

# Mastering your Fellowship

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## Abstract

The series, "Mastering your Fellowship", provides examples of the question format encountered in the FCFP(SA) examination. The series aims to help Family Medicine registrars and their supervisors prepare for this examination. Model answers are available online.

**Keywords:** FCFP(SA) examination, Family Medicine registrars

## Introduction

This section in the *South African Family Practice Journal* is aimed at helping registrars prepare for the FCFP (SA) Part A examination (Fellowship of the College of Family Physicians) and will provide examples of the question formats encountered in the written examination: Multiple Choice Question (MCQ) in the form of Single Best Answer (SBA – Type A) and/or Extended Matching Question (EMQ – Type R); Modified Essay Questions (MEQ)/Short Answer Question (SAQ) and questions based on the critical reading of a journal (evidence-based medicine). Each of these question types is presented based on the College of Family Physicians blueprint and the key learning outcomes of the FCFP programme. The MCQs will be based on the ten clinical domains of family medicine, the MEQs will be aligned with the five national unit standards and the critical reading section will include evidence based medicine and primary care research methods.

This edition marks the introduction of an objective structured clinical examination (OSCE) question. The OSCE is a central part of the clinical assessment of the FCFP (SA) examination and its blueprint and other guidelines may be found online at the Colleges of Medicine website: [https://www.cmsa.co.za/view\\_exam.aspx?QualificationID=9](https://www.cmsa.co.za/view_exam.aspx?QualificationID=9).

We suggest that you attempt answering the questions (by yourself or with peers/supervisors), before finding the model answers online: <http://www.safpj.co.za/>.

We are keen to hear about how this series is assisting registrars and their supervisors in preparing for the FCFP (SA) examination. Please email us your feedback and suggestions.

### 1. MCQ (multiple choice question) Theme: general adult medicine

A 54-year-old male patient presents to you in your district hospital's emergency centre. He was previously assessed

with chronic obstructive pulmonary disease at the tertiary hospital and is Stage 2, Group B, according to the Global Initiative for Chronic Obstructive Lung Disease (GOLD). He has an 18-year pack history of smoking and reports to have stopped two months ago. He is currently on a long acting beta2 agonist. His acute exacerbation has been stabilised in the emergency centre. The most appropriate next step in his management is to add a/an:

- Inhaled corticosteroid
- Short acting anti-cholinergic
- Short course of antibiotics
- Short course of oral steroids
- Slow release oral theophylline

### 2. SAQ (short answer question): the family physician's role as champion of COPC

You are working as a family physician at a rural district hospital. You supervise third year medical students who visit your district as part of their family medicine rotation. The students interviewed girls at the local schools and reported that: 30% were aware of dual protection, 15% of those who were sexually active had used contraception and less than 20% stated that they would encourage sexually active teenagers to use any contraception. (Total 20 marks)

- What factors do you need to take into consideration when interpreting this data? (2)
- How could you confirm that the information is accurate? (2)
- What sense can you make of this data? (2)
- Using each of the following principles from the Ottawa Health Promotion Charter, how would you plan an intervention based on the COPC project findings? (10)
  - Building on healthy public policies
  - Creating supportive environments

- Strengthening community action
- Developing personal skills
- Re-orienting health care services toward prevention of illness and promotion of health

2.5 Outline a structured approach to evaluating your intervention, giving an example of two indicators that you could use to measure your intervention. (4)

### 3. Critical appraisal of research

Please answer the questions related to the following article:

Schmidt BM, Geldenhuys H, Tameris M, Luabeya A, Mulenga H, Bunyasi E, Scriba T, Hatherill M. Impact of Xpert MTB/RIF rollout on management of tuberculosis in a South African community. *S Afr Med J*. 2017;107(12):1078-81. Available from URL: <http://www.samj.org.za/index.php/samj/article/view/12142>

(Total 35 marks)

- 3.1 Discuss the social value of this study. (3)
- 3.2 Discuss the scientific value of this study. (3)
- 3.3 Formulate an answerable question which this research aimed to address, applying the PICO principle. (2)
- 3.4 Discuss the study design and its ability to address the study's aim. (5)
- 3.5 Discuss the sampling strategy and study period for this study. (5)
- 3.6 What type of data and descriptive statistics were used to measure the study's endpoints? (2)
- 3.7 Discuss the significant findings of the study. (5)
- 3.8 Discuss the strengths and limitations of the study. (4)
- 3.9 How would this study's findings impact your practice? (6)

### 4. OSCE scenario

#### Theme: women's health

#### Instructions for candidate:

#### History/context

You are working in the outpatient department of the district hospital. You consult with this young lady for the first time.

#### Please conduct a focussed consultation to demonstrate:

1. Your ability to formulate a working differential diagnosis – you must take an appropriate history, the examiner will provide **specific** clinical findings **on your request**.
2. Your ability to counsel the patient on your comprehensive management plan.

### Model answers to questions

#### Question 1

#### Short answer: a)

#### Long answer:

The 2017 Update by the Global Initiative for Chronic Obstructive Lung Disease (GOLD) has refined the ABCD tool that was previously used as the assessment led to many misinterpretations and showed poor prognostic value. The revised assessment (see Figure 1) uses three criteria which namely:

- i. Spirometrically confirmed diagnosis which stages severity:
  - GOLD 1: Mild – FEV1  $\geq$  80% predicted
  - GOLD 2: Moderate – FEV1  $<$  80% to  $\geq$  50% predicted
  - GOLD 3: Severe – FEV1  $<$  50% to  $\geq$  30% predicted
  - GOLD 4: Very severe – FEV1  $<$  30% predicted
- ii. The history of exacerbations and hospitalisations in the last 12 months. More than 2 exacerbations or one exacerbation requiring hospitalisation places the patient in Group C or D.
- iii. The Modified Medical Research Council dyspnoea scale (mMRC) which is based on the grading system below:

#### Grade Symptoms

- |          |  |
|----------|--|
| <b>0</b> | “I only get breathless with strenuous exercise”  |
| <b>1</b> | “I get short of breath when hurrying on the level or walking up a slight hill”   |
| <b>2</b> | “I walk slower than people of the same age on the level because of breathlessness or have to stop for breath when walking at my own pace on the level” |
| <b>3</b> | “I stop for breath after walking about 100 yards or after a few minutes on the level”  |
| <b>4</b> | “I am too breathless to leave the house” or “I am breathless when dressing”  |

Patients who score 2 or more are graded as B or D.

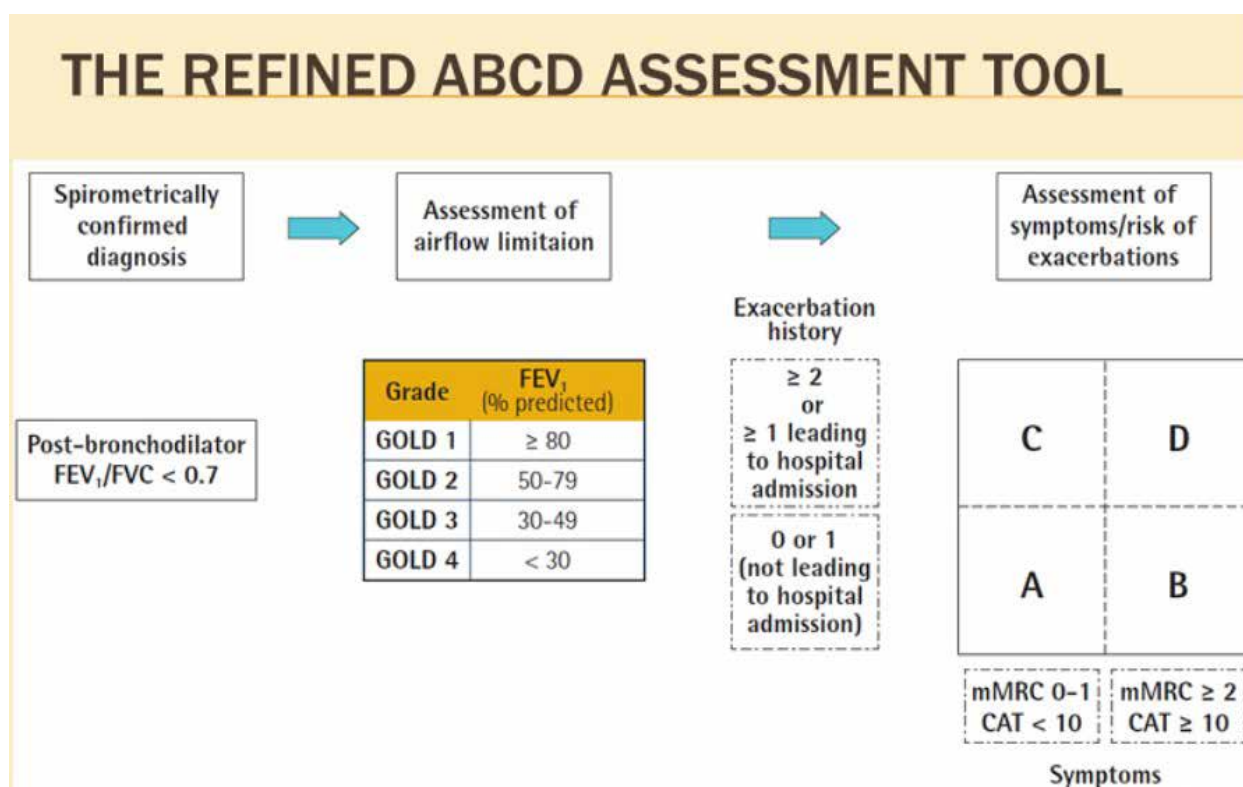


Figure 1: The refined ABCD assessment tool

The patient mentioned above will thus have a moderately reduced  $FEV_1 < 80\%$  to  $\geq 50\%$  predicted, will not have had more than one exacerbation and would not have been hospitalised in the last 12 months or had a mMRC of 2 or more.

Based on the assessment of this patient the next most appropriate treatment strategy is to introduce a long acting anti-muscarinic (LAMA). Short acting anti-muscarinic (also known in South Africa as anti-cholinergic) provides limited long-term benefits. LAMAs improve symptoms, the health status of patients, the effects of pulmonary rehabilitation, the number of acute exacerbations and the number of hospitalisations. Tiotropium, a LAMA, is available through the tertiary health service, so it is important that primary care physicians refer appropriately when indicated.

The Essential Medicines List (EML) still makes no mention of the use of the LAMAs although this drug is available at selective tertiary services nationally. The evidence suggests that this drug may impact on healthcare costs by decreasing exacerbations and hospitalisations despite having a relatively high cost. As patient advocates, it is important that family physicians continually motivate policy makers to align practice to the available evidence especially if it is going to improve the quality of patient care. However, based on the current EML, the most appropriate next step is to add an inhaled corticosteroid. The inhaled corticosteroid is also available in combination with a long acting beta2 agonist.

#### Further reading:

- From the Global Strategy for the Diagnosis, Management and Prevention of COPD, Global Initiative for Chronic Obstructive Lung Disease (GOLD) 2018. Available from: <http://goldcopd.org>

- South African Department of Health. Hospital Level Standard Treatment Guidelines and Essential Medicines List. Pretoria: National Department of Health 2015. EML App available from:
  - Android: <https://play.google.com/store/apps/details?id=omp.guidance.phc&hl=af>
  - iTunes: <https://itunes.apple.com/za/app/eml-clinical-guide/id990809414?mt=8>

#### Question 2

##### Model answer:

##### 2.1 What factors do you need to take into consideration when interpreting this data? (2 marks)

The Family Physician needs to be a bit cautious of the data and to critically appraise how the project was conducted as medical students may not have conducted their survey in a sufficiently scientific manner. The following issues need to be considered before acting on the information:

1. What was the research question and was it clearly presented? What were the aims and objectives of the project?
2. Who was the target population? How was it defined and how was the sample selected? How large was the sample selected? Was the sample representative of the population?
3. What tools were used to collect the data and how were these developed and tested to ensure that they were valid tools?
4. How was the data collected (by whom, where and when)?
5. How were the findings analysed and does the interpretation of the results align with the data presented? Were the results clearly and transparently reported?

One should consider how valid and reliable the reported results are before acting on them. There may be significant issues of bias.

**2.2 How could you confirm that the information is accurate?**  
(2 marks)

One could confirm that this is a significant problem in a number of different ways:

1. Look at routinely collected data on teenage pregnancies, number of teenage terminations, and number of teenage patients with STIs.
2. Repeat the survey in a more scientifically valid way.
3. Interview community leaders, teachers or members of the school outreach team who may be more aware of the issue.
4. Explore the issue in a different way using focus group interviews with scholars.

**2.3 What sense can you make of this data?** (2 marks)

If the data is correct, it is deeply disturbing and suggests:

- Poor knowledge of scholars about contraception.
- Poor use of contraception among sexually active scholars including lack of use of barrier methods which will contribute to high risk of STIs.
- Disturbing attitudes towards the use of contraceptives.
- Life orientation being taught at school has some major gaps.

**2.4 Using each of the following principles from the Ottawa Health Promotion Charter, how would you plan an intervention based on the COPC project findings?**  
(10 marks)

*Building on healthy public policies*

There are a number of acts in South Africa that provide a framework for sexual and reproductive health in schools. These include:

**Children's Act:** Children over the age of 12 should have access to contraception without the consent of their parents.

**Integrated school health policy:** prevents discrimination against young women who fall pregnant while at school and allows them to remain in school even when pregnant and encourages them to return to school after giving birth.

**The DOE policy about teaching of sexual and reproductive health as part of the Life Orientation curriculum in schools.**

**The amended Sexual Offences Act** allows consensual sexual relations between consenting teenagers so long as there is not more than a 2-year age gap between the parties involved.

Any of these policies could be used to discuss with the headmaster, life skills teacher(s) and members of the school

governing body, the importance of ensuring that sexual and reproductive health issues are appropriately covered at school. If there is evidence that these policies are not being implemented, then the relevant person needs to outline a plan of how to implement them.

*Creating supportive environments in schools:*

Ideally there should be a school counsellor (often the life orientation teacher) who is accessible and approachable should scholars wish to discuss sexual and reproductive issues. In addition, **the school health teams** should be available and accessible to discuss sexual and reproductive issues.

**Youth friendly health services** should be provided at the local clinic/hospital.

To deal with the issues raised it would be important to talk to community leaders/parents/teachers/members of the school outreach team/PHC team about:

- Creating supportive environments at school, in the community and at the local health care facilities to enable young men and women to be able to talk about sexual and reproductive health issues and to be able to access condoms and contraceptives as necessary.
- The need for youth development programs, career guidance, sports facilities and other recreational activities which students can get involved with.
- Creating support groups for young men and women to hold one another accountable in areas of sexual health.

*Strengthening community action*

Talk to community leaders/parents/teachers/members of the school outreach team/PHC team to discuss the findings of the study and to come up with plans to address the findings and ways in which community members could champion this issue.

*Developing personal skills*

Training for parents in addressing issues of sexuality, sex and contraception.

Discussion with Life Orientation teachers about how issues of sexuality, sex and contraception could be discussed in the Life Orientation lessons. These must cover knowledge of sexual and reproductive health, contraception, values, negotiation skills (sexual consent, learning to say NO).

*Re-orienting health care services toward prevention of illness and promotion of health*

The school outreach team could run workshops on issues of sexuality, sex and contraception.

Discuss with the school outreach team and principal how scholars could access condoms and other forms of contraception either at school or at the local clinic in a responsible manner.

Discuss with the local clinic team ways to re-orientate the services to make it more accessible to scholars.

Discuss with the Community Health Workers their role in sexual and reproductive health (health education, home pregnancy tests, contraceptive advice and access).

It is important in all of these areas to set clear objectives, make plans which are SMART.

Decide how the intervention will be evaluated.

**2.4 Outline a structured approach to evaluating your intervention, giving an example of two indicators that you could use to measure your intervention. (4 marks)**

When evaluating an intervention it is helpful to think about the following:

- Inputs
- Activities
- Outputs
- Outcomes

All indicators should be SMART.

Examples of these could be:

- Inputs:
  - Availability of condoms and contraception.
- Activities:
  - School health team visit regularly.
  - Contraceptive talks given.
- Outputs:
  - Teenagers attend health education talks.
- Outcomes:
  - Improved knowledge about sexual health.
  - Reduction in teenage pregnancy rate.
  - Reduction in TOPs.

**Further reading:**

- How to promote health in communities (chapter 153). In: Mash B, Blitz J, eds. South African Family Practice Manual. 3rd ed. Cape Town: Van Schaik. 2015.
- Marcus T, Hugo J. Community-orientated primary care. In Mash B (Ed) Handbook of Family Medicine. 4th ed. Cape Town: Oxford University Press. 2017:334-59.
- World Health Organization. The Ottawa Charter for Health Promotion. Available from URL: <http://www.who.int/healthpromotion/conferences/previous/ottawa/en/>.

**Question 3**

**Model answer:**

**3.1 Discuss the social value of this study. (3 marks)**

In a high tuberculosis (TB) burden country such as South Africa, it is essential to have an effective and rapid system of diagnosing TB in the strategy to address this TB burden as part of the TB programme. Early diagnosis facilitates early commencement of treatment, which benefits both the patient (improved outcome) and the community (less chance of transmission). Until recently, resource-limited settings were limited to sputum smear microscopy and culture in terms of diagnosing TB and

determining drug resistance. Sputum smear microscopy is inexpensive and rapid, but has relatively low diagnostic sensitivity and cannot detect drug resistance. TB culture tests help to detect drug resistance but are too slow to have an immediate impact on clinical management. The Xpert MTB/RIF diagnostic TB test offers both fast, sensitive testing as well as the ability to detect drug resistance.

**3.2 Discuss the scientific value of this study. (3 marks)**

The Xpert test is recommended by the WHO and was launched officially in South Africa in October 2011 as part of the national guidelines. These recommendations are based on findings from Xpert test research conducted under ideal research conditions. However, it is unclear what impact the Xpert test has in real-world field settings (a recent report on the Xpert test programmatic roll-out showed that there was no significant improvement in mortality of patients worked-up for pulmonary TB).

**3.3 Formulate an answerable question which this research aimed to address, applying the PICO principle. (2 marks)**

Does the Xpert TB diagnostic test improve case detection and time to diagnosis and treatment in a high incidence community in the WC compared to microscopy and culture?

*Population:* persons with TB symptoms in a community with a very high incidence of TB

*Intervention:* Xpert MTB/RIF (index test)

*Comparator:* traditional TB tests (microscopy and culture)

*Outcome (primary):* case detection

*Outcome (secondary):* time intervals (time to diagnosis and time to treatment initiation)

**3.4 Discuss the study design and its ability to address the study's aim. (5 marks)**

The researchers asked a research question based on diagnosis (to identify the best test to detect cases with the condition of interest). The best level (level I) of study design (with least bias) for answering a question based on diagnosis (accuracy of a diagnostic test) is a systematic review of level II studies (cross-sectional studies among random or consecutive presenting patients). In a cross-sectional study (level II), each subject should have two independent tests or assessments: the test under consideration (index test), and another test or investigation that will show whether the condition is present or not (the reference standard or 'gold' standard).

Level III studies to address a research question of diagnosis include cross-sectional studies among non-consecutive presenting patients and diagnostic case-control studies. The researchers did not aim to validate the Xpert index test, but were interested in how the test performed in a community setting (real life), as opposed to "ideal research conditions". They employed a "before-and-after observational cohort" design.

A cohort study design, is better suited to answer research questions on prognosis. One may therefore query the choice of using the term "cohort" and perhaps only the terms "cross-sectional observational study" should have been used. What this study did was compare a group of patients pre roll-out (control/usual care) with a different group of patients post roll-out (intervention). A cohort study usually implies follow-up patients

over time and this is maybe not really the case here. Data was extracted at one point in time from the computer system.

### 3.5 Discuss the sampling strategy and study period for this study. (5 marks)

This study performed secondary data analysis of data derived from the electronic NHLS database (microbiological TB tests) as well as the electronic TB register (treatment initiation). Data from all adults who presented at PHC facilities with suspected TB were included. Analyses were conducted for the two 6-month time periods before and after the introduction of the Xpert test. In terms of sampling, the selection of patients was consecutive as per available data; however, the concern is that the researchers were not able to control who were tested for TB, as this was determined by the PHC practitioners and the patient help-seeking behaviour (it is unclear if community-based screening practices were performed). The limitation, therefore, is that bias was introduced during the sampling as the researchers could not control who were tested for TB. One may also argue that the 6-month period was selected conveniently, as there is no statistical justification for this choice of time interval (no sampling calculation based on number of patients tested per month). Fortunately, the researchers decided on using the same months for each period to account for seasonal confounders. However, other (unmeasured) confounders (beyond seasonal) may have been present which may attribute for change over time.

### 3.6 What type of data and descriptive statistics were used to measure the study's endpoints? (2 marks)

Categorical data (positive or negative for TB) was reported as frequencies and percentages.

Numerical data (median time in days) was reported as median and IQR presumably because the data was not normally distributed.

### 3.7 Discuss the significant findings of the study. (5 marks)

In terms of the primary outcome, the proportion of patients testing positive for TB were significantly higher in the post roll-out group: sputum smear positive (6.4%) pre roll-out vs. Xpert positive (7.9%) post roll-out. In terms of the sputum samples tested, the total number of sputum positive results pre roll-out (smear) was similar to the post roll out Xpert findings (5.7% vs 5.0%;  $p=0.95$ ). The authors also compared the individual tests before and after roll-out, which were highlighted as significant (smear and culture positivity); however, this was not the primary outcome of the study. It is a bit confusing to the reader to interpret the findings presented in Table 1 and the discussed in the text.

The lower number of samples in the second time period does not reflect in reduction in true case burden in the community, as confirmed by the authors in the discussion section (fewer patients presenting to the PHC facilities and fewer samples taken as per revised protocol were cited as possible explanations). However, it does reflect a lower workload for PHC clinic and NHLS laboratory staff. Interestingly, the ratio of total patient: total tests in the pre and post periods were similar (0.73 vs 0.72), although this was not included in the analysis. The implication is that staff behaviour did not change, which challenges the authors' argument against a reduced true case burden.

The data on the smear and culture positivity bear little relevance to the primary outcome of this study. However, the lower reliance on sputum culture since the introduction of the Xpert test is of clinical significance, as this has reduced the need for drug resistance testing by culture. However, in a true cohort study, patients who had cultures done in the both groups would have been followed up to see if they are enrolled as MDR on the register, in order to understand if the Xpert test results in an increased MDR diagnostic yield, and time to initiating treatment in MDR patients. In terms of the secondary outcome, the median times to diagnosis and treatment initiation were significantly shorter by 1 day for both variables.

### 3.8 Discuss the strengths and limitations of the study. (4 marks)

A number of methodological concerns were highlighted in the previous answers: choice of study design to answer the research question (systematic review of level II studies), sampling and allocation strategy (the researchers could not control who were tested for TB), and use of an existing database compared to collecting consecutive patient-level data (both tests). The authors acknowledged the latter limitation, as they were not able to link the total number of individuals tested to the total number of tests performed (and not the number of tests performed for each individual). This would have enabled the researchers to study the patient-level data linked across the two databases (two independent tests or assessments for each patient: the test under consideration (index test: Xpert), and another test that will show whether the condition is present or not (the reference standard or 'gold' standard: TB microscopy and culture). Limited data on risk factors (no HIV-status or smoking/substance abuse, other comorbidities) and socio-demographic confounders (only gender and age) was available. Such data would have assisted with more complex statistical modelling. Furthermore, the authors acknowledged that although the study was based on real-life field data, no definitive conclusions are possible from a programmatic evaluation based on national-level statistics.

Ultimately, one may ask if one is able to make a link between these limitations and the study outcomes: how might the outcomes be different if these limitations were not present? The researchers did not aim to validate the Xpert index test, but were interested in how the test performed in a community setting (real life), as opposed to "ideal research conditions". One may argue that the researchers managed to achieve this despite the limitations; however, the reader needs to take cognisance of the limitations when appraising this article and reflecting on how these findings might impact one's practice.

### 3.9 How would this study's findings impact your practice? (6 marks)

The READER format may be used to answer this question:

- Relevance to family medicine and primary care?
- Education – does it challenge existing knowledge or thinking?
- Applicability – are the results applicable to my practice?
- Discrimination – is the study scientifically valid enough?
- Evaluation – given the above, how would I score or evaluate the usefulness of this study to my practice?
- Reaction – what will I do with the study findings?

Here there will be some repetition from the previous answers above. A model answer could be written from the perspective of the family physician employed in the district health system: this study is relevant, but probably will not change practice, as the Xpert test was rolled out as part of the national TB programme. The study supports the use of the Xpert test in the field or community setting. The study confirms that there are benefits in terms of increased detection of TB and slightly reduced time to treatment, as well as reduced workload on staff. The study may be discussed with the local management team and used as basis to discuss the local TB data in the sub-district.

**Further reading:**

- Pather M. Evidence-based family medicine. In Mash B (Ed) Handbook of Family Medicine (4th ed). Cape Town: Oxford University Press. 2017:430-53.
- Greenhalgh T. How to read a paper: the basics of evidence-based medicine. John Wiley & Sons. 2014.
- Glasziou PP, Del Mar C, Salisbury J. Evidence-based practice workbook (2nd ed). Blackwell Publishing. 2007.
- Denscombe M. The good research guide: for small-scale social research projects. McGraw-Hill Education (UK). 2014.

**Question 4**

**Model answer:**

The following key elements should be available to the supervisor/ examiner who is facilitating the station.

**4.1 Objective of station**

This station tests the candidate’s ability to:

- Apply diagnostic reasoning in assessing a patient with irregular menses

- Manage this patient as appropriate to district level care.

**4.2 Instructions for the examiner**

This is an integrated consultation station in which the candidate has 14 minutes.

Familiarise yourself with the assessor guidelines which details the required responses expected from the candidate.

No marks are allocated. In the mark sheet, tick off one of the three responses for each of the competencies listed. Make sure you are clear on what the criteria are for judging a candidates’ competence in each area.

If applicable, provide the following information to the candidate when requested: **When the candidate indicates that s/he is ready to examine the patient, only provide the specific information being requested. If the request is vague, ask: “What specific examination do you want to do?”**

This station is 15 minutes long. The candidate has 14 minutes, then you have 1 minute between candidates to complete the mark sheet and prepare the station.

- Please switch off your cellphone
- Please **do not** prompt the student.
- Please ensure that the station remains tidy and is reset between candidates

**4.3 Equipment list**

1. Standardised patient (female, young adult) – increased BMI and/or hirsutism
2. Clinical examination findings
3. Side room investigation findings – urine dipsticks, finger prick HGT, finger prick Hb, urine pregnancy test.

**4.4 Assessor guidelines:**

| Competencies  | Candidate’s rating   |  |  |
|---|--|--|--|
|   | Not competent  | Competent  | Good   |
| <b>1. Gathering information: history</b>                                      | Is only biomedical.  | Comprehensive, includes psychosocial issues. Clearly discerns: <ul style="list-style-type: none"> <li>• Pattern of bleeding</li> <li>• Severity</li> <li>• Risk assessment</li> <li>• Patient concerns: fertility</li> </ul>   | Has effortless conversational style. Enquires about: HIV, stress, explores issues around general health (diet, exercise) Elicits deep concerns/fears   |
| <b>2. Gathering information: physical examination and point of care tests</b> | Does not ask for all relevant clinical findings or side room tests   | Logical approach: <ul style="list-style-type: none"> <li>• Vitals and general exam</li> <li>• Specific exam: skin (hirsutism, acne); gynae exam (PV, speculum)</li> <li>• Pregnancy test</li> <li>• Hb; urine dipsticks; random HGT</li> </ul>   | Comprehensive and logical approach, includes any other risk factors. Reflects on interpretation with patient while collecting data ( <b>reflection in action</b> )   |
| <b>3. Clinical judgement: assessment and explanation</b>                      | Not able to synthesise a safe list of differential diagnoses i.e. some important diagnoses not considered. Does not communicate effectively. Does not acknowledge psychosocial issues. | Synthesises a list of differential diagnoses that is safe i.e. covers most important diagnoses: <ul style="list-style-type: none"> <li>• Polycystic ovarian syndrome ± metabolic syndrome</li> <li>• Hypothyroidism</li> <li>• High blood pressure</li> <li>• Elevated random HGT</li> <li>• Risks: STI; pregnancy; cardiac</li> </ul> | Comprehensive assessment: biopsychosocial. Effective communication using reflexive and active listening, employing simple language   |
| <b>4. Explanation and Planning: Evidence-based interventions</b>              | Dr-centred approach – only considers biomedical issues, and no / little consideration to patient preferences   | <b>Rational investigations looking for organic/ reversible cause:</b> ultrasound, renal function tests, fasting glucose, TSH.<br><b>Lifestyle interventions:</b> diet, exercise and habits. Acknowledges patient and contextual concerns Mentions possible referral to gynaecology clinic  | Actively explores patient preferences and social acceptability. Incorporates risk: <ul style="list-style-type: none"> <li>• Risk of HIV and pregnancy</li> <li>• Heightened cardiac risk: high blood pressure, increased BMI and smoking</li> <li>• Brief motivational interviewing</li> </ul> |

#### 4.5 Marking template for consultation station

| Exam number of candidate:   |                              |               |          |
|---|------------------------------|---------------|----------|
| Competencies  | Candidate's rating           |               |          |
|   | Not competent (0)            | Competent (1) | Good (2) |
| 1. Gathering information: history<br><br>Comments:                                      |                              |               |          |
| 2. Gathering information: Physical examination and point of care tests<br><br>Comments: |                              |               |          |
| 3. Clinical judgement: assessment and explanation<br><br>Comments:                      |                              |               |          |
| 4. Explaining and planning: evidence-based interventions<br><br>Comments:               |                              |               |          |
| <b>Total</b>  |                              |               | /12      |
| <b>General comments:</b>  |                              |               |          |
| <b>Examiner's name:</b>   | <b>Examiner's signature:</b> |               |          |

#### 4.6 Instructions to role player/standardised patient

You are a 23-year-old lady, unemployed, living with your mother and 18-year-old sister in a two-bedroom RDP house on the outskirts of town.

You had previously worked at Shoprite as a cashier, but left your job three months ago after an argument with your supervisor. You have been unemployed ever since.

You are well dressed, aware of your surroundings, and able to express yourself freely.

Preferably, the role player has increased BMI.

#### Opening statement

"Doctor, I am worried about my periods – they are irregular and heavy..."

#### History

**Open responses:** periods have always been irregular. Sometimes they stay away for a few months. You have done pregnancy tests when this happened – always negative.

#### Closed responses:

- **Pattern of period:** does not come at a set time, and lasts anything from 1 to 10 days – not heavy. Sometimes only a light brownish discharge. No pain.

- **Sexual:** You have a boyfriend in a stable sexual relationship for last 8 months – you don't use condoms, because you don't believe you can fall pregnant. Boyfriend is 25 years old, has a job, and has a 4-year-old daughter with a previous girlfriend. You started having sexual relations at age 14-years. You have had several partners in the past.
- **You have never had a Pap smear.**
- **Social support:** you have a good relationship with your sister, but not so good with your mother as she drinks excessively. Your father left many years ago – you have no contact with him. You attend church every Sunday.
- **Concerns:** You are concerned regarding fertility – will you ever be able to have children? You don't want children now, but definitely sometime in the future.
- **Substances/habits:** You smoke cigarettes, 10/day – for last 6 years (your boyfriend provides money for cigarettes). You drink beer on weekends – don't count how much, but usually quite drunk – not on Sundays, as this is church day.
- **Diet:** You eat whatever is available – mostly home-cooked food, drink tea and coffee with 4 sugars – occasionally KFC, depending on finances.
- **Your weight does not bother you.**
- **Mind-set:** you feel good about yourself. You have normal moods – sometimes happy, sometimes sad. You don't feel anxious all the time. Most of your stress is related to your unemployment.

#### Clinical findings (to be read to candidate when specific parameters asked for)

Vital signs: Blood pressure 156/98 mmHg; repeat blood pressure: 152/96 mmHg

Pulse: 76 beats/min

Weight: 94 kg      BMI: 36 kg/m<sup>2</sup>

#### Side room investigations:

U dipsticks: No abnormalities detected.

Random HGT: 9.2 mmol/L

Ward Haemoglobin: 13.5 g/dL

Pregnosticon (urine pregnancy test): negative

#### Examination:

Skin: acne on face. No hirsutism

Central obesity

Cardiovascular system: no abnormalities

Respiratory system: no abnormalities

Abdominal: no abnormalities

Genital examination: no abnormalities

Speculum: normal looking cervix, no discharge

#### Further reading:

- Lindeque G. A Clinical approach to a patient with abnormal uterine bleeding. SA Fam Pract. 2007;49(8):32-3.

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