
Additional File 1

1

2Appendix 1 MMI Description

3There were ten MMI stations in total each lasting seven minutes, with one examiner per
4station. Station content was provided by Dundee Medical School. Modifications to station
5content were made where necessary to ensure authenticity in an Irish setting. Five stations
6involved an interviewer, a role-player and the candidate. The other five stations were
7interview based (one interviewer: one candidate).

8

9Each station was scored across three domains and one global rating scale. Domain scores
10ranged from 0-5 (0= poor; 5 = excellent) with detailed written descriptors of excellent and
11poor performances. Global score were on a five point scale ranging from unacceptable to
12excellent performance.

13

	Station Content	Mapped to Irish Medical Council Eight Domains of Professional Practice
1	Counselling conversation with a distressed medical student	Relating to patients Management
2	Discussion of possible breaches of professionalism by a medical student	Professionalism Communication and Interpersonal skills
3	Conversation with a medical student who was drinking alcohol to excess	Relating to patients Professionalism
4	Interview about motivation and preparation to study medicine	Scholarship Communication and Interpersonal skills
5	Candidate and helper complete a puzzle station	Collaboration and Teamwork Relating to patients
6	Interview about the experience of team work, achievements and social responsibility	Scholarship Communication and Interpersonal skills
7	Discussion about what makes a fair health care system	Patient safety and quality of patient care Professionalism
8	Giving advice to a non-English speaking patient	Communication and Interpersonal skills Relating to patients
9	Discussion about the issues relating to organ donation	Professionalism Communication and Interpersonal skills
10	Completing a complex card sort with a helper	Management Collaboration and teamwork

14

15

16

17

18

19

20

21

22Appendix 2

23Description of First Year Medical Course/ Outcome Variables

24

25 **First Year Modules and Assessments**

26 The medical undergraduate degree programme is an integrated modular, systems based curriculum.

27 The First Year Medical Course comprises 10 modules which together equal 60 ECTS. The modules

28 and ECTS credit weighting are listed below. In general knowledge based assessments (eg MCQs/

29 written papers) account for 70% of the mark per module, while practical / skills based assessments (eg

30 laboratory exams/OSCEs) account for 30% of the mark.

31

32 **Semester 1**

33 Musculoskeletal System and Peripheral Nerves 10 ECTS

34 General Principles of Human Body Structure 5 ECTS

35 Principles of Physiology 5 ECTS

36 Biomolecules, Metabolism and Energy 5 ECTS

37 Medical Professionalism (1) 10 ECTS (This module includes ethics, law, health promotion, health

38 informatics, communication and clinical examination skills and a special study module).

39

40 **Semester 2**

41 Cardiovascular System 5 ECTS

42 Respiratory System 5 ECTS

43 Renal System 5 ECTS

44 Gastrointestinal System 5 ECTS

45 Metabolism, Nutrition and Health 5 ECTS.

46

47 **Details of the outcome variables:**

48 **First Med Score** was a continuous variable representing each student's percentage score overall

49 across all first year modules. It is calculated based on their percentage mark out of 100 for each of ten

50 modules and is adjusted to reflect the relative weightings of each of the module in terms of its

51 allocated credits according to the formula: $\text{Sum of (Percentage mark} \times \text{credit weighting of module) /}$

52 total number of credits).

53

54 **First Med OSCE** score, a continuous variable representing performance on a five station OSCE that

55 contributes (one third) to the professionalism score. The OSCE stations examine communication and

56 clinical skills and are of 5 minute duration. The OSCE is conducted in two parallel cycles, with one

57 examiner and one simulated patient per station, per cycle. OMIS software¹ is used to mark the OSCE

58 stations online. OSCE marking is based on a combination of a checklist and clinical / communication

59descriptor bands. The Calgary Cambridge Model² forms the basis of the communication skills
60checklist.

61Example OSCE stations are

- 62 1. Asking a patient for consent to measure vital signs, measuring them and explaining the
63 findings to the patient.
- 64 2. Performing urinalysis on a sample of urine and explaining the findings to the patient.
- 65 3. Measuring a patient's blood pressure and discussing the results with the patient.
- 66 4. Calculating a patient's BMI and discussing results.
- 67 5. Performing Basic Life Support and using an automated external defibrillator on a mannequin

68

691 Kropmans TJB, O'Donovan BGG, Cunningham D, Murphy AW, Flaherty G, Nestel D, Dunne FP
70"An Online Management Information System for Objective Structured Clinical Examinations".

71Computer and Information Science 2012; 5; 1

72

732. Silverman, Jonathan, Suzanne M. Kurtz, Juliet Draper, Jan van Dalen, and Frederic W. Platt. *Skills*
74*for communicating with patients*. Oxford, UK: Radcliffe Pub., 2005.

75

76

77

78

79

80

81

82

83

84

85

86

87

88

89

90

91

92

93**Appendix 3 FOCUS GROUP TOPIC GUIDE**

94

95**Topic 1: Exploration of General Thoughts**

96Key questions: What are your thoughts having examined at / sat the MMI?

97Specific probes: From your experience how do you think MMI compares to other tools used
98for the selection of medical students?

99

100**Topic 2: Potential role for MMI in the selection of medical students in Ireland**

101Key questions: Do you think the MMI has a potential role in the selection of medical students
102in Ireland?

103Specific probes: What do think the barriers to its use might be? What advantages might it
104offer over current selection tools? Do you have any suggestions that might make MMI a
105viable option for selection in Ireland?

106

107**Topic 3: Establishment of general views on the use of MMI for selecting students from
108international backgrounds**

109Key Questions: What are your views on the utility / appropriateness of MMI as a selection
110tool for medical students from international backgrounds?

111Can you expand on this? / Do you see any advantages to using MMI in this context? / Do
112you see any barriers to using MMI in this context?

113How do you think MMI would compare to traditional interview in the selection of
114international students?

115

116**Topic 4: Impact of English language proficiency on MMI performance (If not already
117explored in Topic 2)**

118Key Questions: To what extent do you think English language proficiency can impact on a
119candidates' performance in the MMI? Can you expand on this?

120

121**Topic 5: Impact of cultural issues on MMI performance (If not already explored in
122Topic 2)**

123Key Questions: To what extent do you think cultural issues could impact on a candidates'
124performance in the MMI? Can you expand on this?

125(If the interviewee is unsure of what is meant by this then prompt with- for instance one of
126the MMI stations referred to a medical student drinking alcohol to excess- this may be a
127particular issue for Irish medical students and as such is quite culturally specific).

128

129**Topic 6: Recommendations for best practice**

130Key Questions: Can you suggest any recommendations for designing and running MMIs that
131would be appropriate to use in the selection of medical students from international
132background?

133Specific Probes:

134In the development of station content? / In the running of the MMI? /

135

136**Final Questions:** Is there anything else you would like to say about the MMI?

137Is there anything I haven't asked you that you feel I should have?

138

139

140

141

142

143