

Developing a process for credentialing advanced level practice in the pharmacy profession using a multi-source evaluation tool

By Cathrine McKenzie, Mark Borthwick and others on behalf of the expert practice development group of the United Kingdom Clinical Pharmacy Association critical care group

The advanced to consultant level developmental framework (ACLF)^{1,2} is a nationally recognised competency framework that describes levels of advanced practice (foundation, excellence and mastery/consultant) and the competencies required to practise at each level. Competence to practise at each of these three levels is subdivided into six specific domains: expert practice, building working relationships, management, research, education and training, and leadership.

In 2005 a collaborative project between the United Kingdom Clinical Pharmacy Association and the Department of Health refined the ACLF for pharmacists in critical care.³

In addition, the critical care curriculum framework (CCCF) was developed, which described the specialist knowledge and learning required to work in this clinical

environment; this was recently stratified and mapped to levels of practice.⁴

Practitioners and managers therefore have access to comprehensive guides to the knowledge, skill, experience and practice competencies required for practice in acute critical care settings.

Practitioners in critical care are encouraged to assess themselves against these competency frameworks. However, there was no systematic and robust method to determine independently where a pharmacist's practice is located within a framework matrix.⁵

There was a desire from the practitioners for external assessment of their knowledge and competence in practice and recognition that the mandatory continuous professional development and revalidation of practice would become routine. This has been recognised by other healthcare professions. The medical profession starts revalidation every five years in 2011.⁶

The UKCPA critical care group was commissioned by the association to develop a multi-source tool credentialing process for advanced level practice coupled with an evaluation of outcomes of such a process. This article describes the project, the model credentialing process that was developed and our experience in using it to evaluate pharmacists against a previously validated practitioner development framework.

The project sought to establish a robust system to assess, credential and recognise expertise in advanced practice using critical care pharmacists as an example.

We defined credentialing as the process by which the competence of an individual can be attested (evidence-led) by a third party with the relevant *de jure* or *de facto* capability. The

ABSTRACT

Aim

To establish a robust and credible evidence-led system to evaluate and recognise advanced practice in critical care settings as an example of a process of practitioner credentialing.

Method

The project group considered a number of evaluation tools to assess and validate pharmacists aspiring to practise at advanced levels. These tools needed to be robust, reliable, efficient, evidence-led and comprehensive. A credentialing panel was proposed to consider candidates' evidence of practice and provide a credible end result of the credentialing process.

Results

A multi-source evaluation was proposed, using portfolio (combined with *viva voce*), specialty-based assessment and multiple source peer review. Each candidate was considered individually by the credentialing panel using this evidence and mapped against the advanced and consultant level framework (ACLF) and the critical care curriculum framework (CCCF). An individual result based on the ACLF was proposed (using the three levels). The multisource evaluation took place on a single day (with prior preparation) and was tested on 10 practitioner candidates.

Conclusion

The UKCPA critical care group has devised and tested a process for recognising advanced-level practice in a clinical pharmacy environment that fulfilled its pre-defined criteria. Although tested in a critical care setting, the process has application in all specialties of pharmacy practice.

third party in this case was the UKCPA critical care group expert practice development group, representing leading-edge practice.⁷

The project team was tasked to report and recommend methods that accurately and robustly capture and verify evidence of knowledge and application of skills of advanced practice capability. Additionally, the project was to evaluate systematically the evidence of knowledge and application of skills of advanced practice against the CCCF using multi-source tools and feedback.

Methods

Project team

The project team comprised pharmacists who had been working in critical care in the UK for more than three years and had made a substantive contribution to critical care practice, including participation in national

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PANEL 1. AGREED CRITERIA FOR ACCREDITATION TOOLS

Robust	Able to deliver an outcome that can withstand external scrutiny, to the extent that a higher education institution could offer academic credits with minimal additional evidence
Efficient	To make effective use of resources
Consistent	To deliver external validity, inherently independent of individual evaluators
Practical	Implementation must be feasible for an organisation such as the UKCPA, or any established and credible professional body
Holistic	To gain an understanding of the scope of any candidate's professional capability, attitudes and skills

education events and peer-reviewed publications. A prerequisite was membership of the UKCPA. This project team was known as the expert practice development group. Additional academic support for pharmacy managers and experts in education was sought on a consultancy basis.

Credentialing process design

Tools for accreditation The project team evaluated multiple validated evaluation methodologies and tools that were in use as part of structured education and training programmes.^{8,9} The methodology toolbox was judged against criteria considered to be essential by the UKCPA team for the credentialing process to work effectively and sustainably (Panel 1).

The tools selected were agreed by consensus of the project team.

Assessment process Consideration as to where the assessment should take place was debated. A single location for all assessment methodologies was agreed.

The credentialing panel A credentialing panel was proposed that would consider each candidate during assessment. The panel considered each pilot candidate from the perspective of the evaluation tools and assigned a location for each of the six competency clusters of the CCCF/ACLF as determined by each method (patient-based assessment, wider peer assessment and portfolio/viva voce examination).

An overall practice level location matched to the advanced to consultant level developmental framework (foundation, excellence or mastery) was assigned for each of the six main clusters by the panel, which also noted particular points of commendation, developmental needs and any other professional development issues required for the purposes of feedback.

A timescale recommendation for reapplication for evaluation was made where the panel decided that this would be in the candidate's best interest for continued development. All candidates received structured feedback on the credentialing process against the evaluation criteria.

Results

Three tools were agreed and used in the assessment process. These were:

- Demonstration of practice over all six ACLF developmental framework domains via submission of a portfolio of practice
- Objective demonstration of their level of specialised activity through clinical examination and case-based discussions
- Demonstration of their level of engagement at base by way of 360-degree assessment by colleagues (multiple source feedback)

Portfolio of practice

To ensure the assessors had a reasonable opportunity to review the portfolio these were requested in advance, and clear instructions were provided as to the contents and layout.

The candidate portfolio should contain:

- An executive summary and overview allowing quick reference of portfolio contents (in digital format)
- Details of the candidate's practice role, including a curriculum vitae, current job description, job plan and organogram for the candidate's post, together with an illustrative outline of the critical care pharmacy service (such as context)
- A self-assessment using the ACLF-style matrix
- A range of documents put forward as evidence by the candidate to be illustrative of their level of practice (breadth, scope and complexity) to support the self assessment
- Other evidence or reports of formal peer reviews conducted by appropriate evaluators (multiple source feedback)

Assessment in practice

An accompanied clinic or placement was agreed to ensure practice competence and performance was assessed.

For clinical pharmacists this would be patient centred. For non-clinical colleagues this could be transferred to an appropriate alternative (for example, a production unit, verifying documentation; or in a medicines information environment, handling complex queries and information retrieval).

Case-based discussions and clinical examination, both tools in use in the pharmacy and medical professions were adapted to provide reliability and consistency of assessment.⁸

Peer review of practice

A 360-degree appraisal was proposed to allow some perspective from colleagues of the candidate's ability to function within the multidisciplinary team, and their colleagues' perception of their depth of practice.⁹ Multiple source feedback of this type is

recognised across professions as a key ingredient for credible validation of practice.

Panel 2 summarises the full process from candidate submission to outcome. Significant administration time was required to ensure the process ran smoothly on the day.

The credentialing panel

The credentialing panel was comprised of the four consultant pharmacists in critical care. They were specifically selected by the project team as they had undergone an external process of validation. Senior academics and NHS service managers were also selected to ensure the panel had the appropriate breadth of practice.

Testing the credentialing process

To assess the proposed credentialing process, 10 volunteer practitioners were assessed and then evaluated by the credentialing panel. The team solicited detailed feedback from both the candidates and the evaluators.

Candidate selection

Candidates were self-selected by expressing an interest after a general call made via the UKCPA website (www.ukcpa.org). There were initially 20 expressions of interest, from which 10 candidates eventually put themselves forward for credentialing. All candidates were informed and consented to the intent of the process and the actual mechanisms of the

PANEL 2: ASSESSMENT PROCESS SUMMARY

- 1 Candidate application/selection and administration system
- 2 Multi-source feedback requests sent out four to six weeks in advance
- 3 Portfolio matrix/summary submitted one week in advance by candidate
- 4 Credentialing and evaluation day:
 - Ward/environment-based evaluation:
 - Two evaluators present (one main, one observer)
 - Case-based discussion (20 minutes preparation time, 30 minutes evaluation)
 - Clinical evaluation exercise (no preparation time, 30 minutes evaluation)
 - Viva voce: 45-60 minutes — two evaluators present (one clinical, one academic)
- 5 Credential panel meeting – summarising the evidence
 - Final assignment of level across six main domains after review of results from viva voce, ward-based evaluation and multi-source feedback
 - Identification of strengths/weaknesses and suggested strategies to improve for feedback summary
- 6 Feedback communication to candidates

proposed process itself. The process was tested in two cohorts, with modifications to the process enacted after the first pilot cohort following an initial appraisal of the process. For brevity, we report here the full process review and conclusions.

Structure

The multi-source peer assessment tools were circulated to candidates before the credentialing day, as were the full logistical and administrative details. On the appointed day, candidates were taken to the ward area by an evaluator and each candidate was asked to assess two patient cases. In each case, they were asked to assess the patient, identify and discuss key pharmaceutical problems, prioritise problems and provide a pharmaceutical care plan. Candidates undertook an individual viva voce lasting an hour with two additional evaluators, who had previously reviewed the portfolio without the candidate being present.

Review

The credentialing panel evaluators met for a review session and evidence from each candidate was discussed individually. An evaluation of the level of practice for each of the six ACLF main domains was made for the portfolio, the viva voce and the ward evaluation.

The results from the multi-source peer review tools were presented and discussed for each candidate. A resultant level of practice was assigned for each of the six main competency domains in the advanced to consultant level developmental framework matrix.

Discussion

This study describes a credentialing process for pharmacists working at or aspiring to work at advanced levels of practice in critical care environments. To the best of our knowledge, this is the first UK report of such a process that includes both an evaluation of practice in a specialty and a structured portfolio review.

Although the process was tested on pharmacists specialising in critical care, we believe that it is transferable to other clinical and non-clinical specialties within the profession of pharmacy. A number of practitioners from other disciplines in pharmacy observed the second assessment. The conclusion was that, with modifications around content, the structure and process described would be applicable for other disciplines within pharmacy.

The investigators believe that the process is a valid and reliable credentialing process and is acceptable to practitioners. The method described here has been assessed and validated with 10 practitioners and an evaluation of their level of competence determined. Members of the credentialing panel were consultant critical care pharmacists, who had been recently externally verified in the recruitment to their posts, as well as service managers and pharmacy academics experienced in assessment

GLOSSARY OF THE ASSESSMENT TOOLS

Practice portfolio

Description Practice portfolios are collections of representative documents, intended to illustrate the variety and depth of activities performed throughout an individual's professional career. For the purposes of this project, and for evaluation of practice level, it was deemed essential that the portfolio provide evidence of the candidate's level of practice, and be directly mapped on to the ACLF.

Assessment methodology A viva voce was considered essential in evaluating the practice portfolio to explore, to corroborate or to refute the evidence presented therein and would help establish the true level of capability of the candidate. It was considered that a panel should assess the practice portfolio, comprising a senior pharmacist currently working within the candidate's specialty (such as a NHS consultant pharmacist) plus a senior academic pharmacist who has experience of the academic rigour required for evaluation of this type of evaluation method.

Emphasis was very much on the quality and not the quantity of the evidence submitted, and candidates were advised to provide examples that demonstrate their highest level of practice.

Case-based discussions

Description Case-based discussions (CBDs) are designed to assess clinical decision-making and the application or use of knowledge in the care of patients appropriate to the candidate's own clinical specialty. The candidate has time to prepare for the evaluation, and the main focus of the evaluation is the candidate's prioritisation, proposed management of pharmaceutical issues and knowledge of their specialist area uncovered in the preparation time.

Assessment methodology The observation provides real time evidence of the candidate's approach, attitude and application of in-practice competencies. It allows an accurate view to be formed of the candidate's hands-on competencies compared with predominantly document-led work presented in the practice portfolio.

Mini-clinical evaluation exercise

Description The mini-clinical evaluation exercise (CEX) was originally developed in the US by the American Board of Internal Medicine, and normally involves the observation and evaluation of practitioners in their day-to-day work. Under the Modernising Medical Careers structure, junior doctors use the mini-CEX (and case-based discussion) to evaluate their practitioner/patient interactions, and specifically to evaluate skills, attitudes and behaviours of the practitioner in question.

Assessment methodology Clinical practice capability was assessed using both case-based discussions and a mini-clinical evaluation exercise. The cases were selected 24 hours before the evaluation day by the site co-ordinator and the two evaluators of the CEX and CBD. A series of questions were agreed that were designed to discern different levels of practice.

For the CBD the candidate was allowed 20 minutes to prepare the case with a facilitator present. The candidate then presented the CBD back to the evaluator who questioned the candidate on the case for up to 30 minutes. The CEX was undertaken in the practice environment, focused on patient care. To add an extra dimension of reality to the CEX, an intensive care consultant approached the candidate with a pre-agreed clinical query. The use of real patients meant that all aspects of the candidates' approach could be viewed (including cursory glances at monitors, noting type and quantity of medical equipment supporting the patient, etc). One evaluator assessed all the CEXs and another all the CBDs to ensure equitable due process and reduce variance. In this pilot, these assessments were also observed to enable discussion of appropriateness and probity.

360-degree peer assessment

Description Pharmacists are members of multidisciplinary teams and much of the work a candidate undertakes is within that team. A broader viewpoint on the candidate's usual performance can be obtained from a multi-professional perspective by asking other work colleagues to locate the candidate across all six competency domains. This provides evidence of effective practice in the candidate's usual work environment from a perspective other than that of the candidates themselves.

Assessment methodology Candidates were asked to nominate five members of their team before the assessment day. One of these should be their pharmacy line manager. A truncated version of the ACLF was sent to all the nominated peers with instruction to mark where they thought the candidate was practising. Overall, 80 per cent of the peer assessments were returned.

methodology, giving the panel the appropriate gravitas. Using the 360-degree assessment to triangulate the views of the assessors added further confidence that the practice observed was reflective of usual practice.

All candidates commented on the process. The feedback from the first cohort was implemented into the process for the second cohort. In general, the overall impression from the candidates was that the process was fair

and robust. Feedback from the project team and credentialing panel supports this view.

This proposed method of credentialing practice using designated sites would allow organisations such as the UKCPA and partner organisations to evaluate and credential pharmacists in practice as well as provide structured feedback that would contribute to the development of their practice.

The viva voce was found to be a highly effective tool for evaluating candidates and verifying material presented in the portfolio. Assigning a minimum of two credentialing evaluators minimised bias and these were different from those who undertook the clinical practice evaluations. An external validator could view a number of the viva voces, to ensure consistency between candidates.

The practice portfolio was used to provide evidence for level of practice. Two methods of portfolio structure emerged. One tended to list the evidences separately (as a listing), and candidates mapped these on to the advanced to consultant level developmental framework using a matrix approach. The second saw candidates listing evidences under each ACLF cluster, repeating these where necessary in a matrix, as some types of evidence can have more than one competence cluster categorisation.

The investigators recognise that more formalised advice and support needs to be provided to future candidates to ensure portfolio construction allows rapid review by an evaluator.

The use of an electronic, web-based submission form is envisaged and under development. This type of system is already in use or being developed, such as those used by the National Research Ethics Service.

An online version of the ACLF is being developed by UKCPA and others. This will be a valuable support aid to practitioners for portfolio construction and development, and functionally suited for credentialing and appraisal processes.

Using the case-based discussions and clinical evaluation exercises, it was possible to determine whether the candidates' approach was structured, systematic and capable of identifying key pharmaceutical care issues. The location and format of the practice evaluation was carefully debated during the project development phase. The cost of assessment in the practitioner's home

environment was thought to be prohibitive, despite the benefits of observing the candidate's interaction with peers, colleagues and patients.

Cases were pre-selected by the credentialing panel and were those considered to reflect what most pharmacists would expect to see on a general critical care unit. The use of the same patients for each candidate increased the consistency of the approach.

The results of the peer assessment (360 degree) were found to be valuable as an indication of the candidate's level of practice in their home environment in addition to providing an insight into the involvement of the candidate in the wider multi-professional team. The peer assessment proformas were time-consuming to complete, and did not provide sufficient clarity, especially for non-pharmacists. Electronic versions are now available and adaptable for use as a credentialing tool for multi-source feedback for candidates, such as the miniPAT developed by CoDEG.⁶

There are limitations in the proposed method. The assessment process was time-consuming for assessors and candidates. The credentialing team was able to assess six pharmacists on the first day and five on the second. There was spare capacity on both days and the project team concludes that up to 10 candidates could be evaluated in one day. Further work needs to be done, in considering whether credentialing days could be attached to national symposia where a number of candidates could be assessed at the same time.

Colleagues in the medical profession are already entering the era of revalidation, which will commence this year.⁵ Revalidation will be by appraisal and multi-source feedback, with skills and assessment undertaken by the royal colleges, perhaps not too dissimilar to the credentialing model proposed here. It is proposed that this assessment method should be required for revalidation of expert pharmacists practising at an advanced level. Future work by the group may involve testing the relevance of this process to revalidation.

The ultimate aim of a system for developing and evaluating practice is to improve standards of patient care. This will be achieved by ensuring that all practitioners who work within a defined scope of practice have been independently evaluated and

credentialed as competent to do so by their peers. We believe that the evaluation methodology described above is a small but significant step towards that goal.

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COMMENTARY — THE OBSERVERS' VIEW OF THE CRITICAL CARE CREDENTIALING DAY

The critical care credentialing project group invited observers to the second of its critical care credentialing days, held at Guy's and St Thomas' NHS Foundation Trust on 20 January 2010.

The observers were asked to provide feedback on what they saw, particularly in terms of assessment robustness and transferability of the process to other areas of practice. The observers came from different backgrounds and professions and have all had some involvement in professional assessment during their careers.

What happened?

Both observers witnessed at least one participant undertaking workstations that included:

- Clinical evaluation exercise (CEX) involving a patient and their medical team
- Case based discussion (CBD)
- Multisource feedback review (MSF)
- Viva voce including portfolio review with interview questions

What did we think?

Keith Young was the head of policy for critical care at the Department of Health at the time of writing. He has advocated and promoted the development of the multi-professional team within critical care for many years. He has strongly supported the development of competency frameworks for specialist critical care clinicians that meet patient needs and facilitate clinical training and accreditation. He was instrumental in the development and publication of "Adult critical care: specialist pharmacy practice", which describes competencies and levels of practice for critical care pharmacists.

He said: "I was looking for a process that provided an authoritative way for professional clinical skills to be recognised and judged using a process that is fair, transparent, efficient and robust, and is repeatable in a consistent and reliable way in other settings. This process tested individuals' clinical competence, knowledge and

communication skills effectively and equitably and, therefore, these objectives were met.

The day was well planned and efficiently run. The inclusion of the medical consultant was excellent and essential. Discussion with a non-pharmacist 'stranger' robustly tested candidates. Perhaps the candidates could have been further tested by the consultant deliberately suggesting something that was wrong or inappropriate. I think it is incumbent upon anyone who seeks to describe their practice as 'excellent' and particularly if they aspire to 'mastery' level to have the confidence to pick up another professional even if they are more senior or authoritative, should they make an error.

"Given that some candidates were unfamiliar with the electronic record system used, it would be worth considering making an allowance for this when judging performance, although if all candidates were unfamiliar with this particular system, this would help to minimise the effect of this. In the same way, there may be a case for examiners from the trust to ensure candidate familiarity with any unusual procedures common to tertiary centres so that this does not unwittingly influence questioning or candidates and judgement of responses. Examiners could ask candidates to describe briefly the unit they normally work in and their typical case mix to support this. We need to ensure that those working in district general hospitals have the opportunity to become 'excellent' or 'masters' of their craft so that hospital location and size does not deny patient's access to skilled and experienced practitioners. Networks of practitioners (which currently exist) will support patient access to experienced practitioners irrespective of location."

Nina Barnett is a consultant pharmacist working with older people and has led on the development of the care of older people pharmacy advanced practice curriculum, which has been endorsed by the British Geriatrics Society. She has been

involved in master's level pharmacist assessment as part of the postgraduate masters in pharmacy practice at the University of London. At the time of writing, she was seconded to the Royal Pharmaceutical Society as a professional development and support consultant.

She said: "This was a very well planned and executed day. The critical care group has clearly put huge time and effort into planning, using academic and practice based support to create a robust process. In observing the candidates, I felt there was a clear benefit to the inclusion of all assessment tools and in the one portfolio interview I attended, I felt I was able to 'assess' a candidate in five of six clusters (obviously excluding expert practice) and my observations concurred with the experts'. This reaffirmed my view that this assessment process and the tools supporting it are entirely transferable to other specialities. I am looking forward to investigating how this process can be adapted to pharmaceutical care of older people.

"I wondered about the use of standardised, pre-agreed questions and 'live' versus 'non-live' cases. The assessors explained that the relative merits of each were the subject of continuing discussion. If the number of candidates increases, the amount of time allocated for feedback for each candidate may need to be reconsidered.

What were our conclusions?

We both thought that this was a well organised day, effective in achieving its aims and wish to compliment the critical care team. The process was considered to be transferable and transparent. There is now an opportunity to showcase critical care work to other expert pharmacy groups, looking at the merits of all processes available and consider the scalability of the process if were to be used widely across the profession. The aim would be to develop a core of competencies tested across all groups that would support mid-level workforce development and flexibility. — *Contributed by Nina Barnett.*