

1.0 Descriptive summary of station:

In this station the candidate will discuss an approach to undertaking an audit of how metabolic syndrome is monitored in patients with schizophrenia in a community mental health centre. The candidate is expected to identify the importance of feedback in any continuous quality improvement activity and consider some of the barriers of assessing how well health professionals are performing against accepted standards and guidelines. The candidate is also expected to describe their role in conducting an audit within a multidisciplinary team environment.

1.1 The main assessment aims are:

- To describe the metabolic syndrome and outline the parameters for metabolic syndrome monitoring.
- To describe the audit cycle and how to apply it to the scenario.
- To discuss the role of the psychiatrist in conducting clinical audits in a multidisciplinary environment.

1.2 The candidate MUST demonstrate the following to achieve the required standard:

- Include at least four core measures for monitoring metabolic syndrome (e.g. weight, waist circumference, blood pressure, fasting blood glucose, fasting lipids).
- Explain that monitoring is more frequent (e.g. 3-monthly) in the first year of treatment with a new antipsychotic medication.
- Accurately describe the key components of an audit cycle.
- Recognise the importance of colleague participation when conducting an audit.

1.3 Station covers the:

- **RANZCP OSCE Curriculum Blueprint Primary Descriptor Category:** Governance Skills, Psychotic Disorders
- **Area of Practice:** Adult Psychiatry
- **CanMEDS domains of:** Medical Expert, Manager
- **RANZCP 2012 Fellowship Program Learning Outcomes:** Medical Expert (Management - Long-term, Preventative), Manager (Governance; Workload & Resource & Change Management)

References:

- Waterreus A, Laugharne J. Screening for the metabolic syndrome in patients receiving antipsychotic treatment: a proposed algorithm. *MJA*. 2009;190:185-189
- Lambert T. Managing the metabolic adverse effects of antipsychotic drugs in patients with psychosis. *Australian Prescriber*. 2011;34:97-99
- Laugharne J, Waterreus A, Castle D, Dragovic M. Screening for the metabolic syndrome in Australia: a national survey of psychiatrists' attitudes and reported practice in patients prescribed antipsychotic drugs. *Australasian Psychiatry*. 2015. DOI: 10.1177/1039856215618521
- Benjamin A. Audit: how to do it in practice. *BMJ*. 2008; 336:1241-1245

1.4 Station requirements:

- Standard consulting room; no physical examination facilities required.
- Three chairs (examiner x 1, candidate x 1, observer x 1).
- Laminated copy of 'Instructions to Candidate'.
- Pen for candidate.
- Timer and batteries for examiner.

2.0 Instructions to Candidate

You have **eight (8) minutes** to complete this station after **two (2) minutes** of reading time.

This is a VIVA station. There is no role player in this station.

You are working as a junior consultant psychiatrist and are approached by your Clinical Director to audit how metabolic syndrome is currently being monitored in patients with schizophrenia by the psychiatrists in your community mental health centre.

Your tasks are to:

- Describe your approach to auditing this aspect of clinical practice within the mental health community centre including your choice of key criteria/measures.
- Discuss how to implement the audit including your role in conducting an audit in a multidisciplinary team environment.

If you have not commenced the second task by six (6) minutes you will receive a prompt to move to the second task.

Station 4 - Operation Summary

Prior to examination:

- Check the arrangement of the room, including seating and other specifics to your scenario.
- On the desk, in clear view of the candidate, place:
 - A copy of 'Instructions to Candidate' and any other candidate material specific to the station e.g. investigation results.
 - Pens.
 - Water and tissues are available for candidate use.

During examination:

- Please ensure mark sheets and other station information, are out of candidate's view.
- At the **first bell**, take your places.
- At the **second bell**, start your timer, check candidate ID number on entry and say:
'Please proceed to address the first task.'
- DO NOT redirect or prompt the candidate unless scripted.
- If the candidate asks you for information or clarification say:
'Your information is in front of you – you are to do the best you can.'
- TAKE NOTE of the cue/time for the scripted prompt you are to give at **six (6) minutes** if the candidate has not commenced the second task. Please say:
'Please proceed to address the second task.'
- At **eight (8) minutes**, as indicated by the timer, the final bell will ring. Finish the examination immediately.

At conclusion of examination:

- Retrieve all station material from the candidate.
- Complete marking and place your mark sheet in an envelope by/under the door for collection (**do not seal envelope**).
- Ensure room is set up again for next candidate. (See 'Prior to examination' above.)

If a candidate elects to finish early after the final task:

- You are to state the following:
***'Are you satisfied you have completed the tasks?
If so, you must remain in the room and NOT proceed to the next station until the bell rings.'***
- If the candidate asks if you think they should finish or have done enough etc. refer them back to their instructions and ask them to decide whether they believe they have completed the task(s).

3.0 Instructions to Examiner

3.1 In this station, your role is to:

Observe the activity undertaken in the station and judge it according to the station assessment aims and defined tasks as outlined in 1.1 and 1.2.

This is a VIVA station. Your role is to keep to time and to mark the candidate. Specifically, the tasks are described below:

When the candidate enters the room briefly check ID and say:

‘Please proceed to address the first task.’

At **six (6) minutes**, if the candidate has not commenced the second task, the examiner says:

‘Please proceed to address the second task.’

3.2 Background information for examiners

In this station the candidate is expected to describe the key aspects of monitoring for metabolic syndrome that could be included in an audit and then to outline their understanding of and approach to audit in patients with schizophrenia engaged with a community mental health centre.

The second part of the scenario focusses on discussing the role of a psychiatrist in conducting an audit in a multidisciplinary team environment.

In order to ‘Achieve’ this station the candidate **must**:

- Include at least four core measures for monitoring metabolic syndrome (e.g. weight, waist circumference, blood pressure, fasting blood glucose, fasting lipids).
- Explain that monitoring is more frequent (e.g. 3-monthly) in the first year of treatment with a new antipsychotic medication.
- Accurately describe the key components of an audit cycle.
- Recognise the importance of colleague participation when conducting an audit.

The Metabolic Syndrome

The metabolic syndrome (MetS) is a well-described cluster of inter-related risk factors for developing cardiovascular disease and type 2 diabetes. The core components of MetS are central obesity, hypertension, hyperglycaemia and dyslipidaemia. A person with MetS is two to three times more likely to have a heart attack or stroke and five times more likely to develop type 2 diabetes than someone who does not.

The relationship between psychotic illness and metabolic dysregulation is complex but we know that patients with psychotic illness are at a higher risk of developing MetS, and antipsychotic medications can increase this risk, probably through obesity-related mechanisms. Other risk factors such as socio-economic status, high rates of smoking, alcohol and other drug use, reduced physical activity and poor nutrition are also relevant in patients with psychotic illness developing MetS. Current evidence suggests clozapine and olanzapine are associated with greater weight gain than other antipsychotic medications, as well as increased risk of diabetes and lipid dysregulation.

The need for screening, monitoring and prevention of MetS has been acknowledged in the psychiatric literature and more recent treatment guidelines. The intervals of monitoring vary in different guidelines but it is important to start monitoring patients immediately after they have started antipsychotics, then every three months during the first year and every six months after that (Lambert 2011). However, a recent survey of Australian psychiatrists found that routine screening for MetS in patients on antipsychotic medications is inadequate (Laugharne et al. 2015). For example, 55% of the respondents in this survey indicated that there was no established metabolic monitoring protocol or guideline in their work place, and 13% indicated that they did not know what to monitor or detect MetS.

The candidate could identify any of the following as specific aspects to measure in a MetS monitoring protocol:

- Medical history
- Lifestyle history (e.g. diet, smoking, physical activity)
- Blood pressure*
- Fasting blood glucose*
- Fasting lipids*
- Weight*
- Waist circumference*
- Hip to waist ratio
- Body Mass Index (BMI)
- HbA1c
- CRP, Troponin
- ECG
- Echocardiogram
- Baseline measurements followed by 3-monthly in the first year and 6-monthly after that*
(NB: some guidelines suggest baseline measurements, then in 6 weeks, 12 weeks and then annually)
- Intervention plan/algorithm (e.g. lifestyle interventions, switching antipsychotics, medications for MetS)

(* indicates what are usually considered as minimal monitoring criteria).

The current International Diabetes Federation Definition of Metabolic Syndrome (www.idf.org) includes:

- Central Obesity - waist circumference (94cm for European men, 80cm for European women; South Asian men 90cm, South Asian women 80cm)
AND any two of the following:
- Raised triglycerides - (1.7mmol/L) OR specific treatment for this lipid abnormality
- Reduced high-density lipoprotein cholesterol (<1.03mmol/L in males and <1.29mmol/L in females) OR specific treatment for this lipid abnormality
- Raised blood pressure (systolic BP 130mmHg or diastolic 85mmHg) OR treatment of previously diagnosed hypertension
- Raised fasting plasma glucose (5.6mmol/L) OR previously diagnosed Type 2 diabetes

A surpassing candidate may demonstrate their familiarity with monitoring requirements for metabolic syndrome, including any specific criteria like those above.

Clinical audit

Clinical governance is a systematic approach to maintaining and improving the quality of patient care within a health system and originates from within the United Kingdom NHS, with its most widely cited formal definition describes it as: *A framework through which NHS organisations are accountable for continually improving the quality of their services and safeguarding high standards of care by creating an environment in which excellence in clinical care will flourish* (G. Scally and L. J. Donaldson, *Clinical governance and the drive for quality improvement in the new NHS in England* BMJ (4 July 1998): 61-65).

As services become more focussed on patient-centred care and improved outcomes there is a need for clinical professionals to develop knowledge and skills to monitor and develop quality. Quality assurance is any systematic process of checking to see if a service is meeting specific requirements and clinical audit is one of the key tools applied in the coordinated approach to the assessment of the quality of services delivered.

Clinical audit is considered to be a continuous quality improvement process that seeks to improve patient care and outcomes through systematic review of care against explicit criteria and the implementation of change. The aim of clinical audit is to improve care by improving professional practice and the general quality of patient care delivered.

This is achieved by healthcare professionals reviewing patient care against agreed standards/criteria and making changes to meet those standards then repeating the audit to see if the changes have been implemented and the quality of patient care improved. Therefore, standards-based audit is a cycle which involves defining standards, collecting data to measure current practice against those standards, and implementing any changes deemed necessary.

Clinical audit is considered an integral part of clinical governance within the health service. In addition to measuring quality, there must be a commitment to change practice where the results of the audit show that improvements should be made. The key component of clinical audit is that performance is reviewed (audited) to ensure that what should be done is being done; assesses the gap between what we know and what we do exists, and it then provides a framework to enable improvements to be made.

A clinical audit may ask one or more of the following questions:

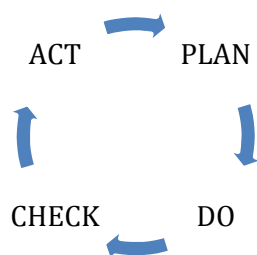
1. Is what should have happened actually happened?
2. What is the standard?
3. Does what is actually happening meet or exceed agreed standards?
4. Is current practice following published guidelines?
5. Is current clinical practice applying up to date knowledge?
6. Is current evidence is being applied in the particular situation under review?

In clinical governance the most commonly known audit process is the PDSA/PDCA Cycle. In 1924 Walter A. Shewhart introduced a Plan, Do, and See method for quality control to which W. Edwards Deming then applied a statistical process control method which led to the development of the well-known Plan, Do, Check, Act Cycle. The **Deming Cycle, or PDSA/PDCA Cycle** consists of a sequence of four repetitive steps for continuous improvement and learning: Plan, Do, Check (Study) and Act. It is also known as the Deming wheel of continuous improvement spiral.

PDCA cycle is made up of four key activities:

PLAN:	plan ahead for change. Analyse and predict the results.
DO:	execute the plan, taking small steps in controlled circumstances.
CHECK:	check, study the results.
ACT:	take action to standardise or improve the process.

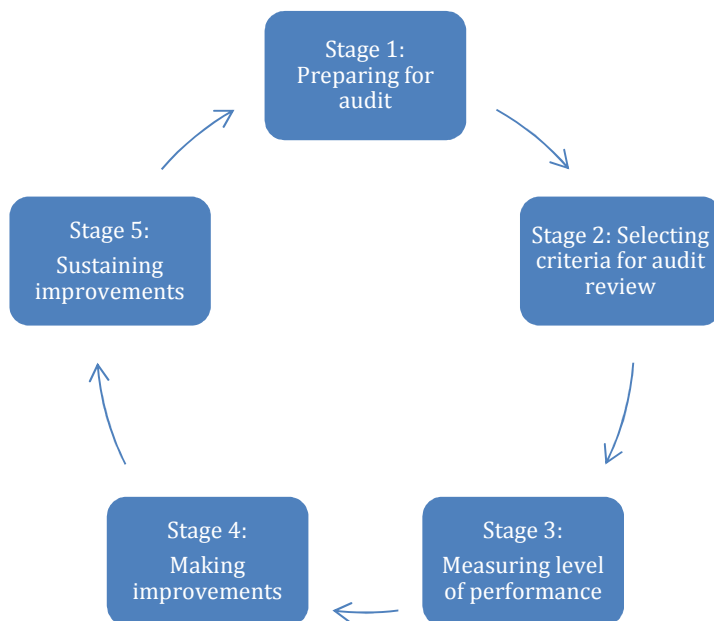
The PDCA cycle should be repeated again and again for continuous improvement.



The PDCA cycle is a useful procedure when:

- An opportunity is recognised and a plan for change made - **Plan**.
- A change is trialled/tested. Usually carried out as a small-scale study - **Do**.
- The trial/test is reviewed, results/outcomes are analysed and new learnings are identified – **Check**.
- Action is taken based on what is learned in the check/study step – **Act**.

In general **audit cycles** build on the PDCA cycle as is summarised in the following diagram. It involves a cycle of assessment, implementing a change and reviewing the impact of the change (i.e. re-auditing to close the audit cycle).



- Stage 1: Preparing for audit** - Identify the area/topic i.e. consider the need for change in an area/topic and where you suspect that standard could be improved and/or where the change you expect to recommend is possible.
- Stage 2: Selecting criteria for audit review** - Find the standard, ask the question and find the evidence. May need to do a literature search for the standard in the area/topic chosen. Write a plan for how to do the audit: This should include the rationale for doing the audit, the standard you have chosen, the population to be surveyed, the time frame for collecting the data and the data intend to measure.
- Stage 3: Measuring level of performance** - Collate data and compare the results against the selected audit standard. Then write a summary of the findings, discussing how the differences compare to the standard, possible explanations and remedies.
- Stage 4: Making improvements** - Identify the changes that need to make to achieve the standard and how they will be implemented. Put in place the actions and plans to correct any gap between the actual activity and the selected standard.
- Stage 5: Sustaining improvements** - This stage is critical to the successful outcome of an audit: It measures whether the changes implemented have had an effect and determines whether further improvements are needed to achieve the standard identified in Stage 2.

Audit can also provide information to show others the effectiveness of the service, the efficient use of resources and to ensure its development. It can measure the gap between what we know and what we do, and look for any unwarranted variation in care that is not explained by the clinical circumstances or personal choices of the patient. It also allows for training and education opportunities as well as improving communication and liaison.

In order to meet the standards of this station a candidate should therefore present an outline of a practical plan. They should also recognise the importance of feedback as a critical part of the audit process. Barriers to audit are often lack of resources, lack of expertise or advice in design and analysis, and organisational obstructions. Aspects that will need to be taken into consideration include having access to resources (e.g. time, data, and quality managers/statisticians), any opportunity costs, the need for ethical approval (if required) and utilisation/dissemination of the findings.

Audit differs from research. It aims to evaluate how close practice is to best practice and standards and to identify ways to improve quality of health care, whereas research aims to establish what that best practice is. So research generates new knowledge or increases the current knowledge, while audits focusses more on improving services and is practice based as an ongoing process. Patients are not allocated randomly in audit and it never involves a placebo treatment or a completely new treatment.

Better candidates will be able to recognise that audit is a continuous quality improvement activity assessing whether minimum standards/expected performance are being met and then maintained, and making changes to practice when necessary; and so there needs to be a program that sets regular times for repetition. They may also recognise that clinical care is more complex than just focussing on a set of key criteria that are audited, and that audit and feedback alone only provide moderate effects, whereas if combined with a broader strategy of education and quality improvement audit is more beneficial.

The role of the psychiatrist in clinical audit

It is important for doctors to participate in activities that review and evaluate the quality of their individual practice or the work done by their team. This drive for continuous improvement in healthcare delivery is part of what defines medical professionalism. There is a growing emphasis on medical participation and includes reflection beyond descriptive observation, as any changes that clinicians can make to service delivery should directly improve patient outcomes.

All RANZCP Trainees are expected to undertake a scholarly project as part of their training requirements. One option for Trainees to consider is the undertaking of a clinical audit. As part of the Continuing Professional Development (CPD) program of the RANZCP, the section on Practice Improvement Activities recommends *Practice Development and Review* and *Continuous Quality Improvement* activities like formal clinical audit and quality improvement activities which have furthered the participant's CPD goals. Possible activities could include practice audits, participation in root cause analysis, structured quality improvement and risk management projects.

Despite these expectations there are some perceived disadvantages of audit amongst clinicians; namely of reduced clinical ownership, suspicion of the reviewers, fear of reprisal or litigation, and professional isolation.

When discussing the psychiatrist's role in conducting clinical audit in a multidisciplinary team environment, the candidate is expected to identify the role that psychiatrists play in implementing clinical governance. As the clinical leader of this project they should consider their collegial relationship with other psychiatrists in the service and how to engage them. As part of the preparation, the other psychiatrists should be consulted on how to set up the audit cycle and confirm the key criteria, as well as participating in the feedback on performance and deciding on the actions for any performance improvement. The candidate would be expected to consider ways in which feedback will be given within a no blame environment. When comparing audit results among colleagues, it is important to be sensitive to variations, so candidates may consider the value of anonymising the data presented in group settings.

A better candidate will clearly demonstrate the role of psychiatrists in clinical governance, leadership, managing team dynamics and change management. They may also identify that someone will need to undertake the audit and who will be involved in the review. A better candidate may also consider the value of benchmarking with other services and learning from exemplar teams.

3.3 The Standard Required

In order to:

Surpasses the Standard – the candidate demonstrates competence above the level of a junior consultant psychiatrist in several of the domains described below.

Achieves the Standard – the candidate demonstrates competence expected of a junior consultant psychiatrist. That is the candidate is able to demonstrate, *taking their performance in the examination overall*, that

- i. they have competence as a **medical expert** who can apply psychiatric knowledge including medicolegal expertise, clinical skills and professional attitudes in the care of patients (such attitudes may include an ability to tolerate uncertainty, balance, open-mindedness, curiosity, 'common sense' and a scientific approach)
- ii. they can act as a **communicator** who effectively facilitates the doctor patient relationship
- iii. they can **collaborate** effectively within a healthcare team to optimise patient care
- iv. they can act as **managers** in healthcare organisations who contribute to the effectiveness of the healthcare system, organise sustainable practices and make decisions about allocating resources
- v. they can act as **health advocates** to advance the health and wellbeing of individual patients, communities and populations
- vi. they can act as **scholars** who demonstrate a life-long commitment to learning as well as the creation, dissemination, application and translation of medical knowledge
- vii. they can act as **professionals** who are committed to ethical practice and high personal standards of behaviour.

Below the Standard – the candidate demonstrates significant defects in several of the domains listed above.

Does Not Achieve the Standard – the candidate demonstrates significant defects in most of the domains listed above or the candidate demonstrates significant defects in the first domain of being a medical expert.

STATION 4 – MARKING DOMAINS

The Main Assessment Aims are:

- To outline the parameters of metabolic syndrome monitoring.
- To describe the audit cycle and how to apply it to this scenario.
- To discuss the role of a psychiatrist in conducting an audit in a multidisciplinary team environment.

Level of Observed Competence:

1.0 MEDICAL EXPERT

1.16 Did the candidate outline the parameters for an appropriate longer term preventative metabolic monitoring program? (Proportionate value – 30%)

Surpasses the Standard (scores 5) if:

demonstrates sophisticated knowledge of the metabolic syndrome such as its epidemiology related to psychotic illness; formulates a local monitoring protocol based on existing national/international guidelines; appropriate inclusion of reference to long-term outcomes.

Achieves the Standard by:

describing the metabolic syndrome; demonstrating awareness of possible psychiatric/physical complications of illness or treatment and available interventions/monitoring; acknowledging there is some variation in terms of the monitoring intervals in different guidelines; including existing guidelines that incorporate medical and lifestyle history and intervention algorithms; prioritising evidence based monitoring criteria; proposing to critically review the literature on this topic if a knowledge gap is identified.

To achieve the standard (**scores 3**) the candidate **MUST**:

- Include at least four core measures for monitoring metabolic syndrome (e.g. weight, waist circumference, blood pressure, fasting blood glucose, fasting lipids).
- Explain that monitoring is more frequent (e.g. 3-monthly) in the first year of treatment with a new antipsychotic medication.

A score of 4 may be awarded depending on the depth and breadth of additional factors covered; if the candidate includes most or all correct elements.

Below the Standard (scores 2 or 1):

scores 2 if the candidate does not meet (a) or (b) above, or has omissions that would detract from the overall quality response; significant omissions affecting quality scores 1.

Does Not Achieve the Standard (scores 0) if:

provides an incorrect definition of the metabolic syndrome; has difficulty with most of the skills above; demonstrates a lack of capacity to reflect when a knowledge gap on this topic is identified.

1.16. Category: MANAGEMENT - Long-term, Preventative	Surpasses Standard	Achieves Standard			Below the Standard		Standard Not Achieved
ENTER GRADE (X) IN ONE BOX ONLY	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>	0 <input type="checkbox"/>	

4.0 MANAGER

4.1 Did the candidate demonstrate a capacity to apply principles of clinical governance in the undertaking of clinical audit? (Proportionate value – 40 %)

Surpasses the Standard (scores 5) if:

demonstrates a sophisticated level of competence in conducting clinical audit; provides solutions to address identified barriers; incorporates this audit as part of an organisational audit framework; recognises the importance of feedback as part of a broader strategy of education and quality improvement.

Achieves the Standard by:

identifying principles of clinical governance and the role of audit as a continuous quality improvement activity; incorporating feedback of the findings as part of audit; considering the need to repeat the audit; recognising audit as contributing to changing practice; considering possible barriers to implementation.

To achieve the standard (**scores 3**) the candidate **MUST**:

- Accurately describe the key components of an audit cycle.

A score of 4 may be awarded depending on the depth and breadth of additional factors covered; if the candidate includes most or all correct elements.

Below the Standard (scores 2 or 1):

scores 2 if the candidate does not meet (a) above, or has omissions that would detract from the overall quality response; significant omissions affecting quality scores 1.

Does Not Achieve the Standard (scores 0) if:

The candidate lacks clarity about clinical audit strategies; lacks clarity about clinical governance and standards.

4.1. Category: GOVERNANCE	Surpasses Standard	Achieves Standard			Below the Standard		Standard Not Achieved
ENTER GRADE (X) IN ONE BOX ONLY	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>	0 <input type="checkbox"/>	

4.4 Did the candidate outline their role in conducting an audit and demonstrate effective allocation of tasks and resources in order to complete the audit process within a multidisciplinary team? (Proportionate value - 30 %)

Surpasses the Standard (scores 5) if:

demonstrates a sophisticated approach to clinical and administrative resource allocation; robust approach to cost/risk/benefit analysis and considering any opportunity costs associated with task completion; describes the critical role of psychiatrists in clinical governance, leadership, managing team dynamics and change management; addresses perceived disadvantages to audit.

Achieves the Standard by:

demonstrated ability to make decisions based on workload and patient needs; taking into consideration practical aspects like access to resources (time, data, and quality managers/statisticians); recognising perceived disadvantages to participating in audit; considering a literature review and seeking advice; organising and delegating tasks within a clinical setting; taking responsibility for the allocation and management of tasks and resources; applying governance within organisational structures.

To achieve the standard (scores 3) the candidate **MUST**:

- a. Recognise the importance of colleague participation when conducting an audit.

A score of 4 may be awarded depending on the depth and breadth of additional factors covered; if the candidate includes most or all correct elements.

Below the Standard (scores 2 or 1):

scores 2 if the candidate does not meet (a) above, or has omissions that would detract from the overall quality response; significant omissions affecting quality scores 1.

Does Not Achieve the Standard (scores 0) if:

does not underpin decisions on a clinical evidence base; does not prioritise decisions on efficient allocation of resources; poorly defines own scope of practice and responsibilities; does not consider audit activities as part of a psychiatrist's role.

4.4. Category: WORKLOAD & RESOURCE & CHANGE MANAGEMENT	Surpasses Standard	Achieves Standard		Below the Standard		Standard Not Achieved
ENTER GRADE (X) IN ONE BOX ONLY	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>	0 <input type="checkbox"/>

GLOBAL PROFICIENCY RATING

Did the candidate demonstrate adequate overall knowledge and performance at the defined tasks?

Circle One Grade to Score	Definite Pass	Marginal Performance	Definite Fail
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