OBJECTIVE STRUCTURED CLINICAL EXAMINATIONS (OSCE)

AND

THE MEDICAL SCIENCE EQUIVALENT (OSPE)

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Introduction

Harden (6) first described the use of the OSCE in 1975 and since then it has become increasingly used. This assessment format is generally considered amenable for developing into a reliable and valid test of clinical competence. However, there are conditions that must be fulfilled, such as a sufficient number of stations or test length (14, 13, 21). This in turn can make the process costly in terms of manpower and organisation.

Notwithstanding the above assumptions, a consistent finding in practice is that reliability is often only moderate, generalizability poor across OSCE stations, and the predictive value of the OSCE is not strong. Norman and Roberts (17) questioned if this could be due to the fact that skills have little common basis since test and re-test of the same stations have high consistency. Jolly and Martin also showed that an OSCE held in a particular clinical year was a useful predictor of failure in further clinical examinations (11).

A number of authors have attested to the need to have a sufficient number of stations. A potentially important contribution for achieving better reliability is combining the OSCE with a paper test, such as an MCQ (19, 13). This approach reduces overall costs which have been variously estimated between $70 (15) and $490 per candidate (16).

Other issues have also received attention such as comparisons with traditional tests of clinical competence (20), determination of the cut score and standard setting (5, 22, 18), the place of feedback for candidates (7, 2), methods for scoring (12, 23, 9), inter-rater reliability (13) and observer fatigue (10). Despite Hodges questioning if OSCEs are really valid for assessing what we (all) mean by clinical competence (8), the OSCE process remains popular and a frequently used assessment for measuring skills.

Little has been written about use of the parallel Objective Structured Practical Examination with Medical Science assessments.

General Considerations

Faced with constraints of staff numbers and available physical facilities, planners of OSCEs make compromises. Although more stations are generally better, there is no fixed number suggested even for a graduating examination. OSCEs seldom are the only assessment instrument and final results should depend on an overall picture including knowledge, skill and attitudes. To solve the problem of how many stations are needed, one would need to consistently identify which side of the cut line a borderline student needs to be. The literature has been useful in removing the need for paired examiners, finding it is better to increase the number of stations by using all individuals available as single examiners in order to improve reliability (13).

The length of a station is clearly important; five or more minutes per station is usually needed. Candidates waiting at stations represent a better situation than candidates being rushed. Increasing time at a station does not automatically increase reliability even when a station is basically flawed by not allowing enough time. Pre-testing stations usually addresses the problem of determining each station’s appropriate length.

The most important issue that all planning committees face is to develop stations that achieve acceptable standards of validity, both statistically and at face value. This can be illustrated by an example of competence in conducting a breast examination (11, 13). The gold standard for such an examination is to determine whether or not a woman has significant pathology in the breast examined (and not if the process conforms to some predetermined examination sequence). Accordingly, a valid approach for determining competence might be the use of a number of breast models with which candidates must determine those with evidence of pathology.

The method for marking performance is important and influences the candidate’s approach to their examination strategy. Increasing the number of items in a check list has been reported to decrease the station’s reliability and validity (18). Therefore use of a global rating can be justified, even though the rater’s perception becomes one of the influencing factors in the measured level of competence.
This introduction to the OSCE and its medical science assessment equivalent (i.e., the OSPE) is presented in reference to needed components for an OSCE. These components must be at least anticipated and hopefully adequately addressed a priori.

1. Organisation
2. Planning the OSCE
3. Physical facilities
4. Staffing
5. Simultaneous delivery and repeated sessions
6. Examiners
7. "Exam Paper"
8. Station instructions
9. Simulated patients (SP)
10. Catering
11. Costs
12. Candidate instructions and station allocation
13. OSPE

An attached Appendix provides a template and included examples of stations with helpful suggestions.

Organisation

Not unlike some other examination formats, invigilators, examiners, markers, administrators (for exam collation), printing facilities, stores and equipment are required. Unlike other assessment formats, OSCE logistics are of a larger scale.

Whether the exam is a OSCE for assessing clinical competence, or an OSPE for measuring practical competencies, or a combination of the two (as recommended for an integrated curriculum), the following issues need prior consideration.

OSCE Committee

Having an OSCE committee is important. At least one member must be familiar with the OSCE format. Other relevant members include the programme administrator and head or representative of the facility in which the OSCE will be held (e.g., Director of the Skills Unit). A station planner, the Director of Medical Education, the course or clinical director, personnel for handling needed functions (e.g., IT), a Faculty office representative (if they organise the invigilators) and a representative from the exam committee.

Sessions and Station Numbers

The number of circuits (or streams) running simultaneously and the number of sessions must be determined early. For a single clerkship or clinical rotation, a single circuit may be sufficient. For this the station number is a function of the number of candidates and the test blueprint. The test blueprint must specify the number of stations (e.g., the number of history taking stations, observed physical skills, communication and other types of stations). OSPE stations can either be included or held separately. If there are twenty five candidates and the test blueprint designates twenty active stations, it is logical that there should be five rest stations.

Examination Book or Posting System

One may provide an OSCE book that the candidates carry during the OSCE. An alternative system requires answer sheets to be placed in a box at each station. In carrying a book, the candidate has opportunity to read instructions and adjust answers at rest stations (a situation
that has some similarities to how one practices clinically, i.e., using reflection). Regardless of
the protocol chosen, a system needs to be determined for handling instructions and questions
and implemented consistently across stations.

Templates are helpful for assisting one to remember the following need to be effectively
addressed.

1. The station instructions should be written boldly (see example in Appendix) and
   placed in a clearly visible location in the station as well as in the OSCE/OSPE Book
   (see example provided on the CD-ROM).
2. A question sheet needs to be formatted and prepared. The question sheet is made
   available at the station (usually laminated and placed on a table or desk) and also in
   the OSCE book. Exceptions to this are for a history taking station or use of
   questionnaire (see example on CD).
3. A model answer sheet needs to be created using the question sheet and inserting
   emboldened answers and acceptable alternatives for each station.
4. For stations with observers an instruction sheet is needed with details of how
   performances should be marked. The observer stations need to be stocked with
   these marking sheets.
5. For history taking stations or communication stations, appropriate written
   documentation and instructions are needed to provide the simulated patients (SPs)
   with all necessary guides and instructions.

**Signage, Maps and Equipment**

One individual needs to be responsible for organising signage and serve as a collector for
materials kept in a secure store room. Signage should be generic with all active stations
having numbers (S1, S2, S3…) and each rest station labelled simply “Rest Station”. If the
OSCE is to be run in an hospital environment, it is important to determine where collections
will be located.

It is helpful to use one facility to house as many OSCEs as possible. It is also useful to
develop a map of the area with the stations inserted. With simultaneous circuits several maps
may be required. If possible, move the candidates in the same direction (e.g., clockwise).

Based on the test blueprint (i.e., what is done at each station), an equipment list for each
station is required (e.g., an examining couch, computer with speakers for multimedia, an SP).

The configuration of one’s chosen physical facilities will determine the number of invigilators.
If the circuit is held on two floors, invigilators will be required to supervise stairwells. Extra
signage will be necessary if candidates cannot see where they are expected to move to the
next station. Corridors can be used for rest stations as well as for active stations. Desks
placed in the corridor are acceptable provided there is sufficient width in the corridor.

Spacing between station desks placed in a corridor should be at least 2m in all directions. If
power is needed in a corridor station there should be an easily accessible power outlet,
otherwise tapping loose wires will be necessary (candidates often run between stations when
delayed at any station). There is no major problem if one candidate can observe another
candidate doing a station provided the answer sheet cannot be seen.

**Unequal Length Stations**

There are continuing debates about the ideal length of and the use of a uniform length for
each OSCE / OSPE station. Usually each medical school has a norm for the length of its
stations which differ at different points in the curriculum. Figure 1 (next page) illustrates how
unequal station lengths can be handled even if some are twice or thrice as long as the “norm”.

E.4
Fig 1. System for inserting a station that is either twice or three times as long as the standard station in the OSCE circuit. It will be often necessary to place an extra invigilator to act as a gate keeper to ensure that the candidates go to the correct “empty station”.

**Bell System**

A bell system audible throughout the venue is recommended. Once in place it only needs to be checked in advance of the examination. Use the same system for bell rings at all OSCEs and OSPEs. A system that can be used is described below.

a) Two short rings signal the beginning for reading instructions.
b) Two further short rings signal the end of the instruction reading period and the start of the examination. The candidate remains at the station until a further signal is given to move.
c) Thereafter, one long ring signals the candidates to move to the next station.
d) A much longer ring stops the exam due to an unforeseen problem or for the end of the examination period. With this long ring everyone must stops and await final instructions.

If simultaneous circuits are used, the bell sequence and timing should be the same for all circuits. Use of a computerized bell system is helpful.

**Deadlines**

Given organisational complexity for a successful OSCE (OSPE), it is necessary to determine and follow deadlines for the following:

1. Prepare the test blueprint with details of number, type and personnel for stations (e.g., station author, the responsible department or discipline, which stations are drawn from the OSCE bank). Do this ≈ 6 weeks in advance.
2. Determine the date for delivery of all stations to the exam committee for its review and input (materials and texts; see Appendix for examples). Do this ≈ 4 weeks in advance.
3. Set date for printing the OSCE paper or its book equivalent. Do this ≈ 2 weeks in advance.
4. Prepare signage including arrows for floor or wall. Do this ≈ 4 weeks in advance.
5. Identify all equipment and the arrangements for delivery and/or for storing the equipment (e.g., remember examining couches take up a large amount of space). Do this ≈ 4 weeks in advance.
6. Confirm attendance for all examiners and markers. Do this ≈ 3 weeks in advance.
7. Train the examiners / observers. Do this ≈ 2 weeks in advance.
8. Identify SPs (and some spares because of illness and to act as back-ups during the examination itself). Do this ≈ 4 weeks in advance.
9. Train SPs including distributing materials to them (e.g., patient histories). Do this \( \approx 2 \) – \( 3 \) weeks in advance.
10. Produce maps for OSCE circuits. Do this \( \approx 2 \) weeks in advance.
11. Brief invigilators and helpers. Do this \( \approx 1 \) week in advance.
12. Finalise arrangements for distributing information on marking to examiners. Do this \( \approx 2 \) weeks in advance.

It is better to start early and finish preparations early if at all possible. In reality this is seldom achieved. Once an OSCE bank is created much of this process becomes simplified and efficient. However, addressing such details is important even though it is initially time consuming to create and organise.

Catering and Comfort

Tiredness is a real issue for examiners. SPs often remain for all the sessions and should be well accommodated. Examiners frequently have to fit their examining into a heavy work schedule. All personnel need sustenance before and following their work in the assessment.

Invigilators and Extra Staff (Helpers)

Usually two invigilators are needed per circuit (preferably one male and one female in case of comfort requirements by the candidates). Instructions must clearly advise that any time out can be only taken while at a rest station. The number of invigilators may need to be increased if there is poor visibility of the whole area (e.g., OSCE held on two floors). Invigilators need to be conversant with the OSCE organisation and informed of potential problems as well as means for addressing potential problems.

It is useful to have at least one or two extra helpers to cover for the unforeseen. For example, with increasing use of multimedia at various stations, it is necessary to have relevant staff available to solve related problems that may arise. Both helpers and invigilators will need a meeting to anticipate handling issues that could arise.

Clear instructions must be worked out if a station happens to fail for one or more candidates. The planning of the total time for each circuit should allow for the possibility that a station could fail. Accordingly planning for a few candidates that may need to re-circulate through a station at the end of the examination, is preferable to developing marking allowances after the examination.

SP Special Considerations

Training of SPs and their potential role in the assessment of candidates needs to be addressed. Consider the need for their transport to the exam to be sure a punctual start is achieved. If student volunteers are used for physical examinations, their arrival for the start of the examination is imperative.

Costs

All examinations have their costs. OSCEs expenses are high because more staff are involved, fees must be paid to SPs (unless Faculty relatives contribute their time free of charge), station preparation costs are more than the average MCQ item (and increase if the physical facility must be rented). Start up costs are much higher than operating costs after a system has run for two or more times. These costs must be factored into the medical school’s operational budget.
The OSPE

Increasingly medical educators are trying to integrate the basic medical sciences with relevant clinical sciences in order to introduce the theoretical basis for clinical practice in a meaningful manner. At the same time the role of wet labs have been reducing. These factors present opportunities for assessments similar to the OSCE station, namely the OSPE.

There are constraints when combining OSPE stations with OSCE stations, particularly if simultaneous circuits are used. Station construction is similar, the major differences being needed materials. Some suggestions for OSPE stations by discipline are offered herein to illustrate their potential.

Anatomy

Two distinct areas lend themselves to OSPE station creation, i.e., applied anatomy and radiological anatomy. Both can be delivered using computer based PowerPoint loops or hard copy materials (X-rays, models, illustrations or specimens). Remember the necessity in having identical materials at the same station in simultaneous circuits. This latter requirement makes the use of specimens problematic and increases the likelihood for use of computer based test or a paper based materials. The argument against this approach is that paper based materials often can be better delivered in alternate assessment formats. Although this may be true, it is also known that medical students prefer the OSPE delivery format and thus incorporating OSPE questions into the OSPE reinforces the relationship between medical and clinical science.

Below is an example of a PowerPoint loop.

Figs 2 – 6. An example of an applied anatomy loop. The first slide states the total number of slides in the loop and each slide has a number. All figures have been re-drawn from standard texts or used digitised materials from available collections to ensure copyright issues were protected.
The type of OSPE station shown can be combined with a station for an examination of the abdomen, a demonstration of head and neck lymph nodes or as a combination of the two for use in an integrated programme for haematology and immunology systems.

Radiological anatomy stations can be used in several ways and the example in Fig 7 is illustrative. One potential advantage of the computer based station is the use of animation which can show successive layers, or different planes and views.

Fig 7. An example of radiological anatomy using a normal chest radiograph.

If one chooses PowerPoint loops it is important to use the same format and instructions.

Below is an example of a pathology station.

Figs 8 – 11. An example of a PowerPoint loop used for pathology of the lung, note the details for the marks given for each question.

Useful references, some of which are referred to in the text, follow.
References


Further Reading


Appendices

Appendix A
A template for writing clinical OSCE stations.

Appendix B
A completed template for an observer station for competencies related to loss of consciousness.

Appendix C
A completed template for an observer station for competencies related lower abdominal pain

AVAILABLE AS A SOFT COPY APPENDIX ON CD-ROM

An example of an OSCE/OSPE book for an integrated examination.
Appendices

Appendix A

OSCE station writing template

• Please fill in all the sheets (if a sheet is not applicable to the station you are writing, please mark ‘N/A’)

• You have the following sheets to complete:
  o Title sheet
  o Candidate instructions
  o Examiner instructions
  o Mark sheet
  o Simulated patient instructions
  o Equipment list

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OSCE station template
<table>
<thead>
<tr>
<th>Title sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Station title:</strong></td>
</tr>
<tr>
<td><strong>Time allowed:</strong></td>
</tr>
</tbody>
</table>
| **Construct:** This station tests the candidate’s ability to………………………………
…………………………………………………………………………
…………………………………………………………………………
…………………………………………………………………………
| **Blueprint co-ordinates:** |
## Candidate instructions

<table>
<thead>
<tr>
<th>Station title:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time allowed:</td>
</tr>
</tbody>
</table>

**Construct:** This station tests your ability to

- Specify venue and other circumstances (e.g. who the candidate is, have they met the patient before, is it an A & E situation, out-patient clinic, GP surgery)
- Give explicit instructions about the task to be performed (e.g. take history, examine, explain, etc)
- Give any other information required (e.g. data)
# Examiner instructions

**Station title:**

<table>
<thead>
<tr>
<th>Construct: This station tests the candidate’s ability to…………………………………</th>
</tr>
</thead>
<tbody>
<tr>
<td>…………………………………………………………………………………………………………</td>
</tr>
<tr>
<td>…………………………………………………………………………………………………………</td>
</tr>
<tr>
<td>…………………………………………………………………………………………………………</td>
</tr>
</tbody>
</table>

**Give explicit instructions to examiner to enable them to run the station effectively e.g.**

- if prompting will detract from candidate’s performance, ask examiner not to prompt
- if a particular task requires examiner intervention, state what he/she should do
- give guidance on timing
### Marking schedule

**Station title:**

**Construct:** This station tests your ability to……………………..............

…………………………………………………………………………

…………………………………………………………………………

…………………………………………………………………………

List the specific items which are important in the performance of the task.

If prompting/questioning required by the examiner, indicate where this should occur.

Include item for diagnosis if this is a key part of the test.

Be realistic about minutiae (is this really necessary?) and time allowed.

*Distinguish between PROCESS and CONTENT, especially in history taking and explanation stations*

**CHECK** for congruence between
- the candidate’s instructions
- the examiner’s instructions
- the simulated patient (SP) role
- the construct

<table>
<thead>
<tr>
<th>Items</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Adequate</td>
</tr>
<tr>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
</tbody>
</table>

*Use the next sheet to construct your marking schedule*
## Marking schedule

**Station title:**

<table>
<thead>
<tr>
<th>Items</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Adequate</td>
</tr>
<tr>
<td></td>
<td>Inadequate</td>
</tr>
</tbody>
</table>

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.
11.
12.

etc

Global score
# Equipment list

<table>
<thead>
<tr>
<th>Station title:</th>
</tr>
</thead>
</table>

*List all equipment required e.g. stethoscope, ophthalmoscope, IV cannulas, etc*

*Should the patient be sitting / on a bed?*

*Think about practicalities*

---

# OSCE station template

## Simulated patient instructions

<table>
<thead>
<tr>
<th>Station title:</th>
</tr>
</thead>
</table>

*For all: Name, age, employment, social circumstances, gender*

*Where relevant: presenting history, past medical history, family history, understanding of illness, attitude to illness*

*Specific answers or questions to ask*

*Affect: how to play this role*

*Give as much detail as possible*

*Remember the CONSTRUCT: what is this station testing?*
Name:

Age (or range if possible)

Ethnicity:

Important cultural or behavioural characteristics of patient:

Setting:

Clinical details

Past medical history
Any previous operations:
Any previous illnesses:

Medication
Any medication taken for this:
Are you on any prescribed drugs such as the pill:

Family history
Any family history of
heart disease
serious illness

Smoking

Alcohol

Social history
Children
Occupation
Partner’s occupation
Where do you live
Type of housing
Social class

Temperament

Patient’s perspective
• ideas and thoughts
what did you think might have caused your problem
what have they told you so far

• concerns
what are you concerned about
have you any underlying fears
any practical problems:
• **expectations**
  *what are you hoping for*

• **feelings**
  *how are you feeling about it all*

**Presenting symptom(s) or problem(s)**
  *how to start role-play*
  *how to respond to specific types of questions or approaches*
  *what to divulge and what not to*

**Behaviour/affect**

OSCE station template
Candidate instructions

Station title:

History of Loss of Consciousness

Specify venue and other circumstances
Give explicit instructions about the task to be performed (e.g. take history, examine, explain, etc)
Give any other information required (e.g. data)

Candidate Instructions

This station assesses your ability to take a relevant history from a patient presenting with loss of consciousness and to suggest a diagnosis.

You are a medical student attached to the Accident & Emergency department. The next patient is Mrs. Maureen Parish, who has been brought into the department by the London Ambulance Service, having collapsed at a bus stop.

Please take an appropriate history from her. At the end of the station the examiner will ask you to suggest a diagnosis.

You have 5 minutes for this station.
Examiner instructions

Station title:

History of Loss of Consciousness

Construct: This station tests the candidate’s ability to take a history from a patient presenting with loss of consciousness.

Give explicit instructions to examiner to enable them to run the station effectively e.g.
- if prompting will detract from candidate’s performance, ask examiner not to prompt
- if a particular task requires examiner intervention, state what he/she should do
- give guidance on timing

Examiner Instructions

The candidate has been given the following instructions:

You are a medical student attached to the Accident & Emergency department. The next patient is Mrs. Maureen Parish, who has been brought into the department by the London Ambulance Service, having collapsed at a bus stop.

Please take an appropriate history from her. At the end of the station the examiner will ask you to suggest a diagnosis.

- In the final minute of the station, please ask the candidate “What do you think is likely to be the principal cause for her loss of consciousness?”

The candidate has 5 minutes for this station.
Mark Sheet
HISTORY OF LOSS OF CONSCIOUSNESS

This station assesses the candidate’s ability to take a history from a patient presenting with loss of consciousness and to suggest a diagnosis.

THIS IS A 5 MINUTE STATION

Please mark one response for each item

General approach to the patient:
1. introduction and orientation [ ] [ ]
2. establishes rapport [ ] [ ]

Presenting complaint:
3. preceding headache [ ] [ ]
4. if you remember falling [ ] [ ]
5. any incontinence or tongue biting [ ] [ ]
6. palpitations [ ] [ ]
7. any warning of unusual smells or aura [ ] [ ]
8. jerking of limbs reported by witnesses [ ] [ ]

On recovery:
Inquire about
9. limb weakness [ ] [ ]
10. paraesthesiae [ ] [ ]
11. any previous episodes of loss of consciousness [ ] [ ]
12. speech difficulty [ ] [ ]

13. vomiting [ ] [ ]
14. head injury [ ] [ ]

Inquires about
15. past medical history [ ] [ ]
16. family history [ ] [ ]
17. drug history [ ] [ ]

Accurate data gathering
20. listening skills [ ] [ ]
21. questioning skills [ ] [ ]
22. summarises understanding [ ] [ ]

Examiner to ask: “What do you think is likely to be the principal cause for her loss of consciousness?”
23. Suggests a diagnosis of syncope [ ] [ ]

SP to mark
24. The candidate dealt with me sensitively [ ] [ ]
25. My concerns were addressed [ ] [ ]
Simulated patient instructions

Station title:

HISTORY OF LOSS OF CONSCIOUSNESS

For all: Name, age, employment, social circumstances, gender

Where relevant: presenting history, past medical history, family history, understanding of illness, attitude to illness

Specific answers or questions to ask

Affect: how to play this role

Give as much detail as possible

Your name is Maureen Parish and you are 72 years old. You have been brought by ambulance to the Accident & Emergency department, having fainted at a bus stop.

- You live with your husband in East London. You worked as a secretary before you were married and since then, you have been a housewife. You have two grown up daughters and your family are all well.

- You smoke 10 cigarettes per day and rarely drink alcohol.

- You have been generally well, but have been treated for high blood pressure by your GP with one tablet of dyazide daily for the last 10 years. You had an operation to remove your appendix when you were 16 years old.

- Today you left home to visit your daughter. It was a hot sunny day and you walked the 200 yards uphill to the bus stop. You just missed the bus. You waited for the next bus, but this was full and so you had to keep waiting. You felt tired, but as all the seats in the bus shelter were taken you had to keep standing.

- After you had waited for about 45 minutes, you started to feel hot and sweaty and a little nauseated. You remember another woman at the bus stop who faint and you think you are going to faint too. You sit down, but you faint and you wake up in the Accident & Emergency department.
stop saying you looked pale and asking if you were all right. Then everything went black and the next thing you remember is you were lying on the ground with the other people from the bus queue standing over you. The woman told you that you had lost consciousness for about 1 minute.

This has never happened to you before. You heard someone call for an ambulance. When it arrives, it takes you to the local hospital.

- The candidate is going to ask you what happened. You are a little dazed by the experience, but you are able to answer questions appropriately. You did not have any chest pain or palpitations. You did not bite your tongue and were not incontinent of urine. You did not knock your head. You do not have any headache, disturbance of vision or vomiting. You have no difficulty moving your arms or legs, no pins or needles and your speech is normal.

- You feel embarrassed about all the fuss at the bus stop and at coming to hospital in an ambulance. You are anxious that your daughter will be wondering where you could have got to and you are keen to leave hospital.

This is a 5 minute station. The candidate is a medical student attached to the Accident & Emergency department. S/he should take an appropriate history from you. At the end of the station, the examiner will ask the candidate to suggest a diagnosis.

You will be asked to mark each candidate as follows:
- The candidate dealt with me sensitively
- The candidate addressed my concerns.

OSCE Station Template

**Equipment list**

**Station title:**

**HISTORY OF LOSS OF CONSCIOUSNESS**

List all equipment required e.g. stethoscope, ophthalmoscope, IV cannulas, etc

Should the patient be sitting/on a bed?

Think about practicalities
Appendix C

EXAMPLE OF COMPETED TEMPLATE FOR OSCE STATION

Evidence base

- Textbook of Medicine. Souhami & Moxham, second ed pp830, 831
- Clinical Medicine, Kumar & Clarke, fourth Edition’ pp545-550

Candidate instructions

<table>
<thead>
<tr>
<th>Station title:</th>
</tr>
</thead>
<tbody>
<tr>
<td>History of Low abdominal pain</td>
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</tbody>
</table>

Specify venue and other circumstances
Give explicit instructions about the task to be performed (e.g. take history, examine, explain, etc)
Give any other information required (e.g. data)

You are a medical student in General Practice.
The next patient, Mary Underwood, complains of abdominal pain.

Please take a relevant history from this patient toward making a diagnosis. She will see the GP after you.

YOU HAVE 5 MINUTES FOR THIS STATION
Examiner instructions

Station title:

**History of Low abdominal pain**

**Construct:** This station tests the candidate’s ability to take a relevant history from a patient presenting with low abdominal pain, toward making an appropriate working diagnosis or differential diagnosis.

Give explicit instructions to examiner to enable them to run the station effectively e.g.
- if prompting will detract from candidate’s performance, ask examiner not to prompt
- if a particular task requires examiner intervention, state what he/she should do
- give guidance on timing

Please do not prompt the candidate, except at 4 minutes and 30 seconds (the 30 second bell) to ask “What do you think is the most likely diagnosis?”
Mark Sheet

History of Low abdominal pain

This station tests the candidate’s ability to *take a relevant history from a patient presenting with low abdominal pain, toward making an appropriate working diagnosis or differential diagnosis*

**THIS IS A 5 MINUTE STATION**

<table>
<thead>
<tr>
<th></th>
<th>Good</th>
<th>Adequate</th>
<th>Inadequate/not done</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1 Introduction and orientation</strong> (name &amp; role, purpose of interview, confirms patient’s agreement)</td>
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<tr>
<td><strong>2 Establishes reason for patient’s attendance</strong></td>
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<tr>
<td><strong>Pain History:</strong></td>
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<td>3 Duration</td>
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<tr>
<td>4 Site</td>
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<td></td>
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<tr>
<td>5 Character of pain</td>
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<tr>
<td>6 Aggravating factors (none, good for eliciting no peritonism)</td>
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<tr>
<td>7 Relieving factors (paracetamol, hot water bottle)</td>
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<tr>
<td>8 Radiation</td>
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<td></td>
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<tr>
<td><strong>Thinking about UTI</strong></td>
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<td></td>
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<tr>
<td>9 Dysuria</td>
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<tr>
<td>10 Frequency and nocturia (good = both)</td>
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<tr>
<td>11 Haematuria</td>
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<td>12 Fever</td>
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<td>13 Flank (renal angle) pain</td>
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<tr>
<td><strong>Thinking about bowel causes</strong></td>
<td></td>
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<tr>
<td>14 Bowel habit, constipation/diarrhoea</td>
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<tr>
<td>15 Appetite</td>
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<tr>
<td><strong>Thinking about gynaecological causes</strong></td>
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<tr>
<td>16 Vaginal bleeding</td>
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<tr>
<td>17 Vaginal discharge</td>
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<tr>
<td>18 Risk of pregnancy</td>
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<tr>
<td>19 Enquires about past medical history, specifically cystitis</td>
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<tr>
<td>20 Enquires about current and recent drug history</td>
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<tr>
<td>21 Demonstrates rapport (body language, shows interest, respect and concern)</td>
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<td>22 Questioning skills (appropriate blend of open and closed questions. Clear questions. Avoids leading questions and jargon)</td>
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<tr>
<td>23 Clarification and summarising</td>
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<td>24 Fluent and professional approach</td>
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<tr>
<td>25 Ask “What do you think is the most likely diagnosis?” (good = UTI; adequate = any reasonable attempt)</td>
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<tr>
<td><strong>SP to mark:</strong> “I felt that the student showed interest, respect and concern”</td>
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<tr>
<td><strong>Overall Global Score</strong></td>
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</tbody>
</table>

**Pass**  **B/L**  **Fail**
Simulated patient instructions

Station title:

History of Low abdominal pain

- For all: Name, age, employment, social circumstances, gender
- Where relevant: presenting history, past medical history, family history, understanding of illness, attitude to illness
- Specific answers or questions to ask
- Affect: how to play this role
- Give as much detail as possible

Your name is Mary Sophie Underwood. You are 25-35 years old, and you are attending at your GP’s because of abdominal pain.

For the last couple of days it has been getting steadily worse and is now constant. It feels like you have “been kicked in the tummy” or that you feel “bruised inside”. If asked where the pain is, point to the area just above your pubic bone and sweep your hands to both sides – it is all over the lower part of your abdomen, the same intensity on the right, left and centrally, although when it started it was more central. The pain seems to have spread last night and there is now also a bit of low back ache.

Nothing seems to make the pain worse, specifically not coughing, sneezing or movement. You found that last night a couple of paracetomol and a hot water bottle against your tummy helped a bit.

If asked directly, you have been passing water more than usual for the last week or so, but you haven’t linked this with the pain. You have even been getting up once or twice at night to pass water which is unusual for you. There has been no blood in your urine, and you haven’t noticed any different smell. Whilst it doesn’t “burn” when you pass water, it does “sort of tingle” and feels different to usual.

Your bowels and appetite seem normal, and you haven’t had any fevers, although you are feeling generally a bit run down. Your periods are normal; your last one was one week ago. They are never painful. You are in a steady monogamous relationship (3 years), and live with you partner, you are on the pill and haven’t had sex for a week. Sex is never painful.

In the past you have always been fit and well. You have only seen doctors for contraception. You are a non-smoker and drink about a bottle of wine a week.

You work as an accountant in a large accountancy firm. Whilst there is always a bit of stress, you manage it well and like your job. You lead a healthy lifestyle.

Your parents are both fit and well in their 70’s.
## Equipment list

**Station title:**
**History of Low abdominal pain**

- *List all equipment required e.g. stethoscope, ophthalmoscope, IV cannulas, etc*
- *Should the patient be sitting/on a bed?*

### Think about practicalities

- History taking setup – three chairs (SP, Candidate, examiner), table, rough paper, pencil