray exposures safely whilst **implementing** radiation safety measures for patients and staff;
- **identify** and **demonstrate** the correct use of radiation protection and safety devices;
- **identify** and **differentiate** between different image receptors for CR and DR systems in general use;
- **demonstrate** correct patient reception and positive identification;
- **demonstrate** effective communication interaction with the patient;
- **demonstrate** application, where relevant, of pregnancy check and 28/10 day rule according to local protocol in a courteous manner with consideration for patient confidentiality;
- **demonstrate** the use of moving and handling techniques safe for patients and staff;
- **demonstrate** awareness of and discuss the reasons for local policies for disposal of waste;
- **describe** the location of emergency equipment and emergency procedures for fire and cardiac arrest;
- **select** the appropriate image receptor for each examination and **demonstrate** its correct use;
- **demonstrate** correct use of anatomical markers and legends;
- **describe and demonstrate** correct technique for routine general examinations specified for the clinical placement by:
 - identifying** and **examining** the patient correctly;
 - selecting** and **utilising** the correct equipment and accessories;
 - positioning** the patient, X-ray tube and image receptor correctly;
 - selecting** correct exposure technique;
 - applying** radiation protection protocols correctly;
 - demonstrating** appropriate standards of care of the patient, before, during and after the procedure;
 - completing** documentation correctly as per local protocol.
- **evaluate radiographic images for:**
 - correct patient identification;
 - evidence of collimation and, where appropriate, gonad protection;
 - quality of patient positioning;
 - quality of image contrast, density and exposure index;
 - radiographic appearances and the presence or absence of pathology;
 - further action required.

- 8.2 By the end of Practice Based Learning 2, in addition to the above, the student will be able to:**
- **describe** the type and specification of imaging equipment in use;
 - **describe** and **demonstrate** correct utilisation of moving and stationary secondary radiation grids, erect buckys and cassette holders;
 - **demonstrate** effective communication with carers, relatives and members of the multi-professional team;
 - **describe** and **utilise** correct technique for all procedures specific to the placement;
 - **demonstrate** and **discuss** modification of routine general techniques to accommodate traumatic, congenital and pathological conditions;
 - **discuss** the capabilities and limitations of image recording systems used locally;
 - **demonstrate** an awareness for the special care required for patients with intravenous access devices and surgical drains;
 - **describe** and **demonstrate** the use and routine care of oxygen and suction apparatus;
 - **describe** location, types, distribution and checking procedure for drugs in the X-ray department;
 - **discuss** and **demonstrate** an awareness of local policies.
- 8.3 By the end of Practice Based Learning 3, in addition to the above, the student will be able to:**
- **discuss** the capabilities and limitations of the equipment and its suitability for use;
 - **demonstrate** safe, effective and efficient operation of imaging equipment and accessories;
 - **demonstrate** appropriate and safe patient preparation, positioning and aftercare for the examinations specific to the placement;
 - **discuss** the use of alternative and additional imaging modalities appropriate for the demonstration and differentiation of pathology and disease;
 - **demonstrate** effective and appropriate communication with patient, relatives, carers and members of the multidisciplinary team to facilitate clear understanding, instill confidence, obtain informed consent and encourage cooperation and compliance;
 - **demonstrate** appropriate care to patients with traumatic, congenital, pathological and post-operative conditions;
 - **discuss** preparation, care and aftercare of patients having ultrasound, cardiovascular, CT, MRI and RNI examinations and procedures;
 - **critically evaluate** radiographic images for normal and abnormal anatomical appearances and **identify** requirements for additional, supplementary or repeat imaging;
 - **discuss** the use and dosage of contrast media and radiopharmaceuticals used in imaging;
 - **demonstrate** and **discuss** local departmental quality assurance procedures.

8.4 By the end of Practice Based Learning 4, in addition to the above, the student will be able to:

- **demonstrate** competence in performing all specified examinations;
- **critically** evaluate radiographic images to distinguish the normal from the abnormal, **discuss** possible causes of abnormality and **identify** diagnostic and clinical significance;
- **demonstrate** the ability to offer total patient care;
- **analyse** the needs of patients and **demonstrate** competence in supporting them, their relatives and carers both physically and psychologically;
- **integrate** with the multi-disciplinary team, **give** professional advice and act as an informed source of expertise;
- **discuss** and **evaluate** the physical and technological principles of all imaging modalities;
- **analyse** and **critically evaluate** the capabilities, strengths and weaknesses and hazards of all imaging modalities;
- **reflect** on the physical and emotional impact of preparation and procedure upon the patient;
- **evaluate** and **discuss** quality control procedures in imaging;
- **synthesise** the factors affecting modality and technique selection in relation to the needs and condition of the patient as well as the anatomy, physiology and disease processes to be demonstrated.

9 SPECIFIC LEARNING OUTCOMES – ROUTINE RADIOGRAPHY

9.1 Radiography in the Imaging Department, Wards and Operating Theatres

By the end of Practice Based Learning 1 the student will be able to:

- **demonstrate** the ability to perform correctly and in their entirety, routine projections of:
fingers and hand;
wrist and carpal bones;
forearm;
elbow;
humerus;
shoulder girdle;
toes and tarsal bones;
ankle and tibia and fibula;
knee.
- **demonstrate** the ability to perform correctly and in their entirety, routine projections of:
femur and hip;
pelvis and sacroiliac joints;
thorax.
- **demonstrate** the ability to perform correctly and in their entirety, routine examinations of:
thoracic contents;
abdominal contents;
kidneys, ureters and bladder.
- **demonstrating** and **describing** appropriate methods of radiation protection;
- **demonstrate** correct management of patients in routine situations.

By the end of Practice Based Learning 2, in addition to the above, the student will be able to:

- **demonstrate** the ability to perform correctly and in their entirety, additional and alternate projections of:
fingers and hand;
wrist and carpal bones;
forearm;
elbow;
humerus;
shoulder girdle;
toes and tarsal bones;
ankle and tibia and fibula;
knee.

- **demonstrate** the ability to perform correctly and in their entirety, additional and alternate projections of:
 - femur and hip;
 - pelvis and sacroiliac joints;
 - thorax;
 - cervical spine;
 - thoracic spine;
 - lumbar spine, sacrum and coccyx;
 - skull and facial bones;
- **discuss** the reasons for the modifications to the routine techniques for the above procedures and **identify** the criteria for assessing the diagnostic quality of the resultant images;
- **discuss** and **evaluate** the specific radiation risks associated with radiography of the abdomen, chest and ribs;
- **discuss** and **demonstrate** the correct procedure for examination of the chest and abdomen on a non-ambulant, acutely unwell, patient;
- **demonstrate** correct management of patients cared for under barrier and reverse barrier nursing conditions along with those in high dependency, intensive and coronary care units;
- **describe** and **discuss** the care required and the modifications to basic technique needed by patients with traumatic or acute conditions in the X-ray department, wards and operating theatres;
- **describe, discuss** and **demonstrate** additional and alternate projections of the chest and abdomen;
- **describe** the techniques used for open reduction and internal fixation of fractures;
- **demonstrate** safe handling and operation of the dedicated skull unit and orthopantomograph / cephalostat.

By the end of Practice Based Learning 4, in addition to the above, the student will be able to:

- **select, prioritise and demonstrate**, under supervision, examinations for patients with multiple traumatic injuries;
- **demonstrate** the ability to contribute fully as a member of the multi-professional team in Accident and Emergency;
- **list** the sequence of radiographs taken for examination of multiple trauma and **discuss** the reasons for this sequence;
- **list, describe** and **discuss** the various skeletal surveys performed and the clinical reasons for them;
- **discuss** the management of patients with disruptive behaviour patterns;
- **describe** and **critically evaluate** patient care in the Accident and Emergency department, the appearance and treatment of shock, the application of sterile dressings, plaster of paris and splints;
- **participate** fully in department emergency duty and out of hours working, shadowing and assisting the duty radiographer in single handed work situations;
- **demonstrate** the ability to perform the administrative duties required outwith normal working hours;
- **demonstrate** the ability to locate, precisely, fixators in trauma theatre.

9.2 Radiography Using Contrast Media

By the end of Practice Based Learning 2 the student will be able to:

- **identify** and **verify** the expiry date and condition of contrast media;
- under supervision, **prepare** contrast media for administration and **discuss** contraindications for use;
- **identify** and **discuss** the indications and contraindications for intravenous urography and contrast examination of the biliary system, upper and lower gastrointestinal tracts;
- **demonstrate** the ability to produce, according to local protocol and the required diagnostic standard, radiographs for intravenous urography;
- **demonstrate** the ability to produce, according to local protocol and the required diagnostic standard, radiographs for contrast studies of the biliary system, upper and lower gastrointestinal tracts;
- **assist** in total patient care before, during and after contrast media examinations;
- **initiate** emergency procedures, according to local protocol, should adverse reaction occur.

By the end of Practice Based Learning 3, in addition to the above, the student will be able to:

- **describe** and **demonstrate** the technique required for radiographic procedures with contrast of:
 - genito-urinary system;
 - biliary system;
 - gastro-intestinal system;
 - cardio-vascular system;
 - central nervous system.
- **assist** with radiographic examinations of the central nervous system;
- **state** and **describe** the contrast media used and the reasons for their selection;
- **prepare** the equipment and contrast for the examination;
- **demonstrate** disposal of contaminated material and 'sharps' correctly according to local protocol;
- **discuss and evaluate** therapeutic interventional techniques such as angioplasty, embolisation and stenting;
- **demonstrate** correct operation of imaging equipment and PACS.

9.3 Administrative Processes

By the end of Practice Based Learning 1 the student will be able to:

- **receive** patients at reception and register them correctly using the local administrative systems and procedures;
- **process** request forms correctly according to local protocol;
- **obtain** previous reports, images and records as appropriate;
- **describe** the department appointment systems;

- **describe and discuss** local patient information documents and preparation instructions.

9.4 Image Processing

By the end of Practice Based Learning 1 the student will be able to:

- **demonstrate** correct identification of the radiographic image;
- **identify, describe** and **demonstrate** the function and controls of computerised and digital image processors.

By the end of Practice Based Learning 2, in addition to the above, the student will be able to:

- **demonstrate** the care of computerised and digital image receptors;
- **demonstrate** the range of functions of computerised and digital processing systems, describing the unloading, loading and processing cycles in full;
- **compare** and **contrast** image processing systems;
- **participate** in the routine care, maintenance and quality assurance of image processing systems.

By the end of Practice Based Learning 4, in addition to the above, the student will be able to:

- **discuss** and **participate** in departmental quality assurance procedures for image processors;
- **critically evaluate** results with regard to quality standards and consistency;
- **analyse** inconsistencies, **identify** causes and **formulate** solutions;
- **assess** the contribution of quality assurance programmes to achieving and maintaining quality standards in the imaging department.

10 SPECIFIC LEARNING OUTCOMES - SPECIAL IMAGING TECHNIQUES

10.1 Mammography

By the end of Practice Based Learning 3 the student will be able to:

- **describe** the differences between conventional X-ray and Mammographic equipment and **discuss** the reasons for these;
- **state** the advantages of image processors and viewers and **discuss** the merits of an ongoing quality assurance programme in the mammography department;
- **state** the type of image receptor used for mammography and **identify** reasons for maintenance of scrupulously clean equipment;
- **state** the routine projections performed and **describe** patient positioning;
- **describe** normal mammographic appearances and **differentiate** normal from abnormal for a range of age groups;
- **discuss** care levels and communications skills required for this patient group;
- **demonstrate** correct operation of imaging equipment and PACS.

10.2 Shock Wave Lithotripsy

By the end of Practice Based Learning 3 the student will be able to:

- **state** the reasons for and the advantages of hemi-KUB and collimated renal radiographs;
- **identify** the reasons for performing a full KUB radiograph;
- **discuss** the reasons for using either ultrasound or radiography as a locating tool;
- **describe** the effect of shock wave lithotripsy on calculi;
- **identify** the procedures performed in endourology theatre and **discuss** the role of the radiographer;
- **state** the reasons for stenting and nephrostomy and **describe** their functions;
- **describe** normal abdominal appearances and **differentiate** normal from abnormal images;
- **demonstrate** correct operation of imaging equipment and PACS.

10.3 Ultrasound

By the end of Practice Based Learning 3 the student will be able to:

- **discuss** the principles of ultrasound and **state** the standard frequencies used;
- **describe** equipment used for obstetric and general ultrasound and **discuss** its uses and limitations;
- **describe** the preparation required for a patient undergoing obstetric ultrasound examination and **demonstrate** the ability to offer total care;
- **identify** the measurements that are made in routine examination of the foetus;

- **describe** the preparation and care of the patient undergoing abdominal, vascular and musculo-skeletal ultrasound;
- **describe** normal abdominal appearances and **differentiate** normal from abnormal images;
- **demonstrate** correct operation of imaging equipment and PACS.

10.4 Computed Tomography

By the end of Practice Based Learning 3 the student will be able to:

- **describe** the operating principles of CT;
- **discuss** the clinical indicators for CT;
- **participate** effectively with all CT examinations;
- **describe** and **demonstrate**, with assistance, the preparation and positioning of patients undergoing CT of the head, spine, chest and abdomen in routine and acute situations;
- **state** the contrast media and **discuss** the methods of administration used in CT of the head, spine, pelvis, chest and abdomen;
- **identify** and **describe** normal and abnormal anatomical, pathological and trauma appearances on CT images of the head, spine, pelvis, chest and abdomen;
- **participate** as an active member of the multi-disciplinary team in caring for the patient before, during and after CT examinations with and without contrast media;
- **demonstrate** the ability to perform, under supervision, standard CT head examinations;
- **demonstrate** correct operation of imaging equipment and PACS.

10.5 Magnetic Resonance Imaging

By the end of Practice Based Learning 3 the student will be able to:

- **discuss** the physical principles of magnetic resonance imaging and **state** the standard field strengths used for imaging;
- **state** the safety precautions required;
- **discuss** the clinical indicators for magnetic resonance imaging;
- **describe** the preparation of and the positioning required for patients undergoing magnetic resonance imaging of the head, abdomen, spine, pelvis and extremity;
- **state** the contrast media and methods of administration used in magnetic resonance imaging;
- **identify** anatomical structures demonstrated on magnetic resonance imaging of the head, abdomen, spine and extremity;
- **demonstrate** correct operation of image recording equipment;

- **demonstrate** the preparation of and the positioning required for patients undergoing magnetic resonance imaging of the head, abdomen, spine, pelvis and extremity along with the ability to offer total care;
- **participate** as an active member of the multi-disciplinary team in caring for the patient before, during and after magnetic resonance imaging using contrast media;
- **discuss** the anatomy demonstrated in cross section by magnetic resonance imaging and **differentiate** normal from abnormal appearances;
- **critically analyse** the use of magnetic resonance imaging and **debate** the utilisation of alternative cross sectional imaging methods.

10.6 Radionuclide Imaging

By the end of Practice Based Learning 3 the student will be able to:

- **describe** the components of equipment used in RNI;
- **discuss** the clinical indicators for RNI;
- **describe** the preparation of and the positioning required for patients undergoing RNI of the chest, skeleton and abdomen along with the ability to offer total care;
- **state** the common radionuclides and methods of administration used in RNI;
- **identify** anatomical structures demonstrated during RNI, **discuss** the anatomy demonstrated and **differentiate** normal from abnormal appearances;
- **discuss** the physical principles of radionuclide dispensing and imaging and the safety precautions necessary;
- **participate** as an active member of the multi-disciplinary team in caring for the patient before, during and after radionuclide imaging;
- **critically analyse** the use of radionuclide imaging and **debate** the utilisation of alternative cross sectional imaging methods;
- **demonstrate** correct operation of image recording equipment and PACS.

10.7 Cardiovascular, Angiography and Interventional Radiology

By the end of Practice Based Learning 3 the student will be able to:

- **describe** the components of equipment used in cardiovascular imaging and interventional radiology;
- **discuss** the clinical indicators for cardiovascular and interventional procedures;
- **describe** the preparation of and the positioning required for patients undergoing cardiovascular and interventional procedures;
- **state** the contrast media and methods of administration in cardiovascular and interventional procedures;

- **participate** as an active member of the multi-disciplinary team in caring for the patient before, during and after cardiovascular imaging and interventional procedures;
- **critically analyse** the use of angiography and **debate** the utilisation of alternative imaging methods;
- **identify** and **discuss** anatomical structures demonstrated and **differentiate** normal from abnormal appearances;
- **demonstrate** correct operation of image recording equipment and PACS.

11 CLINICAL EDUCATION

11.1 Practice Based Learning 1

The focus for the Practice Based Learning 1 is the acquisition of foundation skills in general radiography and fluoroscopy as well as the building of a knowledge base in patient care, department administration and image processing.

Placements will offer the following learning opportunities:

- radiography of the skeleton, chest, abdomen, genito-urinary, gastrointestinal and biliary systems;
- where possible, attachment to department nursing staff;
- where possible, attachment to department administrators;

Placements will be arranged via:

- general and fluoroscopic imaging facilities in teaching hospitals, district general hospitals and community treatment centres;
- accident and emergency departments;
- mobile radiography and fluoroscopy in wards and operating theatres.

11.2 Practice Based Learning 2

The focus for Practice Based Learning 2 is the continued development of general skills in routine radiography and fluoroscopy, as well as integrating further into the Health Care Team.

Placements will be arranged via:

- general and fluoroscopic imaging facilities in teaching hospitals, district general hospitals and community treatment centres;
- accident and emergency departments;
- orthopaedic departments;
- paediatric departments;
- mobile radiography and fluoroscopy in wards and operating theatres.

11.3 Practice Based Learning 3

The focus for Practice Based Learning 3 is the building of a foundation knowledge in the specialist imaging areas of paediatrics, dental, mammography, ultrasound, shock wave lithotripsy, computed tomography, magnetic resonance imaging, radionuclide imaging and cardiovascular and interventional radiology.

Placements will be arranged via:

- specialist imaging facilities in teaching hospitals, district general hospitals and community treatment centres.

11.4 Practice Based Learning 4

The focus for Practice Based Learning 4 is the consolidation of general skills in radiography and the achievement of 'competence to practice' as a radiographer. The Elective Placement is a required element of Practice Based Learning 4 and an exemption can be given only by the Module Coordinator or Programme Leader. Students will undertake an Elective Placement of four weeks duration to encourage the development of their practical, analytical and evaluative skills. The placements are arranged by the student and can be world-wide. Students will arrange the elective placement in Semester 7. Students who do not complete the continuous or staged assessment in Practice Based Learning 4 would not undertake the elective placement.

Placements will be arranged via:

- general, fluoroscopic and specialist imaging facilities in teaching hospitals, district general hospitals and community treatment centres;
- accident and emergency departments, to include 'out of hours' working;
- orthopaedic X-ray departments;
- mobile radiography and fluoroscopy in wards and operating theatres;
- reporting radiographers and radiologists.

11.5 Feedback

Feedback will be given to the student throughout their placement by clinical tutors, liaison officers and supervisors whose common goal is to make the experience as informative and interesting as possible. Students will be required to utilise ePortfolio to record reflective accounts of their experiences. Students will submit their ePortfolio to the module coordinator for formative feedback according to the published schedules. Students will also be asked to give written, anonymous, feedback to the departments via the module coordinator with regard to their experiences

The student will collate the ratings received from the continuous assessment scheme on the continuous assessment spreadsheet; this enables the student to generate their own feedback regarding their clinical strengths and weaknesses. The student will attend a clinical appraisal review with the module coordinator after each module to review progress and address any concerns. The module coordinator, or the student, can request a meeting at any time if there are any causes of concern.

11.6 Tutorials and Clinical Workshops

Tutorials, workshops and online discussions will be available at appropriate intervals during clinical practice. Tutorials may be formal or informal and must be recorded in and reflected upon, in terms of the key elements of learning, in the ePortfolio.

12 CLINICAL ASSESSMENT

12.1 Introduction

The technologies employed in the practice of diagnostic radiography are diverse and complex, the range of procedures undertaken is vast and the risks associated with the application of ionising radiation well known. It is necessary therefore that the student be supervised, observed and monitored through all the stages of clinical education that underpin clinical practice; safe application of ionising radiations, appropriate examination and care of the patient and adherence to the legal requirements of radiography practice.

The clinical assessment programme provides a flexible and robust record of achievement and progress through Practice Based Learning 1, 2, 3 and 4. The programme strives to encourage personal responsibility for learning and development.

The scheme has three fundamental elements, continuous clinical assessment, staged clinical assessment (which assesses competency) and e-portfolio.

It will:

- be a valuable learning and educational tool for the student;
- improve the students' expertise through systems of performance appraisal;
- allow self-assessment and encourage reflective practice;
- encourage involvement and input by clinical practitioners in teaching and assessment processes;
- enhance patient care and raise patient awareness of the role of the radiographer in health care management.

12.2 Management of Assessment

The clinical module coordinator manages systems of assessment and is responsible for:

- equitable application of the scheme across the student body;
- consulting with department managers regarding selection of clinical assessors;
- training for assessors and supervisors;
- submitting data to the Boards of Examiners as required.

12.3 Clinical Assessment Methods

12.3.1 Practice Based Learning 1

Continuous Assessment	Pass / Fail
Staged Clinical Assessment	Pass / Fail
ePortfolio	Pass / Fail

12.3.2 Practice Based Learning 2

Continuous Assessment	Pass / Fail
Staged Clinical Assessments	Pass / Fail
ePortfolio	30% weighting
Discussion	70% weighting

12.3.3 Practice Based Learning 3

Continuous Assessment	Pass / Fail
ePortfolio	Pass / Fail

12.3.4 Practice Based Learning 4

Continuous Assessment	Pass / Fail
Competence to Practice Clinical Assessment	Pass / Fail
ePortfolio	30% weighting
Viva Voce Examination	70% weighting

13 STAGED CLINICAL ASSESSMENT

13.1 Format for Practice Based Learning 1 and 2

A total of four clinical staged assessments are required in Practice Based Learning 1 and 2:

- During the examination, the Clinical Assessor completes the performance indicator proforma and gives feedback on performance at the end of the process (Appendix H). The Academic Assessor will verify the 'pass' awarded.
- Prior to assessment of the images, the student completes the examination data proforma. Together, the Clinical Assessor and student will critique the images. All data protection and patient confidentiality issues must be considered. All students' work for QMU must take into consideration professional codes of conduct. The student must not remove any images or information from the clinical environment which could identify the patient. Failure to comply with this will result in that piece of work being marked as a fail grade.

13.1.1 Practice Based Learning 1 and 2; Clinical Assessments

- First assessment: routine examination of the Chest **or** Abdomen to be completed in Semester 2, Weeks 37–39.
- Second assessment: routine examination of an appendicular joint: wrist, elbow, knee or ankle, completed in Semester 2, Weeks 40–1.
- Third Assessment: routine examination of the cervical, thoracic or lumbar spine, completed in Semester 2, Weeks 45–1.
- Fourth Assessment: mobile examination, typically a chest, completed in Semester 2, Weeks 45–1.

13.1.2 Practice Based Learning 1 and 2; Clinical Assessor Guidance

- The student must have received appropriate tuition and have been observed to have performed similar examinations unaided.
- The student must be recently familiar with the equipment and accessories available.
- The student **must not** have access to the performance indicator pack during the examination.
- The Assessor has a duty to closely observe the student throughout the examination, it is essential therefore that they are not disturbed for the duration of the process.
- Throughout the examination, the student must **clearly indicate verbally** their actions.
- If, during the assessment, the Assessor deems the patient to be unsuitable due to their clinical or psychological condition, the process is halted and declared null and void. The student may rearrange the assessment without penalty.
- The Assessor must terminate the assessment if the student clearly cannot cope or is placing the patient at risk. This is recorded as a failed assessment and the Assessor notifies the module coordinator at the earliest opportunity. After appropriate counselling by the academic team, further clinical practice as required, and approval from the Convener of the Board of Examiners, the student will arrange a second diet assessment as soon as is practicable.

- The Assessor must terminate the assessment and take over the procedure if any SECOND REPEAT radiographs are required. This is recorded as a failed assessment and the Assessor notifies the module coordinator at the earliest opportunity. After appropriate counselling by the academic team, further clinical practice as required, and approval from the Convener of the Board of Examiners, the student will arrange a second diet assessment as soon as is practicable.
- In the event of termination of assessment, the student MUST be told that the Assessor is taking over along with the reasons associated with this decision. The patient must be informed that the examination will continue with qualified staff and assured of a satisfactory outcome.
- In the event of termination of assessment, the student will be counseled by Clinical Tutor, Lecturer or Programme Leader as appropriate and a repeat assessment arranged.
- In the event of failure of the clinical assessment according to the marking criteria, the student must receive immediate feedback from the Assessor. The assessor must immediately inform the module coordinator who will meet with the student. The module coordinator will retain all documentation and will consult with the Convener of the Board of Examiners; after appropriate action, the student will arrange a second diet assessment.
- Permission to repeat a failed element of the assessment will be sought from the Convener of the Board of Examiners. Possible actions include;
 - repeat following feedback and further instruction,
 - allowing mark to stand in the event of unusual contributory factors.
- The student may repeat a staged assessment element once only. This repeat will be recorded as a second diet attempt with a maximum of 40% being awarded for the module. Failure of an assessment at second diet is referred to the Board of Examiners.

13.2 Format for Practice Based Learning 4

The 'Competence to Practice' clinical assessment is required during semester 5.

- The aim of the assessment is to ensure individual competence to practice as a registered radiographer. The student will manage a practical clinical session of a minimum of 2 hours during which the clinical assessor completes a performance indicator proforma for each examination / procedure conducted (Appendix I). At the end of the session, the assessor will collate the results and feed back to the student. An error rate of 5% or less is required to pass this element.

13.2.1 Format for Practice Based Learning 4; Clinical Examination

- Competence to Practice: practical general clinical session for two hours, to be completed in Semester 5, Weeks 45 - 1.

13.2.2 Format for Practice Based Learning 4; Clinical Assessors Guide

The Competence to Practice clinical assessment requires that between eight (minimum) and 12 (maximum) varied examinations or procedures be completed in order that technical and managerial competence in a normal working situation may be assessed. In the event of low activity or lack of procedural variety, the assessment may be extended. The assessor will not however specially select the patients for the student nor will they stipulate the types of procedures to be undertaken. For example, it is not a requirement that the student undertake a multiple trauma examination as this facility is not available in all assessing departments.

- The student must have received appropriate tuition and have performed similar examinations unaided.

- The student must be allowed to negotiate location(s) with the assessor, with the period being divided between areas if appropriate. For example, an assessment conducted between an Accident and Emergency room and a general room will allow the student to demonstrate a variety of skills and techniques.
- The student must be recently familiar with the equipment and accessories available.
- The student MUST NOT have access to the assessment pack during the examination.
- The Assessor has a duty to closely observe the student throughout the examination, it is essential therefore that they are not disturbed for the duration of the process.
- Throughout the examination, the student must effectively communicate their actions and decisions to the Assessor although a running commentary is not required.
- If, during the session, the Assessor deems a patient to be unsuitable, the process is halted and that examination declared null and void. The assessment may then proceed.
- The Assessor must terminate the assessment if the student clearly cannot cope or is placing the patient at risk. This will result in failure of the clinical element.
- The Assessor must terminate the assessment and take over the procedure if any second repeat images are required. This will result in failure of the clinical element.
- In the event of termination of assessment, the student MUST be told that the Assessor is taking over along with the reasons associated with this decision. The patient must be informed that the examination will continue with qualified staff and assured of a satisfactory outcome.
- In the event of failure of the clinical assessment according to the marking criteria, the student must receive immediate feedback from the Assessor. The assessor must immediately inform the module coordinator who will meet with the student. The module coordinator will retain all documentation and will consult with the Convener of the Board of Examiners.
- Permission to repeat a failed element of the assessment will be sought from the Convener of the Board of Examiners. Possible actions include:
 - repeat following feedback and further instruction;
 - allowing mark to stand in the event of unusual contributory factors.
- The student may repeat a staged assessment element once only. This repeat will be recorded as a second diet attempt with a maximum of 40% being awarded for the module. Failure of an assessment at second diet is referred to the Board of Examiners.

13.3 The Role and Responsibilities of the Student

The student will:

- seek and identify appropriate opportunities for clinical assessment and negotiate with Clinical Tutors and Assessors;
- prepare appropriately for assessment;
- ensure the assessment documentation has been completed correctly;

It is the responsibility of the Clinical Tutor or Clinical Assessor to ensure that the student is prepared for the assessment procedure. However, the student has a responsibility for indicating the following points prior to commencement of the examination:

- the student feels that the patient selected by the Assessor is unsuitable;
- the student feels that, during this clinical block, they have had insufficient experience of the examination and/or the equipment.

These points cannot be used as mitigating factors in the event of failure of the assessment unless identified prior to the start of the assessment process. The student must immediately notify the module coordinator of any grievance.

13.4 The Clinical Assessor

- Will be employed by the clinical placement provider as a Radiographer or by the University as a Lecturer.
- Will have been practicing clinically for at least 18 months.
- Will have received training in clinical assessment procedures and systems from staff of the University.
- Will attend or complete online or face-to-face a training refresher activity every two years.

13.4.1 Roles and Responsibilities of the Clinical Assessor

The Clinical Assessor will:

- identify a suitable patient for the clinical assessment;
- arrange a suitable date for assessment of competence to practice;
- arrange appropriate location for the examination(s);
- obtain patient(s) consent to participate;
- observe the procedure(s);
- complete the performance indicator pack according to the agreed criteria;
- manage appraisal of the radiographs produced;
- provide immediate feedback to the student on completion of the assessment;
- inform the Lecturer responsible for clinical education immediately following termination or failure of an assessment.

13.4.2 Selecting the Patient

- Unless specified as part of the assessment criteria and excluding the assessment of competence to practice, the patient should be cooperative and mobile.
- With the exception of the mobile and assessment of competence to practice, examinations should be a 'routine' as possible. Students in Practice Based Learning 1 and 2 should not be required to make complex decisions regarding non-standard techniques or projection modification.

- In Practice Based Learning 1 and 2, supplementary and additional projections are NOT included in the assessment process.
- In Practice Based Learning 1, a single patient must be used for ONE assessment only. If, for example, a patient is referred for examination of the knee and spine, they may NOT be used for assessment in both categories.
- In the assessment of competence to practice, the student should manage and prioritise the workload of the area in which the assessment is taking place. Although expected to work unaided, the student is required to ask for and direct assistants as required to reflect a 'real' working situation. Consultation with colleagues and texts with regard to technique is permitted and, again, reflects 'real' work practices.

13.4.3 Equality of Assessment

To minimise potential for personality clashes and perceptions of unfairness or inequality:

- Each hospital will, in addition to the Student Liaison Officer / Clinical Tutor, have several Clinical Assessors. All students have extensive clinical placement rotations and it is therefore unlikely that the same Clinical Assessor will be used twice;
- Student Liaison Officers / Clinical Tutors **must** ensure that as many individuals as possible are involved in assessing students during the MSc programme.

14 OPERATION OF THE CLINICAL ASSESSMENT

14.1 Clinical Assessor

- The cover sheet records student, hospital, Assessor and examination information and should be completed by the student before examination starts.
- Section 1 must be completed before the start of the examination with the Clinical Assessor completing the patient consent and pregnancy check appropriateness categories.
- The student must indicate each point in section 1 verbally.
- An automatic fail results if 1a) and 1b) carries a **NO** response and the assessment is terminated.
- The student must be able, under 1e), to discuss the implications of patient sex, age and condition upon dose limitation.
- In section 2 and 3, care must be taken not to tick the boxes as a matter of routine and without due consideration.
- An automatic fail results if 3b) carries a **NO** response and the assessment is terminated. A clear, positive identity must be given by the patient or established by following local protocol.
- An automatic fail results if 3g) carries a **NO** response and the assessment is terminated. Pregnancy check, if required, must be carried out according to local protocol.
- Failure is the result of a total of three **NO** responses in sections **1e) and 5b) and 5h)**. Feedback is given to the student at the end of the assessment.
- Failure is the result of **NO** responses in **any 3** categories of section **4** and feedback is given to the student at the end of the assessment.
- In sections 4-6, care must be taken not to tick the boxes as a matter of routine and without due consideration.
- The student should complete the Examination Data Record immediately after the examination is complete and prior to discussing the radiographs with the Assessor.
- If a pack is returned incomplete, the Module Coordinator will contact the Clinical Assessor for discussion.
- Reason for repeat must be given by the Clinical Assessor and NO student can be permitted more than one repeat of an examination.
- If however a repeat was due to genuine equipment malfunction, the student should not be penalised.

15 CT HEAD COMPETENCY

Students in Practice Based Learning 3 are required to demonstrate competency in CT Head imaging. To evidence completion of this competency the CT Head Checklist should be completed (Appendix J). Only one checklist is required to be completed. The individual elements of the checklist can be completed as the student develops their skills throughout the placement week. To pass the assessment the checklist should evidence 'Acceptable' in all elements and the supervisor must confirm the student has completed, under supervision, five unaided CT Head examinations.

If the student does not attain 'Acceptable' in all elements, or does not complete the 5 unaided CT Head examinations, the student can still progress to Practice Based Learning 4. The student will be provided with a second opportunity in Practice Based Learning 4 to successfully complete the assessment.

16 OPERATION OF THE ASSESSMENT OF COMPETENCE TO PRACTICE

In Practice Based Learning 4, theory is integrated with practice to provide a sound framework for the competent clinical practitioner. The development of high level skills in problem-solving, critical analysis, evaluation and appraisal will prepare the student for continuing professional development and life-long learning in a multi-professional environment.

An extended, more comprehensive assessment of a students' competence to practice at the end of their course of study is therefore required.

During the second clinical practice block in semester 5, the student will be required to 'become a radiographer' for a period of two hours when all aspects of their performance will be appraised. An error rate of 5% or less is required to pass the clinical practice session.

16.1 Clinical Assessor

Individuals performing Competence to Practice clinical assessment will be experienced Clinical Assessors who have received the necessary training and updates from the University. They will:

- arrange a suitable time slot for the competence to practice assessment;
- agree appropriate location(s) for the examinations;
- obtain patients' consent to participate;
- observe the procedures;
- complete the performance indicator proforma according to the agreed criteria;
- facilitate discussion and critique of the images.

17 CONTINUOUS CLINICAL ASSESSMENT

17.1 Introduction

The Continuous Clinical Assessment Programme will enable the student to develop from observer through participant to competent practitioner. The programme will demonstrate a clear pathway from the novice who is able to perform single tasks or discrete elements of a task to a competent member of the multi-disciplinary team who is able to apply a range of skills and knowledge to a wide range of situations. Evaluation of this progression is supported by continuous formative assessment (Appendix J), ePortfolio of clinical practice and progress mapping.

Continuous Clinical Assessment utilises progressive achievement levels in domains of diagnostic radiographic practice, providing quantitative analysis and qualitative assessment of competence through evaluation and monitoring of the development of clinical, technical and professional skills. Feedback to the student encourages reflection on experiences within clinical environments and the setting of personal objectives. Students will also be asked to give written feedback to the departments with regard to their experiences.

17.2 Learning Outcomes

The programme will:

- enhance the learning experience for the student by providing feedback on clinical performance;
- ensure continued high level input and involvement of clinical staff in teaching and assessment;
- encourage the integration and application of theoretical concepts into practice;
- allow the student to develop into a proactive practitioner via reflection, appraisal and critical analysis;
- determine levels of student achievement;
- introduce principles of performance review and appraisal.

17.3 Achievement Levels

As a student proceeds through the course and gains knowledge and experience, they progress through levels of clinical achievement. The Continuous Clinical Assessment Programme is designed to describe and monitor these levels of skill and achievement across the students' range of activity.

PBL1, the student starts in clinical practice as a 'novice' with minimal clinical experience but some academic knowledge who will observe clinical activity and attempt to link these observations to existing knowledge. As PBL 1 progresses, the learner will gain enough clinical expertise to allow supervised and directed practice. To achieve a pass in PBL 1 the student must demonstrate a minimum rating of 'C' overall. Those who do not achieve the minimum required standard will have results presented to the Board of Examiners and may be timetabled appropriately to enable retrieval.

PBL2, the student continues to build on their initial practical experience linking activities and elements together to be able to consistently perform routine general radiographic examinations. Students will extend their skills to enable modification and adaptation of routine examinations. As PBL 2 progresses the students will demonstrate increased levels of expertise thus requiring minimal support. To achieve a pass in PBL 2 the student must demonstrate a minimum rating of 'C' overall. Those who do not achieve the minimum required standard will have results presented to the Board of Examiners and may be timetabled appropriately to enable retrieval.

PBL3, the student will develop a knowledge and skills base in specialist areas to enable participation in specialist procedures. To achieve a pass in PBL 3, a minimum rating of 'D' for specialist placements in MRI, CT or Ultrasound, for example, is required. Those who do not achieve the minimum required standard will have results presented to the Board of Examiners and may be timetabled appropriately to enable retrieval.

PBL4, students learn to adapt their skills to enable the performance of procedures in routine, non-routine and complex situations. They will be able to plan, organise and prioritise multiple clinical events appropriately. The student will arrange an elective placement to broaden their clinical expertise and versatility. These skills should be considered as elements of clinical competence. As the individual gains experience and knowledge, the basic skills are combined and integrated into overall professional competence which will enable the graduate to apply their skills in a flexible manner whilst responding imaginatively to new and unfamiliar situations. To achieve a pass in PBL4, the student must demonstrate a minimum rating of 'C' overall. Those who do not achieve the minimum required standard will have results presented to the Board of Examiners and may be timetabled appropriately to enable retrieval. Elective placements do not form part of the continuous assessment process, but 100% attendance is required.

17.4 Domains of Practice

In order to evaluate and monitor competence in Diagnostic Radiography it is necessary to identify the elements of competent practice. The application of domains of practice allows recognition of professional skills, which are essential components of clinical, technical and interpersonal competence. Using levels of achievement allows for progressive evaluation of developing skills. It facilitates formative assessment and performance monitoring in Practice Based Learning throughout the programme thus helping and encouraging the student to expand their professional expertise.

The domains of practice in which students are assessed are:

17.4.1 TECHNICAL SKILL

TS1 DIAGNOSTIC PROCEDURES

- **PBL 1:** the student can perform routine radiographic examinations of the appendicular skeleton, chest and abdomen.
- **PBL 2:** the student can perform routine examinations; modifying and adapting technique for trauma, pathology and congenital abnormalities as required.
- **PBL3:** the student can assist before, during and after specialised imaging procedures.
- **PBL4:** the student can consistently produce high quality images, adapting technique as required to meet individual patient's needs and capability.

TS2 EVALUATION OF IMAGES

- **PBL 1:** the student can identify normal and abnormal appearances on radiographic images.
- **PBL2:** the student can evaluate radiographic images for technical accuracy, pathological appearances and identify the need for additional and supplementary projections.
- **PBL3:** the student can critically evaluate image quality, differentiate between normal and abnormal appearances.
- **PBL4:** the student can critically appraise diagnostic images: describe abnormalities, identify possible causes of abnormalities and discuss their diagnostic and clinical significance.

TS3 OPERATION OF IMAGING EQUIPMENT

- **PBL 1:** the student will be able to operate imaging equipment and accessories safely, effectively and efficiently whilst observing local rules for radiation protection.
- **PBL 2:** the student will be able to manoeuvre and manipulate imaging equipment to compensate for patient condition and disability and the effects of trauma, pathology and congenital abnormality.
- **PBL 3:** the student can, with assistance, manoeuvre the imaging equipment during specialised procedures.
- **PBL 4:** the student can competently use imaging equipment in a variety of clinical settings, and demonstrate competence in the selection and manipulation of exposure factors, minimising patient dose.

17.4.2 APPLIED KNOWLEDGE

AK1 INTEGRATION OF THEORY AND PRACTICE

- **PBL 1:** the student demonstrates good background knowledge of routine radiographic techniques, including centring points.
- **PBL 2:** the student is able to apply theoretical knowledge to routine and complex situations.
- **PBL 3:** the student is able to apply theoretical knowledge to specialist imaging modalities.
- **PBL 4:** the student is able to justify their clinical practice based on a sound knowledge of theory, policies and procedures.

AK2 INQUIRY AND RESEARCH

- **PBL 1:** the student critically reflects on their clinical knowledge and skills.
- **PBL 2:** the student has read and can apply: local infection control, health and safety, equality and diversity, radiation protection policies and procedures to their clinical practice.
- **PBL 3:** the student can initiate discussion and utilise relevant literature and research.
- **PBL 4:** the student will initiate inquiry and discussion and will seek and use relevant literature and research materials to improve their practice.

17.4.3 PATIENT MANAGEMENT

PM1 EMERGENCY PROCEDURES

- **All students** must know the local protocol for emergency telephone numbers, call procedures, fire alarms, extinguishers, emergency exits and evacuation procedures. Orientation should be performed by the department Health and Safety Representative or by the Clinical Tutor.

PM2 RECOGNITION AND ALLEVIATION OF PAIN AND DISCOMFORT

- **PBL 1:** the student demonstrates an awareness of the patient's physical condition throughout the radiographic examination.
- **PBL 2:** the student demonstrates compassionate care and initiates appropriate care strategies for routine patients, patients in pain or patients with limited physical capabilities.
- **PBL 3:** the student can respond quickly and use appropriate techniques to minimise pain and discomfort.
- **PBL 4:** the student demonstrates a patient centred care approach, modifying technique, communication and providing support as required.

PM3 PSYCHOLOGICAL AND EMOTIONAL SUPPORT

- **PBL 1:** the student demonstrates courtesy and patience, does not show distaste or disapproval.
- **PBL 2:** the student recognises the signs of emotional distress and anxiety, assists with alleviation measures and is supportive towards patients undergoing investigation and treatment.
- **PBL 3:** the student can assist in maintaining patient dignity and minimise anxiety via appropriate care strategies.
- **PBL 4:** the student anticipates sources of general distress and those related to specific procedures, using appropriate patient care measures to minimise stress whilst adopting a supporting role.

17.4.4 COMMUNICATION SKILLS

CS1 COMMUNICATING WITH RADIOLOGY DEPARTMENT STAFF

- **PBL 1:** the student communicates appropriately with supervisors and asks appropriate questions in a professional manner.
- **PBL 2:** the student can receive, record and convey verbal and electronic information accurately.
- **PBL 3:** the student communicates effectively and constructively with the radiology department team.
- **PBL 4:** the student is able to communicate effectively and constructively, making a valuable contribution to department operations.

CS2 COMMUNICATING WITH THE MULTIDISCIPLINARY TEAM

- **PBL 1:** the student is aware of their role within the radiodiagnostic multidisciplinary team and can communicate effectively with other team members.
- **PBL 2:** the student communicates effectively with members of the radiodiagnostic multidisciplinary team to promote team working.
- **PBL 3:** the student communicates effectively with members of the multidisciplinary team to promote patient care and support.

- **PBL 4:** the student is able to function as an effective and efficient member of the multidisciplinary team promoting patient care and optimum service delivery.

CS3 COMMUNICATING WITH PATIENTS, RELATIVES AND CARERS

- **PBL 1:** the student is able to provide clear instructions to patients and carers before, during and after diagnostic imaging.
- **PBL 2:** the student demonstrates the ability to respond appropriately to patients and carers' questions.
- **PBL 3:** the student communicates clearly with regard to preparation for, experience during and consequences of specialist imaging procedures.
- **PBL 4:** the student responds to individuals' need for information and can use verbal and non-verbal skills effectively.

17.4.5 ORGANISATIONAL SKILLS

OS1 PERSONAL PRESENTATION

- **All students** must comply with QMU, local and national requirements as specified in the module handbooks.

OS2 TIME MANAGEMENT

- **PBL 1:** the student makes good use of unstructured time by using quieter times for study, reflection and role-play.
- **PBL 2:** the student makes effective use of programmed and unstructured time to develop skills and knowledge and ensuring that assigned tasks are completed on schedule.
- **PBL 3:** the student has awareness of how to manage time effectively and how the workload is prioritised .
- **PBL 4:** the student demonstrates the ability to prioritise clinical workload.

OS3 GENERAL ORGANISATION

- **PBL 1:** the student can establish and confirm the pre-examination information required for justification, authorisation, patient identification and consent.
- **PBL 2:** the student can establish a safe working environment by adhering to infection control, radiation safety and manual handling polices and procedures.
- **PBL 3:** the student demonstrates an organised approach to imaging procedures and administration processes.
- **PBL 4:** the student demonstrates demonstrates proficient organisational skills and can complete assigned tasks efficiently and to a high standard.

17.4.6 PROFESSIONALISM

PR1 INTEREST AND MOTIVATION

- **PBL1:** the student willingly participates in all aspects of the department routine, including cleaning.
- **PBL2:** the student initiates discussions with supervisors to enhance their learning and proactively engages in all aspects of the department workload.
- **PBL3:** the student proactively makes use of departmental resources to enhance their learning.
- **PBL 4:** the student proactively seeks learning opportunities: attends MDT meetings, arranges reporting sessions and participates in quality assurance tests/clinical audits.

PR2 RESPONSIBILITY

- **PBL 1:** the student is able to introduce themselves to patients and carers in a professional manner.
- **PBL 2:** the student accepts responsibility for routine and more complex examinations, and asks for assistance when required.
- **PBL 3:** the student accepts responsibility for aspects of specialist examinations, and asks for assistance when required.
- **PBL 4:** the student knows their limitations and will ask for appropriate assistance.

PR3 PROFESSIONAL JUDGEMENT

- **PBL 1:** the student is willing to learn and can set their own learning objectives.
- **PBL 2:** the student demonstrates an understanding of the justification process and the procedure to deal with incomplete/inappropriate referrals.
- **PBL 3:** the student demonstrates a problems solving approach to professional or examination issues.
- **PBL 4:** the student demonstrates the ability to assess professional/clinical problems and deal with the problem based on their acquired knowledge and experience.

PR4 PUNCTUALITY AND PROFESSIONALISM

- All students are ready to start work on time and return from rest breaks promptly.
- All students act in a professional manner at all times.

The students' abilities in these areas are assessed during each clinical placement, collated by the module coordinator and are appraised by the module coordinator / lecturers at the end of each module (Appendix K).

17.5 OPERATION OF CONTINUOUS CLINICAL ASSESSMENT SCHEME

The Continuous Clinical Assessment Scheme operates via the placement report proforma (Appendix L, M, N and O), found in the Module Handbooks. Commencement and mid placement discussions are vital to explore the practitioners' expectations of the student, to identify issues that may hinder progress and to give an opportunity to offer positive reinforcement and two-way feedback.

Student ability in the domains of clinical practice are assessed during placement and appraised by the module coordinator throughout the year.

The overall rating for Clinical Appraisal is achieved by rating the elements of each domain on a six-point scale. In each element of each domain the rating is awarded according to the students' level of achievement in the specified learning outcomes.

It is the responsibility of the supervising radiographer to be aware of the outcomes in the performance report and to rate each student objectively and equitably. The ratings are:

The overall rating for Clinical Appraisal is achieved by rating the elements of each domain on a six-point scale on the final day of placement. In each element of each domain the rating is awarded according to the student's level of achievement in the specified learning outcomes.

- A** The student is consistently performing well above the level of the learning outcome.
- B** The student is performing above the level of the learning outcome.
- C** The student is performing at the level of the learning outcome.
- D** The student is performing below the level of the learning outcome, support is still required. Continued development of knowledge, skills or confidence required.
- E** The student is performing well below the level of the learning outcome, constant support is required. Significant development of knowledge, skills or confidence required.
- F** The student's performance is unsatisfactory: lack of engagement, no effort has been made to meet the learning outcome.

The rating will take into account any factors or constraints which have affected the student's ability to perform effectively.

The Clinical Supervisor will:

- complete the daily/weekly report component of the continuous clinical assessment proforma;
- discuss the assessment with the student;
- identify and agree the students' strengths and areas for improvement.

The Clinical Supervisor:

- responsible for completing the daily/weekly report will be one of a team within a placement or will be the member of staff with responsibility for students within that placement.

IMPORTANT NOTES

If during the week the student's performance indicates that they will be awarded an 'F', the supervisor must discuss the situation with the student and record details of the discussion on the continuous assessment sheets. If there is no improvement the subsequent day(s) the supervisor must contact the Module Coordinator, and complete a cause for concern form (Appendix C).

If on the final day of placement the student scores an 'F' in any of the categories, immediate contact with the Module Coordinator is required.

Each case will be considered individually and appropriate remedial action taken.

A student will have a range of skills levels in different areas at the same time. They will be competent in some techniques and still be novice in others. Areas in which the student receives limited experience require specific objectives.

COLLATION AND MARKING SCHEME

Achievement levels from all outcomes, of every domain, of clinical practice are entered by the student onto the continuous Assessment Spreadsheet. The spreadsheet will automatically calculate and map the inputted data to the appropriate rating. The previous sheet provides examples of the ratings obtained from various combinations. The Module Coordinator will check the student marking and collate achievement levels.

Collation and Marking Process:

- the student downloads the spreadsheet from the Hub;
- the student inputs their attendance, entering 'Y' or 'N', the overall attendance will be automatically calculated. The half day study should be recorded as 'N';
- the student inputs the data from the continuous assessment sheets into the spreadsheets using the codes A, B, C, D, E, F or Y, N for yes/no responses;
 - any missing or incomplete data – leave the cell blank
- the numerical values attached to each of the codes are:

A	6.5
B	5.5
C	4.5
D	3.5
E	2.5
F	1.5
N	1.5

Y does not have a numerical value as the student should be consistently working at the level of the learning outcome, the final rating will not be affected. If a student is rated **N**, the student's rating will have a detrimental effect on the rating for the week, the domain of practice and the overall rating.

- the spreadsheet automatically calculates the weekly, overall block and module domain ratings, this provides the student with feedback to evaluate their current status and progression throughout the module;
- to calculate the final weekly, overall block and module rating the following minimal values must be attained:

6.0	A
5.0	B
4.0	C
3.0	D
2.0	E
1.5	F
- by the specified dates, the student will enter the completed spreadsheets to the Hub drop box;
- continuous assessment documentation should be given to the Module Coordinator at the appropriate tutorial;

- the Module Coordinator will verify data entry, to ensure consistency and accuracy of data entry.

Levels required for a 'pass' are:

PBL1	General	C	Specials	None
PBL2	General	C	Specials	None
PBL3	General	C	Specials	D
PBL4	General	C	Specials	None

17.6 CLINICAL ACTIVITY LOG

- During each clinical placement experience the student is required to complete and record a number of patient episodes using the appropriate proforma supplied by the module coordinator. The purpose of the clinical log is to ensure the student gains a wide clinical experience. The clinical log will be utilised during the student appraisal to discuss placement provision and the student's participation in clinical procedures.
- Although a guide to the minimum number of procedures may be specified, as many and as wide a variety of techniques as possible should be recorded. To pass the continuous assessment, the student must demonstrate a participation in a wide variety of examinations, and attain the minimum numbers in accordance with their clinical rotation. Changes to clinical practice and protocol may impact upon the availability of some examinations, for example skull and fluoroscopy.
- The student's clinical experience is classified under the following three headings:
 - **Observed** the student observes the examination, they are not actively involved in the examination process;
 - **Aided** the student undertakes the examination with support or assistance from the supervisor;
 - **Unaided** the student, under supervision, completes the examination without assistance from the supervisor.

Practice Based Learning 1

By the end of PBL1 the student should have documented the following minimum numbers of procedures:

Procedure	Observed	Aided	Unaided
Upper Limb	5	10	10
Lower Limb	5	10	10
Shoulder Girdle	5	10	10
Pelvis and Hip	10	10	
Spine	10	10	
Skull and Face*	10	10	

Thorax and Contents	5	15	20
Abdomen	10	10	5

* It is acknowledged that, due to changes in clinical management skull radiography is diminishing. Facial bone examinations are plentiful however in Accident and Emergency departments. Allowances for these changes will be made by the module coordinator.

Practice Based Learning 2

By the end of PBL2 the student must have documented the following minimum numbers of procedures:

Procedure	Observed	Aided	Unaided
Upper Limb		10	25
Lower Limb		10	25
Shoulder Girdle		10	15
Pelvis and Hip		10	10
Spine		10	10
Skull * Face & Dental	3	15	10
Paediatric Skeletal		10	10
Paediatric CXR/AXR		10	5
Paediatric Fluoro etc	15	5	
Thorax & Contents		10	25
Abdomen		5	10
Ward Radiography	5	10	5
Upper GI Contrast *		10	5
Lower GI Contrast		10	5
Urinary System *		10	5
Biliary System *		3	3

* It is acknowledged that, due to changes in clinical management, the use of skull radiography is diminishing. Facial bone examinations are plentiful however in Accident and Emergency departments. Due to changes in imaging practice, GI and Biliary examinations are being replaced by endoscopy and IVU by CT and MRI. Allowances for these changes will be made by the module coordinator.

Practice Based Learning 3

By the end of PBL3 the student must have documented the following minimum numbers of procedures:

Procedure	Observed	Aided	Unaided
Urinary System *		10	10
Biliary System *		3	3
Ultrasound Ob/Gyn	20		
Ultrasound General	20		
Mammography ^	10	5	
Lithotripsy	5		
CT Head	10	5	5
CT Other	10		
MRI Head/Spine	15	5	
MRI Other	5		
Cardio / Intervent	10		

RNI

10

5

^ Mammography placements in the Breast Unit are for females only.
All students will experience an assessed CT placement and at least two additional 'specials'.
Students who do not achieve the CT scan outcomes for the head in PBL 3 will be placed in CT in PBL4.

Practice Based Learning 4

By the end of PBL 4 the student must have documented the following minimum numbers of procedures:

Procedure	Observed	Aided	Unaided
Upper Limb			25
Lower Limb			25
Shoulder Girdle			20
Pelvis and Hip			20
Spine			20
Mobile CXR/AXR		20	10
Mobile Skeletal *		10	10
Theatre Skeletal		10	10
Skull and Face ^		5	20
Thorax and Contents			40
Abdomen		5	15
Fluoro Procedures *		30	10
Urinary System *		5	20

* Modern methods in treatment of fractures have reduced the requirement for mobile, examinations of the skeleton. Due to changes in imaging practice, GI and Biliary examinations are being replaced by endoscopy and IVU by CT and MRI. Allowances for these changes will be made by the module coordinator.

^ It is acknowledged that, in modern clinical practice, use of examination of the skull is diminishing. Facial examinations should however be plentiful in Accident and Emergency departments.

Students who did not achieve the CT scan outcomes for the head in PBL 3 will be placed in CT in PBL 4.

18 ePORTFOLIO

As part of the Continuous Clinical Assessment strategy, the student is required to maintain an electronic portfolio of clinical practice and professional development using QMU ePortfolio (Pebble+). This will give the student opportunities to reflect upon clinical practice, learning and performance and to provide evidence of clinical experience and progress. It will form the foundation for continuing professional development and will be maintained and developed throughout the programme.

- The ePortfolio will require collection and collation of information from a wide range of sources to provide evidence of competence, learning and understanding.
- The ePortfolio will also include elements of personal reflection from individual clinical experiences.

18.1 Guidelines: See also ePortfolio Handbook

- Use QMU ePortfolio which is accessed from the home page via the student IT login. A structural template is available through a gateway for students to utilise if they wish.
- For each week of clinical practice in PBL1, 2 and 3 a full, reflective account of at least one procedure, experience or critical incident should be recorded using the appropriate proforma or blog. The student should also make the key elements of their learning on placement specific; this commentary should make reference to the learning outcomes stated in the handbook.
- In PBL4 the students are required to critically reflect and provide evidence of clinical learning and development linked to six core, and two specific dimensions of the Knowledge and Skills Framework.
- Additional and supplementary evidence of extended learning must be included and its relevance referred to explicitly in the writing.
- Tutorials and discussions must be recorded and key elements of learning reflected upon.
- The ePortfolio must contain a personal learning and development plan linked to the Knowledge and Skills Framework.
- In PBL 4, a Curriculum Vitae is a mandatory element of the ePortfolio.



Queen Margaret University
EDINBURGH

**School of Health Sciences
Radiography
Clinical Placement Initial and Continuous Monitoring Report**

Organisation:		Clinical Tutor / Student Liaison officer(s):	
Hospital:		Date of completion:	
Department:		Name:	
Radiology manager:		Signature:	
Placement approved		Placement not approved until conditions are met	
Placement approved subject to conditions		Date of next visit	
Conditions: 			

Please complete the following form, indicating compliance with the following requirements for student placements. Please use the notes section to provide evidence of how the requirement is met, or the action(s) required to achieve the requirement.

★ denotes a mandatory requirement for placement approval.

Requirement	Yes	No	Notes
<p>Section 1: Policies and Procedures The placement provider can demonstrate the following policies are in place, in relation to students, and provide evidence of how they are implemented and monitored:</p>			
1.1	Ionising Radiation Regulations ★		
1.2	Infection Control ★		
1.3	Health and Safety ★		
1.4	Data Protection ★		
1.5	Equality and Diversity ★		
<p>Section 2: Documentation The placement provider can demonstrate the following documents are available to students:</p>			
2.1	Ionising Radiation Regulations ★		
2.2	Infection Control ★		
2.3	Health and Safety ★		
2.4	Data Protection ★		
2.5	Equality and Diversity ★		

Requirement		Yes	No	Notes
2.6	Local rules on all imaging equipment ★			
2.7	NHS Education for Scotland – Quality Standards for Practice Placements			
Section 3: Induction The placement provider can provide evidence that the following information is provided to student at commencement of the placement:				
3.1	A departmental induction pack ★			
3.2	Orientation of department facilities ★			
3.3	Fire safety arrangements ★			
3.4	First aid arrangements ★			
3.5	Manual Handling guidance ★			
3.6	Risk from harmful substances ★			
3.7	Emergency phone numbers ★			
3.8	Location of resuscitation equipment ★			
3.9	Introduction to clinical tutor/ liaison / mentor ★			
3.10	Learning plan agreed with supervisor			
3.11	Arrangements for notification of sickness ★			
3.12	Named person for confidential guidance and support			

Requirement	Yes	No	Notes
<p>Section 4: Supervisor and Assessor support The placement can provide evidence to demonstrate the following:</p>			
4.1	There are sufficient experienced supervisors/ assessors to support the student learning experience ★		
4.2	Staff received appropriate training prior to supervising and assessing students ★		
4.3	Supervisors/assessors are aware of the learning outcomes for QMU students★		
4.4	Supervisors and assessors have access to the QMU clinical documentation – hard copy / electronic ★		
4.5	There is a team approach to supporting student learning		
4.6	Staff receive sufficient time to discuss individual student’s learning needs and set learning objectives ★		
4.7	Staff receive sufficient time to support and guide students to achieve their learning outcomes ★		
4.8	Supervisors and assessors provide timely, objective and constructive verbal and written feedback, inline with QMU clinical placement documentation★		
4.9	Clinical assessments are conducted in a fair, timely, supportive, constructive manner ★		
4.10	Staff are aware of the procedure if a student fails an assessment? ★		
4.11	There is a system in place to raise concerns about a student★		
4.12	There is a system in place to ensure the competency of staff involved with students ★		
4.13	Do you require supervisory training?		? how many staff:
4.14	Do you require assessor training?		? how many staff:

Section 5: Organisational**The placement provider can provide evidence to meet the following requirements:**

5.1	Promotion of a welcoming, supportive learning environment ★			
5.2	The department provides a range of learning experiences			
5.3	There is a system in place to provide pastoral care for the student			
5.4	Access to a library			
5.5	Internet access for study and research			
5.6	A system to assess the quality and effectiveness of student placements, and action any issues raised? ★			
5.7	Systems to ensure patients are aware of potential student involvement in their care? ★			



Queen Margaret University
EDINBURGH
School Of Health Sciences

Radiography

Practice Education Passport

FITNESS TO PRACTISE

The University has an obligation to ensure that graduates from its pre-registration healthcare programmes are fit to practise. This means we need to consider whether students:

- have a long-term health condition or disability which could prevent them from practising safely without supervision;
- have any criminal convictions or cautions which could make them unsuitable for registration;
- have demonstrated that they can maintain the standards of conduct expected of a health professional

Your behaviour on placement and in private life has the potential to affect your suitability for registration. If the University becomes aware of an issue regarding a student's behaviour it may initiate Fitness to Practise proceedings. Where there are serious concerns, a Fitness to Practise panel may be convened. The Fitness to Practise panel has the authority to impose a range of sanctions, including requiring a student to suspend study or even to leave the programme.

For more information, see the QMU Fitness to Practise Policy.

Health and Disability

Students should keep their Personal Academic Tutor or Programme Leader informed of any changes to their health or disability status. The University will seek to put in place measures to support students with health problems or disabilities so far as is practical. It is essential that you discuss any concerns you might have with staff as early as possible.

To protect patient safety, you must inform your placement supervisor immediately if you contract a communicable disease.

Conduct

Concerns may arise about your fitness to practise if any of the following situations occur:

- you are convicted of a criminal offence, particularly one involving dishonesty or violence;
- you are found in breach of the student discipline code, e.g., for your behaviour towards other students or for cheating in an exam / plagiarism;
- you behave in an unethical or unprofessional manner on placement;
- you breach patient confidentiality.

The above list is not exhaustive. Each case will be dealt with according to the individual circumstances.

Student Name _____

Completion of passport verified by:

Matriculation Number _____

Please date and sign the following on completion:

	Date	Signature
Receipt of PVG certificate		
Measured for uniforms		
Collection of name badge		
Health clearance check with Occupational Health Nurse		
Confirmation of Professional Indemnity Insurance		

	Date	Signature
Basic Life Support		
Child Protection		
Duty of Candour		
Infection Control (SIPCEP modules)		
Information Governance		
Moving and Handling		
Safeguarding Adults		
Violence and Agression		

Please date and sign when you have read the following documents:

	Date	Signature
HCPC guidance for students on Conduct and Ethics		
HCPC Guidance on Health and Character		
HCPC Standards of Proficiency: Radiographers		
HCPC Managing Fitness to Practise		
QMU guidance on Fitness to Practise		
SCoR guidance: dealing with bullying and harassment – a guide for student radiographers		

Please date and sign when you have read the following documents:

	Date	Signature
Protecting Patient Confidentiality: NHS Code of Practice		
NHS Scotland: Looking after information		
Records Management: NHS Scotland Code of Practice		
Information Commissioner's Office: guide to GDPR		
IR(ME)R 2017: regulations and guidance notes		
IRR 2017: regulations and guidance notes		

SCoR: verifying patient identification and seeking consent		
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Appendix C

Supervisor and Assessor Reporting Proforma

The following proforma should be completed by a supervisor or assessor who has concerns about student performance levels in any of the domains of clinical practice. After completion, the individual will notify the module coordinator who will arrange a meeting to discuss their concerns and explore possible actions.

Supervisor / Assessor Name	
Supervisor / Assessor Location	
Student Name	
Please give outline of areas of concern:	
Date Reported to Module Coordinator	Date:
Meeting Arranged For	Date:
Meeting Outcome / Actions Agreed	





Queen Margaret University
EDINBURGH

SCHOOL OF HEALTH SCIENCES

RADIOGRAPHY

**MSc Diagnostic Radiography
(Pre-registration)**

RECORD OF ELECTIVE PLACEMENT

General Requirements

The elective placement must be considered by the student in the same way as any other clinical placement. The elective placement is arranged by the student for 4 weeks during semester 7. A reflective account for each week must be included in the elective documentation and the clinical procedures encountered included in the activity log. It is vital that a record of learning is maintained in the ePortfolio: examples might include;

- techniques performed in a way different to your current experience and reasons for the differences,
- techniques and procedures you have not experienced before and what you have learned,
- differences in the general organisation of the department workload and an evaluation of these differences,
- contrast agents used that are unfamiliar,
- new knowledge gained; link this to existing knowledge.

Completing this record

The student must maintain the Summary of Elective Placement; this is a simple list of all the departments and hospitals attended during the period.

Maintain a brief record of your daily experiences for each week of placement and note your learning; this will help you to construct your reflective accounts.

As with any other Continuous Assessment, the supervisor must sign to verify your attendance. An appraisal statement is requested from your supervisor at the end of each week. A self-appraisal should form part of your writing in the ePortfolio.

Following the Elective Placement

The student must make an appointment to submit the elective record to the module coordinator as soon as they return to the University.

SUMMARY OF ELECTIVE PLACEMENT

Student to record dates as well as departments / hospitals attended.

Student name.....

Week Beginning

Hospital / Department

Student to complete a form for each elective week.

Week beginning.....

Hospital / Department.....

Day 1	Procedures etc.	Outcomes achieved
--------------	------------------------	--------------------------

Day 2		
--------------	--	--

Day 3		
--------------	--	--

Day 4		
--------------	--	--

Day 5		
--------------	--	--

APPRAISAL STATEMENT

Attendance – Supervisor, please sign to verify attendance, please do not ‘tick’. Student is permitted one half-day per week for study and reflection. Thank you.

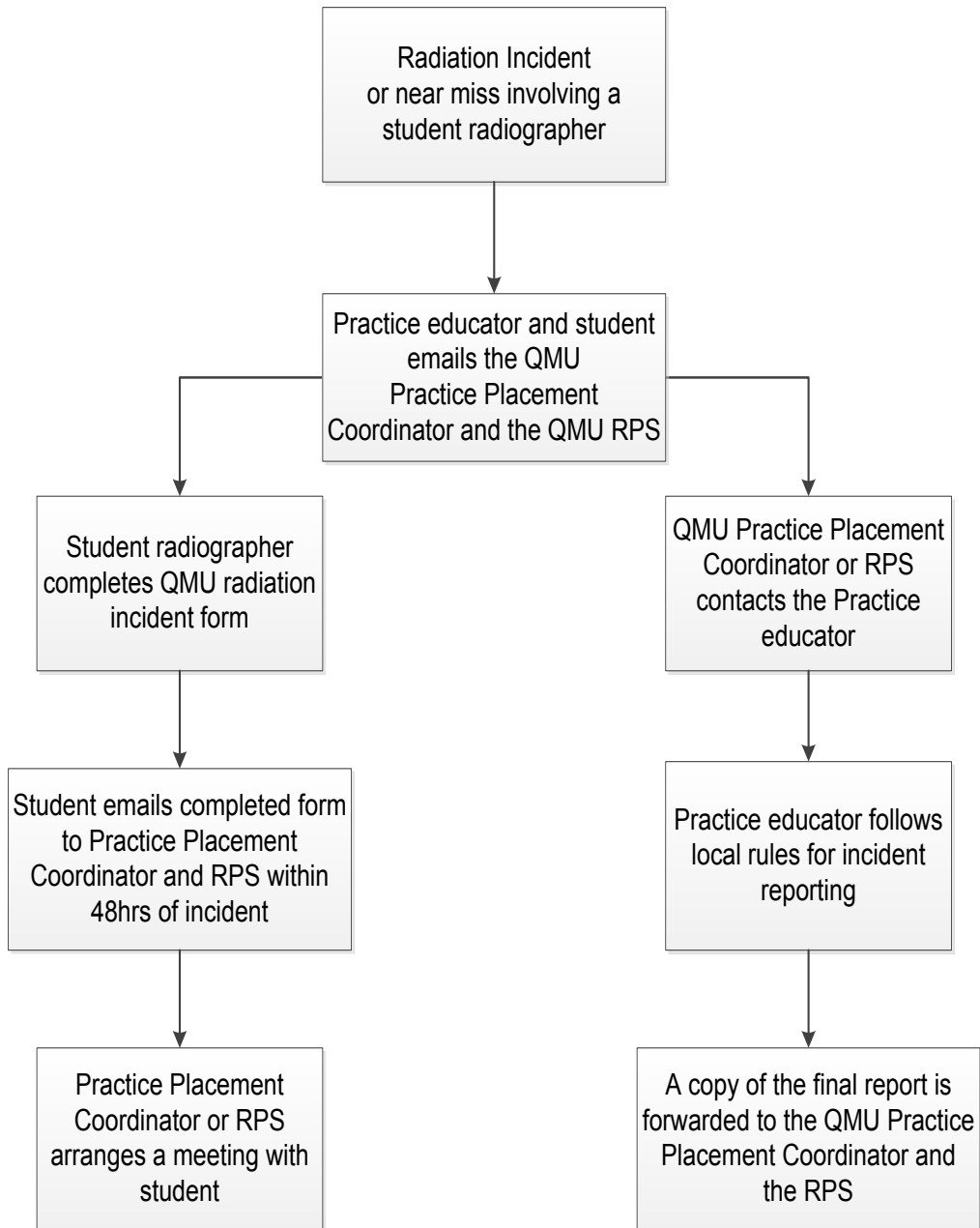
	Monday	Tuesday	Wednesday	Thursday	Friday
a.m.					
p.m.					

Student Appraisal – Supervisor(s), please comment below on the students’ skills, abilities, attitudes, strengths and areas for improvement. Thank you.

Student signature and date.....

Supervisor signature and date.....

Radiation Incident Flowchart



Radiation Incident Form

Please complete the following form and email to the Practice Placement Coordinator and the Radiation Protection Supervisor within 48hours of the incident.
Fill in as many details as you can, but remember if a patient is involved do not include any patient identifiable information.

Student:

Hospital Site:

Placement:

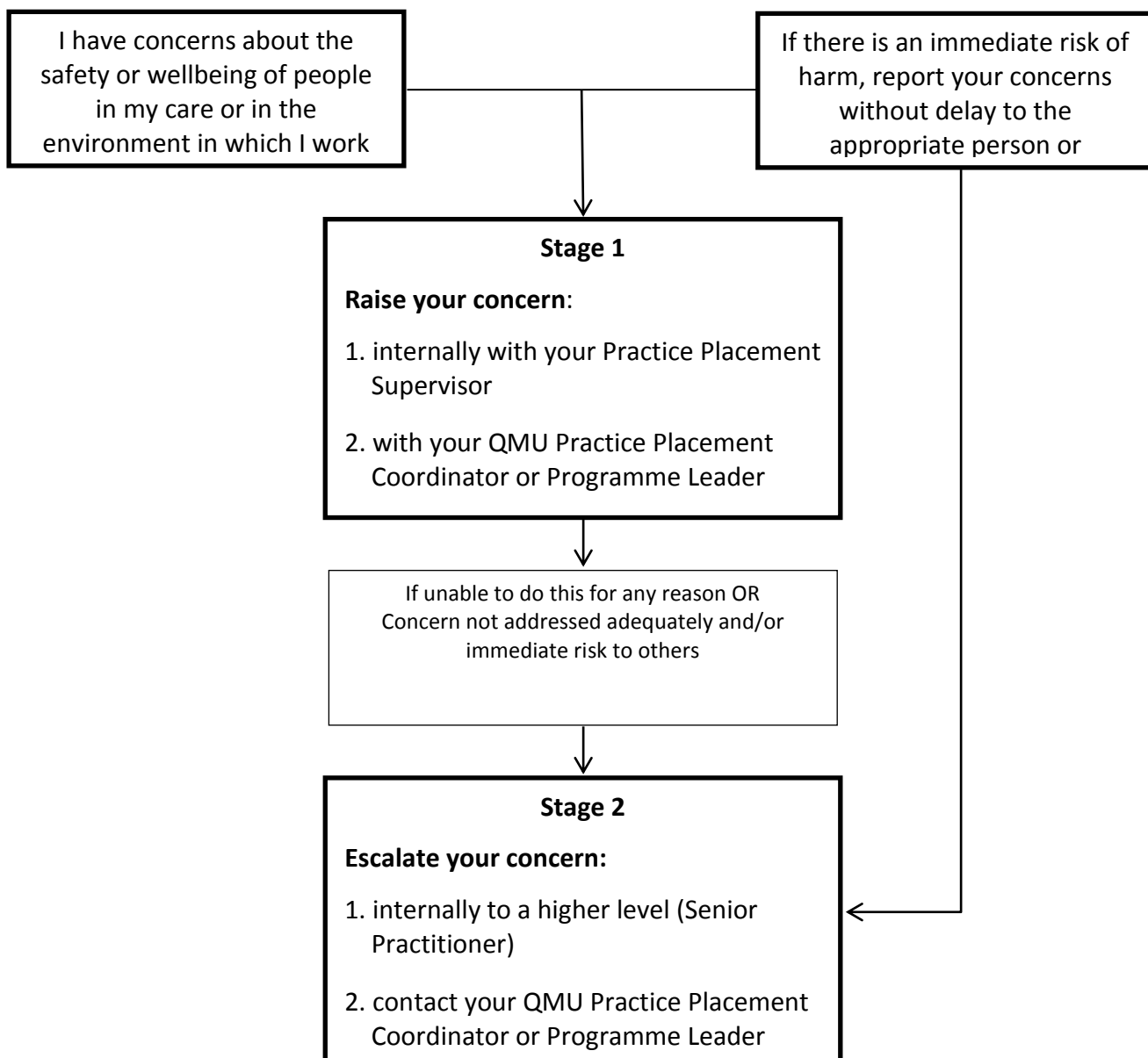
Date of incident:

Practice Educator(s):

Describe exactly what happened:

Raising and Escalating Concerns Form

Adapted from BSc Hons Nursing Guidance



Seeking Advice

If you are unsure about whether, or how, to raise a concern at any stage, you should seek advice from your QMU Practice Placement Coordinator or Programme Leader.

*Independent confidential advice is available from your professional body, trade union or PCaW. † Students can also speak with their university tutor.

† Public Concern at Work (www.pcaw.org.uk)

Key Points

- Take immediate or prompt action
- Protect confidentiality
- Refer to whistleblowing policies
- Keep an accurate record of your concerns and actions taken



Queen Margaret University
EDINBURGH

**MSc DIAGNOSTIC RADIOGRAPHY
(Pre-registration)**

**PRACTICE BASED LEARNING 1 and 2
STAGED CLINICAL ASSESSMENT**

This page to be completed by the student.

Name -----

Year -----

Hospital -----

Department -----

Examination -----

Date -----

Assessor -----

**This document must remain intact to facilitate marking and collation,
and returned to the module coordinator.**

Clinical Assessor completes the remainder of this document by ticking the boxes.

Examinations are to be performed according to local protocol.

Patient Consent Received by.....Supervisor Sign

Check of pregnancy status is appropriate. YES / NO (Please circle)

1 THE REQUEST

The student should not be prompted, the single appropriate question being 'which projections will you do?'

- a) * Has the student checked all request details are completed: patient ID, clinical information, signature of referrer, date?
- b)* Has the student followed the local IRMER rules for justification and authorisation of the request?
- c) Does the student demonstrate understanding of the medical terminology used?
- d) Has the student considered viewing previous images etc ?
- e) Does the student know which projections are appropriate?
- f) If the examination was a mobile one, did the student seek the permission of the Charge Nurse prior to the examination?

Yes	No

2 ADVANCE PREPARATION

- a) Was the X-ray room presented in a tidy fashion?
- b) Did the student demonstrate awareness of infection control issues?
- c) Was the X-ray equipment, including image receptors where appropriate, set up in advance?
- d) Was a preliminary set of exposure factors set?
- e) Were protective devices and general accessories available?

Yes	No

3 PRELIMINARY PATIENT CARE AND MANAGEMENT

- a) Did the student introduce himself or herself and greet the patient and / or carer appropriately?
- b) * Did the student obtain a positive identity?
- c) * Even where the information was completed on the request, did the student ask whether they had been X-rayed before?
- d) Did the student communicate well, giving clear instructions to the patient?
- e) Did the student prepare the patient appropriately, with regard to clothing, jewellery etc.?
- f) * Did the student check that the correct area is to be examined?
- g) * If appropriate, did the student check pregnancy status?

Yes	No

4 THE EXAMINATION – TECHNICAL

For ALL projections did the student:

	Yes	No
a) position the patient and image receptor correctly?		
b) use the correct surface markings, centering point(s) and central ray direction(s)?		
c) protect the patient correctly through the use of collimators and accessory devices?		
d) select the correct anatomical marker and place it appropriately on the image receptor?		
e) correctly adjust and check pre-set exposure factors?		
f) instruct the patient clearly and concisely?		
g) use immobilisation and support devices appropriately to facilitate patient comfort and stability?		
h) observe the patient closely throughout the procedure?		
i) check that the exposure occurred?		
j) comply with the local rules governing safe use of ionising radiations?		

5 THE EXAMINATION – PATIENT CARE

Did the student:

	Yes	No
a) adopt appropriate infection control measures and practices?		
b) communicate effectively with the patient throughout the examination?		
c) answer patient queries adequately?		
d) give consideration to the patients' physical condition and special requirements?		
e) attend to safety issues appropriately?		
f) upon completion of the examination, give appropriate and accurate information to the patient or their carer?		
g) ensure that the patient was fit to leave the department or was left in a comfortable condition on the ward?		
h) appear and act in a professional manner throughout?		

6 THE EXAMINATION – ADMINISTRATION

Did the student:

	Yes	No
a) complete documentary and electronic administrative requirements as per local protocol?		
b) deal with the images and documentation correctly at the end of the examination? (e.g. send for reporting, to clinic etc.)		

7 THE EXAMINATION – DIAGNOSTIC QUALITY

Were the images of diagnostic quality according to local protocol?

Projection 1

Projection 2

Projection 3

Yes	No

Please give reasons for repeat radiographs below.

Copies of the assessment images are not required.

8 STUDENT CRITIQUE OF THE IMAGE(S)

Diagnostic quality is NOT an issue in this section. The student is required to critique the original images (not repeats) under the tabulated headings. For all projections, please indicate whether or not this was achieved.

Did the student correctly appraise the radiographs with regard to -

	Projection Number - 1		2		3	
	Y	N	Y	N	Y	N
identification?						
anatomical markers and legends?						
region of interest?						
projection?						
positioning?						
density, contrast, sharpness, exposure index?						
collimation?						
artifact?						
anatomy, anatomical variations, pathology?						
need for additional projections?						
need for repeats?						

9 GENERAL INFORMATION

Please delete inapplicable.

a) Was the student assisted with the examination? YES / NO

Specifically, what assistance was given?

b) Did the student encounter any difficulties? YES / NO

Specifically, what were they and how did the student deal with them?

c) Please make any other comments regarding student performance in this staged assessment that you feel are relevant.

Signed-----(Clinical Assessor)

**THE STUDENT SHOULD COMPLETE THIS PAGE
TO RECORD EXAMINATION DETAILS**

1. **Projection(s)** -----

2. **No. and size of
image receptors** -----

3. **For each projection, list the exposure factors as tabulated:**

Projection	KVp	mA	Time	SID	IR	Grid?	Focus Size	S-Value/ Exposure Index

4. **Explain your reasons for choice of projections and other factors.**

STAGED CLINICAL ASSESSMENT

MARKING SCHEME

The student must pass the practical element of the Clinical Assessment before proceeding to the element of discussion with the Academic Tutor.

CRITICAL ELEMENTS

- 1 An automatic fail is the result of a **NO** response in any of the following sections: **1a, 1b, 3b, 3c, or 3f.**
- 2 An automatic fail is the result of a **NO** response in section **3g**(if appropriate).
- 3 Failure is the result of three **NO** responses in section **1e** and section **5b and h.**
- 4 Failure is the result of **NO** responses in **any 3** categories in section **4.**

The clinical assessor and the student must report the failure to the Module Coordinator as soon as possible. As necessary, the student will be counselled and retrained prior to reassessment.



Queen Margaret University
EDINBURGH

**MSc Diagnostic Radiography
(Pre-registration)
Practice Based Learning 4
Competence to Practice Clinical Assessment**

Student

Assessor.....

Date.....

Hospital.....

Department(s).....

To be completed by Assessor:

PASS

REFER

Percentage

Assessor sign

Student sign.....

Examination(s)			
Patient Information	Age		Gender

Number of Projections	
------------------------------	--

A. Administration

Did the student:

Check the signature of referrer?

Justify request under IR(ME)R?

- a. Understand the medical terminology?
- b. State relevance of pregnancy status?
- c. Perform clerical tasks correctly?

	N
*	
*	
Total	

B. Preparation of Room and Equipment

Did the student:

- a. Select appropriate equipment?
- b. Pre-select exposure factors?
- c. Prepare the room prior to examination?
- d. Remain organised throughout?
- e. Tidy and clean after the examination?

	N
Total	

C. Patient Care

Did the student:

Positively identify the patient?

a. Introduce themselves?

Verify pregnancy status to protocol?

- b. Verify correct examination requested?
- c. Prepare the patient (clothing etc)?
- d. Consider patient difficulty (eg. Mobility)?
- e. Adhere to infection control procedure?
- f. Apply moving / handling procedures?
- g. Consider patient health and safety?
- h. Maintain patient dignity throughout?
- i. Correctly instruct the patient?

	N	NA
*		
*		
Total		

D. Procedure

Did the student:

- a. Select correct image receptor?
- b. Adjust exposure factors appropriately?
- c. Identify correct radiographic technique?
- d. Position the patient correctly?
- e. Modify technique as required?
- f. Utilise appropriate radiation protection?
- g. Apply markers / legends correctly?
- h. Use equipment / accessories correctly?
- i. Use immobilisation devices / techniques?

	N	NA
Total		

E. Radiographic Critique

Was patient ID present and correct?

Did student appraise images for:

- a. Presence of markers and legends?
- b. Region of interest?
- c. Collimation/artefacts
- d. Accuracy of positioning?
- e. Image quality – CR / DR systems?
- f. Normality / Abnormality / Pathology?
- g. Need for further projections?
- h. Need for repeat projections?

	N
*	
Total	

F. Communication

For this examination the student:

- a. Communicated appropriately with staff.
- b. Communicated effectively with patient.
- c. Communicated appropriately with carers.
- d. Gave correct post exam information;
 - i. To patient,
 - ii. To carers,
 - iii. To staff.

	N	NA
Total		

Repeat Radiographs

State number of repeats.

G. General Performance

- a. Student led procedure effectively.
- b. The procedure was 'unaided'.
- c. Advice was sought appropriately.
- d. Initial images were diagnostic.
- e. Student was professional throughout.
- f. Prompting/intervention was required.

	Y	N	NA
Total			

Assessors Notes

Collation

Patient Number	A	B	C		D		E	F		G (a-e)		G (f)
	N	N	N	NA	N	NA	N	N	NA	N	NA	Y
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
Total												
	N	N	N	NA	N	NA	N	N	NA	N	NA	Y

Insert the figures you need for the error rate calculation below;

Total Y & N (errors) = Total NA = Total Patients =

To calculate the final percentage, please perform the following equation:

$$\frac{\text{Total errors}}{(\text{Total patients} \times 51) - \text{Total NA}} \times 100\% = \text{Percentage}$$

For example; 5 errors, 8 patients and 20 NAs:

$$\frac{5}{(8 \times 51) - 20} \times 100\% = \text{Percentage} \quad \frac{5}{388} \times 100\% = 1.3\%$$

Please enter the figures into the equation:

$$\frac{\text{_____}}{(\text{_____} \times 51) - \text{_____}} \times 100\% = \text{_____}\%$$

Percentage must be 5 or less for a pass. Please insert final percentage on the front cover sheet.

Feedback

The assessor should discuss the process and provide feedback to the student as soon as possible after the assessment is completed. Written comments should be provided below.

What were the particular strengths of the student performance?

What specific aspects of student skills require further development?

Assessor's general comments.

I have discussed this assessment with the student.

Assessor – sign and date.....

Student – sign and date

CT Head Checklist

Student: _____

Matriculation Number _____

The student can (please tick):	1	2	3
discuss CT Head requests appropriately (is contrast media indicated?);			
prepare the examination room;			
greet, positively ID and prepare patients;			
explain the procedure to the patients;			
assist patients on and off the couch;			
position and immobilise patients correctly;			
manoeuvre the gantry and couch correctly;			
recognise and discuss contrast agent contraindications, if appropriate;			
assist with the preparation and administration of contrast media, if appropriate;			
set up and produce a topogram / scannogram / scout;			
set up scan range;			
perform scan;			
effectively communicate with patients during the examination;			
provide patients with accurate post examination information;			
demonstrates compliance with infection control policies before, during and after the examination;			
adhere to local radiation protection procedures (including pregnancy status);			
demonstrate high levels of care and respond to patient's needs.			
record, archive and processes images correctly;			
identify basic anatomy and gross pathology;			

1: Acceptable

2: Requires improvement

3: Unacceptable

I can confirm the student has completed, under supervision, 5 unaided CT Heads: Yes / No

Supervisor _____

Date _____

Signed _____

Hospital _____

APPRAISAL INTERVIEW

Appraisal interviews will be conducted with Year 1 students following each PBL module. Students will receive feedback regarding levels of achievement in the clinical domain for the year based upon the collation of continuous clinical assessment documentation. The process will include discussion on students' strengths and areas for development in addition to planning placements for the following year.

DATE OF INTERVIEW.....

Summary of points discussed and actions agreed

THE STUDENT SHOULD ONLY SIGN BELOW IF HE/SHE AGREES WITH AND ACCEPTS THIS APPRAISAL. IN CASES OF DISAGREEMENT THE APPRAISAL WILL BE REFERRED TO THE COURSE LEADER WITH ALL RELEVANT DOCUMENTATION.

STUDENT: _____ LECTURER: _____

SIGNED: _____ SIGNED: _____

PRACTICE BASED LEARNING 1
CONTINUOUS ASSESSMENT

PLACEMENT TYPE **General Radiography**

STUDENT NAME

HOSPITAL & DEPT.

DATES

STUDENT VERIFICATION

Clinical Supervisor / Educator please complete on the first day of placement:

I can confirm that I have checked the QMU student identity card and can verify the attendance of _____ at _____ hospital

Signed _____ Date _____

On a daily basis, the student and supervisor jointly completes the formative feedback. The student is responsible for ensuring that the supervisor completes the Continuous Clinical Assessment proforma on the final day of placement. Please rate the student using the categories listed below

- A** The student is consistently performing well above the level of the learning outcome.
- B** The student is performing above the level of the learning outcome.
- C** The student is performing at the level of the learning outcome.
- D** The student is performing below the level of the learning outcome, support is still required. Continued development of knowledge, skills or confidence required.
- E** The student is performing well below the level of the learning outcome, constant support is required. Significant development of knowledge, skills or confidence required.
- F** The student’s performance is unsatisfactory: lack of engagement, no effort has been made to meet the learning outcome.

According to the published assessment instructions, students must submit all documentation to the Module Coordinator at the academic tutorial. Student must enter data into the Continuous Assessment Spreadsheet and submit to the Hub drop box. Please consult the QMU regulations regarding penalty for late submission.

Completion of the daily sheets:

- The student should initiate a discussion with their supervisor no later than one hour before the end of the day.
- The student and supervisor should reflect on the student's performance for the day and record the main points of the discussion on the relevant daily feedback section.
- on the first day of placement the student and supervisor must agree learning outcomes for the week.
- The supervisor is required to confirm the student's attendance by signing the attendance boxes.

Day 1: date		Morning		Afternoon	
Please record the student's strengths and an indication of their achievements today:					
<ul style="list-style-type: none"> • • • 					
Please discuss the student's learning objectives for this week and record them below:					
<ul style="list-style-type: none"> • • • 					
Supervisor sign _____ Student sign _____					

Day 2: date		Morning		Afternoon	
Please record the student's strengths and an indication of their achievements today:					
<ul style="list-style-type: none"> • • • 					
Please discuss areas for the student to develop and record below:					
<ul style="list-style-type: none"> • • • 					
Supervisor sign _____ Student sign _____					

Day 3:date		Morning		Afternoon	
<p>Please record the student's strengths and an indication of their achievements today:</p> <ul style="list-style-type: none"> • • • 					
<p>Please discuss areas for the student to develop and record below:</p> <ul style="list-style-type: none"> • • • 					
<p>Supervisor sign _____ Student sign_____</p>					

Day 4:date		Morning		Afternoon	
<p>Please record the student's strengths and an indication of their achievements today:</p> <ul style="list-style-type: none"> • • • 					
<p>Please discuss areas for the student to develop and record below:</p> <ul style="list-style-type: none"> • • • 					
<p>Supervisor sign _____ Student sign_____</p>					

Day 5: date		Morning	Afternoon							
Supervisor:										
Please complete the following proforma by rating the student's performance compared to the learning outcome:										
A – well above the learning outcome level				D – below the level of the learning outcome						
B – above the level of the learning outcome				E – well below the learning outcome level						
C – meeting the learning outcome				F – unsatisfactory						
<u>TECHNICAL SKILLS</u>					<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>
The student can:										
TS1	perform routine radiographic examinations of the appendicular skeleton, chest and abdomen;									
TS2	identify normal and abnormal appearances on radiographic images;									
TS3	operate imaging equipment and accessories safely, effectively and efficiently whilst observing local rules for radiation protection.									
<u>APPLIED KNOWLEDGE</u>					<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>
The student:										
AK1	demonstrates good background knowledge of routine radiographic techniques, including centring points;									
AK2	critically reflects on their clinical knowledge and skills.									
<u>PATIENT MANAGEMENT</u>					<u>YES</u>		<u>NO</u>			
The student:										
PM1	state emergency telephone numbers and has been oriented into department emergency procedures;									
					<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>
PM2	demonstrates an awareness of the patient's physical condition throughout the radiographic examination;									
PM3	demonstrates courtesy and patience, does not show distaste or disapproval.									
<u>COMMUNICATIONS SKILLS</u>					<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>
The student:										
CS1	communicates appropriately with supervisors and asks appropriate questions in a professional manner;									
CS2	is aware of their role within the radiodiagnostic multidisciplinary team and communicates effectively with team members;									
CS3	is able to provide clear instructions to patients and carers before, during and after diagnostic imaging.									

<u>ORGANISATIONAL SKILLS</u>		<u>YES</u>		<u>NO</u>			
The student('s):							
OS1	general appearance and uniform is professional and complies with local policies;						
		<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>
OS2	makes good use of unstructured time by using quieter times for study, reflection and role-play;						
OS3	can establish and confirm the information required for justification, authorisation, patient identification and consent.						
<u>PROFESSIONALISM</u>		<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>
The student:							
PR1	willingly participates in all aspects of the department routine, including cleaning;						
PR2	can introduce themselves to patients and carers in a professional manner;						
PR3	is willing to learn and can set their own learning objectives;						
		<u>YES</u>		<u>NO</u>			
PR4	is punctual and acts in a professional manner at all times.						

Please discuss and record the student's strengths and if they met their learning outcomes for this week:

-
-
-
-

Please discuss and record areas for the student to develop and improve their ratings:

-
-
-
-

Supervisor sign _____ Student sign _____

Practice Based Learning 1

For Student Use Only

It is vital that QMU can provide meaningful feedback to departments that offer clinical placements. This will enable maintenance and improvement of standards and allow the sharing of good practice.

Please help by describing the experiences during this placement that had an effect – either positive or negative - upon your learning. Your comments will be collated into a report made available to participating departments. To encourage free expression of opinion and ensure confidentiality, individuals will not be identified. This page will be detached from the marking pack upon submission to the clinical coordinator.

Areas that you may wish to reflect on might include:

- Were the radiographers expecting you?
- Did they make you feel welcome?
- Were you able to put some theory into practice, no matter how trivial? What was it?
- Did the radiographers have an understanding of what you were capable of doing? If not, did you explain your previous experience?
- Did you get feedback from the staff, e.g. encouragement when you did well; explanation when you made a mistake; a summary of your performance? Did you ask for their views on your placement?
- What was the most important thing you learned this week, e.g. a new technique; the way you care for and communicate with elderly patients; a greater confidence in communicating with other team members; a greater confidence in yourself; the appointment system?

Hospital -

Department -

Comments -

PRACTICE BASED LEARNING 2
CONTINUOUS ASSESSMENT

APPENDIX M

PLACEMENT TYPE **General Radiography**

STUDENT NAME

HOSPITAL & DEPT.

DATES

STUDENT VERIFICATION
Clinical Supervisor / Educator please complete on the first day of placement:
I can confirm that I have checked the QMU student identity card and can verify the attendance of _____ at _____ hospital
Signed _____ Date _____

On a daily basis, the student and supervisor jointly completes the formative feedback. The student is responsible for ensuring that the supervisor completes the Continuous Clinical Assessment proforma on the final day of placement. Please rate the student using the categories listed below

- A** The student is consistently performing well above the level of the learning outcome.
- B** The student is performing above the level of the learning outcome.
- C** The student is performing at the level of the learning outcome.
- D** The student is performing below the level of the learning outcome, support is still required. Continued development of knowledge, skills or confidence required.
- E** The student is performing well below the level of the learning outcome, constant support is required. Significant development of knowledge, skills or confidence required.
- F** The student's performance is unsatisfactory: lack of engagement, no effort has been made to meet the learning outcome.

According to the published assessment instructions, students must submit all documentation to the Module Coordinator at the academic tutorial. Student must enter data into the Continuous Assessment Spreadsheet and submit to the Hub drop box. Please consult the QMU regulations regarding penalty for late submission.

Completion of the daily sheets:

- The student should initiate a discussion with their supervisor no later than one hour before the end of the day.
- The student and supervisor should reflect on the student's performance for the day and record the main points of the discussion on the relevant daily feedback section.
- on the first day of placement the student and supervisor must agree learning outcomes for the week.
- The supervisor is required to confirm the student's attendance by signing the attendance boxes.

Day 1: date		Morning		Afternoon	
Please record the student's strengths and an indication of their achievements today:					
<ul style="list-style-type: none">•••					
Please discuss the student's learning objectives for this week and record them below:					
<ul style="list-style-type: none">•••					
Supervisor sign _____ Student sign _____					

Day 2: date		Morning		Afternoon	
Please record the student's strengths and an indication of their achievements today:					
<ul style="list-style-type: none">•••					
Please discuss areas for the student to develop and record below:					
<ul style="list-style-type: none">•••					
Supervisor sign _____ Student sign _____					

Day 3:date		Morning		Afternoon	
<p>Please record the student's strengths and an indication of their achievements today:</p> <ul style="list-style-type: none"> • • • 					
<p>Please discuss areas for the student to develop and record below:</p> <ul style="list-style-type: none"> • • • 					
<p>Supervisor sign _____ Student sign _____</p>					

Day 4:date		Morning		Afternoon	
<p>Please record the student's strengths and an indication of their achievements today:</p> <ul style="list-style-type: none"> • • • 					
<p>Please discuss areas for the student to develop and record below:</p> <ul style="list-style-type: none"> • • • 					
<p>Supervisor sign _____ Student sign _____</p>					

Day 5: date		Morning	Afternoon				
Supervisor: Please complete the following proforma by rating the student's performance compared to the learning outcome:							
A – well above the learning outcome level		D – below the level of the learning outcome					
B – above the level of the learning outcome		E – well below the learning outcome level					
C – meeting the learning outcome		F – unsatisfactory					
TECHNICAL SKILLS The student can:		<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>
TS1	perform routine examinations; modifying and adapting technique for trauma, pathology and congenital abnormalities as required;						
TS2	evaluate radiographic images for technical accuracy, pathological appearances and identify the need for additional and supplementary projections;						
TS3	the student will be able to manoeuvre and manipulate imaging equipment to compensate for patient condition and disability and the effects of trauma, pathology and congenital abnormality.						
APPLIED KNOWLEDGE The student:		<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>
AK1	the student is able to apply theoretical knowledge to routine and complex situations;						
AK2	has read and can apply local infection control, health and safety, equality and diversity and radiation protection policies and procedures to their clinical practice.						
PATIENT MANAGEMENT The student:		<u>YES</u>		<u>NO</u>			
PM1	state emergency telephone numbers and has been oriented into department emergency procedures;						
		<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>
PM2	demonstrates compassionate care and initiates appropriate care strategies for routine patients, patients in pain or patients with limited physical capabilities;						
PM3	recognises the signs of emotional distress and anxiety, assists with alleviation measures and is supportive towards patients undergoing investigation and treatment.						
COMMUNICATIONS SKILLS The student:		<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>
CS1	can receive, record and convey verbal and electronic information accurately;						
CS2	communicates effectively with members of the radiodiagnostic multidisciplinary team to promote team working;						
CS3	demonstrates the ability to respond appropriately to patients and carers' questions.						

<u>ORGANISATIONAL SKILLS</u>		<u>YES</u>		<u>NO</u>			
The student('s):							
OS1	general appearance and uniform is professional and complies with local policies;						
		<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>
OS2	makes effective use of programmed and unstructured time to develop skills and knowledge and ensuring that assigned tasks are completed on schedule.						
OS3	can establish a safe working environment by adhering to infection control, radiation safety and manual handling polices and procedures.						
<u>PROFESSIONALISM</u>		<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>
The student:							
PR1	initiates discussions with supervisors to enhance their learning and proactively engages in all aspects of the department workload;						
PR2	accepts responsibility for routine and more complex examinations, and asks for assistance when required.						
PR3	demonstrates an understanding of the justification process and the procedure to deal with incomplete/inappropriate referrals;						
		<u>YES</u>		<u>NO</u>			
PR4	is punctual and acts in a professional manner at all times.						

Please discuss and record the student's strengths and if they met their learning outcomes for this week:

-
-
-
-

Please discuss and record areas for the student to develop and improve their ratings:

-
-
-

Supervisor sign _____ Student sign _____

PRACTICE BASED LEARNING 2

For Student Use Only

It is vital that QMU can provide meaningful feedback to departments that offer clinical placements. This will enable maintenance and improvement of standards and allow the sharing of good practice.

Please help by describing the experiences during this placement that had an effect – either positive or negative - upon your learning. Your comments will be collated into a report made available to participating departments. To encourage free expression of opinion and ensure confidentiality, individuals will not be identified. This page will be detached from the marking pack upon submission to the clinical coordinator.

Areas that you may wish to reflect on might include:

- Were the radiographers expecting you?
- Did they make you feel welcome?
- Were you able to put some theory into practice, no matter how trivial? What was it?
- Did the radiographers have an understanding of what you were capable of doing? If not, did you explain your previous experience?
- Did you get feedback from the staff, e.g. encouragement when you did well; explanation when you made a mistake; a summary of your performance? Did you ask for their views on your placement?
- What was the most important thing you learned this week, e.g. a new technique; the way you care for and communicate with elderly patients; a greater confidence in communicating with other team members; a greater confidence in yourself; the appointment system?

Hospital -

Department -

Comments -

PRACTICE BASED LEARNING 3
CONTINUOUS ASSESSMENT

APPENDIX N

PLACEMENT TYPE **Cross Sectional Imaging or Specialist Placement**

STUDENT NAME

HOSPITAL

DATES

On a daily basis, the student is responsible for ensuring that the supervisor completes the Continuous Clinical Assessment proforma for attendance. Please rate the student using the categories listed below on the final day of placement:

- A** The student is consistently performing well above the level of the learning outcome.
- B** The student is performing above the level of the learning outcome.
- C** The student is performing at the level of the learning outcome.
- D** The student is performing below the level of the learning outcome, support is still required. Continued development of knowledge, skills or confidence required.
- E** The student is performing well below the level of the learning outcome, constant support is required. Significant development of knowledge, skills or confidence required.
- F** The student's performance is unsatisfactory: lack of engagement, no effort has been made to meet the learning outcome.

Student Attendance

Monday		Tuesday		Wednesday		Thursday		Friday	
am	pm	am	pm	am	pm	am	pm	am	pm

Supervisor's –							
Please sign to verify attendance each day, and complete the rating sections on the final day of the student's placement. Your feedback is greatly appreciated - <i>thank you.</i>							
TECHNICAL SKILLS The student can:		<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>
TS1	ASSIST before, during and after specialised imaging procedures.						
TS2	critically evaluate image quality, differentiate between normal and abnormal appearances;						
TS3	manoeuvre the imaging equipment during specialised procedures.						
APPLIED KNOWLEDGE The student can:		<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>
AK1	apply theoretical knowledge to specialist imaging modalities;						
AK2	initiate discussion and utilise relevant literature and research.						
PATIENT MANAGEMENT The student can:		<u>YES</u>		<u>NO</u>			
PM1	state emergency telephone numbers and has been oriented into department emergency procedures;						
		<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>
PM2	respond quickly and use appropriate techniques to minimise pain and discomfort;						
PM3	ASSIST in maintaining patient dignity and minimise anxiety via appropriate care strategies.						
COMMUNICATIONS SKILLS The student:		<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>
CS1	communicates effectively and constructively with the radiology department team;						
CS2	communicates effectively with members of the multidisciplinary team to promote patient care and support;						
CS3	communicates clearly with regard to preparation for, experience during and consequences of specialist imaging procedures.						
ORGANISATIONAL SKILLS The student:		<u>YES</u>		<u>NO</u>			
OS1	is clean, tidy and professional;						
		<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>
OS2	has awareness of how to manage time effectively and how the workload is prioritised .						
OS3	demonstrates an organised approach to imaging procedures and administration processes.						

PROFESSIONALISM		A	B	C	D	E	F
The student:							
PR1	proactively makes use of departmental resources to enhance their learning;						
PR2	accepts responsibility for aspects of specialist examinations, and asks for assistance when required.						
PR3	demonstrates a problems solving approach to professional or examination issues.						
		YES		NO			
PR4	is punctual and acts in a professional manner at all times.						

Please discuss and record the student's strengths and if they met their learning outcomes for this week:

-
-
-
-

Please discuss and record areas for the student to develop and improve their ratings:

-
-
-

Supervisor sign _____ Student sign _____

Signed.....Supervisor

Signed.....Student

Practice Based Learning 3

For Student Use Only

It is vital that QMU can provide meaningful feedback to departments that offer clinical placements. This will enable maintenance and improvement of standards and allow the sharing of good practice.

Please help by describing the experiences during this placement that had an effect – either positive or negative - upon your learning. Your comments will be collated into a report made available to participating departments. To encourage free expression of opinion and ensure confidentiality, individuals will not be identified. This page will be detached from the marking pack upon submission to the clinical coordinator.

Areas that you may wish to reflect on might include:

- Were the radiographers expecting you?
- Did they make you feel welcome?
- Were you able to put some theory into practice, no matter how trivial? What was it?
- Did the radiographers have an understanding of what you were capable of doing? If not, did you explain your previous experience?
- Did you get feedback from the staff, e.g. encouragement when you did well; explanation when you made a mistake; a summary of your performance? Did you ask for their views on your placement?
- What was the most important thing you learned this week, e.g. a new technique; the way you care for and communicate with elderly patients; a greater confidence in communicating with other team members; a greater confidence in yourself; the appointment system?

Hospital -

Department -

Feedback -

PRACTICE BASED LEARNING 4
CONTINUOUS ASSESSMENT

PLACEMENT TYPE **General Radiography**
STUDENT NAME

HOSPITAL & DEPT.

DATES

STUDENT VERIFICATION
Clinical Supervisor / Educator please complete on the first day of placement:
I can confirm that I have checked the QMU student identity card and can verify the attendance of _____ at _____ hospital
Signed _____ Date _____

On a daily basis, the student and supervisor jointly completes the formative feedback. The student is responsible for ensuring that the supervisor completes the Continuous Clinical Assessment proforma on the final day of placement. Please rate the student using the categories listed below

- A** The student is consistently performing well above the level of the learning outcome.
- B** The student is performing above the level of the learning outcome.
- C** The student is performing at the level of the learning outcome.
- D** The student is performing below the level of the learning outcome, support is still required. Continued development of knowledge, skills or confidence required.
- E** The student is performing well below the level of the learning outcome, constant support is required. Significant development of knowledge, skills or confidence required.
- F** The student’s performance is unsatisfactory: lack of engagement, no effort has been made to meet the learning outcome.

According to the published assessment instructions, students must submit all documentation to the Module Coordinator at the academic tutorial. Student must enter data into the Continuous Assessment Spreadsheet and submit to the Hub drop box. Please consult the QMU regulations regarding penalty for late submission.

Completion of the daily sheets:

- The student should initiate a discussion with their supervisor no later than one hour before the end of the day.
- The student and supervisor should reflect on the student's performance for the day and record the main points of the discussion on the relevant daily feedback section.
- on the first day of placement the student and supervisor must agree learning outcomes for the week.
- The supervisor is required to confirm the student's attendance by signing the attendance boxes.

Day 1: date		Morning		Afternoon	
Please record the student's strengths and an indication of their achievements today:					
<ul style="list-style-type: none">•••					
Please discuss the student's learning objectives for this week and record them below:					
<ul style="list-style-type: none">•••					
Supervisor sign _____ Student sign _____					

Day 2: date		Morning		Afternoon	
Please record the student's strengths and an indication of their achievements today:					
<ul style="list-style-type: none">•••					
Please discuss areas for the student to develop and record below:					
<ul style="list-style-type: none">•••					
Supervisor sign _____ Student sign _____					

Day 3:date		Morning		Afternoon	
<p>Please record the student's strengths and an indication of their achievements today:</p> <ul style="list-style-type: none"> • • • 					
<p>Please discuss areas for the student to develop and record below:</p> <ul style="list-style-type: none"> • • • <p>Supervisor sign _____ Student sign _____</p>					

Day 4:date		Morning		Afternoon	
<p>Please record the student's strengths and an indication of their achievements today:</p> <ul style="list-style-type: none"> • • • 					
<p>Please discuss areas for the student to develop and record below:</p> <ul style="list-style-type: none"> • • • <p>Supervisor sign _____ Student sign _____</p>					

Day 5: date		Morning	Afternoon				
<p>Supervisor: Please complete the following proforma by rating the student's performance compared to the learning outcome:</p> <p>A – well above the learning outcome level D – below the level of the learning outcome B – above the level of the learning outcome E – well below the learning outcome level C – meeting the learning outcome F – unsatisfactory</p>							
TECHNICAL SKILLS		<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>
The student can:							
TS1	consistently produce high quality images, adapting technique as required to meet individual patient's needs and capability;						
TS2	critically appraise diagnostic images: describe abnormalities, identify possible causes of abnormalities and discuss their diagnostic and clinical significance;						
TS3	competently use imaging equipment in a variety of clinical settings and demonstrate competence in the selection and manipulation of exposure factors, minimising patient dose.						
APPLIED KNOWLEDGE		<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>
The student:							
AK1	can justify their clinical practice based on a sound knowledge of theory, policies and procedures;						
AK2	will initiate inquiry and discussion and will seek and use relevant literature and research materials to improve their practice.						
PATIENT MANAGEMENT		<u>YES</u>		<u>NO</u>			
The student:							
PM1	state emergency telephone numbers and has been oriented into department emergency procedures;						
		<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>
PM2	demonstrates a patient centred care approach, modifying technique, communication and providing support as required;						
PM3	anticipates sources of general distress and those related to specific procedures, use appropriate patient care measures to minimise stress and adopts a supporting role.						
COMMUNICATIONS SKILLS		<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>
The student:							
CS1	is able to communicate effectively and constructively, making a valuable contribution to department operations;						
CS2	is able to function as an effective and efficient member of the multidisciplinary team promoting patient care and optimum service delivery;						
CS3	responds to individuals' need for information and can use verbal and non-verbal skills effectively.						

<u>ORGANISATIONAL SKILLS</u>		<u>YES</u>			<u>NO</u>		
The student('s):							
OS1	general appearance and uniform is professional and complies with local policies;						
		<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>
OS2	demonstrates the ability to prioritise clinical workload;						
OS3	demonstrates proficient organisational skills and can complete assigned tasks efficiently and to a high standard.						
<u>PROFESSIONALISM</u>		<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>
The student:							
PR1	the student proactively seeks learning opportunities: attends MDT meetings, arranges reporting sessions and participates in quality assurance tests/clinical audits;						
PR2	the student knows their limitations and will ask for appropriate assistance;						
PR3	demonstrates the ability to assess professional/clinical problems and deal with the problem based on their acquired knowledge and experience;						
		<u>YES</u>		<u>NO</u>			
PR4	is punctual and acts in a professional manner at all times.						

Please discuss and record the student's strengths and if they met their learning outcomes for this week:

-
-
-

Please discuss and record areas for the student to develop and improve their ratings:

-
-
-

Supervisor sign _____ Student sign _____

PRACTICE BASED LEARNING 4

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Hospital -

Department -

Comments -