University of St Andrews - School of Medicine Handbook

MD4003 CLINICAL REASONING

In addition to revisiting basic clinical skills, the main objectives for this module are:

- to encourage a cognitive approach to clinical problems
- to integrate skills and knowledge
- to prepare students for their transfer to the clinical environment

MODULE OVERVIEW

This module is not a teaching module but focusses instead on the application of knowledge already gained in previous semesters. It is very practical and hands on. It is delivered in small group format only, running in parallel with the student selected module MD4002 in the second semester. Over the semester the total student contact hours are 24; delivered in 5 cycles of slightly varying length. (Each student attends for one full day every two weeks.) The morning is divided into three parts: integrated clinical scenarios, and a combination of two of the following; a revision tutorial, workshop or skills practical. The afternoon is usually divided into two parts: Case discussion and a further session which again may be a tutorial, workshop or practical. In the case discussion session students reflect on and consider improvement in their performance following the morning's work.

DESCRIPTION OF ELEMENTS Integrated clinical scenarios

Working in pairs or occasionally singly, students take a history from a simulated patient and edit this into an oral clinical summary for presentation to the facilitator. The student(s) are then asked to apply the information gained from the history to guide their examination. If the student examines the salient features, the relevant clinical information is imparted to them in picture format, verbally, or as sound recordings. The facilitator then encourages the student(s) to develop an investigation and management plan. The student(s) then move on and repeat the exercise with a second simulated scenario allowing students to take different roles if working in pairs.

This format encourages students to make decisions based on available information, and to begin to take "responsibility" for their decisions. This involves team working and the development of oral communication skills and clinical reasoning.

Case Discussion sessions

Discussion of the integrated scenarios is facilitated by a member of staff and enables students to reflect on their performance and identify areas of weakness. Clinical aspects of the cases are discussed; focusing on the development of students' clinical reasoning. Detailed knowledge of the individual cases is not the main objective of the session.

New Skills Practicals and Workshops

In addition to the extensive skills already mastered, new skills are introduced to enhance clinical development. These include: ABCDE simulation scenarios, breast examination, discussing bad news, safe prescribing and drug calculations, fluid management, and eFAST. Clinical decision-making and clinical reasoning workshops are also included to develop reasoning powers. A very valuable component of the module is the ward simulation which involves a multidisciplinary team.

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Revision Tutorials

Revisiting topics in a spiral curriculum reinforces areas previously covered. Anatomy relating to clinical examination and imaging is reviewed. The clinical escape room is an exciting way to revise clinical reasoning.

All students are required to attain basic life support recertification before the May exam diet.

Guided Studies

Flipping the classroom: There are a series of well-constructed Guided Studies relating to the individual 5 cycles. These involve both revision of previous semesters' work and preparation for these applied cycles. Guided Studies must be completed prior to class and they encourage consolidation of learning before application of knowledge in a very practical and interactive way in the cycles. MD4003 is an excellent example of the "flipped classroom".

TIMETABLE

Cycle:	Мо	rning S	essions	}	Afternoon Sessions		
		3 hou	ırs		2 or 3 hours		
	CVS Scenario	Advar	rced	Clinical	Case	ABCDE	
1	RS Scenario	life support		Escape room	Discussions	Simulations	
	GI Scenario	Safe		Clinical	Case	X -Sectional	
2	Challenge	Prescribing		Probability	Discussion	Anatomy	
	*Ward	*Laboratory Clinical			*Ward	*Laboratory Clinical	
3	Simulation	Reasoning Scenarios			Simulation	Reasoning Scenarios	
	Breast Cancer Par	tients	Breas	t Examination	Discussing	Fluid	
4	History taking				Bad News	Management	
	Trauma Scenario	eFAST		Data	Drug	0 0	BLS
5	Neuro Scenario			Interpretation	Calculations	Difficult Cases	Certification

Key:

Integrated clinical scenario simulations	Revision Tutorials		
Practical Skills	Workshops		

^{*}Morning or afternoon only

Examination

Examination of the module is by an 18 station graded OSCE practical exam in the May diet.