GPEx

WORKPLACE-BASED ASSESSMENT FRAMEWORK FOR GENERAL PRACTICE TRAINING AND EDUCATION

GPEx in collaboration with:

Flinders University

GP training

general practice training tasmania

Murray City Country Coast GP Training

Northern Territory General Practice Education

RVTS Remote Vocational Training Scheme Ltd

WAGPET

GP Synergy

GPTQ General Practice Training Queensland

This research project is supported by the Royal Australian College of General Practitioners with funding from the Australian Government under the Australian General Practice Training program.

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Foreword

Medical education has changed dramatically over the last 40 years as we have climbed Miller's pyramid. Our workplace-based assessment toolbox is now extremely well-filled with instruments, however every assessment has its limitations and there is no single assessment or method that can capture all of the competencies. Assessment has now moved from an input focus, to an output or outcome focus.

Defining how doctors are expected to perform at the end of training includes competencies that are outside the knowledge domain or the technical expertise domain. Skills that are more complex such as professionalism, team-work, dealing with uncertainty, or managing multi-morbidity are developed in a longitudinal fashion from feedback in the workplace.

Learning and performance will vary across different contexts and a robust training and assessment program utilises this fact. Regular narrative feedback, self-directed learning, the relationship of the trainer and the trainee, and programmatic assessment are the main-stay of this model. It will involve moving from a summative/formative discussion to one of low-stakes to high-stakes assessments, and the collection of multiple data points collated by a committee of experts in order to flag or act as a barrier or end-point.

I am delighted to have been of assistance with this formidable research project. The resultant workplace-based assessment framework and implementation plan is comprehensive and clear. This will help to guide the future of general practice training in Australia.

Cees P.M. van der Vleuten, PhD
Professor of Education
Director School of Health Professions Education
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Contents

Glossary

Term	Description
Applied Knowledge Test (AKT)	A component of the RACGP Fellowship exams designed to assess the application of knowledge in the clinical context of Australian general practice.
Direct observation visit (DOV)	Observation of a registrar undertaking medical consultations by a trained clinician for educational and assessment purposes. This may be performed by either the supervisor, medical educator or external clinical teacher.
Entrustable professional activities (EPAs)	EPAs are a unit or task of professional practice that can be fully entrusted to a trainee as soon as they have demonstrated they are able to perform it unsupervised.
External clinical teacher (ECT)	A general practitioner who observes registrar consultations, for the purpose of providing structured feedback and recommendations to improve future performance.
External clinical teaching visit (ECTV)	An in-practice observational visit involving the direct observation of registrars within the context of their practice by an external clinical teacher or medical educator. This includes the opportunity to provide education throughout the visit.
GPT 1, 2, 3 and 4	Training terms in the general practice setting, each representing six months full-time equivalent in duration.
High-stakes assessment	A summative assessment with major/significant consequences for a registrar's training.
Key Feature Problems (KFP)	A component of the RACGP Fellowship exams designed to assess clinical reasoning in practice.
Low-stakes assessment	A formative assessment used to give feedback on performance, encourage self-reflection and to provide training to registrars.
Medical educator (ME)	A general practitioner working in a training organisation to provide education and support to general practice registrars. Registrars usually have a consistent assigned ME who follows the registrar throughout their training, though MEs also have many other roles.
Multi-source feedback (MSF) – colleagues	An assessment involving the collection of colleague feedback on registrar performance
Multi-source feedback (MSF) – patients	An assessment involving the collection of patient feedback on registrar performance
Narrative feedback	Either written or verbal discussion providing detailed, specific feedback evaluating performance.

Glossary

Term	Description
Objective Structured Clinical Exam (OSCE)	A component of the RACGP Fellowship exams undertaken as a clinical consulting performance assessment, designed to assess how a candidate integrates their applied knowledge and clinical reasoning when presented with a range of clinical scenarios.
Patient encounter tracking and learning (PETAL)	A tool requiring registrars to collect de-identified patient encounter information to better understand their diversity of practice and learning. PETAL assists registrars in identifying gaps in knowledge, patient or management diversity
Practice manager	A senior employee of a general practice clinic, overseeing and holding responsibility for strategic planning, reviewing and process implementation to increase a practice's efficiency whilst contributing to 'excellence in healthcare'.
Random case analysis (RCA)	A tool used in clinical supervision, teaching and assessment to identify gaps in knowledge and assess clinical reasoning skills by analysing consultation notes whilst providing critical and timely feedback.
Regional Training Organisation (RTO)	Organisations delivering general practice education and training within a specific geographical region.
Registrar	Prevocational doctor undertaking the Australian General Practice Training program (AGPT).
Remote Vocational Training Scheme Ltd (RVTS)	An independent, Commonwealth-funded program for general practice registrars in rural and remote communities to achieve Fellowship of the Australian College of Rural and Remote Medicine and/or RACGP.
Statement of awarded responsibility (STAR)	A statement of awarded responsibility is awarded once a registrar is deemed safe to practise unsupervised in a global EPA assessment. This occurs after a DOV and RCA with trained assessor.
Supervisor	A general practitioner providing day-to-day guidance and feedback on professional and educational development to a general practice registrar in a clinical setting in their own practice.
Training coordinator	A non–medical training organisation employee providing the coordination of internal and external training communication, coordination of registrar placements and training records, coordination of training activity (including WBAs) and support to medical educators.
Training plan	A plan developed by the registrar, RTO and medical educator to articulate an agreed strategy for the successful undertaking of the registrar's training program.
Workplace-based assessment (WBA)	Workplace-based assessments are the tools and the processes used in the collection of data about the registrar's performance in the workplace, and the judgement of their competence by an assessor, for a range of summative and/or formative purposes.

1. Introduction

Workplace-based assessments (WBAs) have been used in assessing medical practitioners since Norcini first developed the mini-CEX in 1995 (Norcini, 1995). Their use to assess how trainees actually perform in their own workplace demonstrates that they can 'do' the work they have been trained to do, the pinnacle of Miller's pyramid.

WBAs can be used for a spectrum of purposes ranging from low-stakes to high-stakes assessment:

- Low-stakes (formative) assessment to facilitate learning through self-reflection and/or feedback.
- Medium or high-stakes (summative) assessment of WBAs, allows for compliance or successful completion before progression, remediation, to determine the level of supervision needed and finalisation and sign off of training.
- Programmatic assessment where multiple WBA results are collated and combined for the above purposes.

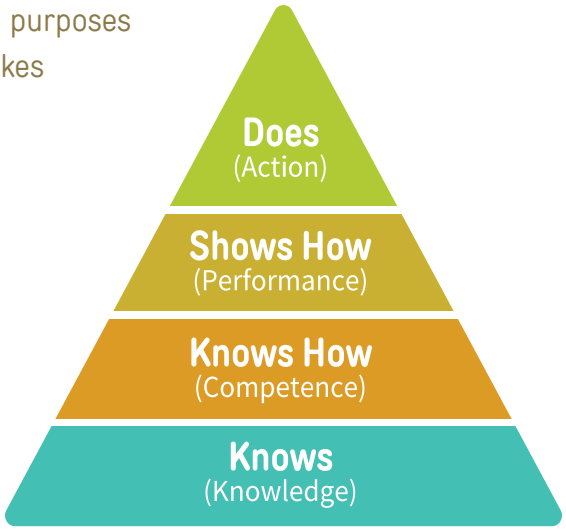

Figure 1. Miller's Pyramid (Miller, 1990)

WBAs need to assist with training, as well as assessing, whether a registrar is on the expected pathway to becoming a safe and independent general practitioner (GP) who is a self-reflective life-long learner. To achieve this requirement, WBAs assess a diverse range of attributes, including clinical competencies, domains, and skills.

Assessment of these competencies and skill-sets in the multi-faceted and non-linear context of general practice, amounts to more than just knowledge or a series of tick-boxes, but is also about juggling the complexities of real-life general practice. This can only really be replicated in the actual workplace.

Elements included in the Framework

The four essential elements that together make up the Workplace-based Assessment Framework for Australian General Practice Training (the Framework) are: WBA tools, the assessor, the registrar and the context *(see Figure 2)*.

The advantage of embedding assessment within a real-world context is balanced by the fact that establishing individual WBA validity and reliability is difficult. Therefore, the way in which WBAs are used must be structured to maximise the benefit of the real-world context and minimise the risk of biased information. WBA programs must include assessments that can capture the interactions between the registrar, the assessor and the context.

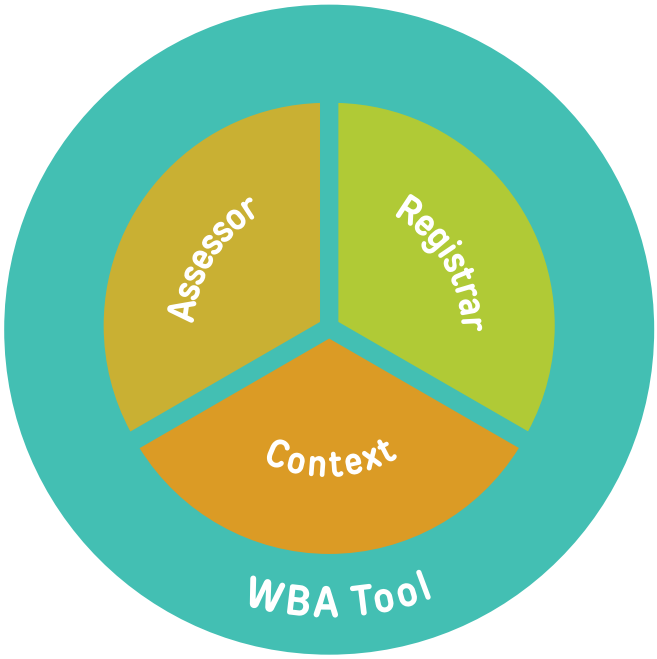

Figure 2: Elements included in the Framework

WBAs are able to accomplish this complex task, making them critical to general practice training. The literature on WBA recognises the essential role of the interaction between the WBA tool and the users (the assessor or trainer and the trainee).

Research completed to inform the development of this Framework confirmed that in order to design an effective WBA Framework the WBA tools, assessors, trainees (registrars) and the context were all important elements to consider. This includes the importance of the relationship between the assessor and the trainee, the importance of quality feedback and trainee self-reflection, and the tension between being an assessor for formative or for summative purposes. Workplace-based assessment is increasingly used within medical education and there have been several published WBA Frameworks to guide WBA implementation within this sphere. While WBAs are used commonly within general practice, there was no existing evidence-based WBA Framework for Australian General Practice Training.

Framework creation

In November 2018, the Royal Australian College of General Practitioners (RACGP) awarded GPEx a Special Education Research Grant with the aim to design a WBA Framework for use within Australian general practice. This project was completed over seven months in collaboration with Flinders University, Eastern Victoria GP Training (EV), General Practice Training Tasmania (GPTT), Murray City Country Coast GP Training (MCCC), Northern Territory General Practice Education (NTGPE), Western Australian General Practice Education and Training (WAGPET), Remote Vocational Training Scheme (RVTS), GP Synergy and General Practice Training Queensland (GPTQ).

The project was governed by a Steering Group including representatives from all collaborators and the GPEx research team. Internationally recognised experts in the field of medical education and workplace-based assessment, Prof Lambert Schuwirth (Prideaux Centre, Flinders University) and Prof Cees Van der Vleuten (Maastricht University) provided invaluable advice and input into the project.

The definition of WBA used for the purpose of this project was:

Workplace-based assessments are the tools and the processes used in the collection of data about the trainee's performance in the workplace, and the judgement of their competence by an assessor, for a range of summative and/or formative purposes.

The development of this Framework was informed by the following:

1. Literature review: A hermeneutic review of the existing published literature on WBAs.

2. Workplace-based assessment audit: An audit of WBA tools currently used in Australian Regional Training Organisations (RTOs) and RVTS.

3. Primary research: A series of mixed-methods investigations focussed on the effectiveness of WBA tools and the nexus between the tool, the user and the context.

4. Environmental scan: A scan which identified other relevant WBA Frameworks and models, and the relevant standards and policy context within Australian General Practice Training (AGPT).

This project aimed to review the international literature about WBAs; collate how WBAs are currently being used in Australian RTOs; map the tools to the RACGP core skills of general practice; listen to the experiences and perspectives of registrars, supervisors and medical educators (MEs); examine in more detail direct observation visits (DOVs) and entrustable professional activities (EPAs) as assessment tools; and explore the process of flagging in each RTO and whether flagging maps to RACGP exam results. From these results, this Framework has been developed.

The Framework covers topics including:

- The tools that might be utilised and why.
- The ideal assessors and their training.
- The registrars themselves and how to engage them in the training and assessments.
- The particular roles and committees that might facilitate successful training.
- The context of the training and assessment, including the infrastructure, support mechanisms and culture of the training organisation.

The Framework is a compilation of the environmental scan and the six streams of research that make up this comprehensive project:

- Stream 1: Literature review;
- Stream 2: General practice training organisation workplace-based assessment audit;
- Stream 3a: GP registrar, supervisor and ME use of consultation observation as an educational and assessment tool;
- Stream 3b: a qualitative investigation of acceptability of WBAs in AGPT;
- Stream 3c: Evaluation of entrustable professional activities; and
- Stream 3d: An exploration of registrar flagging models and their association with RACGP exam performance.

Results from each of these streams of research were triangulated to determine the essential information for inclusion within this Framework. Through this triangulation process it was clear that there was a strong alignment between the findings from each of these streams, which indicates the robust body of evidence which underpins this Framework. To demonstrate the underpinning evidence behind each Framework recommendation, we have referenced the streams of research to which each recommendation is mapped [e.g. Streams: 1, 2, 3a, 3b, 3c, 3d, and Environmental Scan (ES)] ***(see Figure 3).***

The resulting Framework presented in this document is evidence-based, practical and contextualised. The Framework presents recommended WBA tools and processes and contains guidance around Framework flexibility to meet the local contextual needs of the training organisation and placement.

This Framework is recommended for use within the RACGP delivery of Australian General Practice Training (AGPT). It provides information that will inform the local planning, delivery and review of effective and efficient workplace-based assessment systems.

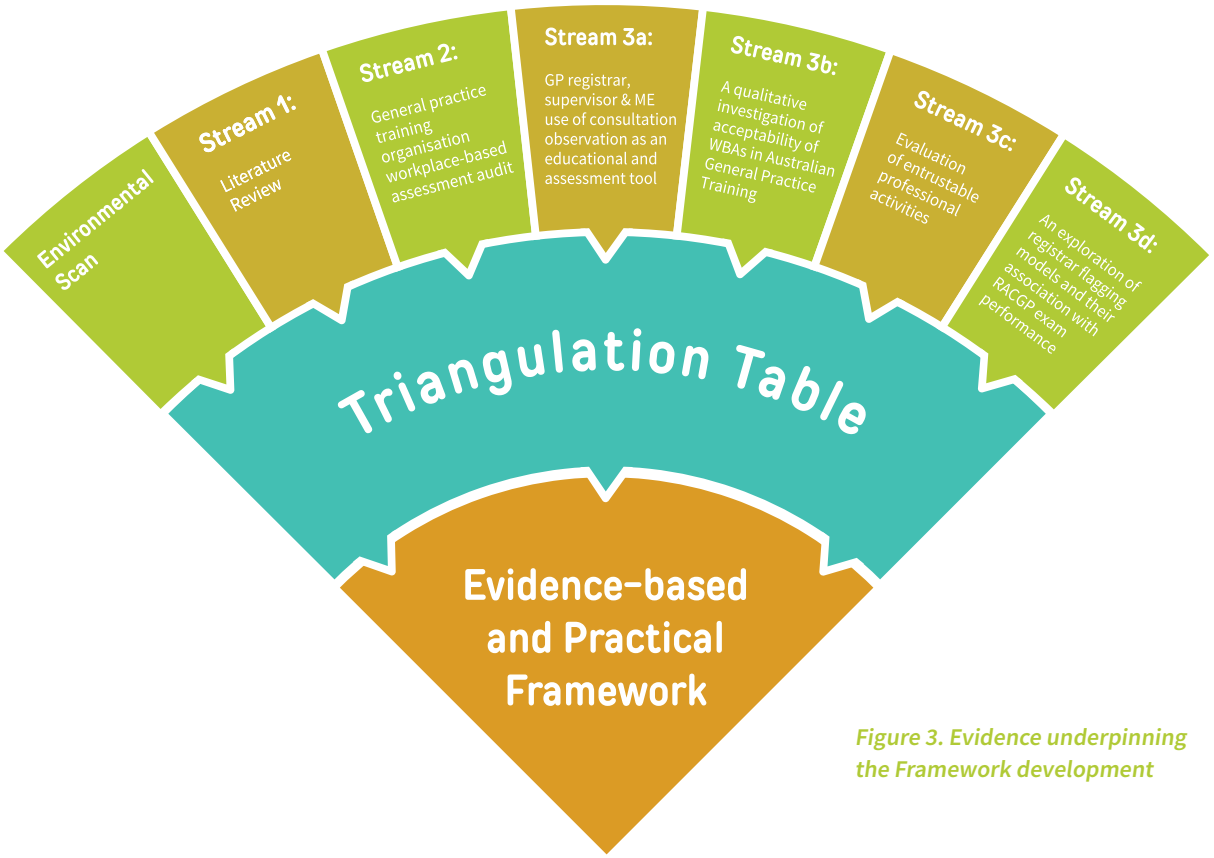

Figure 3. Evidence underpinning the Framework development

2. The Framework Overview

The four essential elements that together make up the Framework are: WBA tools, the assessor, the registrar and the context. Figure 4 shows how each of these elements operate within the context of programmatic assessment to make decisions about a registrar's progress *(see Figure 4).*

Each of these elements is discussed in detail in the following sections.

Programmatic assessment includes more than just WBAs, however this is out of scope for the current project and therefore has not been documented within the visual model.

Assumptions that underpin the Framework

This Framework is not prescriptive and advocates for flexibility in delivery, taking into account regional and contextual variation of registrars, supervisors, practices, medical educators, training organisations, infrastructure and geography. It outlines recommendations regarding tools, assessors, registrars and context for application in the RACGP delivery of general practice training. There are also guidelines for implementation.

This Framework advocates for the quality of WBAs to be standardised across Australia rather than the method in which assessments are performed. Not every registrar needs the same set of WBAs but every registrar is entitled to the same quality of assessment.

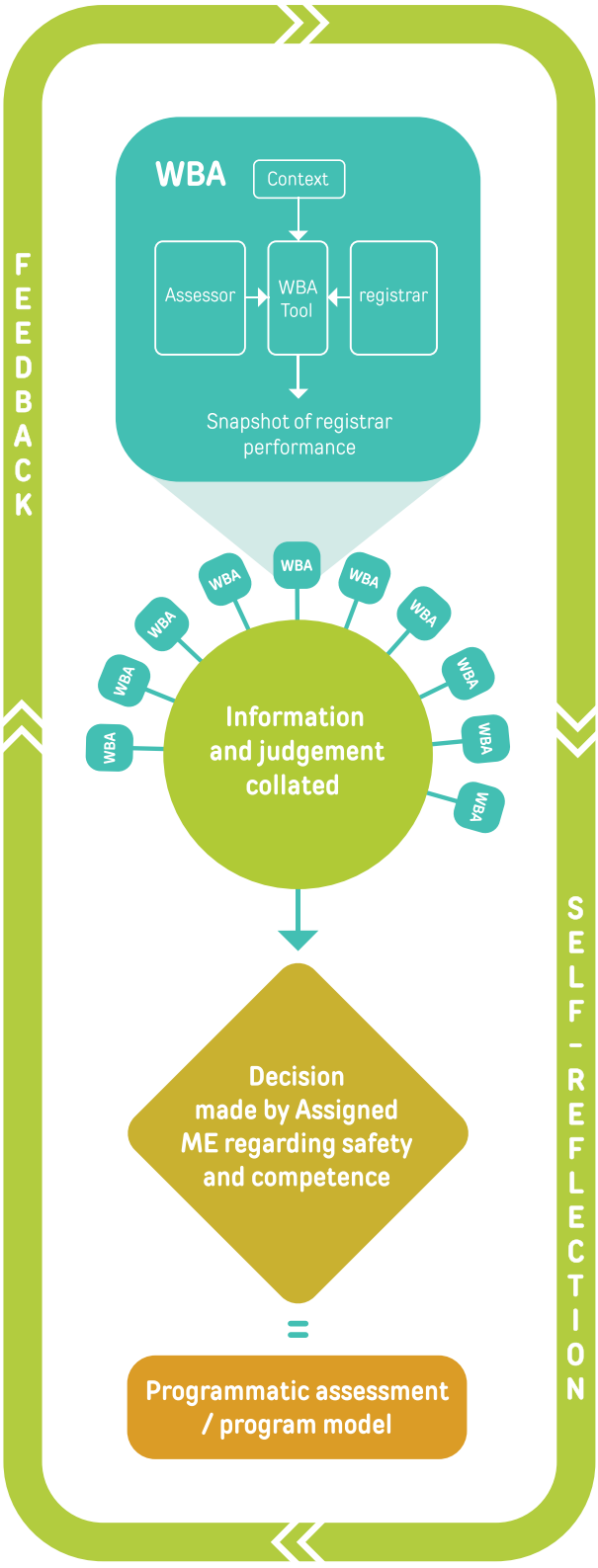

Figure 4. Visual model of the Framework

Training organisations should use this Framework to inform the design of their evidence-based, cost-effective and practical WBA systems.

There are a number of assumptions that underpin the Framework. These are:

• The primary purpose of WBAs should be to give feedback and encourage self-reflection and learning. A secondary purpose should be to flag registrars who are struggling to meet the expected standard.

• WBAs should allow supervisors, MEs and the training organisation to assess the level of supervision needed to ensure registrar and patient safety in general practice training posts.

• The RACGP Curriculum and Standards and AGPT policy form the backbone for the design of this contextualised Framework, and must be considered in the implementation of a WBA system within any regional context.

• The WBAs should be conducted within safe and supportive environments for both the registrar and the assessor (minimising fear of failure).

• WBAs should generate feedback and data which enables the registrar, assessor, and training organisation to reflect on performance, identify gaps and plan for learning and support.

• WBAs should be used collectively to inform a larger programmatic assessment framework.

• WBAs should be feasible and acceptable to registrars, assessors and training organisations, and may vary across general practice training contexts to accommodate for regional variations.

This Framework provides recommendations regarding tools, assessors, registrars and context for application in Australian general practice. There are also guidelines for implementation. It is however essential to note that this Framework advocates for the quality of WBAs to be standardised across Australia not the method. Not every registrar needs the same set of WBAs but every registrar is entitled to the same quality of assessment.

Theoretical underpinning

Whilst multiple frameworks have been used to assess the validity, generalisability and reliability of WBAs, the general consensus is that WBAs have low reliability unless entrustment-based scales are used.

Therefore, it is recommended that entrustment scales be used within as many WBAs as possible. Low reliability is also likely explained by the various factors which disturb these psychometric properties, including users (e.g. assessors' roles or seniority, or users' attitudes); the purpose of a WBA; and the relationship between the assessor and trainee.

Modern assessment frameworks differ from classical approaches in that they stress the importance of identifying multiple sources of data upon which to make a decision about the learner. This approach sits well with modern validity frameworks such as Kane's validity theory (Kane, 2001), where an assessment's characteristic is better established or understood through a series of inferences. In Kane's validity theory, support for each of these inferences depends on the collection of data and the construction of convincing arguments to eventually allow a conclusion regarding a given construct to be drawn.

A large focus in this Framework is the specific step making an inference from the observed scores to the 'universe' of scores i.e. what scores a registrar would attain for an assessment if repeated infinitely or being observed by the whole population of relevant examiners. Validity inference is defensible provided further collection of data would not offer new unique perspectives, thus implying a level of saturation has been reached. These concepts form the theoretical foundation for this Framework, exemplified in areas such as the emphasis on the importance of expertise and multiplicity of sources.

To mitigate low reliability, research from our stream 1 hermeneutic review generally concludes that 10 WBAs are required for a sufficiently generalisable result, although factors such as assessor fatigue and trainee competence will affect this. Therefore, recommendations for assessor training and appropriate contextual systems are integrated into this Framework.

The competencies that are assessed by the Framework are articulated within the RACGP Curriculum. The domains of general practice and core skills are mapped directly to the WBA tools identified within the Framework.

3. Workplace-based assessment tools

This section details the recommended tools for inclusion within the workplace-based assessment toolkit for AGPT and how they map against the RACGP domains of general practice and core skills. It also provides recommendations for WBA tool features and use.

Recommended workplace-based assessment tools

The recommended tools for inclusion within the Framework are listed in Figure 5. A description of these tools is provided below. This provides a suite of tools for consideration by the training organisation when designing their own evidence-based, practical, cost-effective WBA system.

- Safety assessment
- Supervisor direct observation of registrar
- Direct observation of registrar by ME or external clinical teacher
- Direct observation video reviews
- Mid and end-term assessments
- Multi-source feedback
- Learning log
- Procedural skills log
- Random case analysis
- Patient encounter tracking and learning
- Statement of awarded responsibility (STAR assessment)

Figure 5. Recommended tools within the Framework

Safety assessmsent (Streams: 2, 3a, 3b, 3d).

Why: Registrars typically come straight from the hospital system into general practice and so are familiar with a very different style of practice. Timed appointments, billing patients, computer software, working in a clinic-based team etc. are all new to the registrar. One of the biggest differences is that the registrar is expected to consult by themselves with no direct observation when consulting from the first week. The degree to which registrars are safe to practice, even with the supervisor available on-site, needs to be assessed as early as possible.

What: The safety assessment should include direct observation of the registrar's consulting skills with case note review, followed by entrustment scales. An MCQ test should be undertaken early in training to establish baseline knowledge. In addition, an internal MSF by colleagues should be undertaken. Feedback should be gathered from ME small group work, factoring in whether registrars need additional support. Flagging registrars who need more support at this stage is important, as tailoring the training pathway to an individual's needs means they are more likely to be successful GPs.

When: This is a once-off assessment, undertaken within weeks one to eight of commencing a community general practice placement.

Who: It is recommended that the training organisation should facilitate this with the supervisors and then support the registrar and supervisor to ensure patient and practice safety.

Supervisor direct observation of the registrar (Streams: 1, 2, 3a, 3b, 3c, 3d).

Why: This allows the supervisor to assess the initial and subsequent safety of the registrar, track progress during their placement, and develop a relationship with the registrar that results often in the registrar feeling more comfortable with the supervisor observing them. However, this also brings with it the potential for bias, as the supervisor may be either consciously or unconsciously reluctant to give critical or negative feedback due to the relationship, the patients may know the supervisor and the supervisor may not have as much training in medical education and feedback techniques compared with MEs.

What: EPAs should be used as part of the observation.

How: Supervisors should receive specific training in undertaking a DOV and in the appropriate delivery of feedback to minimise potential bias.

When: A DOV performed by the supervisor should be undertaken each six months of community training, ideally early in the term to establish the level of supervision required.

Direct observation of registrar by ME or ECT (Streams: 1, 2, 3a, 3b, 3c, 3d).

Why: An ECT or ME should observe a registrar consulting and provide feedback and education to the registrar. This is an important assessment to allow for registrar professionalism competencies to be observed.

What: EPAs should be used as part of the observation. Feedback should be given at the time of observation, in both written and verbal formats. A discussion should occur after the session with the supervisor, registrar and observer to discuss progress.

Who: ECT visitors usually do not have an established relationship with the registrar, thus are more likely to give an objective assessment and be able to benchmark the registrar against expectations and other registrars. An assigned ME does not have a day-to-day relationship with the registrar or patients, but often knows the registrar from small groups, previous visits, or training advisor contacts, thus can observe with some prior knowledge of competencies.

When: A DOV performed by a ME or trained ECT should be undertaken each six months of community training, ideally later in the term to ensure minimal overlap with supervisor DOV.

Direct observation video reviews (Streams: 3b, 3d).

Why: Video reviews can be undertaken to assess professionalism and consultation skills. These are often used as a self-reflection tool, especially in rural and remote areas. However, overall they can be unpopular due to logistics with registrars, supervisors, MEs and RTOs.

What: This includes recording of three to six patient consults, followed by playback with the supervisor or ME and registrar reflection.

Who: Video reviews are useful for remediation purposes, especially for registrars with professionalism issues. However, they are also useful for excellent registrars who want to refine their skills or for registrars in rural and remote areas where it is more difficult to have face-to-face direct observation. State-based legislation should be referred to in regards to the legality of recording patient consults prior to undertaking.

Mid and end-term assessments (Streams: 2, 3b, 3c, 3d).

Why: These are used to map registrar progression through training, ensuring they are progressing at an expected level. This assessment is also an opportunity to discuss training concerns.

What: A supervisor mid and end of term assessment should be conducted every six months until the registrar has obtained a STAR. Feedback should be given in both verbal and written format, using entrustment scales. Registrars self-assess using the same form at the same time, and the registrar and supervisor compare and discuss the outcomes. These outcomes are to be collated by the training coordinator and signed off by the assigned ME.

When: Two assessments should be completed every six months, mid and end-term, until two different assessors (supervisor, ME or ECT) have assessed the registrar as 'safe to practise without supervision' in all EPAs and a STAR is obtained. Supervisor assessments should also form part of extended skills training, if undertaken.

Multi-source feedback (MSF) (Streams: 2, 3a, 3b, 3d).

Why: The MSF contributes different data into the programmatic picture of the registrar, assessing the registrar's professionalism, communication skills, teamwork etc. In addition, the opinion of practice staff and nurses is of the utmost importance, as they will also be incidentally hearing from patients about the registrar and may be in charge of ongoing bookings.

What: Patient surveys, utilised by some RTOs, appear to contribute little data to a programmatic model, with minimal general support regarding their utility. However, mapping the registrar's own self-reflection in comparison to colleague feedback about their professionalism, time management, teamwork etc. can identify those registrars who have little insight into their lack of skills in these areas. The supervisor should then review the feedback and take this information into account when they are completing term assessments and for global assessments, such as for EPAs.

How: MSF- colleague feedback should be undertaken electronically to ensure confidentiality and avoid identifying authors from handwriting. Information collected should include information that the staff have heard from the registrar's patients. This could also include whether patients rebook to see the registrar, how late the registrar runs and the general satisfaction rate of the patients.

When: A MSF should be undertaken once every 12 months, in addition to the safety assessment and can be used additionally as a remediation tool.

Learning log (Streams: 2, 3b, 3d).

Why: The learning log is seen as an additional tool within the Framework, rather than a stand-alone WBA. It ensures a reflective and outcome-based process associated with day-to-day learning and all WBAs. A self-managed, dynamic and integrated learning log of day-to-day issues that can be discussed with the supervisor, ME or ECT, allowing for the registrar to track their learning needs is recommended. The log will include daily events that the registrar needs to learn more about, for example review menopause patches, look up mechanism of sitagliptin or talk to physiotherapist about knee braces.

What: The learning log needs to be easily updatable between consults and have the ability to be readable or accessible by others. The learning log needs to be updated after each WBA with what has been learnt and what will change in the registrar's practice. Learning plans were regarded by interviewees as in-effective and under-utilised, thus there is a need for a dynamic platform to host registrar learning needs.

When: At least six issues chosen from the learning log each semester should be presented to the assigned ME as evidence of self-directed and reflective learning.

Procedural skills log (Streams: 1, 3b and Environmental Scan).

Why: Procedural skills logs were not originally included in the list of WBAs that we requested from the training organisations. However, the interviewees identified this as an unmet need. A procedural skills log allows registrars to tick off procedural competencies with their supervisor, whilst empowering registrars to seek more targeted supervision of procedures.

What: Registrars complete training with a core suite of procedural skills that are important in general practice. A list of procedures will need to be signed off before completion of training. See suggested procedures, Table 4.

When: This should be undertaken over the duration of community general practice training.

Random case analysis (RCA) (Streams: 3b, 3d).

Why: RCA was not originally included in the list of WBAs that we requested from the training organisations. However, in reviewing the general literature, coding the focus groups, and in discussions with the RTOs about flagging, it became obvious that RCAs are an important way of assessing critical thinking, are cost effective and are able to identify gaps of issues that were not observed during an assessor visit. These are both gaps in time, and gaps in the range of patients seen in the visit. Honest feedback provided through this method will identify struggling registrars. There is less likely to be bias in RCA, there is no preparation required for informal or formative assessments and it is a time and cost-effective use of assessor time. RCA will assist in assessing the registrar's critical thinking.

What: Assessors will need training in how to conduct RCAs as they differ from case discussion, which usually involves reviewing patient files and discussing note-taking, medication, referrals, results, diagnosis, management etc. As part of RCA, the assessor can ask to see 'a patient with diabetes' for instance, and discuss the patient with regards to diagnosis, monitoring and management. The case can be adapted to then explore what the registrar would do if the patient was a different age, had chronic kidney, had previously had pancreatitis, was a different ethnicity etc.

How: Training in how to use RCA will be of benefit to the assessors and the registrars.

When: An RCA should occur as part of each DOV, allowing registrars to further develop their critical thinking skills over a period of time.

Patient Encounter Tracking And Learning tool (PETAL) (Streams: 2,3b).

What: Patient encounter tracking tools can assist registrars in identifying gaps in knowledge, patient or management diversity. Two examples of patient encounter tools currently used by some RTOs are the Registrar Clinical Encounters in Training (ReCEnT) research project and GP Explore.

PETAL establishes the epidemiology of registrars' clinical experiences enabling clinical self-reflection through the collection of de-identified patient encounter information across a sample of consecutive consultations (Magin, 2015). Data for each registrar is amalgamated and compared with aggregate data from their peers. Registrars are encouraged to reflect on the data and identify gaps in knowledge, patients or management diversity.

Self-reflection should occur as part of patient tracking to allow registrars to reflect on the outcome of the tool and to find the gaps in the demographics, diagnoses and management profiles of their patients. Registrars should also have the opportunity to compare their profile to that of their peers, and practices are able to map the demographics, diagnoses and management profiles of the patients seen by the registrar. The reflection component appears to be of most benefit to registrars.

Why: PETAL is most useful for registrars if the data is collected in a time-efficient and user-friendly manner with the ability to audit information, for instance, in order to track paediatric numbers, Aboriginal and Torres Strait Islander patients, skin cancer excisions etc.

When: PETAL should be undertaken every 12 months, aiming for 100 patient encounters.

Statement of Awarded Responsibility (STAR) assessment (Streams: 1,3b, 3c and Environmental Scan).

Why: A STAR assessment should be undertaken to ensure a registrar is a safe and competent practitioner, who is of the standard worthy of RACGP Fellowship.

What: This would involve a DOV of four to six patients with any presentation, followed by a RCA, relevant to the registrar's context, by a trained External Clinical Teacher or ME (eg senior ME) using entrustment scales mapped to domains or competencies. The registrar must be deemed 'safe to practise unsupervised' in a global EPA at this assessment, in order to meet final Fellowship WBA requirements. This assessment should not be undertaken by the registrar's supervisor or an ME with whom they have a relationship.

When: The STAR assessment should be undertaken once two different assessors (supervisor, ME or external clinical teacher) assess the registrar as 'safe to practise unsupervised' in all EPA areas, and the registrar is at least in GPT3.

Recommended implementation plan for workplace-based assessments

Figure 6 shows the recommended implementation plan for use of WBAs within training. It is recommended that a programmatic assessment approach is taken whereby feedback is not only viewed for each WBA individually but also collated to monitor progress.

For registrars choosing to complete an Extended Skills Term (EST) in a non-general practice setting, GPT4 will not be undertaken. As such, the WBA implementation would need to be adapted based on the registrar's working environment, with STAR ideally awarded prior commencing a non-general practice EST.

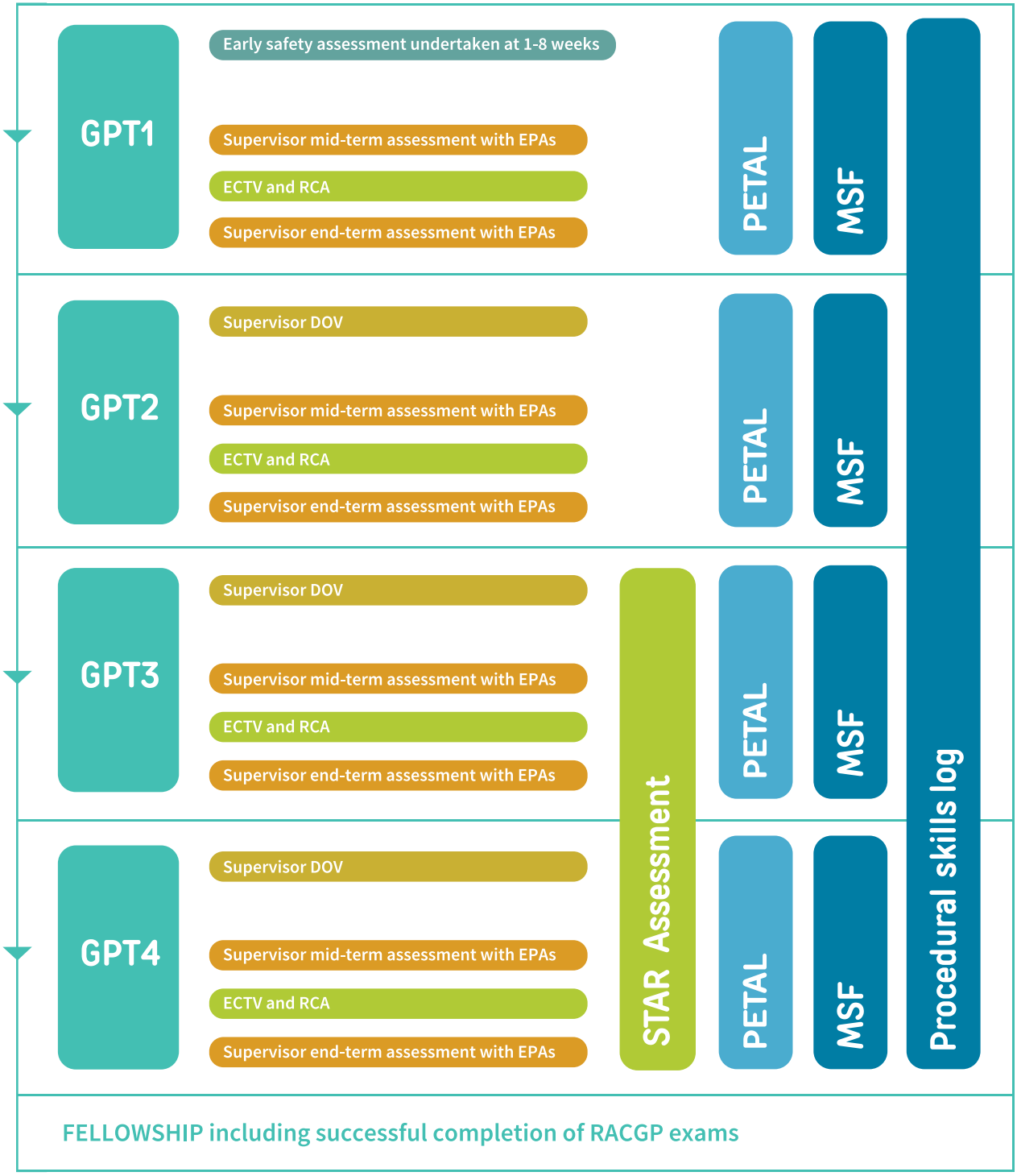

Figure 6. Recommended timeline for use of WBAs within training
Details about each WBA within this timeline are outlined in Table 1

Table 1. Recommended implementation plan for workplace-based assessments

Early safety assessment	Between weeks one and eight, when first commencing community training. Includes a one-off safety assessment including internal MSF by staff, DOV and RCA by supervisor with an overall assessment using entrustment scales as to level of supervision needed for patient safety, ME assessment from small groups work and knowledge MCQ.
Supervisor DOV	At least once each semester face-to-face for at least six patient consults.
ECTV	At least one ECTV by the assigned ME with a direct observation of four to six cases followed by RCA in each semester of community training with assessment using entrustment scales mapped to the RACGP domains or competencies and with narrative reflection by the registrar and action plan. This will include a discussion with the supervisor about the registrar's progress.
Term assessments	A supervisor mid- and end-term assessment in GPT1 and GPT2 using entrustment scales. Continue to do two per semester until two different assessors (supervisor, ME or ECT) have assessed registrar as 'safe to practise without supervision' in all EPAs. Thereafter one overall EPA assessment can be done including a higher level of 'safe to supervise junior learners'. Registrars self-assess using the same form at the same time, and registrar and supervisor compare and discuss the outcomes. Assigned ME to sign off on this.
PETAL	At least once per year with self-reflection and discussion with supervisor or ME, including information about subgroups such as paediatrics, Aboriginal and Torres Strait Islander patients.
MSF – colleagues	MSF undertaken by colleagues once a year with self-reflection and discussion with ME. This could be facilitated by the practice manager. Registrars who are in Aboriginal and Torres Strait Islander posts should include cultural mentors and Aboriginal Health workers in the MSF.
Learning log	A self-managed, dynamic learning log of day-to-day issues that can be discussed with the supervisor, ME or ECT. At least six issues chosen each semester to be presented to the assigned ME as evidence of self-directed and reflective learning. Learning log to be updated after each WBA of what has been learnt and what will change in the registrar's practice.
Procedural skills log	A procedural skills log should be undertaken during training and all procedures signed off by the supervisor as having been observed as being satisfactorily performed with final sign-off by the assigned ME before completion of training.
STAR assessment	STAR assessment to be undertaken once two different assessors (supervisor, ME or external clinical teacher) assess the registrar as 'safe to practise unsupervised' in all areas, and the registrar is at least in GPT3. Involves a DOV of four to six patients followed by RCA by a trained ECT (e.g. senior ME) using entrustment scales mapped to the RACGP domains or competencies. The registrar must be deemed 'safe to practise unsupervised' in a global EPA at this assessment, in order to meet final Fellowship WBA requirements.

If a registrar is deemed as requiring remediation, then additional WBA tools are recommended to assist with this process (see Table 2).

Table 2. Recommended additional tools for remediation purposes

Direct observation video reviews	Video review can provide additional information, particularly with regard to professionalism skill-set taking into account contextual ethico-legal issues.
Multi-source feedback MSF) – patient	MSF undertaken by patients can be utilised as an additional tool for providing another source of feedback in terms of registrar progression and highlight concerns with their communication or professionalism skill-set. It can be utilised for flagged registrars or remediation.

Mapping of workplace-based assessments to the RACGP domains of general practice

The RACGP has developed a *Competency profile of the Australian general practitioner at the point of Fellowship* (RACGP, 2015), which defines the characteristics of what constitutes a safe and competent practitioner who is at a standard worthy of specialty recognition of the RACGP. The WBA curriculum needs to be robust to ensure that a high standard is maintained and competency outcomes and indictors are met by registrars prior to Fellowship. This aligns with the importance of the RACGP holding Australian Medical Council accreditation to deliver general practice training.

Table 3 shows how each of the recommended WBAs map against the RACGP domains of general practice and core skills.

Our WBA audit across RTOs and RVTS shows that there was a high level of agreement in regard to how each assessment mapped against the RACGP domains of general practice and core skills. It is fair to conclude that the WBA program, as a whole, maps comprehensively onto all five RACGP domains.

It is important to note that there may be some variation in WBA tools across different contexts, however it is the content of the WBA that determines how the WBA maps against the domains and core skills.

Table 3. Mapping WBAs against the RACGP domains of general practice and core skills

Note: A tick-box represents that at least one core skill within a domain is addressed, with an absence of a tick meaning no sub-points were addressed. **Domains**	DOV - ECT/ME	DOV - Supervisor	DOV - Video Review	Learning Plans	MSF - Colleagues	MSF - Patients	PETAL	Term Assessments
Domain 1 CS1.1 GPs communicate effectively & appropriately to provide quality care. CS1.2 Through effective health education, GPs promote health and wellbeing to empower patients.	✓	✓	✓	✓	✓	✓		✓
Domain 2 CS2.1 GPs provide the primary contact for holistic & patient-centred care. CS2.2 GPs diagnose & manage the full range of health conditions in a diverse range of patients, across the lifespan through a therapeutic relationship. CS2.3 GPs are informed & innovative. CS2.4 GPs collaborate & coordinate care.	✓	✓	✓	✓	✓	✓	✓	✓
Domain 3 CS3.1 GPs make rational decisions based on the current & future health needs of the community & the Australian healthcare system. CS3.2 GPs effectively lead to address the unique health needs of the community.	✓	✓	✓	✓	✓			✓
Domain 4 CS4.1 GPs are ethical & professional. CS4.2 GPs are self-aware. CS4.3 GPs mentor, teach & research to improve quality of care.	✓	✓	✓	✓	✓	✓		✓
Domain 5 CS5.1 GPs use quality & effective practice management processes & systems to optimise safety. CS5.2 GPs work within statutory & regulatory requirements and guidelines.	✓	✓	✓	✓	✓	✓	✓	✓

WBA tool delivery

This section provides recommendations as to how the WBA tools should be best delivered within the AGPT context.

Registrars should be clearly informed about each WBA and its purpose (Streams: 1, 3b,3c,3d).

Registrars should be clearly informed about the processes involved in each WBA and its purpose. For example, registrars should be informed about:

- How the WBA is set up (eg DOV with RCA, expecting four to six patients in a morning of varying complexity followed by RCA for 30 minutes afterwards);
- The grading scale that will be used and how that is defined (eg what the 'level' is if it is benchmarked or how EPAs are graded);
- Whether the WBA is purely formative or is for progress, benchmarking, programmatic or remediation purposes;
- How and where the WBA will be documented and how the registrar and supervisor can access it;
- How the registrar will be informed if there are any flags from the WBA; and
- How any actions from the WBA will be followed up.

For those WBAs that are part of a flagging or remediation process the purpose, expected outcome and how any results will be communicated should also be made clear.

The domains and/or competencies that are able to be assessed by the WBA should also be made clear (eg MSF is about professionalism, DOVs are about time management as well as knowledge).

For those registrars undertaking an EST, specific WBAs may not be applicable, as such supervisor mid and end-term assessments will often be the main tools utilised to allow for feedback and to identify any concerns.

WBAs should be defined as low, medium or high-stakes (Streams: 1, 3b, 3d).

The tension that exists between those assessors assessing for low-stakes formative purposes and those assessing for medium or high-stakes purposes means that if the purposes are not clearly defined and the assessors properly trained, then neither may be reliable. Because of the close relationship due to day-to-day contact, supervisors are usually best placed to give low stakes formative feedback as the registrar will feel more relaxed to ask questions.

However, because of this relationship, supervisors may either consciously or unconsciously be reluctant to give critical feedback to a registrar and even more so, if there is a high-stakes assessment, they are likely to exhibit 'failure to fail' behaviour. MEs who have some knowledge of the registrar but not the close relationship may be best placed to give critical feedback. In addition, for higher stakes assessments, such as progression or flagging or final assessments, external assessors should be used because of the potential for bias from those who have a relationship with the registrar.

WBAs should be available through a user-friendly, efficient online learning system (Streams: 1, 2, 3a, 3b, 3c, 3d).

The best WBA available can be let down by the use of paper that can easily be lost, or by an unreliable IT system. The majority of registrars and supervisors in our research agreed that an online system allows for better standardisation, storage, monitoring, review and integration of WBA results. Our research also showed that online systems must be user-friendly and that accessing feedback through the system must be simple.

The online system used should be:

- Flexible and easy-to-use for recording the assessment and feedback (especially important for recording live feedback during a consultation observation)
- Able to be viewed on smartphones, tablets, laptops, Macs and PCs/ Windows computers
- Intuitive, reliable and have clear pathways to access assessments and other resources
- Able to easily report individual or collated WBA feedback for each registrar to show their progress
- Able to clearly show flagging and remediation activities
- Accessible to the registrar, supervisor, ME and training organisation.

In this environment, longitudinal and programmatic assessment will be streamlined, flagging and remediation activities documented and both current and historical assessments stored.

Registrars should not choose patients/ cases or assessors for WBAs (Streams: 1, 2, 3b)

Registrars are often very anxious about their performance in WBAs and may not understand that the WBA supports training in how to become a safe, independent general practitioner (GP). They may also either consciously or unconsciously have the expectation that they will be a fully-formed GP in their first six months. In order to alleviate their anxiety and in order to gain a good 'mark', registrars may choose easier patients or patients they know well for DOVs; staff who they know like them for MSF; and cases that have been successful for RCA. Some may even 'game' the system in order to pass by choosing easy-going assessors, or straightforward patients. However, this is defeating the purpose of receiving feedback from formative WBAs. Hence it is recommended that wherever possible, registrars should not choose the participants (patients, staff, files) for WBAs.

The literature is also very clear that registrars who are able to choose their assessors are more likely to choose someone who is more lenient on them. This is less likely to occur in general practice as there is not the same hierarchical structure as is found in hospitals, but it continues to be an important conflict in geographical regions where assessors are likely to be known by the registrars. Registrars were very much aware of the need for objectivity in assessments and enjoyed having 'a fresh set of eyes' on them in order to have more input into their training.

They were also aware that when their supervisor sits in with them, that the patients are likely to know the supervisor and relate more to them than to the registrar. This is obviously particularly important for high-stakes assessments such as for flagged registrars or in remediation.

The training organisation should set up processes to ensure that specific, practical and timely feedback is given for each WBA (Streams: 1, 2, 3a, 3b).

Useful feedback is an essential feature of WBAs in order for registrars to learn and to progress successfully through their training. Feedback should be documented online in an easy-to-use and reliable system that is accessible to the registrar, supervisor and ME. How to give feedback is a skill that should be taught to supervisors, MEs and ECTs. It should involve listening to the expectations of the registrar and the outcomes agreed upon, should be based as much as possible on observation, and should be honest and respectful, and specific about the issues that need further work such that the registrar can develop actionable activities from the WBA.

Timely verbal feedback is essential for all face-to-face WBAs. Each WBA and feedback should be followed by self-reflection and an action plan which is added to the learning portfolio. The training organisation should set up processes to ensure that specific, practical and timely feedback is given and that reflection and actions from the feedback is followed up.

WBA feedback should be followed by an action plan (Streams: 1, 2, 3b)

It is well-established in the literature that a WBA and feedback should be followed by an action plan. Action plans at the end of each WBA allow for registrars to reflect and set learning needs based on the feedback received. These learning needs can then be added to their learning log.

The concept of the 'safe and independent GP' includes someone who is able to self-reflect and is a life-long learner. Mandatory learning plans was found to be universally disliked because it was seen to be laborious, bureaucratic and not useful. Teaching registrars to do better learning plans may not be the answer, as they see them as a 'hurdle'.

In listening to the registrars, MEs and supervisors in the focus groups and interviews, we gleaned many good ideas about how registrars are actually monitoring their learning and refining their own self-reflection skills. These will be discussed in more detail later. Most registrars keep some sort of a 'log' each day of what they need to look up or ask about. Using this concept and then using a narrative reflection after each WBA may assist in 'learning plans' becoming more useful and better encouraging a habit of life-long learning.

WBA purpose

Registrar safety is assessed using WBAs (Streams: 1, 2, 3a, 3b, 3c, 3d).

WBAs allow supervisors, MEs and the training organisation to assess the safety of registrars to see patients by themselves in a general practice setting. This is particularly the case for direct observation and RCA where safety, clinical and consulting skills are best assessed, followed by entrustment scales. It should be emphasised to assessors that this is an extremely important purpose of WBAs and they should be trained to give feedback about safety. The early assessment in the first placement is especially important in this regard.

Professionalism and communication skills can be taught and assessed using WBAs (Streams: 3a, 3b, 3c, 3d).

During direct observations, registrars are able to learn clinical skills from an 'expert' GP but they are also the best way to develop the 'soft' skills of communication, active listening, the balance between computer and patient, body language, time management etc. These are essential skills for general practice and assessors should be encouraged to give constructive feedback on these skills with every WBA.

Professionalism and communication skills are difficult to assess in a written exam. Even regarding the OSCE, registrars, supervisors and MEs alike discussed the possibility of registrars 'acting' and learning the correct way of 'breaking bad news' for instance.

Observing the registrar in their workplace with unpredictable patient presentations is much more likely to illuminate gaps in the registrar's professionalism and communication skills. Assessing and monitoring professionalism and communication skills can be done with term assessments (especially if EPAs are used), direct observation and MSF. Flagging registrars who need more input or further training as early as possible is extremely important. Allowing registrars with professionalism and communication skills gaps to 'fly under the radar' can become an extremely difficult issue if it is not identified until late in training.

Mapping registrar progression

WBAs should be spaced at regular intervals throughout training to map registrar progression (Streams: 3a, 3b, 3c).

In order to ensure ongoing patient safety and to monitor supervision requirements, WBAs should be spaced at regular intervals throughout training, for instance twice a semester. Such assessments should be 'global' and build a programmatic picture of the registrar's progress from multiple different sources.

Entrustment scales are one of the best ways to assess the level of supervision required in areas across core skills and then to map the registrar's improvement and decreased need for supervision (Streams: 3b, 3c, 3d).

The supervisor will make these entrustment decisions based on multiple different 'data points' (eg direct observation, case review, corridor consultations, questions from the registrar, watching procedures, discussions with practice staff, informal patient feedback and their own intuition). Registrars should be aware of how they are tracking with these assessments and any flags requiring increased supervision, assessments, training, or other input or requirements should be communicated clearly to the registrar. The registrar's progress with WBAs and their supervision requirements should also be communicated to future supervisors and practices so that they are able to provide the appropriate level of supervision and training and to map further progression.

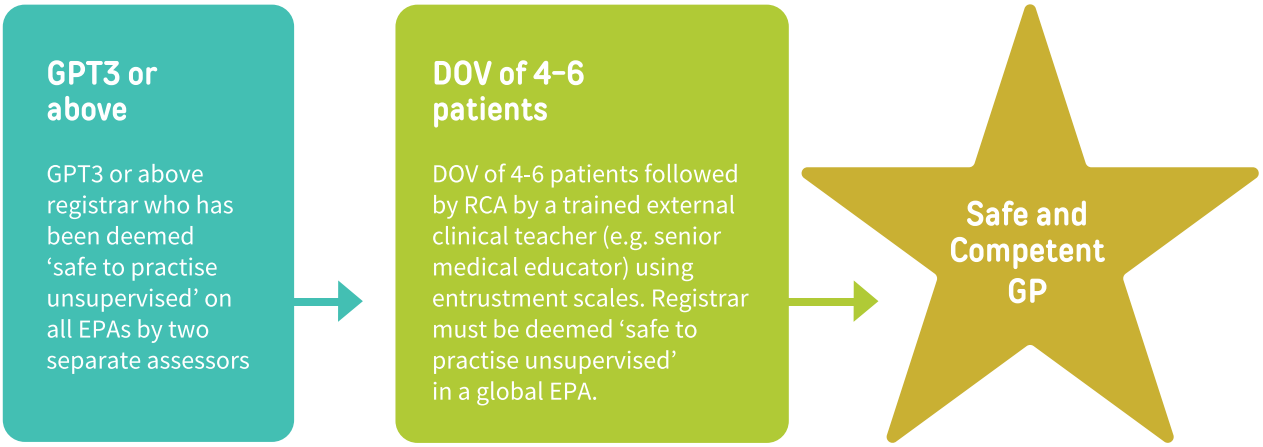

Figure 7. Demonstrating the STAR Assessment

A programmatic assessment approach with collation of outcomes and opinions maximises the effectiveness of WBA as tools for mapping progression (Streams: 1, 3a, 3b, 3c, 3d).

A programmatic assessment will involve regular assessments with multiple assessors that could be collated by the assigned ME to build up a picture of the registrar's progress.

The primary purpose of a programmatic assessment approach to WBAs should be to give feedback to encourage self-reflection and learning, a secondary purpose should be to flag registrars in difficulty. The standard of collated WBAs required at completion of training to be a safe and independent GP should be made clear to all stakeholders – for instance that the registrar should be 'safe to practise unsupervised' on all EPAs by two separate assessors prior to undertaking a STAR assessment ***(see Figure 7).***

Whether WBAs are being used as low-stakes formative assessment or as part of a higher stakes programmatic assessment should be determined and communicated to the registrar and the assessor. Those WBAs that are mandatory as part of medium or high-stakes assessments should have follow-up and accountability for satisfactory completion. For those registrars who require a higher level of supervision, more WBAs may be required in order to map progress and increased teaching time.

WBA tool features

This section focuses on the recommended tool features. There are a number of features which are important for integration within WBA tools to improve their effectiveness. This includes inclusion of EPAs within assessments, benchmarking, narrative and cultural feedback (where appropriate).

EPAs should be used within WBAs (Streams: 1, 3b, 3c, 3d).

Patient safety is of the utmost importance in medical practice. When registrars first commence in general practice, they are expected to need their supervisor readily available nearby for most of the time. Supervisors cannot be in the registrar's room for every patient, nor check every result, referral letter or consultation note after the event. The registrar's safety of practice will also reflect on the supervisor as they have the overall responsibility for the patients in their practice. It is certainly in their interest that the registrar is safe to be in the room by themselves and the training organisation should support this. EPAs are the clearest and easiest way to assess the level of supervision needed and manage patient safety.

EPAs rate how much supervision is needed to ensure patient safety. Grades that discuss 'above, at or below expected level' have the problem of not knowing what the expected level is. EPAs remove this limitation by making it easier to intuitively rate the level of supervision the registrar requires rather than try and rate against a benchmark. They can be easily used to assess registrar progress. Registrars are expected to progress through their training so that at completion they are 'safe to practise unsupervised' in all areas. Registrars and supervisors will need training in order to understand that this progression is expected and that marking at 'safe to practise unsupervised' at GPT1 is not what is expected at this early stage of training and can jeopardise patient safety.

EPAs should be used within WBAs (Streams: 1, 3b, 3c, 3d).

It is argued that benchmarking expectations for registrars at different training levels with a description of the minimum level of skills and understanding, would assist assessors and training organisations with knowing how registrars are progressing and how they are tracking against their peers. Benchmarking has some advantages but does not take into account the variability in speed of progression; the practice context and patient demographics; or the quality of teaching. For those without a clear documented benchmarking list, it is unclear whether the benchmark is the level expected at Fellowship, the level of the assessor themselves, or the level of the registrar's peers. Thus, benchmarking ideally should be based on entrustment scales regarding clinical domains.

Narrative is essential in WBAs (Streams: 1, 2, 3a, 3b, 3c, 3d).

All of the streams confirmed that in all WBAs it is narrative that supplies the rich information to the registrar as well as to the assessors about the assessment. Tick-boxes do not give enough information, even to well-performing registrars, about what they can continue to learn from the assessment. The need for narrative is particularly important if tick-box or Likert-type scales are used. Narrative comments also provide encouragement to the assessor to think carefully about feedback and provide evidence that both assessor and registrar are engaged with the process. Narrative is especially important for flagging issues and assists with the 'diagnosis' of a flag, as without narrative the diagnosis of what the flag reflects is very difficult.

When a registrar is undertaking a placement in a culturally specific environment, the WBAs utilised should aim to gather opinions from those knowledgeable in cultural safety and competency (Stream: 3b).

Cultural safety and cultural competence training should occur for all registrars to ensure that they can safely perform in a variety of clinical settings. When a registrar is undertaking a placement in a culturally specific environment, the WBAs utilised should aim to gather opinions from those knowledgeable in cultural safety and competency. This should include feedback from Aboriginal health workers or refugee nurses.

4. Assessors: supervisors, medical educators and external clinical teachers

This section provides recommendations for enabling assessors to successfully engage within a WBA system.

Assessor roles

Assessors must be aware of their various roles and responsibilities (Streams: 2, 3a, 3b, 3d).

Supervisors and MEs hold multiple roles in the support and training of registrars. This is evidenced by the relationship they have with the registrar and the role-modelling that can ensue. But even in the process of individual WBAs, for instance, DOV, an observer can have the multiple roles of mentor, educator, feedback provider, assessor, meaning-maker or coach. For supervisors this can be complicated by their role as employer and practice owner, and for MEs it can be complicated by their higher stakes assessor role. An awareness of the various roles and training about how their behaviour may change when they are playing the different roles, can help refine those skills for the supervisors and MEs and enhance the registrar's training experience.

Assessors may provide psychological support to the registrar and must be aware of available support and processes (Streams: 2, 3a, 3b, 3d).

One of the unique roles provided by supervisors and MEs is psychological support. The supervisor is best placed to notice the subtle changes that might indicate that a registrar is struggling psychologically. It may be simple matters such as the registrar's lack of confidence, time-management issues, difficulty balancing work and personal life or dealing with uncertainty. Or it may be ill-health or other family or personal problems. If this is the case, it may impact on their ability to concentrate, to learn, to accept feedback, and even in some circumstances, to consult safely. The psychological support, role-modelling and mentoring from the supervisor may be all that is needed.

However, the training organisation should be prepared to step in to support the registrar and to advise the supervisor if necessary. There should be formal pathways set up to ensure confidentiality about the registrar's issues, balanced with their ongoing training requirements and ultimately the safety of patients.

Assessors are well equipped to support and flag registrars for support (Streams: 1,3a, 3b, 3d).

This role of psychological support is particularly important in the widely diverse range of contexts in which general practice training will take place. The demographics of populations, geography, socio-economic status, resources available etc. will all impact on the training environment.

One of the aims of training is to build up a suite of skills that a registrar can feel confident using in a variety of contexts. There is no 'one size fits all' and as registrars move from practice to practice they may feel the unfamiliarity and anxiety of their new place of work. Exposing registrars to a wide range of opportunities should be balanced with appropriate support for their own physical, psychological and social wellbeing. This can be particularly stressful for registrars from overseas, who may lack adequate social support in Australia, and who often have to negotiate cultural and system differences. Supervisors and MEs are well-placed to use WBAs to assess and flag such registrars in order to tailor training and support to ensure their safety and independence.

Multiple assessors

Multiple assessors should be used to reduce bias (Streams: 1, 2, 3a, 3b, 3d).

Every GP has a particular skill-set, an individual style of teaching, and a different relationship with each registrar. This will influence both low-stakes and medium-stakes assessments. Ensuring that a range of different formative assessors are involved with the registrar means they are exposed to a variety of different skills and styles. Of equal importance is that, in order to collate an unbiased picture of the registrar's safety and abilities, a range of medium and high-stakes assessors using a variety of different tools should be used in a 'programmatic' manner. Multiple assessors reduce bias, but too many assessors can reduce reliability – so a balance is important. Assessors who are doing high-stakes assessments should be highly trained and inter-relater reliability and standardisation ensured.

The same group of assessors should reassess the registrar at regular intervals (Streams: 1,3a, 3b, 3c, 3d).

A longitudinal picture of the registrar's progression is useful for the registrar themselves but also the training organisation, supervisors and MEs. This mapping of progression will be facilitated by having the same group of assessors reassessing the registrar at regular intervals, and using tools that are intuitive, clear and standardised. The assessors should be trained to ensure inter-rater reliability; and that the information is stored in a reliable and user-friendly electronic system. There needs to be a balance between having different assessors in order to gather different points of view, with the longitudinal relationship that is important for formative feedback and mentoring. Having the assigned ME undertake DOV at different intervals, in conjunction with an ECT allows for a longitudinal view-point to be gathered.

Co-ordination between assessors is essential (Streams: 3a, 3b).

Co-ordination between assessors ensures that they are working together in the registrar's best interest. This is particularly important when an external visitor or ME performs a DOV when the subjective opinions of the ME and supervisor can be triangulated. MEs and ECTs should spend time discussing their findings and opinions with the supervisor. Jointly with the supervisor and the registrar, they can develop a plan and how that will be monitored. The supervisor is likely to feel supported by the ME who will have medical education training as well as a 'fresh set of eyes' and a different skill-set to the supervisor. It is important in this collaboration that the supervisor does not feel judged by the external visitor.

Feedback

Feedback is an essential component within WBA and appropriate systems and training must be in place to ensure quality feedback is provided (Streams 1, 2, 3a, 3b, 3c).

One of the core skills needed in the implementation of WBAs is the giving of feedback. There are evidence-based parameters that will assist with the provision of successful feedback, one of these being timeliness. Providing verbal feedback as close to the time of the WBA, or even at the individual increments of the WBA (eg. the individual patients in a DOV), will ensure that the feedback is more likely to be received successfully, as well as allowing positive feedback to be given so that the registrar has less anxiety associated with the event. Timely feedback should also be recorded with as rich a narrative as possible, so that registrar, supervisor and ME can review feedback when monitoring the action resulting from the WBA.

Clinical reasoning is acknowledged as a difficult modality to teach and assess. Debriefing after a DOV and digging deeper into why the registrar chose a particular diagnostic or management pathway can be helpful, as can RCA when options other than the present and the obvious can be explored. In order for teaching after these events, assessors will need to be trained in their use, and to have some parameters and a vocabulary in order to give useful feedback.

Feedback should not just be a one-way transmission of information but a dialogue and interactive process between the registrar and the assessor, encompassing how the feedback is perceived and used by the registrar. In order to take full advantage of the learning opportunity of a WBA, registrars should self-reflect on how their practice will change as a result or what they need to learn to fill a gap that has been exposed and how they might access the resources needed to fill the gap. In the best of worlds, an adult learner would be self-motivated to do this, but accountability to follow-up will assist with this. This is best done by the person who performed the WBA or gave the feedback, but may need to be done by an external party such as an ME.

Feedback may need planned follow-up, especially if the WBA does not go as well as it was hoped. Giving feedback is a skill and an art that can be learnt. Constructive feedback outlining specific areas in which a registrar can improve should be balanced with encouragement and positive reinforcement about areas were the registrar has performed well. There are many different training programs for learning how to give feedback, but, as with any skill, mentoring for assessors, self-reflection and practice are more likely to consolidate the skills that have been learnt.

Assessor Training

The success of WBAs hinges on assessors having quality training and support (Streams: 1, 2, 3a, 3b, 3c, 3d).

Training and support is required for all assessors with initial training occurring before involvement in assessment delivery. There are a number of aspects recommended for inclusion in training as summarised in Figure 8, and detailed in the following text.

The prime purpose of WBAs need to be clear and assessors (as well as registrars and those monitoring the WBAs) need training and resources about the expectations for each WBA.

Training should focus on ensuring a quality and consistent approach to the delivery of WBA assessment (eg. standardisation of tools/assessors, maximising the impact of the feedback, WBA purpose and process needs to be clearly communicated to the assessors etc.). An essential component of the training of assessors is their ability to share and discuss constructive, outcome-based feedback. This will include the importance of narrative feedback, either verbal or written, using appropriate vocabulary.

Assessors also need skills in self-reflection on their own unconscious biases for instance and on the various roles they will play, for example mentor, assessor, role model, practice owner, coach, pastoral support. Particular WBAs such as RCAs, EPAs or assessing clinical reasoning through consultation debrief, will need more detailed training. As with any training feedback on completion of a formative assessment and the feedback they gave will be useful.

The avoidance of failure to fail, by discussing unconscious bias when it comes to assessing a registrar should be discussed as part of training. Registrars value honest feedback and assessments, allowing a true reflection of how they are tracking in the training program. There is also a need for greater engagement with the process of assessing a registrar and engaging in meaningful feedback dialogue.

ASSESOR TRAINING CHECKLIST
☐ WBA evidence and philosophy
☐ Understanding how WBAs are integrated into training
☐ Engagement with the WBA processes
☐ Understanding the purpose of the WBAs
☐ Understanding the process required for WBAs
☐ Standardisation of tools / assessors
☐ Feedback delivery and discussion
☐ Monitoring of WBAs, flagging and remediation
☐ Failure to fail
☐ Self-reflection
☐ Assessor roles
☐ Assessor support and resources
☐ 'Community of Practice'

Figure 8. Checklist for assessor training

The assessor should also receive training in the flagging process, so that when concerns do arise, they have the tools and understanding of the flagging and remediation process. In addition, assessors should be trained in how to communicate with the registrar regarding flags and notifying the registrar of whether they have been flagged, reducing failure to fail.

When assessors provide psychological support to a registrar, there should be formal pathways set up to ensure that the balance of confidentiality about the registrar's issues, their ongoing training requirements and the safety of the patients is maintained. Training organisation support should be available to supervisors who are managing registrar wellbeing by means of support and advice to the supervisor and additional WBAs from an external visitor (if required). This process should be covered in training.

Supervisors and MEs will need training about the evidence, philosophy, utility, purpose and monitoring of WBAs and how they are used in the particular context of the training organisation. This should happen before they start using the WBAs and the training program should build as the responsibility of the assessor increases. For instance, new external clinical teaching visitors will be chosen from those who are supervisors, new MEs from the ECTs, senior MEs and programmatic and remediation MEs from the assigned ME pool.

Ongoing mutual support, in the form of a 'Community of Practice' for supervisors and for MEs, should be supported and encouraged by the training organisation (Wenger, 1998).

Setting up a 'community of practice' for supervisors will assist in sharing 'tips and tricks' or strategies of what they have found to work, or to not work, with the WBAs. These informal support networks will bring the same advantages of any relational community – ease of asking questions, mutual support, clarifying difficulties and things that could be done better. Although this can be done online or at a national level, having smaller face-to-face regional groups will add to the effectiveness of the support and informal training, and collaboration of the groups. This can also be useful for MEs, who can in addition look in a more programmatic way at a registrar's progress and discuss how to support the supervisors.

One of the advantages of a registrar working in a group practice or a small town is that there are a wide variety of different possible informal assessors. Usually there will be designated supervisor who is responsible for the formal teaching and assessments, however, commonly the registrar will be asking others in the practice for informal supervision and 'corridor consultations', and the other practice staff and the patients themselves are likely to discuss the registrar with different people in the practice. Ensuring that the registrar(s) are a regular item on practice meeting agendas either formally or informally will ensure that the primary supervisor has a more rounded and accurate view of the registrar's safety and progress than relying only on their own experiences. Practice-based systems such as this should be included in assessor training.

5. High-stakes assessments

This section provides recommended principles for making high-stakes decisions such as registrar flagging and remediation.

Flagging and remediation

The training organisation should have a documented transparent process outlining how registrar flagging occurs (Streams: 2, 3a, 3b, 3c, 3d).

'Flagging' is a process whereby those registrars who are struggling with the general practice training are either 'monitored' to watch, or 'actioned' if they need more assistance in order to fulfil the requirements of the training program. If anyone at any time has a concern about a registrar, they should be 'flagged', preferably to the assigned ME. Many supervisors and practice managers are reluctant to document concerns and so would prefer to communicate the concern verbally. There are many reasons for flagging but essentially, they can be categorised into *Personal, Practice or Professionalism.*

Some will be flagged before they start training because of their knowledge or attitude, and some because of their health or social circumstances. A 'diagnostic process' investigating what is behind the concern that has been raised will ensure that any program is tailored to the particular needs of the registrar. Templates are helpful in order to outline generic pathways that may have assisted with particular issues in the past, so that the assigned ME, who already has a relationship with the registrar can be supported to continue to monitor them. An important flag will be that of safety, including over-confident registrars who do not ask for appropriate assistance. It is essential to flag registrars as early as possible so that additional resources and strategies can be implemented to improve the registrar's chance of success.

Consequences of non-compliance with WBAs, lack of insight, or unsafe practice should be clearly documented (Streams: 2, 3a, 3b, 3c, 3d).

WBAs are an integral part of the flagging process as they can ensure closer monitoring of the registrar, tailored feedback for their needs and ascertain the resources needed.

Therefore, consequences of non-compliance with WBAs, lack of insight, or unsafe practice should be clearly documented.

Registrar flagging should take into consideration a collation of WBA feedback using a programmatic assessment approach (Streams: 3b, 3d).

A registrar who is being 'monitored' will need to have a programmatic view of what is happening. Unless it is a high risk flag, a single issue on a single WBA will not be enough to flag a registrar. An ME who has oversight of all the WBAs is best positioned to make a decision about whether this one flag is part of a bigger picture that needs 'action' or whether this registrar can continue to be 'monitored'. It may be that extra WBAs are necessary as part of the 'diagnosis' in order to clarify the position.

The assessments that feed into the flagging, monitoring and remediation processes will be multifactorial and will include review of:

- Compliance and outcomes of WBAs.
- Personal and social issues.
- Context in which the registrar is practicing.
- Registrar/supervisor relationship (it may be that this has broken down and is not conducive to learning).

These factors should be diagnosed and collated by an ME, preferably one who has a relationship with the registrar.

Flagged registrars who are deemed by an ME to require additional support require a tailored intervention plan that addresses the developmental gaps identified (Streams: 3b, 3d).

If a registrar is escalated from a 'monitoring' category to one of 'action' then a comprehensive 'diagnosis' of the registrar's difficulties will need to be made, a management or intervention plan compiled, and the registrar and ME sign an agreement articulating the outcomes expected and the time-frame. High-level flagging requiring action such as an intervention plan, should be based on a programmatic assessment plan. This agreement will include the timing and expectations of WBAs that will be used for monitoring the situation. Extra WBAs may be needed, depending on the issues.

For example, PETAL will assist in finding gaps in the demographics; MSF for team-work and patient feedback; video review for communication issues; direct observation for professionalism; and RCA for critical thinking. For more complex cases, the registrar's issues should be escalated to a programmatic assessment committee.

The constellation of issues that have led to a particular registrar being flagged will be different in each situation. For those who are being monitored it is likely that there will be some patterns and a template might guide the ME. However, for more complex needs a tailored program will need to be developed based on the diagnosis of the problem. Even though each plan will be bespoke, the process needs to be transparent and the registrar, supervisor and ME should all be aware of the plan, desired outcomes and consequences.

Flagged registrars should be monitored and reviewed regularly and managed by a panel of senior MEs (Streams: 1, 2, 3b, 3d).

Flags for monitoring, action or remediation should be reviewed at regular designated intervals so that lack of compliance or lack of progression can be picked up as early as possible. In these circumstances the case should be escalated to a panel of senior MEs and the Director of Training, who will be responsible for making decisions about formal remediation or a recommendation to cease training. Assessments at this level should gather information from as many WBAs and stakeholders as possible in order to make a 'diagnosis' and determine what will assist the registrar to succeed.

Flags should be recorded in an online portfolio accessible to the registrar, assessors and training organisation (Streams: 3b, 3d).

Monitoring, action and remediation flags should be recorded online so that they can be tracked by the stakeholders involved, such as the assigned ME, senior ME and Director of Training. If it is important that the supervisor is part of the process, they should also have access to this information. However, if the flag is for monitoring and is minor, or is for personal reasons, the pros and cons of communicating the flag to other stakeholders such as training coordinators should be taken into account.

In the interest of constructive feedback for learning, it is almost always in the registrar's interest to know that they have been flagged and are being monitored. Certainly if there is an action plan with increased WBAs and training, then the registrar will be actively involved. An important point to communicate to the registrar is that those who are flagged early and hence have increased WBAs with feedback and training, are more likely to pass the exams. It is up to the registrar whether they make the most of this opportunity for increased support and training. Most registrars will need a respectful and collaborative conversation with an ME with whom they have a trusting relationship so that they can understand that a 'monitoring' or even an 'action' flag is in order to give them a higher likelihood of success in the training program.

All stakeholders should be trained in the flagging process (Streams 3c, 3d).

All stakeholders should be trained in the possible reasons for flagging, the flagging and remediation pathways and the outcomes expected from flagging and remediation. This should include professionalism and communication. Flags may result from a number of events including WBAs, conversations with stakeholders (e.g. ME, practice manager, supervisor, registrar, training coordinator). The different types of flags should be understood by training coordinators so as to ensure flags can be captured and documented across personal, practice or professional categories.

Consequences for non-completion of WBAs

Non-compliance with flagging or remediation requirements should also have clear accountability pathways and consequences documented (Streams: 2, 3b, 3d).

Following up mandatory WBAs can be an administrative burden on the training organisation. Making WBAs mandatory ensures that the training organisation can monitor a registrar's safety and progression through training, and make a valid judgement on the registrar's preparedness for independent practice. Follow-up of registrars who do not comply with WBA requirements is essential, with flagging as an outcome for those who do not meet expectations. It may be that there are personal or social issues that are the problem, but lack of compliance in training and assessment requirements is sometimes a sign of a deeper professionalism issue that needs to be addressed.

It is important to have transparent guidelines about the time-frames and quality that is expected and the consequences of non-compliance. Initial monitoring should be done by an administrative team member such as a training coordinator with a transparent process for escalation if the registrar does not comply or behaves in an unprofessional manner with the training coordinator. Non-compliance with flagging or remediation requirements should also have clear accountability pathways and the consequences spelled out in the remediation documentation.

Programmatic assessment for high-stakes decisions

The final high-stakes programmatic assessment decision should be made by a panel of senior MEs (Streams: 1, 2, 3b, 3d).

There is no single WBA that will adequately reflect the range of competencies needed to affirm that a registrar is progressing. As well as collation of the outcomes of the WBAs, collation of expert opinions is also important in order to assess a final outcome regarding successful completion of training. The final high-stakes programmatic assessment decision should be by a panel of senior MEs. Most RTOs have a panel of such experts who discuss the collated WBA outcomes along with any flags such as non-compliance, relationship with RTO staff, exam progress, and engagement with training etc., in order to affirm that the registrar is deemed to be a safe and independent GP who is a self-reflective life-long learner.

High-stakes decisions will need to be made in a standardised and reliable way by highly trained assessors who do not have a close day-to-day relationship with the registrar. MEs are well-suited to make medium-stakes assessments as they may know the registrar but are more likely to be one step removed and so more likely to be objective.

In particular, the final assessment should include written exams plus a sign-off of a programmatic portfolio of WBAs. The stakeholders who participated in the interviews and focus groups felt very strongly that WBAs and exams are testing different aspects of registrar ability – the exams mostly test knowledge and some critical thinking skills, and the WBAs assess remaining competencies.

Ensuring that several assessors have affirmed that the registrar is 'safe to practice unsupervised' in all areas should be a prerequisite for completion of training (Stream 3b).

The overall message from the focus groups is that a valid and benchmarked test of knowledge is important. WBAs will never be able to fully explore the future issues with which patients may present. However, the ability to 'learn' how to perform in an OSCE was discussed by both supervisors and registrars. It is possible to pass an OSCE without being able to communicate well in real life or to make professional and ethical decisions under pressure in complex situations.

The majority thought that having a 'blended' final assessment that included an exam plus information from the general practice environment would be ideal. A final visit by a trained independent external assessor, undertaking a DOV and RCA would enhance validity. Ensuring that several assessors have affirmed that the registrar is 'safe to practice unsupervised' in all areas should be a prerequisite for completion of training.

Supervisors should not be responsible for high-stakes assessments (Streams: 1, 3b, 3d).

High-stakes assessments, where the registrar's progress is being assessed using a WBA, is best done by an external assessor and not by the supervisor. This is a strong message in the literature because of the relationship of the supervisor and registrar and the greater potential for bias. As coach, employer, role model and often confidante, the supervisor will also feel uncomfortable taking on this role. The focus group participants also emphasised that it would be detrimental for the day-to-day corridor and case-based teaching that registrars receive from their supervisors, as they would be reluctant to ask 'stupid' questions or discuss personal problems.

Often supervisors will be practice owners and there will be a potential bias, as they will also be negotiating the registrar's employment contract. On occasions, the relationship between the supervisor and the registrar is not ideal, or the supervisor is interested in the registrar becoming part of the practice, and so any high-stakes assessment is likely to be biased one way or the other.

High-stakes assessments for remediation should be collated in a programmatic manner with a variety of different WBAs used and a variety of different assessors (Stream: 3d).

High-stakes assessments used to monitor remediation must collate a portfolio of WBAs in a programmatic way to inform decisions. It needs to be made clear to the registrar that at this stage the WBAs are high-stakes and hence there will not be timely constructive feedback given, but an assessment of whether training should continue or the registrar should be withdrawn. The programmatic assessment might include: DOV, RCA, MSF, video review, and structured learning plans. A panel of senior MEs should review the portfolio and make a decision.

6. Registrars

This section provides recommendations for supporting registrars to gain full benefit from WBAs.

Training required prior to undertaking WBAs

It is imperative that registrars have an adequate in-practice orientation before undertaking WBAs (Streams: 1, 3b).

The in-practice orientation should include spending time sitting in with the supervisor as well as learning about how to use the IT software, referral pathways, appointment systems, payment, time management, professionalism, cross-cultural consultations etc. An important part of orientation is increasing the assessment literacy of the registrar so that they understand the purpose of the WBAs. An in-practice orientation should be planned for registrars at the beginning of their first semester.

It is generally acknowledged that direct observation of the supervisor by the registrar for at least half a day is essential in the first placement of a GPT1 registrar. A useful strategy for some of this time is for the registrar to use the computer while the supervisor runs the consultation so that the registrar can learn how the system works. Some of the time should just be watching the supervisor's consulting and diagnostic style with some guidance about what aspects to pay attention to. This should be done before the registrar begins seeing patients themselves.

Registrars should be given further opportunities to sit in with supervisors as often as possible but at least once a semester in GPT1 and GPT2. In addition, an opportunity should be provided for the registrar to observe other members of the team consulting, including GPs, practice nurses and allied health staff.

Self-reflection and training in accepting feedback

Registrars should be trained in self-reflection and accepting feedback (Streams: 1, 3a, 3b, 3c).

Registrar training in how to ask for and accept feedback and how best to self-reflect is of the utmost importance. This should begin at the time of the orientation to the practice, which will include an orientation to the WBAs (Assessment literacy) as well as time spent observing the supervisor. Before entering general practice training, registrars may not have been involved in the same level of observation and feedback. The idea that constructive feedback does not mean they are 'failing' is a concept that should be taught from the outset.

Becoming a self-reflective, life-long learner is one of the skills we are hoping that registrars consolidate during their training. In order to achieve this, they should be trained to ask for, and accept, feedback and should understand that formative assessment is *for* learning and not *of* learning. More specifically, there should be training in the process of the various WBAs and how the feedback will be given, stored and monitored.

Similarly, self-reflection is a skill that can be learnt and encouraged. After each WBA, it is especially important to self-reflect on the feedback that has been given. Building self-reflection into everyday practice is a life-long skill that begins during training. Teaching self-reflection techniques and mandating self-reflection may be necessary for registrars. This should be user-friendly and involve as little bureaucracy as possible. Monitoring whether a WBA and self-reflection have been appropriately actioned is part of the process of assessing and ensuring progression of this skill. Many of the supervisors in the focus groups were concerned about 'hurting the feelings' of the registrar by giving 'negative' feedback. 'Failure to fail' is a challenge discussed at length in the literature and there are a variety of other reasons why supervisors and MEs may not give constructive feedback.

However, the registrars in the focus groups universally valued feedback, and found it frustrating when all they received was a ticked box with little narrative. Training assessors to give constructive, outcome-based feedback, and empowering registrars to ask for feedback and then to self-reflect on that feedback, should be essential elements of the training program.

Tools for self-reflection

Tools such as PETAL and EPAs support registrar reflection and learning (Streams:1, 3b, 3c, 3d).

Registrars generally would like to know how they are tracking in comparison to their peers. WBAs such as PETAL give immediate feedback about how their practice compares to that of their peers and where the gaps are in their practice (and hence their learning) profile. Because of the range of different learning environments in which registrars work, it is difficult to map the expected competency benchmarks that registrars might be expected to reach at different stages of their training.

EPAs can be a guide as registrars move from needing their supervisor available for most of the time, and needing in-room supervision in some areas, when they first enter general practice training, through to 'safe to practise unsupervised' or 'safe to supervise junior learners' at completion. The different competencies to which the EPAs are mapped will guide them as to what is expected at the finalisation of training.

A learning portfolio can guide reflection and learning (Streams: 1, 2, 3b, 3d).

Similarly, tracking what they have learnt can be useful for registrars. Building up a 'learning portfolio' of guidelines, articles, resources and audits is not only helpful for day-to-day practice but will also assist in studying for exams. This should include what has gone into the 'learning log' and the self-reflections and action plans after each WBA. It will obviously be a dynamic portfolio as general practice is certainly not a static specialty, but each day, and after each WBA, new gaps will be found that need to be filled, and part of the self-reflection is finding ways to fill those gaps. Ensuring that this is not a bureaucratic tick-box but is a dynamic and useful process is a challenge. For those registrars who have been flagged or those on remediation this will need to be a more formal monitored and accountable process.

Empowerment

A procedural skills log will help to empower the registrar to seek more active supervision when it comes to undertaking procedures (Streams: E, 1, 3b).

It was clear from the focus groups that registrars desired a procedural skills check-list or log that was signed off by their supervisor, once observed. This log would encourage registrars to develop competency in certain procedures as well as encourage their supervisor to take a more active role in observing their practical skillset. An example of suggested procedures that could be incorporated into a procedural skills logbook, Table 4.

Table 4. Suggested example of skills to be included in procedural skills log

Cervical screening test	Fundal examination in pregnancy
Dermatoscope usage undertaking a skin check	Insertion of Implanon rod
Digital rectal examination	Punch biopsy of skin
Drainage of abscess	Removal of ear wax, such as ear syringing
ECG – performing and interpretation	Removal of foreign body, such as corneal foreign body from the eye
Elliptical excision of skin lesion	Removal of Implanon rod
Epley manoeuvre for benign positional vertigo	Shave biopsy of skin
Excision of sebaceous cyst	Spirometry – performing and interpretation

7. Context

This section provides recommendations for establishing an appropriate context to maximise the effectiveness of a WBA system.

Training Organisation

A culture of excellence should be fostered within the training organisation (Streams: 1, 2, 3a, 3b, 3c).

The training organisation should foster a culture of excellence, for itself, its staff, its programs and the registrars. The culture of lifelong learning extends beyond the registrars and is influenced by the supervisors, MEs, training coordinators, practice managers and the IT systems used. MEs should all have further medical education qualifications, supervisors should be supported to develop further skills, and registrars should be encouraged not just to be competent, but to strive for excellence. High performing registrars should be extended.

Encouraging excellence is difficult in an environment where the majority of the effort goes into those registrars who are struggling. However, registrars, supervisors and MEs are aware that there needs to be processes and resources available for those registrars who move quickly through the training program. Assessors should feedback to those registrars that they are excellent, not just by ticking the box, but also with rich narrative about what they are doing well. All GPs know that there is more to learn – special skills, deeper knowledge, teaching, the subtle nuances of general practice etc. 'Flagging' these registrars and having a portfolio of ideas and resources for supervisors and MEs to stretch those registrars will assist educators to encourage registrars to seek excellence. Early sign-off in GPT3 of entrustment as 'safe to practice unsupervised' can leave scope for further training in medical education or sub-specialty skills.

General practice training curricula, domains and competencies usually outline the minimum standard required for patient safety and the level of supervision and training needed to ensure this. Excellence is much more difficult to document and, as with remediation, it needs to be bespoke and tailored to the individual registrar. The culture of the training organisation should be designed to encourage this culture and excellence and support supervisors and MEs who would like to encourage registrars to excel. A STAR given to an excellent registrar early on in GPT3, with an assessment of the higher level of 'safe to supervise junior learners' goes some way towards recognising excellence.

Medical educators provide an essential backbone to any WBA system (Streams: 1, 2, 3b).

Supervisors and MEs are the backbone of the training organisation. It is essential that the relationship the training organisation has with them is collaborative with clear communication, transparency, accountability, support and training. It is of the utmost importance to set up management and escalation pathways for registrars in difficulty. It is also essential that supervisors and MEs feel comfortable communicating to the training organisation about challenges that arise in the logistics of training and assessment. The employment of training coordinators for administrative tasks, particularly for compliance and time-lines for WBAs, means that supervisors and MEs can use their time productively. When visiting registrars for ECTVs MEs can further represent the training organisation and listen to issues that might arise in the practice or with the administration of WBAs. Active engagement of supervisors and MEs in WBAs is pivotal to their success.

A medical educator and training coordinator should be assigned to each registrar for the whole of training to ensure assessment and training continuity (Stream 3b).

There ideally should be one ME assigned to each registrar for the whole of training to ensure assessment and training continuity. A training coordinator should also be assigned to a registrar for their full training pathway.

In addition to supporting the registrar and the practice, the training coordinator can support MEs by reducing the administrative burden, allowing MEs to dedicate more time to education and teaching. Training coordinators offer increased availability to registrars, and are more sustainable and cost-effective, especially as the numbers of registrars' increases.

Training organisations need to ensure that registrars are aware of the mandatory expectations of training and that for independent and safe practice additional WBAs may be required. (Streams: 1, 3b, 3d).

The standard at completion of training of a 'safe and independent GP who is a self-reflective life-long learner' is the minimum standard to which the registrars, assessors and the training organisation should aim. The parameter of what is expected in order to reach and assess this standard should be documented and enforceable. Registrars should understand that they will be supported by the training organisation's structure and personnel in a flexible manner, as each individual will have a slightly different pathway. The WBAs are an integral component as they will be used to assess safety and progress, give feedback, find gaps and encourage excellence. In order to achieve these aims, a minimum number and standard of WBA completion is expected of each registrar.

There is a need for training organisations to establish early on that training in general practice is not simply about passing exams, it's about life-long, reflective learning (Streams: 1,3a,3b).

For many registrars, there is an expectation that general practice training is about knowledge and passing exams. Encouraging registrars to reflect on their knowledge gaps and develop a habit of life-long learning is part of the training. This is certainly important, but the art of general practice also needs to be learnt during a registrar's training time. WBAs and the feedback that results should include professionalism, team-work, communication, population health, organizational structure etc. Passing on a culture that involves a lack of judgement for those who 'fail', and one of encouragement to continue to learn, should be part of every assessor's way of relating to each other and to registrars.

Training organisations need to ensure that registrars are aware of the mandatory expectations of training and that for independent and safe practice additional WBAs may be required. (Streams: 1, 3b, 3d).

Training organisations should develop clear guidelines for registrars, supervisors, MEs, training coordinators, and practice managers to create a shared understanding of the WBA system. Registrars also need to have clear information about the WBA process, purpose, the performance expectation and how this is measured, what competencies are being assessed, what the results will be used for, where WBAs are documented and who has access and what follow-up is occurring as a result of the WBA. Training organisations need to ensure that there are positive working relationships and lines of communication between supervisors, MEs and training organisation staff (such as training coordinators).

The training organisation should develop and communicate clear guidelines about WBA expectations. This will include:

- Which WBAs are expected to be done
- Who should do them
- What is the purpose of the WBA (including summative or formative)
- What are the expected outcomes
- Who monitors accountability for completion
- The consequences for non-completion
- Who gives feedback on the WBA itself and on the self-reflection.

This is likely to be different for each WBA with some overarching roles for the training coordinator for compliance, and the ME for sign-off of the quality and whether flagging is needed. Supervisors should also be fully aware of the requirements of the training program so they understand which WBAs they are a part of and how these assessments are an important component of the overall training and assessment of the registrar.

Training organisation support for WBA assessors is critical. Training coordinators are essential to provide support to assessors (Streams: 2, 3b).

In order to ensure the smooth running of the training organisation and the freedom for MEs and supervisors to concentrate on the tasks where they have expertise, adequately resourced training administration coordinators are essential. They will also need to know that they are an essential part of the team and their opinions taken into account when deciding for instance, whether to flag a registrar.

MEs, supervisors and practice managers will all rely on an efficient and engaged training coordinator who is able to easily negotiate the IT system in order to discuss timelines and compliance with WBAs. This is especially important for those registrars who have been flagged when the ME will usually be more closely involved.

Recognition/payment for assessor investment into WBAs is important (Streams: 1,3b).

Running a successful general practice training program with a suite of WBAs requires engaged staff who feel adequately supported and remunerated. Supervisors are busy GPs and their consulting time earns them income. Using this time to train a registrar means they are not earning for themselves and the training organisation should ensure they remunerate the supervisor to the best of their ability. Supervisors are also required to invest their time in assessor training and in giving feedback, dealing with difficult registrars etc. In order to ensure engagement of supervisors in this process, they should also be recognised and remunerated for this time. There should also be increased remuneration for supervisors who provide a higher level of supervision.

For many registrars who have come from a hospital system with maternity leave, professional development funding and long service leave entitlements, coming into general practice can mean a decrease in income. It is important that their training time is quarantined and remunerated and that they do not feel pushed to consult during this time, either by themselves, or by the practice.

Training plans allow registrars to envisage their future training timeline and assessors to better understand future requirements (Streams: 2, 3b).

Training plans created by the training coordinator and discussed with the registrar provide a visual appreciation of the training requirements. In addition, they ensure the training organisation is accountable to the RACGP and that all college requirements are incorporated into the plan. Training plans can be adapted based on WBA completion and whether flagging has occurred, allowing for additional WBAs to be added. Training plans can be viewed by the ME and supervisor so they are aware of progression and the next steps that need to be taken. Finally, training plans are important for registrars who are working part-time, allowing for WBAs to be appropriately planned based on the full-time equivalent.

Practice Context

A positive relationship between the supervisor and registrar leads to more effective WBA outcomes (Streams: 1,3a, 3b).

The relationship between the supervisor and the registrar will impact on the likelihood of the registrar integrating the supervisor's feedback into learning. A positive relationship becomes one of trust, mentoring and role-modelling the craft of general practice. The registrar is more likely to feel at ease with being observed, assessed and accepting feedback. If the registrar respects the opinion of the supervisor, they are more likely to accept and ask for their feedback.

They are also more likely to accept praise about progression, as they are aware of the longitudinal relationship and the care with which the supervisor has observed, assessed and communicated with them in the past. This is obviously also likely to be to the supervisor's advantage if they are looking for good GPs for future workforce in their practice as the collegial relationship of mutual respect, trust and open communication continues to be important in GPs who work together long-term.

Guidelines for minimising the impact of context on the DOV should be adopted (Streams: 3a, 3b).

Particularly for direct observation, an unfamiliar room will impact on the performance of the registrar. Registrars will often be anxious about direct observation, particularly on their first visit, and if the room and the whereabouts of all the paperwork needed for the consultation are not familiar, the registrar may have difficulty focusing on the patient as much as they would prefer. Unconsciously being able to negotiate a room will assist in the utility of the WBA as the registrar will be more relaxed and more likely to behave in their 'usual' manner.

If a registrar, assessor, patient and relatives are all compressed into a small space, it is more difficult for the registrar and patient to forget that the assessor is present. It also means that moving around the room to examine the patient will be more difficult. These challenges are likely to impact on the smooth running of the consultation and the outcomes of the WBA.

Similarly, if the assessor is easily visible to the patient, particularly if the patient knows the assessor, they will often relate to the assessor rather than ignore them and relate only to the registrar. For the registrar themselves, having the assessor directly in their line of sight may also be off-putting as they may be watching for the reaction of the assessor throughout the consultation. This can be remedied by paying attention before a DOV to the placement of the registrar, observer and patient.

Medical educators and other assessors should be aware that the context of the assessment can impact on the outcomes (Streams: 1, 3b).

Exposing the registrar to a variety of contexts during their training will ensure they have well-rounded training. However, it is also important to be mindful that all WBAs are reliant on the context in which a registrar is working. Sometimes practices have a particular sub-specialty eg. Aboriginal health, skin clinic, women's health, age, socio-economic status, rurality, availability of resources etc which will also dictate which patients and conditions a registrar will be seeing, and hence the assessment outcomes and feedback they will be receiving. Assessors and registrars should discuss the context and acknowledge the impact this may have. It is also important to take into account the complexity of the patient load and the availability of resources when WBAs are assessed.

8. Conclusion

How GPs are trained has changed dramatically over the last few decades. We now know that being a good GP is not just about having a great deal of knowledge or passing the exams. Becoming a 'safe and competent GP who is a self-reflective, life-long learner' is a process that can be facilitated by valid assessment tools, well-trained assessors, engaged registrars and a supportive context.

Australia has a diverse range of geography, cultures and health profiles and researching how workplace-based assessments are currently used, and how they might best be utilised into the future is a challenging task. This comprehensive project has developed an evidence-based and practical WBA framework and implementation plan, which can be contextualised to differing general practice training environments. It outlines both broad principles and specific recommendations for WBAs based on an environmental scan, a literature review, information from current training organisations and focussed primary research. Positive and negative viewpoints have been explored at the levels of the training organisations, the assessors, the registrars and of the actual WBA tools themselves.

Current training organisations use WBAs in a myriad of different ways. The resulting Framework endorses many of the current practices throughout Australia but has also been based on 'best practice' research. The recommended implementation plan includes which WBAs to use, who should use them, and when they would be used. However, achieving success in general practice training is more about standardisation of the quality of the workplace-based assessment process, and not necessarily about standardising the method utilised. This Framework provides the essential building blocks to achieve this aim.

References

Kane, M. T. (2001). Current concerns in validity theory. Journal of educational measurement, 38(4), 319-342.

Magin, P., Morgan, S., Henderson, K., Tapley, A., Scott, J., Spike, N. et al. (2015). The Registrars' Clinical Encounters in Training (ReCEnT) project: Educational and research aspects of documenting general practice trainees' clinical experience. Australian family physician, 44(9), 681.

Miller, G. E. (1990). The assessment of clinical skills/competence/performance. Academic medicine, 65 (9): S63-67.

Norcini J., Blank L.L., Arnold G. K., Kimball, H.R. (1995). The Mini-CEX (Clinical Evaluation Exercise); A Preliminary Investigation. Annals of internal medicine, 1995; 123 (10): 795-9.

Royal Australian College of General Practitioners. (2015). Competency profile of the Australian general practitioner at the point of Fellowship. Available from: https://www.racgp.org.au/education/Registrars/fellowship-pathways/general-practice-education-framework.

Wenger, E. (1998): Communities of Practice: learning, meaning and identity, Cambridge, Cambridge University Press.