# A credentialing process for advanced level pharmacists: participant feedback data.

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# Abstract

#### Aim

To evaluate the impact of a prototype credentialing process, for pharmacists in advanced levels of practice, by assessing the practitioner candidates' feedback on the overall experience and the impact it had on their professional roles and career perspectives.

#### Design

The UKCPA Critical Care Group have produced and piloted a credentialing process which has been run for three years. Opinions and perceptions from the candidates involved in the assessment days will be useful for future adjustments and implementation in other specialities. A qualitative survey was designed to provide a basis for an in-depth analysis of their perceptions.

#### **Subjects and Setting**

All candidates assessed by UKCPA CCG since 2009 until 2011 were surveyed with an online form, comprised of both closed and open questions. All responded.

#### Outcome measures

Demographic responses were statistically analysed, while the qualitative data was analysed via a 'matrix' qualitative approach that involved an iterative coding and weighting process, verified by a second researcher for credibility.

#### Results

The three cohorts were compared in terms of gender, job grade and years of expertise. Also, three main themes were extracted from the data and were mapped against the respondents' cohort and the relative 'positivity' of the responses and impact on personal practice and career development.

#### Conclusion

A credentialing process is feasible and useful for clinical pharmacists, providing a good measure of competent performance. There is more to be learned about the logistics but the UKCPA CCG process has improved with experience. Practitioners valued the experience in terms of professional and personal perspectives.

# Background

As drivers for health services changes continue to grow, the knowledge and skills required to deliver those services will inevitably change.<sup>1</sup> Although studies on this matter are not conclusive, the implementation of a credentialing (or professional recognition) process for advanced expertise may help both practitioners and health care employers to ensure better patient safety, better quality of care and better outcomes.<sup>2</sup> The concept of credentialing is already in use in some healthcare professions and can be defined as *a quality assured process which recognizes a practitioner's attainment of the required knowledge and skills at a particular level of practice. Crucially, this is a process conducted through professional peer review, and is not connected with a regulatory function. It exists for the purposes of validation of practice by peers, and demonstrates* 

a recognition of practice which has value and merit for the general public and other members of the profession or professional colleagues.<sup>2,3</sup> Furthermore, professional recognition and credentialing might be applied for three different purposes: to support practitioner development and progression through training; to support revalidation of practice; and to ensure a quality assured, robust evaluation of advanced levels of practice.<sup>2</sup>

The United Kingdom Clinical Pharmacy Association Critical Care Group (CCG) was requested by the Association to create and test a multi-source tool to assess, credential and recognise expertise in advanced practice and to evaluate the outcomes of such process.<sup>3</sup> The Advanced and Consultant Level Framework (ACLF) and the Critical Care Curriculum Framework (CCCF) were the foundations of the methodology developed.<sup>4,5,6</sup> In order to test this process, 17 critical care pharmacists volunteered to participate in the prototype credentialing method. A group of examiners was selected by the project team who comprised consultant pharmacists in critical care, senior academics and senior NHS service managers. Candidates were assessed via a set of tools, which included a structured practice portfolio, case-based discussions (CbDs), clinical evaluation exercise (CEX) and 360-degree peer review and were subject of a final evaluation of their level of practice against each of the six ACLF main cluster domains.<sup>3</sup> Moreover, it was proposed that this core process could be applicable for use in wider circles of the pharmacy profession, including general level practitioners.<sup>2,3</sup> The full process review and conclusions on the method has been described and published .<sup>3</sup>

Further work needs to be undertaken regarding credentialing efficacy and correlation with clinical outcomes.<sup>2</sup> So it is of interest to assess the candidates feedback on the overall experience and the impact that the process had on the continued development of their practice and careers. Candidates' opinions and perceptions of the process will be important for future adjustments, uptake and implementation in other specialities.

#### Aim

To understand the impact of this professional recognition model in pharmacy practice by assessing the impact and effect on candidates' professional roles and career perspectives.

## Objective

This feedback audit was intended to assess the candidates' experiences and perceived impact of the credentialing process through a qualitative survey. The practitioner candidates who experienced the prototype credentialing model were asked to describe the effect of the process on their practice and career perspectives, in terms of recognition of knowledge and skills by other professional and non-professional colleagues, increased professional flexibility within health institutions and quality of care delivered. Candidates had the opportunity to report difficulties they may have felt and make suggestions. The main objective was to gather information in order to clarify some aspects of the method that may need improvement. Also, candidates were asked about the changes they have made in their practice after the evaluation process. Candidates were drawn from the three cohorts who had volunteered for inclusion in the UKCPA CCG project in 2009, 2010 and 2011.

#### Methodology

#### Sample

The audit sample consisted of all the critical care pharmacists (N=17) who had been assessed via the credentialing process. One of the candidates went through the process more than once (2009 and 2010) to check for consistency, however, for this audit, was considered as a single candidate. They were invited to participate via email which comprised of an introductory message, information on the intent of the survey, how it would be conducted and assurance that confidentiality would be ensured.

#### **Data Collection**

The data was collected through a structured and selective process, in the form of an on-line survey.<sup>7,8</sup> The survey included both closed and open questions; the former for demographic information and the latter in order to allow respondents to describe their relevant experiences and to provide a basis for an in-depth analysis. The survey questions are shown in Table 1.

#### Data analysis

In order to analyse the demographic data, the ANOVA (with Bonferroni) test was performed, using the SPSS version 17 (NYC). The qualitative data was analysed using a 'matrix' qualitative approach (Miles and Huberman<sup>7</sup>), thus the information was assessed using an iterative coding and tabulation process. The iterative process allowed for the identification of principal themes within the data and associated thematic codes, which were grouped into three main themes to form a coding frame. All responses were tracked using the data reference ID and were mapped to the cohort, in order to provide context for analysis. The tracked and coded data were displayed in a matrix format containing the themes, thematic codes and the respective coded segments of representative data. This first iterative matrix was then subject to a sorting process, within the matrix, in which responses were categorised into positive and/or negative commentary within each

theme ('Matrix by Theme'). This process was validated by a second researcher before continuation. A further version of the matrix was then created by subdividing positive and negative columns into the relevant candidate cohort ('Matrix by Cohort') where a "cohort" was defined as the year in which candidate was subject to the credentialing process (either 2009, 2010 or 2011). The sorted data from the 'Matrix by Theme' was subjected to a weighting process, which was based on strength and depth of positive/negative coded text within the data and the relative quantity within the coded excerpts. This developed into the final version of the matrix (Appendices 1, 2 and 3). All steps of the iterative and weighting process were verified by a second researcher for credibility.<sup>7,8</sup> Conclusions were drawn from the coded excerpts and weightings, and were confirmed, tested and verified against the raw data by two researchers, in order to ensure continued credibility and reliability of the analytic process.

#### Results

An overview of the demographic description of the cohorts is presented in tables 2 and 3. Within the three cohorts, one can see that candidates in the first cohort had more experience in pharmacy practice (p= 0.001) and also in critical care environments (p=0.005). There was little difference in these aspects between the two subsequent cohorts in 2010 and 2011 (table 3). The themes and thematic codes extracted from the raw data through an iterative process are represented in figure 2.

As the two final matrices, 'Matrix by Theme' and 'Matrix by Cohort', are too large to reproduce in this paper, excerpts of the 'Matrix by Theme' are provided in Appendices 1, 2 and 3.

#### **Thematic Descriptions**

After conducting the iterative coding process, three principal themes emerged from the data; aspects of the evaluation and credentialing process (Process Context); the practitioners' own context (Personal Expectations); and the practice context for the practitioner (Professional Context).

#### **Process Context**

The candidates generally considered the assessment environment to be appropriate, although with some limitations, such as limited space and a "busy" clinical department. Nonetheless, the process used the environment appropriately. There were some concerns about the unfamiliarity with the department, staff and electronic system (for the visiting candidates) which may have affected candidates' performance on the assessment day. Consideration should be given to using paper

notes or provide a local 'helper' for using any electronic record systems (which tend to vary between locations).

Duration was perfect; there was a lot to fit in and spreading it over a day made it less intense. Doing it in a working environment made it more real to life and so simulated the pressures of a "normal day". ...A home environment would be impossible to organise so I think if the process was done again a similar set up would be the only feasible option. (1480780223) (2010 cohort)

It was stated there was a good balance between time and thoroughness.

Tiring day, but enough time to fit everything in. Environment was fine, although potentially quite hard to get used to computerised system, despite someone navigating for you. (1486433783) (2010 cohort)

The credentialing model was seen as a valid and robust process, as it evaluated candidates in a working environment, with different types of assessments and different assessors, which reduced bias.

I thought it was well organised and the assessment types gave an opportunity for assessment in different environments with different assessors and different modes of assessments all of which serve to assess the whole practitioner. (1487145646) (2011 cohort)

More guidance and support for portfolio construction is needed. It was seen as a time consuming task (perhaps due to this being the first time a practitioner had been required to construct a practice portfolio) and possibly a good idea to create a standard template, in order to facilitate construction and review.

Developing a standard template electronic portfolio would be of benefit to both assessors and attendees, especially those developing portfolios from scratch for the purposes of this process. Time taken to review portfolios would be significantly reduced by standardisation. (1497647908) (2010 cohort)

It was seen as useful to be assessed by peers, who are respected across the pharmacy profession. However, "examiners" need training and development to ensure quality in the process. A more relevant issue for the first cohort (year 2009) perhaps due to 'novelty' of the examiners and these comments were not seen in subsequent cohort assessments, which reveals improvements in the process.

Mine was the 1st version and it was fairly chaotic as it was all new to the examiners. I felt that the viva was unnecessarily confrontational and aggressive and not very skilled in asking the right questions. On subsequent sessions we have had a moderator to at least talk through before hand what was reasonable to expect. (1471791713) (2009 cohort)

It is really useful to be assessed by your peers and people whose opinion you respect. However I think it is important to be precise about what is expected from the candidate eg the viva I was also expecting questions rather than for me to justify my level of expertise. (1479832704) (2010 cohort)

The process is useful to understand what is expected from pharmacists at advanced levels of practice. However, it needs to be made more clear what is expected from candidates, and it is important for the process to have clear structure and consistency.

It was a good attempt at finding out what is expected of pharmacists in this area from specialists i.e. pharmacists and clinicians. (1492409029) (2010 cohort)

#### **Personal Expectations**

The outcome of the process tended to meet majority of personal expectations. The majority also considered the feedback as useful, reflective, practical and constructive.

Yes, but I would say the evaluation outcome was more positive than I expected. (1487145646) (2011 cohort)

The process is a good support for identification of areas for improvement and ways of approaching and developing them. It was seen useful as guidance for training and improvement purposes.

It gave me reinforcement of the areas I need to focus on to better round my practice which were in line with what I had thought but was reassuring to have someone else reinforce this. Research was one of the areas I knew I needed more work in and this was reiterated by the assessment - hence my priority for the next 6-12 months is to take the many projects I have on the go to publication. (1487145646) (2011 cohort)

The credentialing process was seen as an incentive for reflection, both for the individual candidates and for local managements and organisations. The process led to changes in practice by means of action on feedback or subsequent reflection, and this way, improvement in practice.

The structure of the advanced practice guidance and building of the portfolio were useful to help me think where I should develop my role in the future. (1483191890) (2009 cohort)

I was advised to progress my research activities to attempt to get this funded...subsequently I am a grant holder on a NIH grant of £220,000 study, so I have made progress in this field. (1471791713) (2009 cohort)

The credentialing process leads to longer term reflections and subsequent actions. In addition, the outcomes should lead to more sustainable and effective changes in the practice of pharmacists and in organisations.

#### **Professional Expectations**

Managers and peers were impressed by the method and considered it useful and valuable, and created conditions for consideration in appraisals and advancement in career. Also, the process

increased the candidates' confidence in their own knowledge and enabled the demonstration of level of practice in a formal manner.

I discussed it with my manager at my IPR review. They were impressed by it and thought it was a good idea and a good thing to have been involved with. (1479832704) (2010 cohort)

However the most important impact is on my own understanding of the level of my practice and being able to demonstrate this in some concrete form to my managers who have varying degrees of understanding of critical care practice. (1487145646) (2011 cohort)

The importance of the method was also revealed in identifying the level of practice and positioning within the ACLF. The construction of a practice-based portfolio together with mapping to the ACLF was seen as very useful, as well as the examiners' feedback, as a way of validation of self-assessment.

Preparing a portfolio and matrixing it to the ACLF gives you a realistic idea of where you are at before you attend. The results i got back were pretty much as i expected...with a good idea of where you are at. (1480780223) (2010 cohort)

The process was useful in identifying and prioritising areas for improvement. Guidance is needed, for education and training purposes, for pharmacists in advanced levels of practice.

I think it has shown that some kind of formal training should be incorporated in to pharmacists in permanent posts. I say this because not every hospital have established ICU pharmacists who can train a junior who could then go on to take a senior post in another ICU. (1492409020) (2010 cohort)

The credentialing process was seen as useful and relevant to career progression. It was helpful for prioritisation of areas for improvement, and it incentivised career progression. However, there is a need for creating conditions to equally implement the process across the UK.

The structure of the advanced practice guidance and building of the portfolio were useful to help me think where I should develop my role in the future. (1483191890) (2009 cohort)

The credentialing process has had a large impact on my approach to professional development and would almost certainly improve the career prospects of those who attend. (1497647908) (2010 cohort)

Profound as it identified where I am now and what i need to achieve in the future to help me model my future career. (1482200613) (2011 cohort)

The process led to improvement in career perspectives and was considered a better approach to career development, and acted as a drive for a change in institutions.

I hope it will encourage my department to facilitate some development in the future towards a consultant post...however I will be surprised if they actually do. (1486553853) (2011 cohort)

In order to summarise all the data and enable a visual demonstration of the results, a weighting approach was used to create a 'density chart'. This chart represents the three main themes

extracted from the data, which were then mapped against the respondents cohort and the relative weighting of the responses extracted from the coding matrix. A summation of all the positive/negative responses within the matrix provided a final weight which was charted as in figure 3. Darker cells correspond to more positive responses whereas lighter cells correspond to less positive or negative responses.

#### Discussion

The 'process context' of the credentialing event was the least positive set of experiences drawn from this respondent sample. It was rated lowest by candidates from the first cohort, probably due to inexperience of the assessors of this first cohort, and was still the least positive theme in later cohorts. Respondents mainly referred to unfamiliarity with the environment, issues with the portfolio construction and stresses during the assessment day. The 2009 cohort was a pilot and had some particular issues, as it was the first time the process had been used in practice. Examiners were not fully prepared for the demands of their task and in retrospect needed training and more preparation. However, these candidates were the most experienced in their field, and may not be representative of more typical types of pharmacists. More positive responses emerged over with the subsequent cohorts, showing that the CCG Team were learning and gaining experience as each iteration was developed, building up real-time experiences of managing the process. Overall, the majority of candidates considered the process as providing a valid and robust assessment of the practitioner, with minimal examiner bias.

Professional expectations emerged as being positive, increasingly so from 2009 towards 2011. Candidates from all cohorts agreed that the process is useful to define their level of practice and positioning within ACLF, thus increasing confidence in their own knowledge and validation of self-assessment. Moreover, having undergone this process, candidates realised the need for more formal education, training and guidance for pharmacists in advanced levels of practice, as these pharmacists may not have had access to peer review and formal learning in their field. In this way practitioners noted increasing confidence in providing evidence of level of knowledge to managers. The credentialing process was seen as relevant and developmental for career progression, as it helped to focus and improve practice.

Personal expectations showed a similar trend and increased in positivity over time. Opinions on the expected outcome are relatively more positive in 2011 cohort than in 2009 cohort however, candidates from all cohorts agree that the process was a good support for identification and management of areas for improvement. Written feedback and follow-up guidance were offered to the first cohort, but not every candidate took up this offer; however more formal feedback provided

for all candidates in the later cohorts, who considered it to be extremely useful. Furthermore, the process worked as an 'incentive' to both individual and collective reflection on career pathway and perspectives, leading to real changes in practice. Undoubtedly, the process entailed longer term issues, as reflections on outcomes and subsequent actions do take some time to develop into a sustainable and effective outcome for both pharmacists and organisations.

Finally, professional and personal expectations were most strongly mapped to the most recent cohort (year 2011), implying that the process, as a whole, was evolving to meet the aims and objectives of the process as a validation tool for practice in this stratum of practitioners.

These results provide confidence that a credentialing process is both feasible and useful for clinical practitioners, and provide a measure of competent performance for the pharmacists while evolving the pharmacy profession in the UK. There is more to be learned about the management of a credentialing process, but the evidence so far indicates that the UKCPA CCG are gaining valuable experience in this field of practitioner development.

# References

- 1. Resource Document Continuing Professional Development in Pharmacy. Washington DC: The Council on Credentialing in Pharmacy; 2004 April.
- Department of Health. Literature Review Relating to Credentialing in Medical Training. MACE; 2010 February.
- McKenzie C, Borthwick M, Thacker M, Shulman R, Offord R, Tomlin M, et al. Developing a process for credentialing advanced level practice in the pharmacy profession using a multisource evaluation tool. The Pharmaceutical Journal [Internet]. 2011; Available from: http://www.pjonline.com/files/rps-pjonline/pdf/Original%20Papers.pdf
- 4. Young K, Farrell J, McKenzie C, Tomlin M, Borthwick M, Forrest R. et al. New ways of working

  adult critical care specialist pharmacy practice. London: Department of Health and Clinical
  Pharmacy Association, 2005
- 5. Shulman R, Offord R, Thacker M, Whelan G. Critical Care Syllabus Foundation and Excellence Level UKCPA Critical Care Group. UKCPA, 2009
- A developmental framework for pharmacists progressing to advanced levels of practice. [cited 2011 Jun 13]; Available from:

http://www.codeg.org/fileadmin/codeg/pdf/ACLF.pdf

- 7. Miles MB, Huberman M. Qualitative Data Analysis. 2<sup>nd</sup> ed. SAGE Publications; 1994
- 8. Hammersley M, Atkinson P. Ethnography Principles in use. 3rd ed. Routledge; 2007

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#### **Tables, Figures and Appendices**

# Table 1: Please describe your experience of the UKCPA Critical Care Group credentialing method for each of the questions below.

- A. What was your overall impression of the assessment day attached to this credentialing process?
- B. What is your opinion on the environment where the evaluation took place and the duration of the assessment day?
- C. Were your initial expectations of the process matched by the actual outcomes of the assessment day? (For example, did the evaluation outcome correspond to your previous self-assessment?)
- D. From your point of view, did the feedback process and reflection led to any change in your practice? Can you provide some examples of this?
- E. Have you presented the feedback from the assessment day to your manager/department or did you use it for your own appraisal? If you did present it to your manager/department, what did they say about it?
- F. What is your opinion regarding the impact that the credentialing process had on your practice in terms of confidence, clinical outcomes, perceived quality of care?
- G. Did the credentialing process have an impact on your career perspectives regarding, for example, recognition by others of knowledge and skills, increased professional flexibility within the institutions, new career opportunities, etc.?
- H. Do you have any further comments or suggestions?

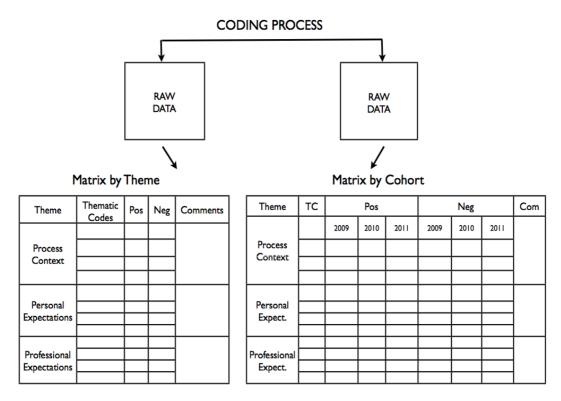


Figure 1 - Data Coding and Tracking Process Scheme.

#### Table 2 - Number of candidates mapped against gender, current job grade and cohort.

|                      | Gender |        | Current Job Grade |    | Cohort |      |      |
|----------------------|--------|--------|-------------------|----|--------|------|------|
|                      | Male   | Female | 8A                | 8B | 2009   | 2010 | 2011 |
| Number of candidates | 7      | 10     | 9                 | 8  | 5      | 5    | 7    |

Table 3 – Mean (SD) of candidates' number of years of post-registration practice and of number of years working in critical care environment. ANOVA (with Bonferroni) used to compare 2009 cohort and 2010/2011 cohorts.

|   | 2009 Cohort | 2010 Cohort | 2011 Cohort | р       |
|---|-------------|-------------|-------------|---------|
| Years of post-<br>registration practice – | 22.0 (3.7)  | 10.6 (2.1)  | 11.9 (3.0)  | p=0.001 |
| Mean (SD)                                 | 22.0 (0.7)  | 10.0 (2.1)  | 1110 (0.0)  | p=0.001 |
| Years working in<br>critical care         | 13.2 (4.5)  | 6.6 (2.1)   | 7.1 (2.2)   | p=0.005 |
| environment –<br>Mean (SD)                | 10.2 (4.0)  | 0.0 (2.1)   | ··· (∠·∠)   | p=0.000 |

Figure 2 - Themes and thematic codes extracted from the data.

#### **PROCESS CONTEXT**

Environment Location (Eloc) Environment Logistics (Elog) Duration (D) Depth of knowledge (DK) Examiners' assessment (EA) Examiners' feedback (EF) Overall impression (O) Incidents (I) Precise what is expected from candidates (P)

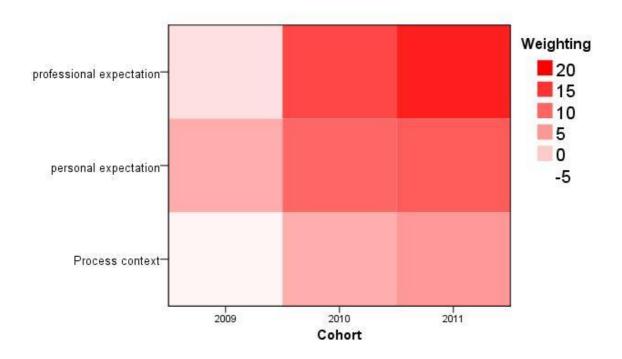
#### PERSONAL EXPECTATIONS

Expected Outcome (EO) Support for identification of areas for improvement (S) "Incentive" to reflection (R) Putting reflections into practice – Change in Practice (CP) Longer term issues (LT)

**PROFESSIONAL EXPECTATIONS** 

Use for local change management (M) Use for identification of level of practice – Position on ACLF (LP) Increase confidence in identifying "Education and Training" needs (E+T) Relevance to career progression (RCP) Impact on career perspectives (ICP)

Figure 3 - 'Density Chart', representing the main themes mapped against practitioner cohort, and relative weighting.



# Appendices

### Appendix 1 - Process Context excerpt from 'Matrix by Theme', following weighting process.

|                    |  | POSITIVE | NEGATIVE | COMMENTS  |
|--------------------|--|----------|----------|---|
| PROCESS<br>CONTEXT | ENVIRONMENT<br>LOCATION<br>(ELOC)                        | •••      |          | Majority say the location was good and appropriate for the assessment and that it was a good idea to do the<br>assessment on the ward, although all its limitations, as it simulates the reality.<br>Process used environment appropriately.<br>Good idea to gather both candidates and examiners, but it may have affected performance of some candidates.<br>For positive responses, only disadvantage would be unfamiliarity with the environment.<br>Positive opinions shared throughout all the cohorts.<br>Negative responses are related to unfamiliarity with the environment; it was an uncomfortable situation and may<br>have had an impact on the performance on the day. However, understandable, as very difficult to assess<br>candidates in their home environment (this was the most feasible option).<br>Difficulty in assessing patients in a unfamiliar environment.<br>Limited space in rooms, which made communication between candidates and assessors more difficult.<br>Negative responses predominant in the first cohort (2009). |
|                    | ENVIRONMENT<br>LOGISTICS<br>(ELOG)                       | **       |          | Again the process used the environment appropriately.<br>Good to have the assessment on the ward and opportunity to mix candidates and assessors.<br>Disadvantages:<br>- unfamiliarity with the computer system (although in 2010, there was a 'helper', who didn't know how the system<br>works as well, so didn't help much - more stressful for candidates, time wasted) - more difficult to follow<br>chronology of patients' pathway.<br>- unfamiliarity with department, staff, etc.<br>- limited space, offices crowded which made communication between candidates and assessors more difficult.<br>- some incidents occurred, which didn't cause good impression on candidates and may have created distractions.<br>Possibly a good idea to have paper notes instead, as computer system requires more training and experience, and<br>vary throughout units.   |
|                    | DURATION<br>(D)  | •••      |          | Majority think the duration was good and there was enough time for everything without making it too rushed or too<br>long and tiring - good balance between time and thoroughness.<br>No references on process being too long (although it was tiring) but, that it had been too short, which caused the<br>assessments to be rushed - possible reason, many time wasted with 'setbacks'!   |
|                    | DEPTH OF<br>KNOWLEDGE<br>(DK)                            | •••      | -        | Positive responses<br>Valid and robust process, as it evaluates candidates in different environments, simulating the reality of a working<br>day.<br>Different types of assessments and evaluation is made by several examiners, which reduce bias.<br>Negative responses<br>Process needs to be consistent and coherent relating to the depth of knowledge assessed (general knowledge<br>instead of specific knowledge):<br>Examiners' assessment should also be focused on general knowledge of critical care (according to the literature:<br>Competency Level Framework) instead of areas of specialty.  |
|                    | EXAMINERS'<br>ASSESSMENT<br>(EA)                         | •        |          | More negative than positive responses (most negative from the first cohort).<br>Good points!!<br>- good and useful to be assessed by peers, who are respected throughout the pharmacy profession<br>- evaluation fair<br>Negative points!!<br>Many negative comments reflect the 'novelty' of the process and skills of evaluators. Training and development of<br>the evaluators is key recommendation and feeds into QA of the whole process.   |
|                    | EXAMINERS'<br>FEEDBACK<br>(EF)                           |          |          | There were no positive subjects raised regarding the examiners feedback (apart from the identification of areas for<br>improvement, which are discussed in the 'support for identification of areas for improvement' sub-theme).<br>However, there are many very negative comments, and all from the first cohort. This was a KEY finding and not<br>repeated in later cohorts. Again, education and training of the evaluators (i.e., a QA issue).   |
|                    | OVERALL<br>IMPRESSION<br>(O)                             | ***      |          | Negative impressions on the method, are usually related to:<br>- unfamiliarity with the environment (people feeling uncomfortable)<br>- bad impression caused by incidents<br>- very stressful day<br>- examiners assessment and approach<br>- being a massive process and level of competency assessed unrealistic in real time (preparation of portfolio took<br>too many time and lack of guidance for its construction)<br>Positive impressions related to:<br>- excellent method, constructive and very well structured to form a proper, robust and valid assessment<br>- well organised<br>- useful to find out what is expected from pharmacists at advanced levels of practice<br>- second version much more consistent and impartial (process has been improving along time)<br>- process offers lots of benefits, such as the opportunity to be assessed by peers (experts in pharmacy practice<br>and whose opinion is respected across the profession).  |
|                    | INCIDENTS<br>(I)   |          |          | Some incidents occurred during the assessment days (one for each year of assessment has been described by candidates).<br>Rated as negative, as they gave a bad impression of the process to candidates. Although some of them are understandable and difficult to prevent, others demonstrate gaps in the organisation. Nonetheless, they may have caused distractions and stress to candidates.   |
|                    | PRECISE WHAT<br>IS EXPECTED<br>FROM<br>CANDIDATES<br>(P) | +        |          | Positive: useful to find out what is expected from advanced level pharmacists.<br>Negative: it was not made clear exactly what is expected from pharmacists/candidates (process needs more<br>structure and consistency).   |

#### Appendix 2 - Personal Expectations excerpt from 'Matrix by Theme' following weighting process.

| PERSONAL<br>EXPECTATIONS |   | POSITIVE NEGATIVE     |  | COMMENTS   |
|--------------------------|---|-----------------------|--|--|
|                          | EXPECTED<br>OUTCOME<br>(EO)   | OUTCOME ++<br>(EO) ++ |  | No positive responses from the 2009 cohort!<br>Positive responses<br>Majority of responses (2010 and 2011 cohorts) reference that the outcome corresponded to expectations.<br>Some where scored higher than expected.<br>Negative responses<br>Mostly from 2009 cohort; a proper and formal feedback was not received and oral feedback, may times<br>referred as not very useful, reflective, practical or constructive. This is related to the 'novelty' of the examiners<br>and was not repeated in the subsequent cohorts. Therefore, if these were not considered, the overall<br>'Expected Outcome' would be perceived as positive! |
|                          | SUPPORT FOR<br>IDENTIFICATION<br>OF AREAS FOR<br>IMPROVEMENT<br>(S)         |                       |  | Strongly positive!!!!<br>Even within the most negative opinions on the method, can be found that it is actually a good support for<br>identification of areas for improvement and ways of approaching them (although many see it only as a<br>reinforcement of something already known).<br>Useful as a guidance for training and improvement.   |
|                          | "INCENTIVE" TO<br>REFLECTION<br>(R)   | ••••                  |  | Again, strongly positive feedback!!!<br>Most of responses (from all cohorts) mention reflection or the intent to reflect on performances, examiners'<br>feedback, general outcomes, career perspectives, in order to improve practice and advance through ACLF.<br>Credentialing process as an incentive to reflection, both individual (candidates) and collective reflection<br>(organisations, institutions, governments, etc.).  |
|                          | PUTTING<br>REFLECTIONS<br>INTO PRACTICE<br>- CHANGES IN<br>PRACTICE<br>(CP) | ••••                  |  | Very positive responses!!<br>Almost all responses referenced action upon the feedback (or, in the absence of it, as a consequence of the<br>reflective process generated by the assessment day) and so, improvement of practice in some way.   |
|                          | LONGER TERM<br>ISSUES<br>(LT)   | +                     |  | All from 2011 cohort (not had time yet, too soon).<br>The process inevitably entails delayed and long term issues, as reflections and subsequent actions upon them<br>take some time to concretize. In addition, the outcomes of the process are supposed to be sustainable, to<br>produce some kind of change in organisations and contribute to the advancement of the pharmacy profession<br>in the UK. This is one of the many POSITIVE aspects of this process!   |

Appendix 3 - Professional Expectations excerpt from 'Matrix by Theme' following weighting process.

|                              |  | POSITIVE | NEGATIVE | COMMENTS  |
|------------------------------|--|----------|----------|---|
| PROFESSIONAL<br>EXPECTATIONS | USE FOR LOCAL<br>CHANGE<br>MANAGEMENT<br>(M)   |          |          | More positive than negative responses (no positive responses from the first cohort).<br>Most responses referred to discussion of the feedback with managers and/or peers, and reception of<br>positive appreciation in return.<br>Positive responses related to:<br>- good impression on managers (useful and valuable process)<br>- feedback to be used in managers' appraisal<br>- possibility of reproduction of the process, in a smaller scale, in the working environment context<br>- possibility of advancement in career<br>- increased confidence in own knowledge<br>- possibility of demonstrating the level of practice in a formal manner to managers<br>Negative responses related to:<br>- discussed feedback with managers very briefly, as did not think it was reflective (not properly evaluated<br>to be considered)<br>- discussed feedback with manager, but didn't receive an answer back |
|                              | USE FOR<br>IDENTIFICATION OF<br>LEVEL OF<br>PRACTICE<br>(POSITION IN ACLF)<br>(LP)   |          |          | Many responses describe the importance of this method in identifying of practice (only from 2nd and 3rd cohorts; subject not raised in 1st cohort). Positive answers related to: - construction of portfolio and matrix to the ACLF very useful to understand level of practice - examiners' feedback also useful to valid self-assessment  |
|                              | INCREASE<br>CONFIDENCE IN<br>IDENTIFYING<br>EDUCATION AND<br>TRAINING NEEDS<br>(E+T) | •••      | -        | More positive (from all cohorts) than negative responses.<br>Most responses show agreement with the process being useful to identify and prioritise areas that need<br>more focus for advancement, and that there is a need for guidance (even if it is just a reinforcement) in<br>study and training, in pharmacy practice.   |
|                              | RELEVANCE TO<br>CAREER<br>PROGRESSION<br>(RCP)                                       | ••••     | -        | Almost all responses reveal agreement with the process being useful and relevant to career progression<br>(even if not happy with the outcomes/assessment day).<br>Positive responses related to:<br>-useful in prioritising and focusing in areas for improving practice<br>- incentive to career progression<br>- useful if advanced level positions available<br>Negative responses related to the fact that this is not yet a recognised process and there is a need for<br>creating conditions to EQUALLY implement it across the UK.  |
|                              | IMPACT ON<br>CAREER<br>PERSPECTIVES<br>(ICP)   | •••      | -        | More positive than negative responses (negative ones were all from the first cohort; probably because not<br>well structured assessment and feedback and so, no positive influence on candidates).<br>Positive responses (2nd and 3rd cohorts) related to:<br>- improvement on career perspectives (better approach to career progression)<br>- drive for change in institutions (creation of advanced posts)<br>- increase confidence and encourage<br>Negative responses (1st cohort) relate to:<br>- no impact on career perspectives, as process not yet recognised.<br>- no impact or minimal impact.  |