
Rila Publications



Post Graduate
Certificate

Echocardiography

Student Handbook
2006/2007

Validated by Middlesex University, London UK

Subject/Programme leader: Dr Sandy Gupta
Student Name:

Purpose and status of your student handbook

The purpose of this handbook is to provide you with information about your Programme of study and to direct you to other general information about studying for a Middlesex University qualification.

This handbook must be read in conjunction with the University Regulations which are available online at www.mdx.ac.uk/regulations/, and Rila Publications regulations which should be given to you at enrolment.

The material in this handbook is as accurate as possible at the date of production.

Your comments on any improvements to this handbook are welcome - please put them in writing (with name of handbook) to Georgina Da Cambra.

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Contents

Subject/Programme academic calendar 2005/2006	5
Introduction to the Institution.....	5
Introduction to the University.....	5
The Programme.....	5
The University regulations.....	6
Certificates.....	6
Transcripts.....	6
Further Documents held by Rila Publications.....	6
Introduction to the School.....	6
Leader's welcome.....	7
Subject/Programme staff list and contact details.....	7
Institution staff.....	8
Learning support & resource based education.....	8-9
Programme Specification and Curriculum Map.....	10-17
Diagram.....	10
Criteria for admission.....	14
Learning, Teaching and Assessment Strategy.....	18
Assessment and Progression.....	19
Plagiarism.....	23
Regulations.....	23
Transferring to study at Middlesex University.....	24
Feedback to students.....	24
Attendance requirements.....	24
Quality assurance of your Programme.....	25
Link Tutors.....	25
Feedback from students.....	25
Board of Studies.....	25
Terms of reference.....	26
Programme evaluation questionnaire.....	26
Suggestions and Complaints.....	26
Middlesex University Students' Union.....	26
Career opportunities and placement.....	27

Information for students with disabilities.....	28
Student Membership of the University	28
Programme Structure.....	30
Module Information	30
Module Narratives	30-34
Equal opportunities policy.....	35
Programme evaluation form.....	36
Application form.....	37
Referee's report.....	38-39

Subject/Programme academic calendar 2005/2006

Please refer to the separate programme calendar.

Introduction to the Institution

Rila Publications has, with the approval of several Royal Colleges, e.g. RCPATH, RCA, RCS (Eng), developed the concept of distance learning involving reading and educational loop assessments. Over 22 hospital specialty clinical areas are now employing this format. Rila devised the form of learning, titled "The Interactive Medical Sandwich", which uses a hybrid learning technique between standard lectures and workshops. These are delivered as national learning forums for primary and specialist clinicians.

In the specific area of 'Primary Healthcare', Rila launched 'Clinical Focus' in 1994. This publication was devised after research involving GPs and their educational and professional development needs. It is approved by the Royal College of General Practitioners. More recently Rila initiated and developed, with the Institute of Laryngology and Otology (UCL) the Postgraduate Diploma in Practical ENT (Primary Care) (PGDip ENT). This has been a very successful innovative framework for delivering, essentially at a local level, a centrally devised and assessed programme to enhance the skills of both GPs and nurses to provide care at an Intermediate Tier level.

Rila also has a series of national CME/CPD approved conferences across a range of clinical specialities, eg ENT, Cellular Pathology, Primary Care. Over the last year or so Rila has developed online versions of their core paper based educational material. It has embraced the possibilities offered by IT to enhance its present and future educational projects. Rila is recognised as an organisation that has a track record of developing innovative projects and harnessing the required infrastructure of people and facilities to deliver education successfully.

Introduction to the University

Welcome to Middlesex University. Gina Taylor is the University Link Tutor and Georgina Da Cambra is the Institutional Principal. The programme remains the overall responsibility of the University, under the day-to-day direction of the programme leader and teaching staff of the Institution.

The Programme

The Programme is validated by Middlesex University. This means that if you successfully complete all parts of the Programme you will receive the Middlesex University qualification of Post Graduate Certificate in Echocardiography and may if you wish attend the appropriate Middlesex University graduation ceremony. You will enrol at Rila Publications.

If you do not complete the full Programme you will be given a transcript recording any individual elements of the Programme successfully completed.

The Programme is supervised by the University's School of Health and Social Sciences.

Dean of School Jan Williams (Acting)

Campus Enfield

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The University regulations

The University Regulations are available at www.mdx.ac.uk/24-7. You should be familiar in particular with Regulations **Section F** (Infringement regulations - Academic dishonesty) and **Section G** (Appeal Regulations and Procedures). Rila Publications has to act in accordance with these procedures in the case of student dishonesty or a student appeal.

Certificates

Details of the information which will appear on the certificate is available in the Middlesex University Procedures Handbook - www.mdx.ac.uk/www/quality/prh_cont.htm and set out in the Regulations Section E - www.mdx.ac.uk/regulations

Transcripts

The University Regulations Section E, www.mdx.ac.uk/regulations/aap.htm, also sets out who will be issued transcripts. A transcript will list each module you have taken, stating the academic year in which the module was taken, the module credit rating and grade. Where appropriate, it will also state the award and, where appropriate, the classification and subject.

Further Documents held by Rila Publications

Rila Publications should hold reference copies of the following documents for consultation by the students and staff:

- The Memorandum of Co-operation for the Programme. This is the formal agreement between the University and the College on the delivery of the Programme.
- Quality Assurance Agency for Higher Education (QAA) Code of Practice: Collaborative Provision.

Introduction to the School

Welcome to Middlesex University and the School of Health and Social Sciences. We are pleased that you have chosen to study with us and hope that you find your time at Middlesex enjoyable and stimulating.

The School offers a wide range of study opportunities at undergraduate and postgraduate level including diplomas, degrees, short courses and CPD opportunities. Many of the courses are designed and accredited in conjunction with the relevant professional bodies. A number of the programmes are developed with collaborative partners, either in the UK or overseas. This is one of those programmes.

The School of Health and Social Sciences is a leading centre for professional education and research in London. Along with our diverse range of programmes and research opportunities, we offer various approaches to study and delivery to suit you and your commitments. We emphasise a flexible, lifelong learning approach to study - backed up by expertise gained through our pioneering developments in work based learning.

Middlesex has built a strong reputation as a leading innovator in higher education. Many of our programmes are UK firsts and have set the standard for others to follow. The School is home to some of the UK's leading researchers in health and social sciences, with several leading consultants in their fields, as well as key government advisers.

Education and research in the School has a strong emphasis on interdisciplinary activity. Our aim is to link policy and practice, theory and action through high quality learning and research.

The School is based at the Archway and Enfield campuses with teaching also taking place on our Hospital sites across North London. Middlesex has established strong links with NHS Trusts and government organisations as well with our local communities, in addition to a wide range of UK, EU and international collaborative partnerships.

Further information about the School can be found at: www.mdx.ac.uk/hssc/index.htm

Leader's welcome

Welcome to the Post Graduate Certificate in Echocardiography programme. We hope that you will have a stimulating and successful time with Rila Publications Ltd. We aim to offer you the opportunity to build on your existing knowledge, skills and experience and develop mastery in the clinical management of patients with cardiac disorders.

The value of this programme lies in the commitment of the students and the teaching team to improve and enhance clinical care of patients with cardiac disorders.

This handbook provides you with a guide to the programme, and the way in which it is organised, delivered and regulated. It also provides you with an outline of the modules that make up the programme.

Please remember that the teaching staff, the co-ordinators and mentors are here to help you, and do not hesitate to contact us if you feel that we might be of assistance.

Good luck in your studies.

Subject/Programme staff list and contact details

Teaching staff

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Learning Support and Resource Based Education

As a student of Rila you can expect us to provide and/or assist in identifying the following:

- Assistance in securing a formal attachment with a named local clinical specialist mentor, usually a consultant, who will supervise and support your clinical skills development, preferably in a unit accredited by the BSE (British Society of Echocardiography) and ensure that you have access to the local postgraduate library. Rila can provide advice on mentorships prior to commencing the programme. The PCT or other sponsoring organisation must supply an assurance of support from that mentor.
- Directed learning material related to the content of each module, and details of how you can obtain additional advice and academic support, through a dedicated e-mail address.

- You are strongly advised to access the seminal information on each directed learning topic by way of suggested “Further reading” and “Online sites”.
- An electronic discussion forum
- Feedback on your performance being, provided through a combination of written feedback on your clinical case studies and performance in the assessments, etc.

Additional sources of support include:

- Your clinical mentor, and the department to which you are attached will provide additional support in your clinical development by accessing educational activities such as meetings, audit etc
- Postgraduate libraries in your hospital attachment, facilitated by your local mentor

Online sources:

- Pubmed search facility on-line- www.ncbi.nlm.nih.gov/PubMed/
- National Electronic Library for Health – www.nelh.nhs.uk
- BBC Health – www.bbc.co.uk/health

Programme Specification and Curriculum Map

Programme Specification: PG Certificate Screening Echocardiography



1. Awarding institution	Middlesex University
2. Teaching institution	Rila Publications
3. Programme accredited by	N/A
4. Final qualification	Post Graduate Certificate Echocardiography
5. Programme title	Post Graduate Certificate Echocardiography
6. JACS code (or other relevant coding system)	N/A
7. Relevant QAA subject benchmark group(s)	Medicine and Allied Subjects
8. Academic Year	2005/6

9. Reference points
<ul style="list-style-type: none">• The New NHS Modern, Dependable (DH 1997)• A First Class Service – Quality in the New NHS (DH 1998)• The NHS Plan (DH 2001)• Middlesex University and School Teaching, Learning and Assessment Policy 2002/2005• Middlesex University Guide and Regulations 2005/2006• QAAS Procedures Handbook 2005/2006• Middlesex University Student Charter• British Society of Echocardiography – Generic model for Certification in Screening and Community Echocardiography

10. Aims of the programme	
The programme aims to:	
<ul style="list-style-type: none"> • Enhance clinical practice Echocardiography by critical reflection and interprofessional discourse • Promote interprofessional collaboration to maximise gain for patients with cardiological disorders • Expand the knowledge base of clinical practice through acquisition of advanced knowledge and practical skills, and therefore differentiate a normal from an abnormal echocardiographic study • Benefit clinical provision through the delivery of improved quality of clinical care for patients with cardiological disorders • Provides the foundation for training and accreditation in community echocardiography 	
11. Programme outcomes - the programme offers opportunities for students to achieve and demonstrate the following learning outcomes.	
<p>A. Knowledge and understanding</p> <p>On completion of this programme the successful student will have knowledge and understanding of :</p> <ol style="list-style-type: none"> 1. The scientific basis of echocardiography 2. The disease processes in cardiology 3. Effective decision-making in relation to the management of patients 	<p>Teaching/learning methods</p> <p>Students gain knowledge and understanding through lectures, workshops, distance learning and supervised practice.</p> <p>Assessment</p> <p>Students' knowledge and understanding is assessed by multiple choice questions, a reflective diary and clinical case studies.</p>
<p>B. Cognitive (thinking) skills</p> <p>On completion of this programme the successful student will be able to:</p> <ol style="list-style-type: none"> 1. Critically appraise clinical standards in cardiology 2. Demonstrate critical judgement in diagnosing, cardiological disorders 3. Support clinical decision making in relation to clearly defined cardiological disorders 4. Critically reflect on practice of self and others 	<p>Teaching/learning methods</p> <p>Students learn cognitive skills through lectures, resource based learning and supervised clinical practice</p> <p>Assessment</p> <p>Students' cognitive skills are assessed by Clinical case studies</p>
<p>C. Practical skills</p> <p>On completion of the programme the successful student will be able to:</p> <ol style="list-style-type: none"> 1. Select, evaluate and critically utilise evidence based medicine 2. Engage in effective patient management 3. Diagnose, treat or refer as appropriate 4. Promote health and self help 5. Manage the delivery of appropriate care in the primary and secondary care setting 	<p>Teaching/learning methods</p> <p>Students learn practical skills through demonstration, workshops and supervised practice</p> <p>Assessment</p> <p>Students' practical skills are assessed by case studies and clinical activity under mentor guidance</p>

<p>D. Graduate Skills*</p> <p>On completion of this programme the successful student will be able to:</p> <ol style="list-style-type: none"> 1. Engage in effective patient/professional communication 2. Critically interpret roles within the multidisciplinary team 3. Master effective learning strategies 4. Effectively employ appropriate information technology to manage and deliver care 5. Critically evaluate and use statistical evidence 6. Internalise the importance of continued self development 	<p>Teaching/learning methods</p> <p>Students acquire graduate skills through workshops, distance learning and reflection</p> <p>Assessment</p> <p>Students' graduate skills are assessed by multiple choice question papers and reflective clinical case studies</p>
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* or equivalent for postgraduate programmes. Skill listed *must* include the six University graduate skills (these are listed in Guidance 3x).

12. Programme structure and requirements, levels, modules, credits and qualifications

12. 1 Overall structure of the programme

This programme is offered on a part-time 6 month basis. Recognising that GPs, nurses and other professionals need to develop the skills and experience most relevant to the local setting, the programme focuses on clinical skills development through structured supervised clinical practice. The knowledge base for clinical practice is developed through the use of results based learning. Modules run consecutively. Each module builds on the knowledge and skills acquired in a previous module. The student may continue with the programme while re-sitting a previous module, if necessary. Each module is formally assessed independently. Students are required to attend a minimum of 16 structured supervised clinical sessions with their local mentor. There is an introductory day of workshops; this is mandatory. There is a final clinical assessment. The introductory workshops provide an opportunity to introduce the student to the programme and the clinical sciences that underpin the practice of Echocardiography. These will be developed throughout the programme with the use of directed learning materials. During the introductory day, the framework for early communication of any student problems or difficulties is indicated. Following the introductory workshops each of the 3 modules will be delivered using structured directed learning supplementing the clinical training through the student's mentor:

- Supervised clinical activity: this programme recognises the value of the clinical practice setting to provide an environment which is conducive to reflection and learning. It is envisaged that the student will remain within their own local area, but will be working with their mentor, attending hospital and, as appropriate, community based clinical sessions.
- Reflective diary: this is maintained throughout the programme in order to inform content of discussion with, and assessment by, the clinical mentor.
- Directed learning: students will be provided with learning materials relating to the content of the module which they are undertaking. This learning material will comprise of a course reader which will outline the key knowledge required in relation to the module content, and identify the recommended reading in relation to this content. The specific learning outcomes of the module in relation to knowledge development will be assessed through the short answer questions.
- Clinical case studies: these need to be submitted in a structured form and therefore offer educational activity through reflection.

It is estimated that each module will require intensive study over approximately 6 months. This will include supervised clinical activity and also time spent on independent learning activities such as undertaking the directed reading and preparing the case studies. The remainder of the time will be spent in seeing patients in clinical practice who have cardiological disorders and is additional clinical activity.

12.2 Levels and modules.			
Level 4			
COMPULSORY ¹	DESIGNATED ²	OPTIONAL ³	PROGRESSION REQUIREMENTS
Students must take all of the following: Rila 4XX Echocardiography 1 Rila 4XX Echocardiography 2 Rila XXX Echocardiography 3			

13. A curriculum map relating learning outcomes to modules
See Curriculum Map attached.

14. Criteria for admission to the Programme
Students admitted to this programme must be in clinical practice and fulfil one of the following criteria as well:

- Be in possession of an MBBS or equivalent medical degree, or
- Be a registered nurse with either a post-registration qualification and/or significant specialist experience in the area of cardiology, e.g. Nurse Practitioner, Nurse Specialist or Nurse Consultant.
- Healthcare professionals who do not meet the above criteria may be admitted to the programme on a case by case basis. Please contact the programme administrative staff in the first instance.

15. Information about assessment regulations
All assessed components of the programme are marked in the following way:

- The assessment of directed learning is marked using electronic technology online which records a percentage grade: pass mark is 50%.
- The clinical case studies are marked by a member of the programme team. Ten per cent of these studies are second marked to ensure consistency and fairness. A sample, representing a range of grades achieved, is made available to the external examiner: pass grades are a, b and c.

¹ Compulsory modules are those that must be taken, that is, the qualification cannot be made unless these modules have been successfully completed. Each of these modules makes a unique contribution to the learning objectives of the programme or subject major/minor.

² Designated modules are those from which a specified minimum number must be taken, that is, the qualification cannot be given unless this specified minimum number of designated modules have been successfully completed. Each of the possible combinations of designated modules will make a similarly unique contribution to the achievement of the learning objectives of the programme or subject major/minor.

³ Optional modules are modules that may be taken at the discretion of the student. It is not necessary to complete optional modules to achieve the qualification (assuming other awarding conditions are met). Optional modules make a non-unique contribution to the achievement of the learning objectives of the programme or subject major/minor.

- The core competencies listed in the clinical skills booklet will be assessed by the mentor and signed off when the student is deemed to have acquired the requisite level of skill. This is assessed as pass or fail
- The final assessment consists of a series of structured questions and spot/video clip diagnoses using a criterion reference marking scheme. Normally students would not be requested to attend a viva voce but might be required to do so in certain circumstances. A sample selection will be available to the external examiner. This is assessed as pass or fail.

All components of the assessment must be passed. No compensation of failed modules is permitted.

If unsuccessful at the first attempt of any assessment, one further attempt will be allowed.

16. Indicators of quality

- Successful validation in 2006
- Student feedback
- External examiners' reports
- Submit for accreditation by the Royal College of General Practitioners for Higher Professional Development (HPD) and Accredited Learning for CPD
- Submit to CASE for accreditation
- Submit for accreditation/ approval by the National Association for Primary Care

17. Particular support for learning

- Directed learning material related to the content of each module, and details concerning how to obtain additional advice and academic support through a dedicated electronic discussion forum
- Advice on securing a clinical attachment with a named specialist clinical mentor who will supervise and support your clinical skills development in Echocardiography, and ensure that you have access to the local post graduate library. It is mandatory to have a clinical mentor.

18. Methods for evaluating and improving the quality and standards of learning

- The programme is formally evaluated by both staff and students
- Board of Studies
- External Examiner appointed to the programme

19. Placement opportunities, requirements and support (if applicable)

Students will be given advice on securing a clinical attachment with a specialist clinical mentor who will supervise and support your clinical skills development, and ensure that you have access to the local post graduate library. The clinical mentor will be the primary source of support for the student. The student will be supervised by a consultant or other specialist in cardiology and echocardiography. Nurses will also be advised to seek professional support and clinical supervision from a suitably qualified senior nurse. The identification of this person can be facilitated by the programme team.

20. Future careers: how the programme supports graduates' future career development

This programme will equip the student with the knowledge, skills and experience necessary to enable them to deliver screening studies but also to provide a foundation for future training in community echocardiography.

21. Other information

n/a

Please note: this specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve if s/he takes full advantage of the learning opportunities that are provided. More detailed information can be found in the student subject/programme handbook and the University Guide and Regulations.

MODULE STRUCTURE

Curriculum map for Post Graduate Certificate in Echocardiography

This map shows the main measurable learning outcomes of the programme and the modules in which they are assessed.

Module	Code	A1	A2	A3	B1	B2	B3	B4	C1	C2	C3	C4	C5	D1	D2	D3	D4	D5	D6	D7
		Echocardiography 1	Rila 4XX	x	x	x	x	x	x		x	x	x		x	x	X	x	x	x
Echocardiography 2	Rila 4XX	x	x	x	x	x	x	x	x	x	x	x	x		X				x	
Echocardiography 3	Rila 4XX	x	x	x		x	x	x	x	x	x	x	x	x				x	x	

Programme learning outcomes

Knowledge and understanding		Practical skills	
A1	The scientific basis of echocardiography	C1	Select, evaluate and critically utilise evidence based medicine
A2	Disease processes in cardiology	C2	Engage in effective management of patients
A3	Effective decision-making in relation to the management of patients	C3	Diagnose, treat, or refer as appropriate, cardiological disorders
A4		C4	Promote health and self help
A5		C5	Manage the delivery of appropriate care in the primary and secondary care setting
Cognitive skills		Graduate Skills	
B1	Critically appraise clinical standards in cardiology	D1	Engage in effective patient/professional communication
B2	Demonstrate critical judgement in diagnosing, using ECHO, cardiological disorders	D2	Critically interpret roles within the multidisciplinary team
B3	Support clinical decision making in relation to clearly defined cardiological disorders	D3	Master effective learning strategies
B4	Critically reflect on practice of self and others	D4	Effectively employ appropriate information technology to manage and deliver care
B5		D5	Critically evaluate and use statistical evidence
B6		D6	Internalise the importance of continued self development

Learning, Teaching and Assessment Strategy

The Learning, Teaching and Assessment Strategy is informed by the University's strategy (2005/2006) which adheres to the following four themes:

Theme 1

Enhancement of the quality of the student learning experience of learning, teaching and assessment, with a particular view to the needs of an increasingly diverse student body.

Theme 2

Support for the development in students of greater learner autonomy and engagement with study.

Theme 3

Support and encouragement of open and flexible approaches to learning and assessment.

Theme 4

Support for and the development of practice/placement/service/learning to meet the needs of students, practitioners/employers and professional bodies.

The Institution's Learning, Teaching and Assessment Strategy

The aims and learning outcomes of the programme relate to enhanced knowledge, reflective practice, interprofessional understanding, co-operation and excellence in clinical care of patients with cardiovascular disorders. A variety of teaching and learning strategies will meet the individual needs of students. The focus is on developing approaches which encourage student centred learning and interprofessional collaboration.

Workshops will be used primarily to introduce concepts and theories. Students will work collaboratively through peer teaching, reflective studies, role play and exercises.

Strategies to facilitate the development of Echocardiography practice for primary care will involve specialist clinical mentorship. Clinical activity and keeping of a reflective diary and submission of clinical case studies will assist in heightening core knowledge and practical clinical skills. A minimum of 16 sessions must be spent in the clinical setting and a minimum of 50 Echocardiograms performed and reported.

Specific teaching and learning strategies include:

- Introductory workshops with practicals, basic sciences related to Echocardiography and core clinical lectures. Students will also be provided with advice on how to work and interact with their mentors.
- Resource based learning through directed and verifiable study. This will account for the majority of knowledge acquisition during the programme.
- Direct contact and teaching, particularly of the practical aspects, by clinical hospital and community specialists, i.e. clinical activity (includes formal echocardiographic clinics, cardiology clinics, postgraduate meetings, audit, clinical governance and in patient work)

- Contact on a regular basis through email etc.
- Use of local post graduate medical library facilities.
- The reflective clinical skills diary/booklet, the submission of 3 clinical case studies and the verifiable resource based learning will involve a working knowledge of medical statistics and evidence based medicine. The student will be introduced to these concepts during the introductory workshops.

Learning in practice settings

The student must identify a mentor, usually a local consultant cardiologist performing Echocardiography or other accredited specialist. In order for a mentor to meet the student's needs, the following criteria should be considered in identifying suitable mentors:

- The mentor will be at a level in the NHS which enables them to access learning opportunities for the student in echocardiography.
- The mentor is likely to hold a post graduate medical qualification or higher qualification in echocardiography, or have equivalent experience.
- The mentor is willing and able to spend time with students on a regular basis
- The mentor will have experience and training in teaching methods.

The role of mentors is a facilitative one which allows opportunities for students to engage in critical reflection within the clinical specialism. Rila are able to supply the candidate with guidelines of the roles and responsibilities of a clinical mentor. It is envisaged that approximately 45 minutes per week will be required in addition to the general activity in clinical settings.

The autonomous learner

The term autonomous learner means that you have responsibility for, and the opportunity to manage, your own learning, and this is inextricably linked with lifelong learning. Within your postgraduate programme we will help you to do this in the following ways:

- By encouraging mentor support related to your individual needs
- By incorporating self directed study as an integral part of your modules
- By working with you and your practice mentor to ensure that your learning is relevant to, and maximised in, the clinical specialism.

Assessment and Progression

This programme utilises assessment as a way of enhancing learning and not merely as a method of testing learning. Modules offer a range of ways in which learning is both enhanced and assessed. In addition to this your progress on the programme will be continuously formatively assessed by your mentor.

All components of assessment have equal weighting and are marked as pass or fail. Clinical case studies are deemed a pass at grades a, b and c.

Programme assessment policy

All assessed components of the programme are marked in the following way:

- The assessment of directed learning is marked using electronic technology which records a percentage grade.
- The 3 clinical case studies are marked and graded by a member of the programme team. Ten per cent of these studies will be marked by a second specialist to ensure consistency and fairness. A sample of no less than 10% will be available to the external examiner.
- The core competencies are signed off as acquired to the requisite skill level by the mentor
- The final assessment is marked by using a criterion referenced marking scheme. The external examiner will sample the process.

If unsuccessful at the first assessment attempt, you will be entitled to one further attempt. You are entitled to have any extenuating circumstances considered by the Assessment Board. On completion of each module you will be issued with provisional results and if you have been unsuccessful in any component you will be advised of the arrangements for re-submission.

Re-sit Assessments

If you have not achieved a pass grade at your first attempt you may re-submit the assessment at the next available opportunity, which will be advised, during which time you may continue on the programme. If you do not achieve a pass grade at the second attempt you will fail the module and not be eligible for any further attempts, or to continue on the programme. You are also eligible for one single further attempt if a pass is not achieved in the examination component of the programme. You will be advised where this will be.

Extenuating circumstances

We recognise that on occasions your ability to undertake a module assessment can be adversely affected by exceptional circumstances. In order that you are not disadvantaged by circumstances beyond your control you always need to ensure that you follow the correct procedure outlined below. If you have any circumstances affecting your performance and/or any extenuating circumstances in existence at the time you undertake the assessment, then this must be notified in writing to Georgina Da Cambra at Rila Publications (PG Cert ECHO), 73 Newman Street, London, W1A 4PG (on or before the submission date). These circumstances can then be considered by the Assessment Board when ratifying your assessment/examination.

Methods of assessment

Formative assessment of the reflective diary

As a GP, Nurse or other healthcare professional you will need to comply with your professional body guidelines in relation to the maintenance of a Professional Development Portfolio. In order to maximise your learning through engaging in clinical practice under the supervision of your mentor you need to maintain a reflective diary of your experience in supervised practice. This will form the basis of your discussions with your mentor who will provide formative feedback that you will be able to use in the development of your clinical case studies.

Summative assessment of clinical skills

The clinical skills that you are required to achieve are outlined in your clinical skills booklet. Your mentor will assess your competence in these clinical skills and be required to sign your record when you have demonstrated competence

Summative assessment of clinical case studies

The 3 clinical case studies must be based on real patients, hypothetical cases are not permitted. Presentation of clinical case studies should be submitted in the format indicated during the introductory workshops and as detailed in this handbook. Each clinical case study must be assessed at level a, b or c as detailed in this handbook in order to achieve a pass. In the case of a fail grade being awarded at the first attempt you will be entitled to one further resubmission attempt (the date of which will be advised), during which time you may continue on the programme. Failure at the second attempt will result in discontinuation of the programme.

Summative assessment of directed learning topics

Each module contains several topics/subjects that are the focus of directed learning. Each of these will be assessed, and contribute to the final award. The pass mark is 50%. In the case of a fail grade being awarded at the first attempt you will be entitled to one further resubmission attempt (the date of which will be advised), during which time you may continue on the programme. Failure at the second attempt will result in discontinuation of the programme

Summative final assessment

This will be a final assessment taken on the examination day. The overall clinical knowledge to manage the patients in the clinical specialism will be objectively tested, on a pass/fail basis, utilising a criterion referenced marking system. In the case of a fail grade being awarded on the first attempt you will be entitled to one further resubmission attempt (the date of which will be advised), during which time you may continue on the programme. Failure at the second attempt will result in failure of the programme

Clinical case studies

Content of clinical case studies

The clinical case studies are an important component of your programme. In the course of the programme you are required to submit 3 in total (1 each of modules 1 to 3).

You should choose a case that reflects the common disorders in the specialism, in practice. Please do not choose a rare or unusual problem. Your mentor should be consulted when making the case selections.

Framework for the clinical case study

The clinical case study should be about 1000 words in length. The following headings **MUST** be employed to ensure that all relevant areas of practice are covered:

- Introduction
- Presenting complaint
- Background e.g. with family and friends, relevance to family and friends and its impact, including psychological and social factors
- History and examination
- Differential diagnosis; indicating how they are assessed and any investigation required
- Management; indicating the proposed plan and rationale
- Follow-up; how this was organized and how the disease progressed
- Assessment of the success or failure of the management, from both the doctor's and patients perspective
- Cost analysis; indicating the resources used and their levels
- If a specialist opinion was sought assess the reasons for the referral and the contributions it provided
- Lessons learnt; conclude by reflecting on the specific lessons learnt by managing the patient
- References; you should include no more than 3-5 references (Vancouver style)

Presentation of clinical case studies

General guidelines for the presentation of your clinical case studies are:

- If you have extenuating circumstances which are affecting the completion of your work you should follow the guidance above
- Your work should be typed or word processed on A4 paper, stapled in the top left hand corner and presented in a soft plastic folder or wallet. Please remember to spell check your work
- We would prefer that **photographs are not submitted**
- **Four** copies are required to be mailed to Rila Publications Ltd. (PGCert Screening ECHO). **ALL communications MUST be identified as “PGCert Echocardiography”**.
- A front sheet should be included on all submissions clearly stating it as PGCert Echocardiography, your name, GMC/UKCC number or other professional number, address, module number, clinical case study number and a clinical title.
- Pages should be numbered consecutively throughout
- Do not identify patients
- Use only generic drug names

Grading of clinical case studies

All clinical case studies are independently marked using a criterion referenced marking system. The grading descriptors related to level of achievement are as follows:

- Grade a – Completely competent in all major aspects
- Grade b – Competent in most major aspects, only minimal deficits
- Grade c – Competent in most major aspects, some minor omissions
- Grade d – Inadequate in most major aspects, some major omissions
- Grade e – Not competent in most major aspects, significant omissions

The criteria for competence in the clinical case studies are:

- Details a comprehensive physical, psychological and social history
- Describes in-depth the presenting complaint
- Details fully the physical examination
- Identifies the differential diagnoses and the assessment of these, including the appropriate Echocardiographic investigation
- Presents the findings of the echocardiogram demonstrating an adherence to the principle of accurate reporting
- Organises follow up where appropriate, commenting on the likely progress of the complaint, detailing where specialist referral was/might become required
- Critically reflects on the management of the presenting complaint from both clinical and user's perspectives
- Critically appraises the cost-benefit analysis of the patients care
- Identifies the major learning points from the case study

The pass grades for all clinical case studies are a, b and c. individual special interests may be developed by careful selection of clinical case studies. Assistance of your mentor should be sought in this decision. In the case of a fail grade being awarded at the first attempt you will be entitled to one further attempt (the date of which will be advised), during which time you may continue on the programme. Failure at the second attempt will result in discontinuation of the programme.

Plagiarism

Plagiarism is the presentation by a student, as his or her own work, of a body of material (written, visual or oral) which is wholly or partly the work of another. In fact, plagiarism extends to cover one's own work previously assessed or published which is also required to be properly referenced. Taking unfair advantage over other authors, students or oneself in this way is considered by the University to be a serious offence. The University will take serious action against any student who plagiarises whether through negligence, foolishness or deliberate intent. Make sure written material, ideas, theories, formulae, etc are acknowledged through the use of quotation marks, references and bibliographies. Information on the correct way of acknowledging work from other sources is available from campus learning resource centres. Detailed information can be obtained at www.mdx.ac.uk/24-7/announce/plagiarism.htm.

Avoiding plagiarism

Plagiarism is very easy to avoid. The standard method, which is acceptable in all academic institutions is to acknowledge your sources. This can be done by listing all sources used in preparing your work in a clear and detailed reference section at the end of your work, using the Vancouver style of referencing.

Regulations

The Programme Assessment Board

The Assessment Board, which is chaired by an independent clinician, who is not a member of the programme teaching and clinical team, consults after the final assessment. The consultation is in two parts; the first part involves ratifying the results for all modules and the

second part involves making award decisions in respect of the PGCert. Rila will provide the University with a list of the award decisions which have been made, and the University will make the award.

Middlesex University Regulations for Academic Misconduct and Appeals apply to your Programme of study. These are set out in the Middlesex University Guide and Regulations Section F and Section G -www.mdx.ac.uk/regulations. The terminology may not be familiar in all cases as it refers to Middlesex University staff and Committees. If you are involved in any action under these regulations and do not understand the process involved, please contact the Link Tutor at your Institution or the Middlesex University Link Tutor.

In relation to the reflective case studies whilst MU regulations apply it should be noted that in relation to penalties for Academic misconduct are as follows:

- Where the MU regulations refer to a grade 20, this would be a grade e
- Where the MU regulation refer to a grade 16, this would be a grade c

In relation to the assessment of directed learning topics:

- Where the MU regulations refer to a grade 20, this would be 0%
- Where the MU regulations refer to a grade 16, this would be 50%

Transferring to study at Middlesex University

Following completion of your Post Graduate Certificate you might wish to continue further with your studies. It is possible to use your credits gained through the Post Graduate Certificate towards a further award, e.g. a Post Graduate Diploma or a Masters award. Please consult the University website to see the options that are available.

Feedback to students

Student feedback will be provided as follows:

- Comments on the clinical case studies
- Marks achieved in the assessment related to the learning topic reading material
- Constant immediate feedback of the locally based mentor on clinical aspects, submission of clinical case studies, etc.

Attendance requirements

You are expected to attend the following components of the programme:

- The initial and final workshop days
- A minimum of 16 clinical sessions and perform at least 50 echocardiographic studies (refer to clinical skills booklet for further details)
- The final summative assessment

Quality assurance of your Programme

To ensure the high standards and quality of Middlesex University provision, all Programmes are subject to the University's academic quality assurance procedures (which include those procedures related to programme approval, monitoring and review). A key feature of these processes is the input from external subject experts who ensure that awards of Middlesex are comparable to those of other UK universities, and that the programme curriculum, teaching, assessment and resources are appropriate.

Students also have a very important role in enhancing Programmes, feeding back on a regular basis via feedback forms, Boards of Study, and other mechanisms. Student feedback also plays a major role in Programme monitoring and review.

Middlesex University, and its Programmes, are subject to periodic audit or review by external quality agencies such as the Quality Assurance Agency for Higher Education (QAA). These audits and reviews place confidence in the quality and standards of provision as operated at Middlesex University. The most recent audit of quality and standards at Middlesex University was undertaken by the QAA in 2003 and the University was awarded a judgement of broad confidence in the soundness of the University's current and future management of the quality of its Programmes and the academic standards of its awards. This judgement is the highest level judgement that can be awarded by the QAA. QAA reviews and audits reports can be viewed on the QAA website at: www.qaa.ac.uk.

Link Tutors

A Middlesex University Link Tutor and Rila Publications Link Tutor is allocated to your Programme of study. They are responsible to Middlesex University for ensuring the maintenance of standards in the delivery of your Programme and effective liaison between the University and Rila Publications. If you have any questions or concerns about your Programme or any aspect of the partnership please contact your link tutors immediately. Their details are available on the inside cover of your handbook.

Feedback from students

Boards of Studies

The purpose of the Board of Studies is to provide a forum for discussion between you and staff involved in all aspects of your Programme.

As this is a resource based programme and because students travel from many different locations the Board of Studies will be hosted on a discussion board on the programme website and is available at any time to post comments. This will be moderated by the Programme Leader and the Link Tutors for Rila and Middlesex University. You are strongly encouraged to take part in this process as it is only if your views are shared with us that we are able to continue to develop the programme to meet your needs.

Views expressed and responses/actions arising from these will be included in the annual monitoring report compiled by Rila Publications and forwarded to the University where issues and actions taken may be identified in the School of Health and Social Sciences Collaborative Annual Monitoring Report as appropriate.

Terms of reference

Full terms of reference are available from the Procedures Handbook at www.mdx.ac.uk/www/quality/prh_cont.htm

Programme evaluation questionnaire

Programme feedback forms are included in this handbook. The aim of this feedback process is to elicit your views on the quality of all the modules you have taken, and your experience of being a student on your Programme of study. Programme questionnaires, which invite comment on your Programme in general, should be completed at the end of the Programme of Study.

All issues will be reported upon during the annual monitoring process. The whole feedback process will also be reviewed on a regular basis, to ensure that it is effective in helping provide a good quality experience for students.

Suggestions and Complaints

Students on validated Programmes of study will have access to complaints and grievance procedures established by their home institution which should be detailed here (or refer to the relevant publication).

The guiding principles are that these matters should be:

- treated seriously and with fairness
- dealt with without undue delay, and in as straightforward a manner as possible
- treated consistently across the University or institution
- dealt with and resolved, wherever possible in an informal way
- progressed through stages leading, if necessary, to a formal stage.

The internal complaints and grievance procedures must be followed and have been fully exhausted before the Middlesex University “Complaints in relation to collaborative partner institutions” (<http://mdx.ac.uk/regulations/crcp>) may be followed.

Middlesex University Students’ Union

Middlesex University Students’ Union (MUSU) is a democratic organisation, run by students for students, which represents the students of the University at local and national level.

At a national level, MUSU keeps up with national topics that the NUS deals with, for example, campaigns such as “Stop Fees Now” and other issues which affect students nationally.

On a local level, MUSU is involved in improving the experience of Middlesex students within the University, as well as a wide range of services, including societies, training and development, and welfare/academic advice.

Students registered on validated programmes may apply to become “Associate” members of MUSU. Further details, including the on-line application form, may be found on the MUSU website at www.musu.ac.uk/membership/index.htm.

There are five elected sabbatical officers who work full time on behalf of the student body:

President (TP) ext 6763

Vice President Welfare and International Students (EN) ext 6771

Vice President Ents and Societies (CH) ext 6465

Vice President Academic (HE) ext 6754

Vice President Communications and Editor of MUD (HE) ext 6473

Vice President Finance & Services (TP/CH) ext 6763/6465

You can contact any of these people in order to seek help, advice, or to discuss any issues that concern Middlesex students. With your help MUSU can continue to improve the experience of Middlesex students within the University.

If you would like to become involved with the Students' Union or find out more about the services it provides, simply ring MUSU reception on: 020 8411 6450, or go to:

www.musu.mdx.ac.uk

Career opportunities and placement

Benefits to patients:

- Improved patient access
- Improved waiting times for consultations and initial treatments
- Increased cases seen as a one stop service, or reduced visits to GP surgery
- More appropriate cases referred to secondary sector
- Improved standard of care in the primary sector so avoiding hospital admission

Benefits to Students

- Provides the Healthcare professional with enhanced skills and a sub-specialty interest.
- Provides a route for improving standards of clinical care
- Enhances their professional standing, linking with Clinical Governance and continuing professional development
- Achieves a PGCert with a major clinical practice component
- The core Healthcare professionals in the area with a PGCert would form a special interest group, thereby providing internal support and an on-going learning forum
- Postgraduate certificate award holders would be encouraged to mentor future students

Benefits to Primary Care Trusts (PCTs):

- Fulfil the need to treat appropriate cases in primary care, thereby having a providing cost-effective care
- Improved patient access in primary care, and in the secondary sector.
- Patients being seen in primary care by someone with enhanced skills will raise the levels of care provided within primary care
- Potential to have inter-practice referral scheme, thus raising the standard of care across the PCT
- The programme is designed and structured in a way that makes it suitable for Healthcare professionals who wish to extend their clinical knowledge and skills to the level at which they are equipped to undertake an extended and enhanced clinical role in the specialism in the primary care setting
- Enable the healthcare professional to take on additional responsibilities and assist in the delivery of care in the secondary sector e.g. manage chronic cardiological conditions.

Information for students with disabilities

We welcome the opportunity to support students with disabilities whilst they undertake this programme. If you have any physical difficulty, long term medical condition, sensory impairment or specific learning difficulty (e.g. dyslexia), please make your situation known at the earliest opportunity to a member of the programme team to ensure that suitable support is provided. Support can include, but is not restricted to, advice on programme, study needs, arranging support, liaison with mentors. Confidentiality will be respected and relevant details will only be disclosed with your permission. In exceptional circumstances Rila Publications will contact the University Disability Support Service for advice.

Student Membership of the University

Students taught at other institutions on programmes validated by Middlesex University are not members of the University but do have the right, on matters relating to academic assessment, to make an appeal to the Middlesex University Academic Registry.

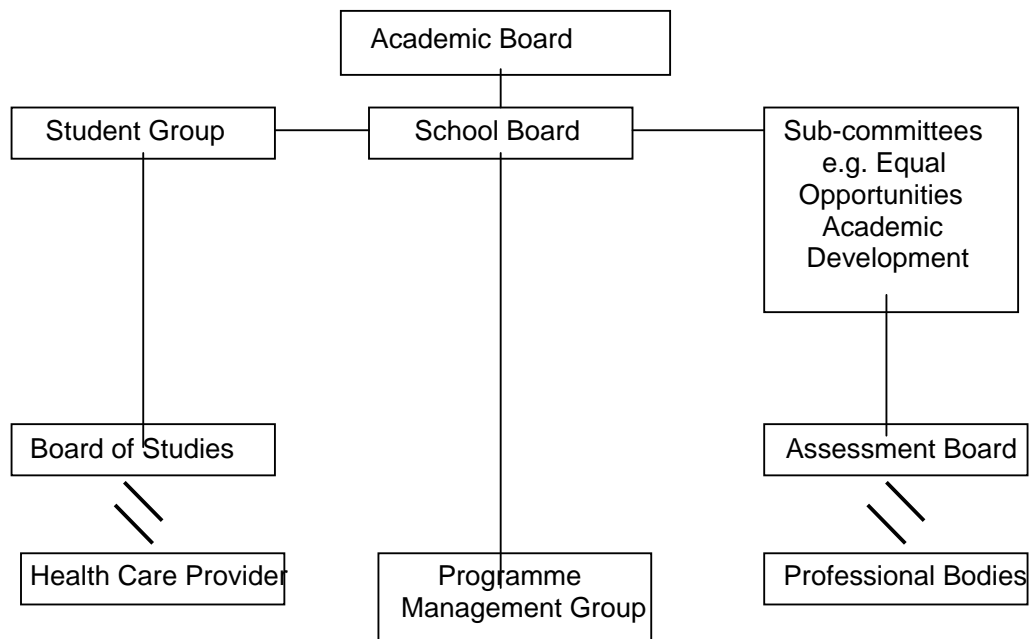
Programme Structure

Module 1 Rila 4XX	Module 2 Rila 4XX	Module 3 Rila 4XX
Directed Learning topics/ Assessments	Directed Learning topics/Assessments	Directed Learning topics/Assessments
1 Clinical case study	1 Clinical case study	1 clinical case study
1 day workshops *	Clinical activity	1 day workshops*
Clinical activity	Mentoring	Clinical activity
Mentoring		Mentoring
		Final Clinical Assessment

Each Module is 20 Level 4 Credits (Total 60 Level 4 Credits)

* Workshops: The initial day is designed to introduce the course framework, impart basic clinical knowledge and commence acquisition of enhanced practical skills. The workshop in Module 3 is designed around problem solving of clinical scenarios, based on actual and virtual patient presentation.

PROGRAMME MANAGEMENT STRUCTURE (BROKEN LINE DENOTES AN ADVISORY RELATIONSHIP)



Module Information

Rila 4XX	Echocardiography 1
Rila 4XX	Echocardiography 2
Rila 4XX	Echocardiography 3

Module Narratives

MODULE OUTLINES – MODULE 1

Module Code:	RILA 4XX
Module Title:	Echocardiography 1
Level:	4
Credit Points:	20
Module Leaders:	Dr Sandy Gupta
Pre-requisite:	None

Aims

This module has been developed to enable the GP/Nurse/AHP to develop their knowledge and understanding of basic Echocardiography. It aims to provide knowledge on the basics of ultrasound, Doppler, instrumentation, patient care, heart anatomy & basic ECHO scan planes.

Learning outcomes

On completion of this module, the successful student will be able to:

Knowledge

1. Display in-depth knowledge & systematic understanding of the basic principles of ultrasound physics
2. Analyse the principles of spectral and colour flow Doppler, and the basics of ECHO instrumentation and scan planes
3. Identify the basic anatomy of the heart
4. Identify the anatomy of the coronary arteries with particular emphasis on the left ventricle
5. Master in-depth knowledge and systematic understanding in relation to the left ventricle of segmentation, wall motion, measurement of systolic function, features of cardiomyopathies and other differential diagnoses

Skills

6. Critical awareness of the implications of ethical dilemmas, the ability to formulate solutions, and to apply caring and sensitive skills to patients.

Syllabus

Basic Echocardiography

- Basic principles of Ultrasound
- Basic principles of spectral Doppler
- Basic principles of colour flow Doppler
- Basic instrumentation
- Ethics and sensitivities of patient care
- Basic anatomy of the heart
- Basic Echocardiographic scan planes

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Left Ventricle

- Coronary anatomy and correlation with 2D views of left ventricle
- Segmentation of the left ventricle
- Wall motion
- Measurements of global systolic function
- Features of dilated and hypertrophic cardiomyopathy
- Common differential diagnoses
- Athletic heart, hypertensive disease

Learning, Teaching and Assessment Strategy

The main teaching/learning strategies employed in this module will be supervised clinical supervision and directed learning. To enable the development of Screening ECHO further skills for clinical practice the student will continue with their entries in the reflective diary/clinical skills booklet and submission of 2 clinical case studies. The workshops will introduce the student to the basics of ECHO science and its clinical applications.

Assessment

The assessment for this module is three-part. Students do not necessarily have to pass all components of the module assessment to progress through the programme, but must pass all components of assessment of all modules to order to acquire the Postgraduate Certificate:

Assessment Scheme

- Assessment of directed learning – multiple choice questions – to demonstrate achievement of learning outcomes 1,2, 3, 4, 5 and 6
- 1 clinical case study (~1000 words) – to demonstrate achievements of learning outcomes 4, 5 and 6 (clinical case studies require a pass grade in order to pass the module assessment)
- Assessment of clinical competence by mentor to demonstrate achieve of learning outcomes 1, 2, 3, 4, 5 and 6.

Learning materials

Course reader

References(see page 34) supplied as part of directed learning

Module Code:	RILA 4XX
Module Title:	Echocardiography 2
Level:	4
Credit Points:	20
Module Leaders:	Dr Sandy Gupta
Pre-Requisite:	Rila 4XX

Aims

This module was developed to educate on further disorders in cardiology for which Echocardiography may be a useful tool, which the student can perform in the primary care setting. It aims to equip the professional with enhanced knowledge, understanding and skills.

Learning outcomes

Knowledge and skills

1. Master critical in-depth knowledge and comprehensive understanding of normal anatomy of aortic and mitral valves
2. Master understanding of the mitral subvalvular apparatus and analyse its relationship with left ventricular function
3. Differentiate between causes of valve disease
4. Synthesise knowledge of tricuspid and pulmonary valve disease and cause of right ventricular dysfunction
5. Critically analyse the causes and imaging features of pulmonary hypertension

Syllabus

Valve disease

- Normal anatomy of the aortic and mitral valves, and the mitral subvalvar apparatus and their relationship with LV function
- Causes of valve disease
- Degenerative, calcific, congenital, ischaemic, functional, prolapse, rheumatic, endocarditis, aortic dilation

Right Heart

- Causes of tricuspid and pulmonary valve disease
- Causes of right ventricular dysfunction
-

Learning, Teaching and Assessment Strategy

The main teaching/learning strategies employed in this module will be supervised clinical activity, directed learning and through the maintenance of a reflective diary. Students will continue to participate, both with their mentor in the clinical department and in primary and secondary care practice as appropriate.

Assessment Scheme

The assessment for this module is three-part. Students do not necessarily have to pass all components of the module assessment to progress through the programme, but must pass all components of the assessment of all modules in order to acquire the Postgraduate Certificate.

- Assessment of directed learning – multiple choice questions – to demonstrate achievement of learning outcomes 1,2, 3, 4 and 5
- 1 Clinical case study (~1000 words each) – to demonstrate achievements of learning outcomes 3, 4 and 5 (the clinical case study requires a pass grade in order to pass the module assessment)
- Assessment of clinical competence by mentor to demonstrate achievement of learning outcomes 1,2,3,4 and 5

Learning materials

Course Reader and references(see page 34) supplied as part of directed learning

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MODULE OUTLINES – MODULE 3

Module Code:	RILA 4XX
Module Title:	Echocardiography 3
Level:	4
Credit Points:	20
Module Leaders:	Dr Sandy Gupta
Pre-Requisite:	Rila 4XX, Rila 4XX

Aims

This module was developed to enable the student to continue to expand the range of pathologies that they can identify and manage in the primary care setting. It aims to equip the student with the knowledge and skills to assess and diagnose intracardiac masses and pericardial disease. Building on the knowledge and skills acquired in Rila XXX and XXX it aims to equip the candidate to engage in a level of practice where ECHO screening enables assessment of underlying cardiac pathology. They will then be able to best determine how the patient should be investigated and managed.

Learning outcomes

Knowledge

1. Differentiate between the types of masses found in the heart
2. Demonstrate systematic and comprehensive knowledge and understanding of the normal pericardium

Skills

3. Exercise of initiative in assessing, diagnosing and making appropriate referrals for patients with intracardiac masses
4. Critical assessment and interpretation of the features consistent with cardiac tamponade and initiation of appropriate response

Syllabus

Intracardiac Masses

- Types of masses found in the heart
- Features of a myxoma
- Differentiation of atrial mass

Pericardial Disease

- Anatomy of the normal pericardium
- Features of tamponade

Learning, Teaching and Assessment Strategy

The main teaching/learning strategies employed in this module will be supervised clinical activity and directed learning and the maintenance of a reflective diary. Students will continue with their mentor in the clinical placements and in their own primary care practice, to enable further skills to be developed alongside the knowledge with is being acquired.

Assessment Scheme

The assessment for this module is three-part. Students do not necessarily have to pass the module assessment to progress through the programme, but must pass all components of assessment of all modules in order to acquire the Postgraduate Certificate.

- Assessment of directed learning – multiple choice questions – to demonstrate achievement of learning outcomes 1,2,3 and 4
- 1 Clinical case study (750-1000 words) to demonstrate achievements of learning outcomes 1, 2 and 3.

- Assessment of clinical competence by mentor to demonstrate achievement of learning outcomes 1,2,3, and 4
- Final assessment to demonstrate achievement of learning outcomes 1,2,3 and 4 – Structured questions & answers, diagnostic/video clips quiz and, in some circumstances a structured viva voce. All components will use a strict criterion referenced marking scheme.

Learning materials

Course Reader

References: please see below:

Authoritative textbooks (starting with the simpler texts as a suggestion)

- Practical Echocardiography and Doppler. Mark J Monaghan, John Wiley & Sons Ltd. ISBN 0471 92069
- Clinical Echocardiography, John Chambers BMJ Publishing Group ISBN 0-7279-0810-3
- Cardiac Ultrasound, Leonard M Shapiro & Antoinette Kenny Manson Publishing ISBN 1-874545-08-1
- Echocardiography: A Practical Guide to Reporting, Helen Rimington and John Chambers
- A.E.Weyman, Principles and Practice of Echocardiography, 2nd ed. 1994 Lea & Febiger
- H.Feigenbaum, Echocardiography, 5th ed.1994 Lea & Febiger
- Otto C. The Practice of Clinical Echocardiography. 2nd ed. Philadelphia: W. B. Saunders 2002.

Useful review articles:

- Wranne B, Baumgartner H, Flachskampf FA, Hasenkam M, Pinto F. Stenotic lesions (editorial). Heart 1996; 75 (Suppl.2);36-42. Downloadable from <http://heart.bmjournals.com/supplements.shtml>
- M Enriquez-Sarano, C Tribouilloy. Quantitation of mitral regurgitation: rationale, approach, and interpretation in clinical practice. Heart 2002; 88 (Suppl 4): iv1-iv3. Downloadable from <http://heart.bmjournals.com/supplements.shtml>
- S Y Ho Anatomy of the mitral valve. Heart 2002; 88 (Suppl 4): iv5-iv10. Downloadable from <http://heart.bmjournals.com/supplements.shtml>
- T Irvine, X K Li, D J Sahn, A Kenny. Assessment of mitral regurgitation. Heart 2002; 88 (Suppl 4): iv11-iv19. Downloadable from <http://heart.bmjournals.com/supplements.shtml>
- D Pellerin, S Brecker, and C Veyrat. Degenerative mitral valve disease with emphasis on mitral valve prolapse. Heart 2002; 88 (Suppl 4): iv20-iv28. Downloadable from <http://heart.bmjournals.com/supplements.shtml>
- Gardin JM, Adams DB, Douglas PS, Feigenbaum H, Forst DH, Fraser AG, Grayburn PA, Katz AS, Keller AM, Kerber RE, Khandheria BK, Klein AL, Lang RM, Pierard LA, Quinones MA, Schnittger I; American Society of Echocardiography. Recommendations for a standardized report for adult transthoracic echocardiography: a report from the American Society of Echocardiography's Nomenclature and Standards Committee and Task Force for a Standardized Echocardiography Report. J Am Soc Echocardiogr. 2002 Mar;15(3):275-90. Downloadable from www.asecho.org
- Zoghbi WA, Enriquez-Sarano M, Foster E, Grayburn PA, Kraft CD, Levine RA, Nihoyannopoulos P, Otto CM, Quinones MA, Rakowski H, Stewart WJ, Waggoner A, Weissman NJ. Recommendations for Evaluation of the Severity of Native Valvular Regurgitation with Two-dimensional and Doppler Echocardiography. J Am Soc Echocardiogr 2003;16:777-802. Downloadable from <http://www.asecho.org/freepdf/valvularregurg.pdf>
- Cheitlin MD, Armstrong WF, Aurigemma GP, Beller GA, Bierman FZ, Davis JL, Douglas PS, Faxon DP, Gillam LD, Kimball TR, Kussmaul WG, Pearlman AS, Philbrick JT, Rakowski H, Thys DM. ACC/AHA/ASE 2003 guideline update for the clinical application of echocardiography—summary article: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines (ACC/AHA/ASE Committee to Update the 1997 Guidelines on the Clinical Application of Echocardiography). *Circulation*.2003 http://www.acc.org/clinical/guidelines/echo/summary_article.pdf

Equal Opportunities Policy

The Equal Opportunities Policy of Rila Publications Ltd states that in the recruitment, selection, education and assessment of students, and in the recruitment, development and training, appraisal and promotion of staff, the only consideration must be that the individuals meets, or is likely to meet, the requirements of the programme, course or post.

The requirements being met, no student or employee will be discriminated against on the basis of their gender, race, colour, ethnic origin, nationality (within current legislation), disability, sexual orientation, marital status, caring or parental responsibilities, age or beliefs on any matter such as religion or politics.

Rila Publications Ltd is committed to providing a learning, working and social environment in which the rights and dignity of all its members are respected, and which is free from discrimination, prejudice, intimidation and all forms of harassment including bullying.

Rila is committed to a programme of action to ensure that its policy is implemented and monitored at a n organisational and individual level.

WHY DOES RILA NEED TO HAVE AN ACTIVE EQUAL OPPORTUNITIES POLICY?

Apart from concern for natural justice and the desire to respect the dignity of all, there are organisational grounds as follows:

- Compliance with the Law: anti-discrimination laws in the UK make it unlawful to discriminate on the grounds of sex, race or disability
- Trouble shooting: a positive policy of equal opportunity coupled with a programme of action can be a good way of overcoming problems or preventing their occurrence.
- Encouraging good management: the removal of discriminatory barriers is likely to improve how the organisation works as a whole, not simply for specific groups within the organisation
- Effective use of human resources: recruitment and development of women, ethnic minorities and the disabled significantly expands the pool of talent and skill available
- Social responsibility: Rila has a responsibility to reflect the values of the community we serve and our multicultural clientele
- Sense of injustice: persistent discrimination and denial of equal opportunity can create a sense of injustice amongst affected groups. This can lead to breakdown in communication and poor working relations

Programme Evaluation Report PG Cert Echocardiography
(to be completed at the end of the course, **you may photocopy this page**)

Institutions: Middlesex University & Rila Publications

Date: _____

Student information: please complete as appropriate (optional)

Name: _____

Address: _____

	Good	Acceptable	Poor	Comments
1. Ease of access to PGCert organising staff:				
a. Formal				
b. Informal				
2. Organisation:				
a. Directed learning				
b. Workshops				
c. Assessment / Exams				
d. Mentor / hospital activity				
e. Reflective diary/case reports (studies)				
f. Administration				
3. Quality of taught material- lectures and seminars:				
a. Informative value				
b. Structure, clarity and presentation				
c. Interest				
d. Handouts				
4. Other facilities: RILA/local				
a. Library				
b. Computing				
c. Medline				
d. Internet				
5. Supervision				
a. Clinical				
b. Core knowledge				
c. Personal development				
Informal: feedback from mentors				
6. Did you feel welcome at the local hospitals	Yes/No (Delete as appropriate)			
7. Overall do you feel the course has been a useful learning experience?	Yes/No (Delete as appropriate)			
8. Was the time allowed for clinical skills acquisition sufficient?	Yes/No (Delete as appropriate)			
9. Was the time allowed for personal study sufficient?	Yes/No (Delete as appropriate)			
10. Who paid your fees?				

Confidential

Please give your comments or suggestions to improve the course in the space below

APPLICATION FORM

POSTGRADUATE CERTIFICATE ECHOCARDIOGRAPHY

Please use **BLOCK CAPITALS** (type or use black ink)

GMC/RCN/Other Professional Number: _____

Title: _____ **Surname** _____

Forename(s) _____

Please write your name carefully in the EXACT form and order as you wish it to be entered on your diploma

Date of birth (day/month/year) _____ Sex male/female _____

Address _____

Post code _____ Country _____

Hospital/GP Practice Name/Place of Work _____

Address _____

Post code _____

Tel: home _____ Tel: work _____

Fax: home _____ Fax: work _____

Email address _____

University/Educational institution attended _____

Medical/Nursing or Professional undergraduate qualification _____ Year of award _____

Postgraduate Qualifications and year of award _____

Brief outline of career & outline previous experience in the area of specialism _____

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