Introduction

The New PACES Format

A brief history of the PACES format

The Membership examination has existed since the nineteenth century, and has undergone many transformations in syllabus and format over the years. Prior to the introduction of PACES, candidates underwent a long case and were essentially led around a large room to examine any number and combination of short cases, at the examiner's fancy. The implementation of PACES in 2001 sought to improve the validity and reliability of the examination. Its key features included the use of standardized marking rubrics, a 'carousel' in which all candidates in the same circuit encountered the same patients, and independent marking of each station by different examiners so as to improve objectivity.

PACES was revamped in 2009, when the four five-minute short examinations covering the endocrine, rheumatology, dermatology, and ophthalmology systems were replaced with a new *Brief Clinical Consult* (BCC) station that integrated history-taking, examination, and communication with the patient in a single encounter (Table XX). This change sought to address the concern that candidates either spoke to the patient but did not examine them, or vice versa, which was felt to be dissociative and artificial. Additionally, it was desired to broaden the scope of PACES to include topics such as acute medicine or geriatrics, which could not be tested in the 2001 format. The marking scheme was also amended to move away from an overall judgement mark for each station, towards individual marking of seven 'core clinical skills'. Passing PACES now requires a minimum score in each of the seven skills, along with a minimum overall mark.

The third iteration of the PACES format was due to be launched in 2020 but was postponed due to the COVID-19 pandemic. It makes two key changes to address the deficiencies identified with the 2009 format. Firstly, while the 2009 BCC was very real-life, it was also very rushed. Conversely, the history-taking station was too long and testing history-taking in isolation felt artificial. Therefore, the BCC and history stations were combined into two 20-minute Consultation stations combining history-taking, examination, and communication with the patient. One could say that we have come full circle to the pre-PACES 'long case' format.

The second change was to split the communications station into two separate 10-minute encounters, each paired with a physical examination task. Additionally, the five-minute question and answer with examiners was felt to add little to the assessment and therefore removed. Going from one to two communications stations also means that the mark weightage of communications is now doubled.

Table 1: Comparison of PACES 2001, 2009, and current formats.

Station	PACES 2001	PACES 2009	PACES 2023 (current)
Physical exam - Cardiac - Abdominal - Respiratory - Neurology	10 min each (6 min examination + 4 min Q&A). Respiratory + Abdominal paired to form a 20min station; similarly for neurology and cardiovascular.	No change from 2001 format.	Retains basic format. Abdominal and Respiratory stations now paired with communications task.
Communications and Ethics	One 20min station (14 min with the patient, 1 min reflection, 5 min Q&A).	No change from 2001 format.	Split into two 10min encounters. Q&A removed.
History taking	One 20min station (14 min with the patient, 1 min reflection, 5 min Q&A).	No change from 2001 format.	History-taking and *Brief Clinical Consult* combined into two 20-min *Consultation* stations that integrate history and physical examination (15 min with patient, 5 min Q&A).
"Station 5"	One 20-min station with four 5-minute cases: endocrine, joints, skin, and eyes. Focus is on physical signs, often with 'spot diagnosis' type cases.	One 20-min station with two 10-min *Brief Clinical Consult*; integrated history and examination (8 min with patient, 2 min Q&A)	

Q&A: question and answer with examiners

The 2023 PACES format

The 2023 PACES format involves five 20-minute stations, three of which are divided into two 10-minute tasks.

Station 1:	**Communication A**	10 min with patient (no Q&A)
	Physical Exam - Respiratory	6 min examination + 4 min Q&A
Station 2:	**Consultation A**	15 min with patient + 5 min Q&A
Station 3:	**Physical Exam - Cardiovascular**	6 min examination + 4 min Q&A
	Physical Exam - Neurology	6 min examination + 4 min Q&A
Station 4:	**Communication B**	10 min with patient (no Q&A)
	Physical Exam - Abdomen	6 min examination + 4 min Q&A
Station 5:	**Consultation B**	15 min with patient + 5 min Q&A

Candidates may start at any station, and proceed in a 'round-robin' fashion (i.e. Station 4 → Station 5 → Station 1 and so on). There is a 5-minute interval between stations, which serves as a reading time for candidates to read the 'Candidate's information' for the subsequent station and plan a strategy.

The specifics of each station (physical examination, consultation, or communication) and its appropriate strategy are discussed in detail in the rest of this book.

Marking Scheme *(updated June 2024)*

Marking of the Membership examination has evolved over the years. In the pre-PACES era, candidates passed or failed based on the global impression of a few examiners, which was fraught with lack of standardization and high inter-examiner variability. PACES is designed in line with best practices in assessment[1] as a multi-station, multi-rater Objective Structured Clinical Examination (OSCE).

At each station, candidates are assessed by two independent examiners (who do not confer before submitting their marksheets), and are scored on specific skills (instead of a global impression). The 7 assessed skills are:

- **Skill A:** Physical Examination – assesses both the technique of specific examination steps, as well as whether the examination flow as a whole is smooth and systematic. Identifying signs is explicitly not assessed here.
- **Skill B:** Identifying Physical Signs – picking up correct key findings. Finding signs which are *not* present is an explicit fail for this skill.
- **Skill C:** Clinical Communication – history taking, including identification of significant positives (in the consult stations), and explaining clinical information and management options (in the communication stations).
- **Skill D:** Differential Diagnosis – presenting sensible differentials, and appropriate prioritisation of the differential list. Having the correct diagnosis in the list of differentials is mandatory for a full score.
- **Skill E:** Clinical Judgement – usually graded on the candidate's investigation and management plan, however this is a broad skill and examiners may also ask about disease epidemiology, pathophysiology (e.g. of specific physical signs), and specific management questions including advice to patients (e.g. fitness to drive).
- **Skill F:** Managing Patient Concerns – eliciting and addressing the patient's concerns and questions. Listening, empathy, and nonverbal communication is also assessed.
- **Skill G:** Patient Welfare. Unlike the other skills, this is usually graded on a 'demerit' basis – full marks are awarded unless the candidate displays unprofessional behaviour either physical (rough handling, causing patient pain) or verbal (rudeness, insulting tone). Unsafe management that poses a danger to patient safety can also be penalised here.

[1] Those interested in principles of assessment design may refer to the excellent Association for Medical Education in Europe (AMEE) guide No. 81 by Khan KZ et al. Part 1: Med Teach 2013;35(9):e1437-1446. Part II: Med Teach 2013;35(9):e1447-1463.

Not every skill is graded in every station. Skills C and F are not graded in the physical examination stations (1b, 3a, 3b, 4b) as candidates do not talk to the patient. Skills A, B, and D are not graded in the pure communication stations (1a, 4a) as there is no examination. All skills are graded in the consultation stations (2, 5). Each skill is graded as 'satisfactory' (2 points), 'borderline' (1 point), or 'unsatisfactory' (0 point), for a total of 2 points x 2 examiners = 4 points per skill per station. Skills B-E ±F require a calibration process, whereby the criteria to attain a 'satisfactory' score (e.g. the physical signs present or key positives on history-taking) are standardized and agreed upon by both examiners prior to the start of the examination (page 10).

To pass PACES, candidates must pass every skill, each of which has a different pass mark (Table 2), and attain a total score of at least 126/168 (higher than the sum total of pass marks for individual skills).

Table 2: PACES 2023 Marking Scheme

Station	**Skill**						
	A Physical Exam	**B** Identifying Signs	**C** Clinical Comms	**D** Differential Diagnosis	**E** Clinical judgement	**F** Managing concerns	**G** Patient welfare
1a Comms			4		4	4	4
1b Respi	4	4		4	4		4
2 Consult	4	4	4	4	4	4	4
3a Cardio	4	4		4	4		4
3b Neuro	4	4		4	4		4
4a Comms			4		4	4	4
4b Abdo	4	4		4	4		4
5 Consult	4	4	4	4	4	4	4
Max score	24	24	16	24	32	16	32
Pass mark*	16	14	11	15	20	10	28
Total score	168						
Pass mark*	126						

** As of June 2024*

Implications of the PACES Marking Scheme

Specific quirks of this marking scheme have important implications for candidates.

1. Skill B (physical signs) is critical especially with 'linked skills marking'

- MRCP statistics[2] over the years consistently show that skill B has the highest failure rate, despite having the lowest pass mark (14/24 = 58%). This corresponds with our experience that at least two thirds of candidates who fail PACES fail because of skill B.

[2] These statistics are public and updated regularly on the MRCP website, www.thefederation.uk/examinations/guidance-and-information/performance-reports

- Additionally, in the physical examination stations, candidates who fail skill B (physical signs) will at best be awarded 'borderline' for skill D (differential diagnosis) and E (clinical judgement), even if the correct diagnosis is suggested. *There is no 'error carry forward'.* For this reason, many candidates who fail skill D or E do so because of a failure in skill B.
- Hence, skill B is of critical importance to pass PACES, and candidates would be wise to focus their efforts here. Even in cases where Skill D or E is failed, the best strategy is often not to 'study' diagnosis lists or management plans, but instead work on identifying physical signs so as to avoid deductions due to 'linked skill marking'.
- Note that marks for skill B are awarded in both the physical examination and the consultation stations. In fact, they are usually easier to obtain in the consultation stations – fewer positive signs, many that can be identified on inspection alone, plus the benefit of history to lead one to the positives. *Do not neglect identifying physical signs in the consultation stations.*

2. Effort and time discipline is required to address patient concerns (skill F)

- Skill F is typically failed by two groups of candidates: (1) those who are unfamiliar with the PACES format and neglect to ask for concerns in the consultations station, and (2) those who run out of time. This is less of a problem in the communications station in which patient concerns are elicited upfront and discussed throughout the encounter.
- In the consultation station, candidates should make a habit to set aside the last 2-3 minutes to ask the patient for his/her concerns and questions. Patients will be primed to offer 1 or 2 specific questions at this juncture. *Time discipline is important, and candidates should carry a timer or pocket watch (strapped to the belt or neck, not worn on the wrist for infection control reasons).*
- Questions must be answered directly and specifically. A common error is to tell the patient one's general management plan instead of addressing the specific concern – which can be quite jarring to patient and examiner (Q: "do I have cancer?" / A: "I need to give you some antibiotics"). This is discussed in further detail on pages 206-208.

3. You do not need to pass every station, don't sweat the weird and wonderful.

- There is no requirement for candidates to pass individual stations, only a requirement to pass each skill and pass the total score. The pass mark for Skill B is 14/24, meaning that one can score 0 for skill B in 2 stations and borderline (1+1) in 1 station and still pass. Practically, candidates who flunk one station have a good chance of passing, however failing two stations is risky as it is not uncommon to lose an odd mark or two elsewhere.
- This should be of some comfort. It is not uncommon to have one difficult or rare case in a PACES carousel. The key is to not be psychologically affected to the extent of compromising performance in other stations.
- Equally, when preparing for PACES while juggling busy clinical demands, *we advise focusing on the important and common conditions that constitute 80-90% of the exam, instead of pursuing the rare and wonderful 10-20% which is a disproportionate effort for diminishing returns*. Far better to flunk the one rare case and clear the other stations, than clinch the rare diagnosis but struggle in the rest!