

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) Final 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 Question (MEQ)/Short Answer Question (SAQ), questions based on the Critical Reading of a journal (evidence-based medicine) and an example of an Objectively Structured Clinical Examination (OSCE) question. 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 month's edition is based on unit standard 1 (critically appraising research), unit standard 2 (evaluate and manage a patient according to the bio-psycho-social approach) and unit standard 3 (facilitate the health and quality of life of the family and community). The theme for this edition is ophthalmology (eye health).

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/>

Please visit the Colleges of Medicine website for guidelines on the Fellowship examination:

https://www.cmsa.co.za/view_exam.aspx?QualificationID=9

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: single best answer):

A 30-year-old male presents with an acute episode of bilateral red eye with mild pain and irritation in both eyes for the last 3 days with a watery discharge (see Figure 1 below). He is otherwise well with no symptoms on systemic enquiry and he has no other known medical problems. The most appropriate next step in his management is to prescribe:



Figure 1: Clinical clue for MCQ scenario

- Reassurance and cold compresses
- Systemic anti-inflammatory drugs
- Systemic steroids
- Topical anti-inflammatory drops
- Topical steroid drops

Model answer:

Short answer: a)

Long answer: This patient presents with episcleritis which is an inflammatory condition, affecting the episcleral tissue found

between the conjunctiva and sclera. The condition is usually mild and self-limiting with a poorly understood pathophysiology. There are two types, namely diffuse or nodular with diffuse being more common. Patients usually present with intermittent bouts of pain and inflammation which tend to resolve within seven to ten days from onset. If the condition persists for more than two weeks, one needs to exclude a systemic condition. The onset is often acute and sometimes a precipitant, such as trauma, stress, allergy or hormonal changes, may be identified. The diagnosis is made by examining the eye and noticing the oedema of the episcleral tissue and injection of the episcleral blood vessels which is evident in the attached picture. Instilling phenylephrine ophthalmic drops will cause the blood vessels to blanch unlike in scleritis and this may aid in the diagnosis.

For those patients who have persistent symptoms and those who present with other systemic symptoms on history, a workup maybe necessary which would exclude auto-immune causes, such as rheumatoid arthritis or systemic lupus erythematosus. Episcleritis may also be associated with tuberculosis, syphilis, fungal, parasitic and viral infections.

Complications from episcleritis are rare. The history and physical examination are key to excluding some of the systemic conditions as the condition is self-limiting in most patients. In most instances of mild episclerites, no treatment is needed except reassurance and cold compresses of the eye, however, in patients with moderate to severe pain the addition of topical anti-inflammatory and/or topical steroid drops may be needed. In patients who do not respond to topical treatment, systematic non-steroidal anti-inflammatory drugs (NSAIDs) may be needed.

In managing any patient with an acute red eye, the following needs to be elicited from the patient either through history or physical examination:

- i. Unilateral or bilateral eye involvement
- ii. The duration of symptoms
- iii. The type and amount of discharge
- iv. The severity of the pain and irritation
- v. The presence of allergies or systemic disease
- vi. The presence of photophobia
- vii. The severity and type of visual loss
- viii. The presence of pupillary changes
- ix. The distribution of redness – is it diffuse, localised or is there a ciliary flush present?

This will allow one to follow a clinical pathway to excluding the following conditions which present as an acute red eye:

- i. Conjunctivitis
- ii. Keratitis
- iii. Uveitis
- iv. Episcleritis
- v. Scleritis
- vi. Acute angle closure glaucoma
- vii. Subconjunctival haemorrhage

Further reading:

- Lambert L. Diagnosing a red eye: an allergy or an infection? South African Family Practice. 2017;59(4):22-6.
- Pons J. How to examine the eye. In Mash B, Blitz J (Ed). South African Family Practice Manual. 3rd ed. Pretoria: Van Schaik Publishers, 2015. p. 144-9.
- Pons J. How to treat the eye. In Mash B, Blitz J (Ed). South African Family Practice Manual. 3rd ed. Pretoria: Van Schaik Publishers, 2015. p. 150-2.
- Medscape: <https://emedicine.medscape.com/>.
- 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>

2. SAQ (short answer question): Ethical decision making and professional behaviour

You are a family physician working in a rural community health centre. A 65-year old male with longstanding blindness, hypertension and diabetes mellitus, consults you. He requests a referral to a specific ophthalmologist in the urban centre (50 kilometers from your setting). He has been informed by his son that there is an experimental therapy available involving stem cells (taken from the skin of the patient) that may lead to him regaining vision. The son has allegedly investigated and found out that this specific ophthalmologist performs such operations. It is a costly procedure, for which the family is apparently already collecting funds.

- 2.1 Describe how you would approach this patient's request. (5 marks)
 - 2.2 Describe an ethical dilemma posed by this situation, using the 5-step approach. (12 marks)
 - 2.3 How would you ensure professional behaviour during this consultation? (3 marks)
- (20 marks in total)

Model answers:

- 2.1 Confirm that the patient understands the request. Check that he understands that treatment is experimental and may not lead to improved sight. Confirm whether ophthalmologist does indeed offer such treatment and ask for any evidence supporting such an intervention. Understand that there are many permissions to be sought before the treatment can begin. Ensure the costs are reasonable for the procedure.
- 2.2 **Step 1: Identify the ethical dilemma:** e.g. non-maleficence vs autonomy; (potential psychological/ other harm of treatment failure vs his wish to have sight again)

Step 2: Gather relevant information: including:

- **Medical:** what is the reason for the blindness? Would the operation be of potential benefit? Has experimental treatment been shown to work? Is there a rational understanding to the treatment?
- **Legal:** Is it permissible to attempt such experimental treatment?
- **Ethical:** As the patient's advocate, it is your duty of care to correctly inform patient and family and to ensure that the family understands the potential risks and benefits.
- **Preference of the patient:** what does he really want? Does he have sufficient insight?
- **Socio-cultural:** How does patient's community react to blindness and what do they understand by it. Opinion of the family: What is their view/belief about this treatment; are they pushing for miracles? What is their opinion about this matter?

Step 3: Assess all available information: What seems to be in the best interest of the patient based on available evidence? Is he certain about his decision? What is the potential impact? What would the impact of anticipated failure be? Are the alternative options acceptable?

Step 4: Formulate possible routes of action and implementation, e.g. verifying certain information, consultation with family to ensure objective understanding, ensure the correct documents are signed and contain trustworthy information.

Step 5: Formulate rules for the institution: What are the institutional rules of the department of health on such experimental options? The patient regards his family as the institution, which may not be fully appropriate. You need to ensure that the patient is not coerced into an experiment by the family.

- 2.3 Ensure that neither you nor the family is overpowering the patient with their idea regarding what needs to be done. Aim to provide clear, impartial advice. Ensure that you give patient sufficient warning if you see danger signs in this plan. Ensure that patient is given the freedom to make his own choice, once informed more fully about the procedure. Help ensure that the family accepts the patient's free will and own choice in the end.

Further reading:

- Moodley K. Family medicine ethics. In Mash B (Ed) Handbook of Family Medicine (4th ed). Cape Town: Oxford University Press, 2017. p. 406-29.

3. Critical appraisal of a review article

Read the accompanying article carefully and then answer the following questions (*total 40 marks*). As far as possible use your own words. Do not copy out chunks from the article (unless asked to quote directly from the text). Be guided by the allocation of marks with respect to the length of your responses.

Du Toit R, Faal HB, Etya'ale D, Wiafe B, Mason I, Graham R, et al. Evidence for integrating eye health into primary health care in Africa: a health systems

strengthening approach. BMC Health Services Research. 2013;13(1):102.

Obtainable from: <https://bmchealthservres.biomedcentral.com/articles/10.1186/1472-6963-13-102>

- 3.1 What research question did the authors attempt to answer in this study? Comment on whether this was a clearly focused question in terms of the PICO framework. (5 marks)
- 3.2 Considering the background section in this paper, identify two sentences/phrases that best reflect the authors' starting point, from which the rationale for the research is further explained and/or elaborated on (more than one correct answer possible). (3 marks)
- 3.3 How did the authors justify their choice of study design (scoping review as opposed to a systematic review)? Please elaborate by describing the difference between these two types of reviews. (6 marks)
- 3.4 Did the authors look for the right type of papers? Do you think all the important, relevant studies were included? (In other words, were the sources and resources used to search for studies adequate?) (6 marks)
- 3.5 Did the review's authors do enough to assess the quality of the included studies? (6 marks)
- 3.6 What are the overall results of the review? (6 marks)
- 3.7 Were the specific directives for new research appropriate? Justify your answer. (2 marks)
- 3.8 Discuss the value of the study findings for your own practice using the READER format. (6 marks)

(Total: 40 marks)

Model answers:

3.1 What research question did the authors attempt to answer in this study? Comment on whether this was a clearly focused question in terms of the PICO framework. (5 marks)

The question that the authors tried to answer was: "From a health system strengthening perspective OR using a health system strengthening lens: to what extent is eye care integrated into PHC OR how is eye care integrated into PHC?". The authors attempted to describe the scope and breadth of information and evidence available about how eye health has been implemented in primary health care systems, by using a health system strengthening framework.

The PICO framework (Patient group, Patient problem or Population of interest, Intervention or Issue of Interest, Comparison intervention of interest, primary Outcome of interest) is generally used to help frame or focus the research question and subsequent search for relevant evidence. The framework may be tailored to the research question type (treatment, prevention, diagnosis, prognosis or aetiology) or study design (quantitative compared to qualitative).

Using the PICO framework for this study, the population of interest (P) would be patients making use of eye health

services. However, this review focuses on the intervention or issue of interest (I): the implementation or integration of eye health services within the primary health care system. Although there is no explicit comparison intervention of interest, the context (C) is that of the primary health care system in Africa. Presumably, the outcome of interest (O) would be the degree to which eye health services have been integrated into the primary health care system from a health system strengthening perspective.

This scoping review therefore aimed to answer a broad question (which is the nature of such a review type); the question does cover some of the domains from the PICO framework.

3.2 Considering the background section in this paper, identify two sentences/phrases that best reflect the authors’ starting point, from which the rationale for the research is further explained and/or elaborated on (more than one correct answer possible). (3 marks)

Here one should look at the authors’ justification for the scientific and social value of the study. One may provide quotes to support the following key points:

- There are large numbers of patients who are visually impaired as a result of conditions of which up to 80% are treatable and/or preventable;
- Access to appropriate eye healthcare for these patients is limited;
- Integration of eye health with PHC has the potential to address these issues;
- Health system strengthening is essential to this process.

Potential options for quotes to support these points, include:

“... there is considerable variation in eye care needs, services and numbers and cadres of eye care personnel available across Africa, and even in regions within countries. In many places there are few health personnel with appropriate competencies; productivity is low, and distribution of resources uneven. In general, the most remote and poorest areas of low-income countries have least access to eye care.”

“Considerable variance exists in what constitutes ‘assessment and diagnosis for referral’ and ‘appropriate management of eye conditions at a primary care level’. This may be one of the reasons for the concerns in matching expectations of eye care provision at the primary level with the skills and capacities of providers. The concept of integration of eye health into primary health care thus enjoys an enabling policy environment, but there is little information about the implementation of these policies.”

“The call for a revitalized primary health care system, later including eye health in primary health care has been challenged by the often fragile, fragmented and under-resourced systems.”

“It has been recommended that health systems should be strengthened to enable most interventions to be delivered in an integrated way, where feasible. Many countries have thus adopted policies using priority health interventions as

an entry point to strengthen health systems (health systems strengthening: HSS), based on a primary health care approach. The importance of a health systems strengthening approach has been recognized in the eye health literature.”

3.3 How did the authors justify their choice of study design (scoping review as opposed to a systematic review)? Please elaborate by describing the difference between these two types of reviews. (6 marks)

A key first step before starting new research should be a thorough assessment or review of existing research. This “research synthesis” may be conducted through a range of different types of reviews. A scoping review is a form of knowledge synthesis which addresses an exploratory or emerging research question aimed at mapping key concepts, types of evidence and gaps in research related to a defined area or field, by systematically searching, selecting and synthesising existing knowledge. Scoping reviews address a broad question about what is known in a well-defined field and may inform the need for a new systematic review. A systematic review is a review in which bias has been reduced by systematic identification, appraisal, synthesis, and, if relevant, statistical aggregation of all relevant studies on a specific topic according to a predetermined and explicit method. Both types of reviews require a protocol and should adhere to reporting guidelines (see PRISMA guideline and its extension for scoping reviews: <https://www.equator-network.org/reporting-guidelines/>), in order to make the details of the review process transparent to the reader. The differences between these two review types are presented in Table 1.

Table 1: Differences between scoping and systematic reviews

	Scoping review	Systematic review
Research question	Broadly defined	Highly focused
Inclusion/exclusion criteria	Developed post hoc at study selection stage	Developed at protocol stage
Study selection	All study types	Defined study types
Data extraction	“Charts” data according to key issues, themes, etc.	Synthesizes and aggregates findings

(Source: <https://guides.library.utoronto.ca/c.php?g=588615&p=4310109>)

In this study, the authors elected to do a scoping review and justified their choice by stating that the scoping review provides “an opportunity to survey the whole profile of information available for this topic” (eye health interventions within complex health systems). The target audience for the scoping review are planners and policy makers, and the review aimed to provide “pragmatic guidance” on the implementation of eye health interventions within a primary health care system. The authors cited two examples (references 67, 68) to support the use of scoping reviews when studying questions related to health systems. Furthermore, they argued for the use of a scoping review to provide greater clarity on evidence gaps in their issue of interest, eye care, and hoped that this broad-natured review would lead to “more focused lines of investigation”. The authors used the health system strengthening perspective

and WHO frameworks (Figure 1 in the manuscript) to guide their scoping review based on their research question.

3.4 Did the authors look for the right type of papers? Do you think all the important, relevant studies were included? (In other words, were the sources and resources used to search for studies adequate?) (6 marks)

This question may be answered by appraising the methods section of the manuscript. More detail is required on how the literature search was conducted, the search terms and inclusion criteria used, which outcomes were looked for, how the authors attempted to reduce potential bias, as well as the process of selecting the articles for the review (the number of articles identified at each stage, as well as the final number of articles included in the review).

It is not possible to replicate the search based on the information presented in this manuscript. The description of the search strategy is too vague, as it is unclear what is meant by gathering data “iteratively, using informal approaches such as snowballing”. A description of the keywords and Boolean operators used is missing. Detail on the search limits such as language is missing (did the review only include publications in English?). No mention of grey literature was made (materials and research produced by organisations outside of the traditional commercial or academic publishing and distribution channels, such as reports, working papers, government documents, white papers and evaluations).

The authors stated that “different types of information from multiple sources” were collected, which does not provide the reader with sufficient information. The authors did shed some light on the study types and databases searched. They prioritised systematic reviews, especially those which contain information from low- and middle-income countries (which speak to the context of the research question, Africa). Searches were performed in different databases: PubMed (also called Medline), the Cochrane Library, Health Systems Evidence (McMaster Health Forum) and the WHO site. Pubmed is a good source for primary studies, whereas the Cochrane library represents a good repository of randomised and other controlled clinical trials. The authors looked at research published between 1983 and February 2013 (the year in which this manuscript was published). This represents a good timeline (30-years). Data with a more regional focus would require a different approach, as many regional journals may not be included in bibliographic databases such as Pubmed. An international index, the African Index Medicus (AIM), produced by the WHO may be useful, as well as the African Journals OnLine (AJOL), neither of which were mentioned.

In the strengths and limitations section of the manuscript (page 9), the authors conceded that most of the published work on eye health originates from eastern and southern Africa; furthermore, only few articles from Africa included in the review specifically address health systems and integration. This was echoed in Table 1 of the manuscript,

which provides an overview of the number of papers used in the review. The Table confirms that “high-income country or not specified” articles represent the core contribution to the keywords of “health systems” and “integration” (with no papers from Sub-Saharan Africa or low- and middle-income countries). Only four out of the 173 papers included in the review described the importance of health system strengthening with regards to eye health.

3.5 Did the review’s authors do enough to assess quality of the included studies? (Were the criteria for appraising studies appropriate?) (6 marks)

Very little detail is provided in the methods section about how the authors assessed the quality of the included studies. The authors stated that an “iterative process” was used to synthesise the published information in conjunction with the review articles and “with anecdotes from the authors’ experiences in various African countries”. The process of data extraction and analysis should be explained in more detail.

More information on the process of data extraction (termed “data charting” in a scoping review) is required. A description of the methods of charting data from the sources of evidence (e.g., calibrated forms or forms that have been tested by the team before their use, and whether data charting was done independently or in duplicate) and any processes for obtaining and confirming data from investigators would have been useful. Table 1 in the manuscript provides a breakdown by region, search term and study type. However, this Table does not provide enough information as required by the PRISMA-ScR reporting guide to enhance transparency, validity and generalizability (Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews). The authors elected to present the scoping review results in a narrative format under the headers of the nine priority areas of the framework for the implementation of health system strengthening and primary health care in Africa. Key information that the authors should consider to chart include, author(s), year of publication, origin/country of origin (where the study was published or conducted), aims/purpose and key findings that relate to the scoping review question.

It was not clear from the methods section how many authors conducted the critical appraisal and whether this was done independently. In the authors’ contribution section (page 10 of the manuscript), the lead author contributed to data acquisition, whereas others contributed to the content of the paper. Ideally, the appraisal should be performed by two or more reviewers independently.

In the strengths and limitations section, the authors acknowledge the limitations of the scoping review method’s ability to formally assess the quality of evidence. The scoping review provides a narrative or descriptive account of the available evidence, whereas a systematic review is able to synthesise the evidence, which enables the generalizability of the findings. A critical appraisal tool such as the Mixed Methods Appraisal Tool (MMAT), a validated tool for appraising the methodological quality of

mixed methods studies, may be used (although its use may be more appropriate for a systematic review). The authors mentioned that there is limited information to guide the review of complex interventions, including the techniques required for quality assessment of less conventional study designs.

3.6 What are the overall results of the review? (6 marks)

The results section describes the critical analysis of the papers used in the review under the nine priority areas of the framework used for the study (Figure 1 in the manuscript). From a critical appraisal perspective, the reader should be clear about the “bottom line” of the review’s results. The discussion section starts off with a summative statement on how little evidence is available on whether health system strengthening has been implemented successfully (how “everyone” may contribute). There is insufficient evidence on the contribution of health care providers, “as active agents of change within a complex health system”, to influence the health systems; however, strategies to support quality improvement and enhance accountability of private providers in low- and middle-income countries are more likely to be successful than strategies that depend on training. The state of the local health system should be considered when planning training and knowledge implementation. More evidence is required on how vertical approaches to eye health service delivery compare to horizontal (integrated) approaches; however, the authors state that eye health should be perceived as part of overall health. This supports further concurrent strengthening of the overall primary health care system of supervision and support in combination with the other health system blocks, as these “blocks” are interdependent and interact with each other. The sustainability of eye care gains “will thus depend on how eye health can contribute to the strengthening of the overall structure and performance of the national health system”.

The authors conclude on page 10 of the manuscript that there is “very little evidence to guide the integration of eye care into the primary health care system”. This review supports the importance of partnerships and participation of the community. The authors support the importance of other health system strengthening components, such as leadership, governance and research (based on evidence from other fields of health care).

3.7 Were the specific directives for new research appropriate? (2 marks)

The authors recommend operational research, knowledge translation and advocacy to stakeholders, to facilitate the shift away from the concept that “a primary eye care approach is simple and all that is required is a single ready-made manual”. Further research is suggested on page 10 of the manuscript, which is appropriate from the perspective of the health system strengthening framework: best practices, pilot projects, training and implementation protocols, multinational research, reviewing the indicators

for monitoring and evaluation and involving eye health personnel.

3.8 Discuss the value of the study findings for your own practice using the READER format. (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?

The answer may be seen as a subjective response, but should be one that demonstrates a critical reflection on the possible implication of the research for the registrar’s practice within the South African public health care system. It is acceptable for the registrar to suggest how his/her practice might change, within other scenarios after graduation (e.g., general private practice). The reflection on whether all important outcomes were considered is therefore dependant on the registrar’s own perspective (is there other information you would have liked to see?).

A model answer may be written from the perspective of the family physician employed in the district health system:

- *Relevance to family medicine and primary care:*
This study is relevant to the African primary care context. The role of team based care and linkages between generalist primary care providers and specialised primary eye care providers were not mentioned specifically.
- *Education – does it challenge existing knowledge or thinking:*
The issues highlighted in the review may resonate with the challenges experienced in primary health care, as family physicians often function as the most qualified member of their healthcare team. They are required to manage patients with eye problems directly or indirectly as consultant to the other team members.
- *Applicability – are the results applicable to my practice:*
The intended target audience is “planners and policy makers”, which makes the review not directly relevant to the clinician at the coalface; however, policy at macro-level is meant to drive changes at the meso- and micro-levels.
- *Discrimination – is the study scientifically valid enough:*
Without greater clarity on the methods used, it is not possible to apply these findings to the local context of the sub-district.
- *Evaluation – given the above, how would I score or evaluate the usefulness of this study to my practice:*
This scoping review will be scored low in terms of usefulness, based on the intended audience and the methodological concerns identified.
- *Reaction – what will I do with the study findings:*
One would have to look for another study with a more robust description of the methods used to conduct the review.

Further reading:

- Pather M. Evidence-based family medicine. In Mash B (Ed) Handbook of Family Medicine (4th ed). Cape Town: Oxford University Press, 2017. p. 430-53.
- Centre for Evidence Based Health Care, Stellenbosch University. (2019). EBM toolkit. [online] [Accessed 31 January 2019]. Available at: <http://www.cebhc.co.za/teaching-resources/>.
- Naude C, Young T. How to search and critically appraise the literature. In Goodyear-Smith F, Mash B (Ed) How to do primary care research (1st ed). Boca Raton, FL: CRC Press, 2019. p. 135-46.
- Young T, Naude C. Taking stock of existing research: Approach to conducting a systematic review. In Goodyear-Smith F, Mash B (Ed) How to do primary care research (1st ed). Boca Raton, FL: CRC Press, 2019. p. 149-59.
- Joannabriggs.org. (2019). Critical Appraisal Tools - JBI. [online] [Accessed 31 January 2019]. Available at: <http://joannabriggs.org/research/critical-appraisal-tools.html>
- The Critical Appraisals Skills Programme (CASP). 2019. CASP checklists. [online] [Accessed 31 January 2019]. Available at: <https://casp-uk.net/casp-tools-checklists/>.
- Tricco AC, Lillie E, Zarin W, O'Brien KK, Colquhoun H, Levac D, Moher D, Peters MD, Horsley T, Weeks L, Hempel S. PRISMA extension for scoping reviews (PRISMA-ScR): checklist and explanation. Annals of Internal Medicine. 2018;169(7):467-73.

4. OSCE scenario: Eye Health**Objective of station:**

This station tests the candidate's ability to:

1. Perform a comprehensive eye consultation, including the diagnosis and management of cataract.
2. Teach comprehensive eye examination to undergraduate student(s).
3. Teach about the diagnosis and management of cataract.

Type of station

Integrated station

Domain: Eye health – ambulatory care and teaching

Equipment list

1. Young male/female adult – as student
2. Elderly male/female – as patient
3. Picture(s) typical of cataract
4. Snellen chart
5. Pinhole card
6. Ophthalmoscope

Instructions for candidate**History / context:**

You are the family physician in the district hospital. Today, you have a medical student with you in OPD. A patient is referred by the primary care nurse with a history of gradual loss of vision. The student has taken a history and will present the patient to you.

Please use this consultation to teach the medical student:

1. Comprehensive eye history and examination.
2. Diagnosis and management of this patient's problem.

Instructions for the examiner

Objectives: This station tests the candidate's ability to:

1. Perform a comprehensive eye consultation, including the diagnosis and management of cataract.
2. Teach comprehensive eye examination to undergraduate student(s).
3. Teach about the diagnosis and management of cataract.

This is an integrated consultation station in which the candidate has 15 minutes.

Familiarize 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 candidate's competence in each area.

This station is 16 minutes long. The candidate has 15 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.

Further reading:

- Pons J. How to examine the eye. In Mash B, Blitz J (Ed). South African Family Practice Manual. 3rd ed. Pretoria: Van Schaik Publishers, 2015. p. 144-9.
- Du Toit N. The gradual loss of vision. SAFPJ. 2013;55(6):493-500.
- Borooah S, Dhillon A, Dhillon B. Gradual loss of vision in adults. BMJ: British Medical Journal. 2015;350:h2093.

Marking template for consultation station

Exam number of candidate:			
Competencies	Candidate's rating		
	Not competent	Competent	Good
1. Establishing the doctor-patient-student relationship Comments:			
2. Gathering information: establishing student baseline knowledge and skills Comments:			
3. Gathering information: history and examination – comprehensive eye health Comments:			
4. Explaining: teaching history and examination Comments:			
5. Clinical Judgement: diagnosis and evidence-based management Comments:			
6. Judgement: reflect on teaching session with student Comments:			
Comments:			
Examiner's name:		Examiner's signature:	

Guidance for assessors

This assessment defines competency as **the ability to complete a task in a safe and effective manner**. The **examiner as an expert uses his/her judgement to categorise the candidate's performance**. Examiners must be well versed with the case, and the content matter.

- 1. Establishes doctor-patient-student relationship:** the competent candidate clearly establishes the context and roles of the respective players. Provides explanation to patient and seeks permission to use the consultation as a mini-teaching session.
- 2. Gathering information: establishing student baseline knowledge and skills:** the competent candidate establishes the student's baseline approach to history and examination of the eye.
- 3. Gathering information: history and examination – comprehensive eye health:** the competent candidate has a clear approach to gathering relevant information.
- 4. Explaining: teaching history and examination:** the competent candidate facilitates learning in a clear, non-

judgemental manner, allowing the student to talk and demonstrate, and providing feedback/demonstrating technique in a constructive manner using evidence-based clinical information.

- 5. Clinical judgement: diagnosis and evidence-based management:** the competent candidate diagnoses and manages the cataract safely and effectively as per current evidence.
- 6. Judgement: reflect on teaching session with student:** the competent candidate uses reflection with the student to assess the impact of the learning session.

Role play – Instructions for actors

Student: You are in your 4th year of medical school. You have never seen a patient with visual problems before.

Appearance: neatly dressed.

Patient: you are a truck driver. You asked the nurse to do an eye test, and she sent you to the doctor because you have a problem in your left eye.

You agree that the student may be part of the consultation.

Appearance: neatly dressed – casual clothes.

Opening statement – student:

“Hello, Doctor. I am the medical student. I have taken a history from this patient. May I present to you?”

- Patient presented to the clinic for a routine chronic visit – s/he is known with diabetes, under control.
- When the nurse tested the eyesight, the left eye’s vision was impaired.
- There is no history of injury or infection to this eye.
- S/he works as a driver, so this may impact on his/her work.

You did not want to examine the patient alone – you are not sure how to examine the eye.

Patient: has nothing to add to what the student has said.

- Doctor will examine your eyes and do an eye test.
- You see well with both eyes, and your right eye is perfect, but you only see dim shadows with your left eye. This does not get better with the pinhole test.

Examiner to provide to candidate when specifically requested

Clinical findings:

All vitals are normal.

Blood tests for diabetes indicate good control.

Clinical findings are normal for all end-organs.

Eye findings:

Normal anatomically.

Eye movements normal.

Right eye: normal fundoscopy.

Left eye: Figure 2.



Figure 2: Clinical clue for OSCE scenario

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