

# Practice evaluation and identification of learning and development needs using the General Level Framework – are we meeting pharmacists needs?

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## Abstract

**Background:** The General Level Framework (GLF) is a competency based performance evaluation and development tool used to identify gaps in knowledge, skills and attitudes, provide feedback and assist with the formulation of a Continuing Professional Development (CPD) plan. Medication Services Queensland provided up-skilling workshops for hospital pharmacists employed by Queensland Health, the objectives of which were derived from training needs identified during GLF evaluations and feedback.

**Aim:** This study aims to compare learning and development needs of pharmacists identified through GLF evaluation in the previous 14 months, with the learning objectives of the existing up-skilling workshop and to review the CPD recommendations made during the GLF process.

**Method:** Two hundred and twenty GLF evaluations, completed over 14 months were retrospectively reviewed. Recommendations were entered into Microsoft Excel<sup>TM</sup> and themed according to (a) those related to general CPD and (b) those related to specific GLF competencies.

**Results:** The five most frequent training and learning needs were centred around two competency clusters: pharmacological knowledge and CPD. The next most common grouping of recommendations correlated with the learning objectives of the up-skilling workshop and included documentation of clinical pharmacy review activities, exploring patient's understanding, prioritisation, use of decision support and patient background and reconciliation.

**Conclusion:** The GLF is a valuable tool to assist pharmacists with identifying their individual training and learning needs, and correlate with the learning objectives of the up-skilling workshop.

**Keywords:** *Competency, continuing professional development (CPD), development, evaluation, pharmacist, training.*

## Introduction

Competencies and standards of practice for Australian pharmacists have been developed jointly by the three pharmacy professional bodies (Pharmaceutical Society of Australia, 2010; Pharmaceutical Society of Australia, 2003; SHPA Committee of Specialty Practice in Clinical Pharmacy, 2005). When pharmacists consistently perform to an agreed level of competency they make a significant contribution to medicines management and patient care (Audit Commission, 2001; Australia Dept. of Health and Aged Care, 1999; Borja-Lopetegi *et al.*, 2008; SHPA Committee of Specialty Practice in Clinical Pharmacy, 2005).

Continuing professional development (CPD) involves pharmacists identifying learning needs and undertaking education and training in order expand their knowledge, expertise and competence (Pharmacy Board of Australia, 2010; Department of Health, 2001), in order to improve their

performance, in delivering effective pharmaceutical care (Rouse, 2004; FIP Council, 2002; Melnick, 2004). This relies on the identification of training and development needs for that individual. In 2010 CPD recording became a mandatory requirement for annual registration as a pharmacist in Australia (Pharmacy Board of Australia, 2010). Consistent with adult learning principles, self evaluation results in identifying education and training targeted to the individual's perception of their needs, where as peer review with observation of performance and effective feedback contributes another dimension to the identification of an individual's development needs (Austin *et al.*, 2005a).

Patient focused clinical pharmacy services, including medication history taking and reconciliation, therapeutic drug monitoring to identify and prevent drug related problems, participating in ward rounds, and discharge counselling have been demonstrated to contribute to positive clinical and

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economic outcomes (Goodwin *et al.*, 2010; Kaboli *et al.*, 2006; Dooley *et al.*, 2004; Borja-Lopetegui *et al.*, 2008).

The GLF is a competency based professional development tool that evaluates and guides the development of pharmacist's performance in relation to agreed standards (Antoniou *et al.*, 2005; Coombes *et al.*, 2010; Mills *et al.*, 2008). The tool facilitates the provision of specific feedback related to observed performance and self-reflection, and assists with the identification of training needs and the formulation of CPD plans. Each section of the GLF contains a summary page that outlines what an individual is observed as 'doing well', 'areas for improvement' and 'agreed actions' to be undertaken by the pharmacist (Appendix A) (Medication Services Queensland, 2011).

A study by Antoniou *et al.* in England utilising the GLF for self and peer evaluation with feedback, showed a significant improvement in 24 of 25 patient-related competencies when compared to the development of junior grade pharmacists over 12 months (who demonstrated improvement in 12 of 25 competencies) (Antoniou *et al.*, 2005). A similar study conducted by Coombes *et al.* showed a significant improvement in performance in 57% (35 out of 61) of competencies over an average of 14 months within the same individuals with the use of an adapted version of the GLF (Coombes *et al.*, 2010).

Medication Services Queensland (MSQ) provided up-skilling workshops for general level registered hospital pharmacists working in Queensland Health (QH) facilities. One of the workshops was targeted at pharmacists in their initial years post registration and is intended to complement knowledge based seminars such as those provided by The Society of Hospital Pharmacists of Australia (SHPA). Participation in the up-skilling workshop requires the pharmacist to undertake a GLF evaluation prior to attending the workshop. The main objectives of the up-skilling workshop are:

1. To gain an enhanced understanding of the GLF and its use in promoting and advancing pharmacist practice.
2. To review and practice specific skills related to pharmaceutical review activities, including problem identification, prioritisation and resolution of medicine-related problems.
3. To gain an understanding of the techniques and principles of effective communication and graded assertiveness.
4. To reflect on the requirements of an effective team.
5. To gain awareness of, and learn from other practitioner's techniques and knowledge.

These objectives were initially based upon the findings of the first 30 GLF evaluations undertaken in QH.

This study aims to compare learning and development needs of pharmacists identified through GLF evaluation in the previous 14 months, with the learning objectives of the existing up-skilling workshop and to review the CPD recommendations made during the GLF process.

## Methods

Two hundred and twenty (220) GLF evaluations were reviewed for pharmacists who had undertaken a GLF in the

preceding 14 months from November 2009 to February 2010. One was incomplete and excluded. The summary pages from the 3 sections (patient care, problem solving and professional competencies) of the GLF (Appendix A) were used to identify training needs and CPD recommendations for each individual. The recommendations were themed according to the GLF competencies. Recommendations relating to CPD were themed according to common suggestions. The results were collated using Microsoft Excel and summarised. Results were then compared to the learning objectives of the up-skilling workshop.

## Results

The most prevalent areas for improvement centred around two competency clusters: knowledge (pharmacology, pathophysiology, interactions and side effects) and CPD (identification, resolving, reflecting and undertaking) (Table I). Specific recommendations based on observations while undertaking the GLF evaluation for further development and CPD are outlined in Table II. It is important to note that pharmacists may receive more than one recommendation.

**Table I: Five most prevalent recommendations or areas for improvement**

Competency Cluster	Competencies	Total (219) %
<b>2 Problem Solving:</b> 2.1 Knowledge	2.1.2 Pharmacology	54.1
	2.1.1 Pathophysiology	48.2
	2.1.4 Interactions	49.1
	2.1.3 Side Effects	45.0
<b>3 Professional:</b> 3.4 Professional qualities	3.4.8 Evidence of formal CPD <sup>1</sup>	47.3

<sup>1</sup>CPD: Continuing Professional Development

Of 219 GLF evaluations, 83 (38%) recommendations to attend an SHPA workshop were made. Seventy percent of pharmacists were recommended to undertake some form of CPD and 42% were identified as not currently maintaining a CPD record or portfolio.

The next most common grouping of recommendations related to skills such as exploring patient's understanding of illness and treatment, documentation, use of guidelines or references, prioritisation and time management (Table III). These areas correlate with the learning objectives of the up-skilling workshop.

From this we were able to review the content and focus of the up-skilling workshop to match the needs for skills development of early-career pharmacists and evolve the workshop accordingly. Findings were provided to the QH Pharmacy Practitioner Development Advisory Group which includes Directors of Pharmacy, Academic representatives and pharmacists from various levels of practice across the state.

**Table II: CPD Recommendations (total number (#) of recommendations; NB: pharmacists receive more than 1 recommendation)**

	Specific CPD Recommendations	Total (#)	%
SHPA	Introductory Seminar in Clinical Pharmacy Practice	15	7
	Laboratory Tests	14	6
	Advanced Clinical Pharmacy	11	5
	Workshops (other/general)	43	20
	Conference	3	1
Conferences	Other Conference	11	5
MSQ	Up-skilling Workshop (total)	49	22
	Up-skilling Workshop (not previously attended)	45	20
	Supervisor's Workshop	4	2
	Mini-Clinical Examination (Mini-CEX) <sup>1</sup>	22	10
Further Study	Post-grad <sup>2</sup> (consider/continue)	29	13
	HMR <sup>3</sup> Accreditation	1	0
Workplace	Share Learning (present cases / inservice / journal club)	75	34
	Case Based Discussion (CBD)	45	20
CPD	Self-directed learning	153	70
	CPD <sup>4</sup> Portfolio	93	42

<sup>1</sup>Mini-CEX: Mini-Clinical Examination<sup>2</sup>Post-grad: Post-graduate studies<sup>3</sup>HMR: Home Medicines Review<sup>4</sup>CPD: Continuing Professional Development**Table III: Further recommendations or areas for improvement**

Competency Cluster	Competencies	Total (219) %
<b>1 Delivery of Patient Care Competencies:</b> 1.3 Monitoring of current drug therapy	1.3.4 Use of guidelines or references	20.9
	1.3.5 Documentation of Clinical Pharmacy Review activities	30.9
<b>1 Delivery of Patient Care Competencies:</b> 1.1 Patient history	1.1.8 Patient's understanding of illness	26.4
	1.1.9 Patient's experience of medicines use	24.5
	1.1.10 Patient's understanding of treatment	25.9
<b>3 Professional:</b> 3.1 Organisation	3.1.1 Prioritisation	21.4
<b>1 Delivery of Patient Care Competencies:</b> 1.1 Patient history	1.1.13 Medication history reconciliation ( <i>Reconciles with PC<sup>1</sup> &amp; PMH<sup>2</sup></i> )	15.9 (14.5)
	1.1.7 Relevant patient background	13.2
<b>2 Problem Solving:</b> 2.2 Gathering info	2.2.1 Accesses information	22.7
<b>3 Professional:</b> 3.3 Team work	3.3.3 Shares learning experiences	20.9

<sup>1</sup>PC: Presenting Complaint<sup>2</sup>PMH: Past Medical History

## Discussion

Our review of a selection of GLF reports has identified a range of training needs for our workforce. These needs were discussed with the individual pharmacists and would have formed the basis of their ongoing education, training and development.

A study by Dyke *et al.* showed that many practitioners choose CPD activities based on personal interest rather than identifying their learning needs through reflection, self-assessment or peer-review with feedback (Dyke *et al.*, 2009). Continuing Education differs to CPD, in that CPD is the process of identifying learning needs for an individual, developing a structured learning plan with defined actions and goals, as well as documenting this process, the outcomes and self evaluation (Austin *et al.*, 2005; Goodwin *et al.*, 2010; Power *et al.*, 2011). Compared to continuing education, which is merely participating in, or undertaking continuing education. In the context of ongoing development, CPD plays an important role, as long as the focus is on development of knowledge, skills and behaviours and not just "doing CPD", which the GLF is a useful tool for facilitating this process (Antoniou *et al.*, 2005).

Traditionally pharmacist's ability to perform their role has been evaluated by documentation of clinical interventions, adherence to institution-specific professional practice standards and self-evaluation. However, demonstration of knowledge, skills and abilities more accurately reflects professional competency (Bruno *et al.*, 2010; Goodwin *et al.*, 2010). The GLF has demonstrated an improvement in pharmacist's performance over time (Antoniou *et al.*, 2005; Coombes *et al.*, 2010), and assists with the identification of training needs (Coombes *et al.*, 2010). Of 219 GLF evaluations, 102 evaluations documented various developmental areas for improvement and 153 (70%) evaluations recommended undertaking some form of CPD as part of an individual development plan, including attending the up-skilling workshop.

CPD encompasses life-long learning with a view to attaining consistent performance within the scope of practice at that specific time. CPD has to be targeted, relevant and achievable, and the development itself demonstrable. The process of identifying learning needs and implementing new knowledge in improving practice and patient care could be considered unfamiliar territory for many pharmacists (Austin *et al.*, 2005; Power *et al.*, 2011) but is critical in order for pharmacists to work with other health care professionals and take responsibility for medicine related health outcomes.

A total of 83 (38%) pharmacists had recommendations to undertake an SHPA seminar to assist in developing their knowledge and skills to enhance their performance in clinical practice. The SHPA seminars cover a range of clinical areas including, general medicine, paediatrics, critical care and oncology, catering to a range of skill levels from introductory to advanced level, and are delivered by some of Australia's leading advanced pharmacists.

Of the 15 most frequent recommendations identified from this study common themes relating to the learning objectives outlined for the up-skilling workshop included communication, teamwork, prioritisation and pharmaceutical review activities such as use of guidelines or references and

documentation of clinical pharmacy review activities. The learning objectives for the up-skilling workshop cover 5 key areas which include [1] understanding the GLF, [2] pharmaceutical review and practice specific skills, [3] effective communication and graded assertiveness, [4] the requirements of an effective team and [5] learning from other practitioner's techniques and knowledge. These objectives are targeted to providing skills-based training to develop a pharmacists' ability to use and apply knowledge to optimise pharmaceutical healthcare.

### Conclusion

The GLF is an effective tool for identifying, monitoring and evolving pharmacists' training needs. It is also useful for designing workshop learning objectives to meet the needs of a target audience, such as early career pharmacists. The importance of CPD actively involving self and peer evaluation and feedback in conjunction with agreed development plans and subsequent provision of relevant and targeted education and training have been highlighted in this study as paramount to meeting the needs of pharmacists in maintaining and enhancing quality pharmaceutical healthcare.

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**Appendix A:**

Queensland Health General Level Framework For Evaluation and Feedback on Pharmaceutical Review Activities  
Adapted with permission of the Competency Development and Evaluation Group ([www.codedg.org](http://www.codedg.org)) and Safe Medication Practice Unit

**Part 1: Delivery of Patient Care - Specific Comments**

Date of visit: ..... Review (circle): Baseline / Review No: .....

General comments on Delivery of Patient Care Competencies:		
Areas in which performing well:		
Areas for improvement:	Action to be taken by pharmacist:	By when:

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**Part 2: Problem Solving Competencies - Specific Comments**

Date of visit: ..... Review (circle): Baseline / Review No: .....

General comments on Problem Solving competencies:		
Areas in which performing well:		
Areas for improvement:	Action to be taken by pharmacist:	By when:

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**Part 3: Professional Competencies - Specific Comments**

Date of visit: ..... Review (circle): Baseline / Review No: .....

General comments on Professional Competencies:		
CPD portfolio sighted and discussed: Yes / No		
Areas in which performing well:		
Areas for improvement:	Action to be taken by pharmacist:	By when:
Suggested learning experience / clinical case to be shared:		