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Title Page

Title: The Balancing Act of Academic Clinical Fellows in UK Emergency Medicine: A Qualitative Study

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Abstract

Background:

Emergency Medicine (EM) faces significant workforce challenges in sustaining clinical academic careers. Academic Clinical Fellowships (ACFs) offer protected research time, but little is known about how EM ACFs experience and navigate these posts.

Methods:

Semi-structured interviews were conducted with 20 current and former EM ACFs from 12 universities in England and Wales. Interviews were analysed using thematic analysis following Braun and Clarke's six-phase approach. A mixed inductive and deductive framework was applied. Reflexivity and positionality were addressed through multi-researcher coding and consensus development.

Results:

Six themes were identified: (1) Elements of surprise — structural ambiguity and unexpected barriers; (2) Unclear direction — limited guidance and inconsistent supervision; (3) Loneliness — professional isolation and detachment from clinical peers; (4) Engagement — enthusiasm linked to research alignment and supervisory support; (5) Repeated generic hurdles — difficulty balancing academic and clinical demands; (6) EM-specific hurdles — reduced exposure to key rotations and limited

academic mentorship within EM. Fellows reported uncertainty about extensions to training and programme variability.

Conclusions:

The EM ACF provides valuable entry into clinical academia however, inconsistent structures, supervisory support, and clarity in expectations hinder its full potential. Standardised induction, tailored supervision, and flexible but transparent pathways are needed. These findings can inform policy, training programmes, and institutional practices to better support next generation of clinical academics in EM in the UK.

Keywords:

Emergency Medicine, Academic Clinical Fellowship, Clinical academia, Trainee experiences, Medical education

Highlights

What is already known on this topic

Academic clinical fellowships (ACF) provide protected research time and play a vital in developing clinical academic careers. However, little is known about the experiences of EM ACFs in these posts.

What this study adds

This study highlights that EM Academic Clinical Fellows (ACFs) face significant challenges including unclear structures, inconsistent supervision, professional isolation, and difficulty balancing clinical and academic demands. Specific EM barriers were identified including limited mentorship and reduced exposure to key clinical rotations, such as anaesthetics.

How this study might affect research, practice or policy

To support EM clinical academics, there is a need for standardised induction, clear training pathways, consistent supervision, and tailored mentorship. Addressing these issues may improve retention and development of EM academic clinicians, informing policy and training programme improvements.

Introduction

Research is fundamental to improve patient outcomes, guide evidence-based practice, and drive innovation in emergency medicine. To support this, academic emergency medicine (EM) has developed in a variety of ways in high-income countries, each adopting different approaches to training future clinical academics. At its core is the need to balance the development and maintenance of clinical competencies alongside the acquisition of research skills.

In the United Kingdom (UK), academic training begins during medical school- often as an additional bachelors or master's degree during undergraduate training, called an intercalated year – and continues through clinical training, from the start of work as a resident doctor (the first employed role after completing medical school) through to professorship as a consultant (see supplement figure 1). However, the UK's four devolved nations have distinct academic training pathways. Supplemental figure 1 highlights the structured nature of the academic training system in England, which is overseen by the National Institute for Health and Care Research (NIHR) [1].

Academic clinical fellowships (ACF) are typically undertaken during the early stages of specialist training and represent an initial step into a clinical academic career, however not always with some fellows starting the posts following completion of a PhD or in higher specialist training. Figure 1 details how an ACF can either be a standalone or integrated part of academic training in the four devolved nations.

Figure 1: Overview of how ACFs are supported in the four devolved nations in the United Kingdom.

While the UK has a formal academic pathway, this is not common elsewhere. For example, in the United States of America, a one-year fellowship after residency is typically the first formal opportunity to sub-specialise and complete graduate studies [2]. As such, development as a clinical academic largely occurs after appointment as an attending, when protected research time may be negotiated within a faculty role and tenure track [2].

In contrast, in Australia, EM registrars are required to undertake research during training, either through graduate-level coursework or a research project, with additional opportunities for dedicated research time during a special skills year [3]. Although integrated clinical academic training models like the UK are emerging, these remain uncommon. [4].

In the UK, EM training is overseen by the Royal College of Emergency Medicine (RCEM), while academic training is managed by the devolved nations. The RCEM research strategy includes a priority to identify why resident doctors choose not to pursue or decide to leave academic training [5].

We completed a national survey of EM academic clinical fellows which was published in 2022 and found 59% of fellows experienced extensions to training time with wide variation in research time, mentorship, funding and opportunities for postgraduate study [6].

To better understand this variation, we undertook a qualitative evaluation of the early stages of academic training in EM in the UK exploring in-depth the perspectives of current and former EM ACFs, identifying both barriers and enablers to a successful

introduction to research and ACF. Furthermore, we sought to understand how fellows navigate the intersection of clinical and academic roles early in their EM careers and how the design of the programme influences experiences. Understanding how to optimise this early experience is fundamental to expanding emergency medicine academic capacity and to develop future clinical academics both in the UK and internationally.

Methods

Study Design and Setting

This qualitative study used semi-structured interviews informed by the prior national survey which was completed by the same researchers [6]. Eligible participants were those that had either completed an ACF (or equivalent in Wales) within the past five years or were currently enrolled in year two or above to ensure they had experienced some research time at the time of the interview. The term ACF will be used to represent all participants, acknowledging the unique nature of the system in England and Wales (Welsh Clinical Academic Track).

Recruitment and Sampling

Participants were purposively sampled to ensure representation from all 12 universities that have hosted ACF posts in EM. Recruitment was facilitated by direct invitations, institutional contacts, and social media.

Data Collection

A topic guide (appendix 1), informed by existing literature and the prior national survey, was piloted with a non-EM ACF. Semi-structured interviews were conducted by two investigators (LB and TS) via Zoom. The topic guide was refined following review of the first few transcripts by the research team. The interviews explored participants' experiences of academic supervision, programme structure, challenges,

opportunities and impacts on career planning. Interviews were conducted over a three-month period in 2023. Audio recordings were transcribed verbatim and anonymised during transcription.

Data analysis approach

A semi-structured interview approach was used with ACFs as it is an effective method for collecting qualitative, open-ended data and enabled interviewers to explore participants' thoughts, feelings and beliefs on this topic [7]. In addition, this approach allowed the research team to explore new concepts not identified in the prior survey and contextualise the survey findings [7].

All the data (transcripts) were thematically analysed by LB and TS and multiple transcripts were independently analysed by AF and RF, using NVivo software. We used thematic analysis following Braun and Clarke’s six-step process. The six- step process of thematic analysis was followed: 1) data familiarisation (all transcripts) as LB and TS interviewed half of the participants each, 2) generating initial codes that were crossed checked by the research team, 3) identification of themes, 4) review of the themes, 5) defining and naming themes, and 6) producing the report [8]. Both inductive and deductive approaches were applied. An inductive approach allowed the data to determine the themes, while a deductive approach was also used given that the researchers had some preconceptions based on key areas identified in the prior survey, which informed the topic guide design [9].

Any discrepancies in coding were discussed between LB and TS, and consensus was reached. Discussions regarding theme development were undertaken with the wider team and resolved through consensus. No third-party adjudication was required.

Positionality and reflexivity.

The authors reflected carefully about how their opinions, values and conduct shaped the generation and interpretation of data [10]. At the time of interview LB and TS were ACFs, working within institutions that had different approaches to the ACF programme. Both LB and TS were in their first year of the ACF at the time and had not completed their programme. Both LB and TS also shared an interest in widening participation for clinical academics in EM. Their positions, roles and relevant experiences were disclosed to participants prior to each interview.

Given that the interviewers were currently participants in the ACF programme it was agreed LB and TS would not interview ACFs from their own institution. The research team comprised of senior clinical academics in EM (RB and VN), both of whom have experience leading NIHR ACF programmes in EM and supervising EM ACFs and this was known to the participants in the study; an expert in qualitative research methods (RF); and a senior EM resident doctor and experienced qualitative researcher (AJ), who had also been through the ACF program and was an NIHR academic clinical lecturer at the time the research was conducted. The thematic choices and data representation reflect both individual and collective experiences within the team and should not be viewed as an entirely objective account.

Ethical Considerations

The project was confirmed by the University of Manchester and the NHS Health Research Authority to constitute programme evaluation. Participants were given an information sheet outlining the purpose of research project and time to read it and ask any questions. Written informed consent then obtained, which detailed how personal information was collected and used to conduct the research. Further verbal consent was confirmed prior to the start of the interview.

Patient and public involvement.

Patients and the public were not involved in this study.

Results

Across the UK, a total of 34 individuals were eligible to participate in the interviews. Eligibility includes ACFs in their second year of the programme or having completed a fellowship in the last five years. We interviewed 20 participants from all 12 locations that have hosted EM ACFs in England and Wales, including: Bristol, Cambridge, Exeter, Leicester, Hull and York, Manchester, Oxford, Plymouth, Sheffield, Queen Mary, University of London, and Wales Clinical Academic Training. At six universities we interviewed 100% of potential participants, whereas at three universities we interviewed one third of potential participants. To our knowledge there have never been any EM ACFs recruited in Scotland or Northern Ireland. Interviews lasted between 18 and 60 minutes. The fellowship positions were funded by the NIHR, UK military and locally.

At the time of interview, 55% of participants identified as male and 55% reported White ethnicity. The demographics of the 34 potential ACFs that were eligible for interview were not captured within the survey. Seven were current ACFs and 13 had completed the programme. Four were current PhD students. Two had completed a PhD. One was an NIHR academic clinical lecturer. One was a consultant.

Themes

Six themes were identified from the analysis process. These are summarised in Table 1 and 2 and expanded in the below text.

Table 1: Themes and descriptions identified through thematic analysis.

Theme label	**Theme expansion**
Elements of surprise	Structural ambiguity and unexpected barriers
Direction within ACF	Inconsistent guidance and supervision impact perceived direction
Loneliness and isolation	Professional isolation and detachment from clinical peers
Engagement	Enthusiasm linked to research alignment and supervisory support
Recurring generic practicalities and hurdles	Challenges of balancing academic and clinical demands
Emergency medicine-specific challenges	Reduced exposure to key rotations and limited academic mentorship within EM

Table 2: Thematic branch table showing main themes, and corresponding nodes identified through thematic analysis.

Theme 1: Elements of surprise
• Academic time • ARCP (Annual Review of Competence Progression)* • Length of training • Preparation • Sub-specialty training opportunities
Theme 2: Direction within ACF

• Stages of commencement • Curriculum • Academic supervision • Finance • Length of training • Future steps
Theme 3: Loneliness and isolation
• Expectations and perceptions of departments • Negativity • Isolation • Ideal ACF • COVID-19 pandemic
Theme 4: Engagement
• Research training • Local ACF interaction • Mentorship • Trainee networks • Academic time
Theme 5: Recurring generic practicalities and hurdles
• ACF funders • ARCP • Ideal mentorship • Funding • Broader programme leadership and knowledge of fellows
Theme 6: Emergency medicine specific challenges
• Clinical competency • ACCS** • Finance • Length of training • Clinical time • ACRP

*ARCP – Annual Review of Competence Progression (ARCP), the UK's annual assessment of trainee progression."

**ACCS - ACCS is Acute Care Common Stem which usually refers to the first two years of EM training - the ACF period usually includes this ACCS time.

Theme 1: Elements of surprise.

The ACF often surprised participants with unexpected elements, ranging from the flexibility of academic scheduling to administrative complexities and the specific outcomes required by the programme. These factors significantly influenced both professional and personal experiences, frequently invoking feelings of uncertainty. Participants described ambiguity around administrative processes, movement between placements, study leave arrangements, and expectations for passing the Annual Review of Competence Progression (ARCP).

Although flexibility within the ACF structure was intended to accommodate individual needs, it often introduced unforeseen complexities rather than offering anticipated benefits. This created practical difficulties when returning to clinical work and contributed to anxiety about maintaining progress.

> *"No one knew I was coming, and no one was aware of me. Even when I rocked up for clinical stuff, there was like one person that knew I was coming. I wasn't on the rota. I didn't have access to any IT." (1)*

In contrast, where departments already understood the ACF structure and expectations, experiences were generally more positive.

> *"My predecessors have done a lot of work to ensure the department understands what is expected of us and what our commitments are." (6)*

Overall, the unexpected elements of the ACF frequently disrupted fellows' sense of stability, highlighting the need for clearer expectations and communication throughout the programme.

Theme 2: Direction within ACF

A consistent concern expressed by participants was the lack of a clear sense of direction throughout the fellowship. Many described uncertainties about their evolving role, programme expectations, and how best to structure academic time. This ambiguity often hindered confidence and progress, particularly early in the fellowship.

> *"In the first year, you were just, sort of, told to, well, off you go and be an academic, which is fine if you have a plan, but you could quite easily waste the first three [months] going, 'I don't really know what to do.'" (7)*

In the absence of structured guidance, fellows frequently felt pressure to self-direct research learning and project management, sometimes with limited support from supervisors or programme leads.

> *"Felt very unsupported throughout my entire ACF with no guidance much at all and everything that I tried to do, I just hit a brick wall… it didn't spark joy." (17)*

However, where programmes provided a structured and supportive framework, experiences were markedly more positive:

> *"Everyone's been generally very supportive and I have enjoyed it, and I would recommend it to future trainees." (20)*

Participants repeatedly expressed a desire for a clear but not overly prescriptive structure that would provide direction while still fostering independence.

> *"If you have got someone who guides you into doing a research paper or writing a systematic review…, that makes life a lot easier. If you are having to try and learn to do it yourself, that is not really a successful way of doing it." (3)*

Theme 3: Loneliness and Isolation.

Loneliness and isolation represented significant challenges in the fellowship, especially for those in EM. The unique structure of the fellowship and the demanding nature of medical work intensified these feelings.

> *"So, I think being an academic generally is, can be quite lonely, and it depends on what kind of person you are. So, the bit which I found very hard to begin with, was going from doing full time clinical work to suddenly being on your own."* (13)

ACF participants seemed to experience an additive effect of being both an EM trainee and an academic trainee, resulting in increasing feelings of isolation.

> *"I was the odd one out and yet I had no experience with anybody else who was going through what I was going through, I didn't know who to share it with."* (5)

Perceived lack of broader academic support also led to isolation and uncertainty.

"I probably felt quite isolated early on in terms of where to go to for mentorship or career planning." (14)

Being connected to a wider academic community provided some clear mitigation of isolation, and this was repeated in several of the interviews especially given the relatively small community of academics in EM.

"Just a way of meeting other…it was mostly other specialties 'because there wasn't very many emergency medicine academic trainees really. …I met…one of my good friends now… an ACF through (different specialty) and we're doing a thing together." (11)

The sense of isolation, compounded by the unpredictable nature of academic and clinical demands, emphasises the need for more robust support networks and connections, making enthusiasm and engagement in the program even more crucial to success.

Theme 4: Enthusiasm and Engagement

Enthusiasm and engagement in the fellowship were crucial components that significantly influenced the overall experience and success of fellows. Interviewees suggested several elements which are key to this engagement including:

- Passion for projects.
- Effective communication.
- Well-understood setup.

- Tailored supervision.
- Local research interests.
- Tangible training opportunities.

The enthusiasm for specific, well-defined projects significantly enhanced motivation and satisfaction, aligning professional and personal growth with the fellowship's opportunities.

> *"I think having a supervisor or a series set of supervisors where there was a clear group of projects, I would be able to get involved in that were already established, that I could help get off the ground and be taught how to do research."* (3)

> *“The most important thing was to be doing research in an area that I felt really passionate about, and also being with a project which had a strong research team that I could plug into, and they were willing to foster my research expertise.”* (8)

Effective communication within the ACF ensured that fellows felt well-integrated and informed, reducing misunderstandings and fostering a supportive educational environment. One fellow emphasised the importance of proactive communication.

> *"I met with him (supervisor) quite a lot in the run-up to starting my ACF, to plan how we would make it work, and I've met with him, you know, quite a few times during ACCS* to make sure that everything was ready for me starting my project."* (20)

The quality of supervision significantly impacted the fellows' engagement and satisfaction. A flexible and supportive supervisor who is genuinely invested in the fellow can enhance the fellowship experience.

> *"I have a very supportive clinical supervisor who is also an academic so understands the various strains and has given me a lot of latitude especially early on in the programme."* (16)

Exposure to funding for training opportunities and access to networks of like-minded colleagues were also highly valued.

*“I was very aware that I had opportunities that other trainees don’t have, for example, funding through the master’s and research, funding of time and the ability to negotiate additional study leave off for these training opportunities.” (*12)

“I think the network has been really important, like certainly now as a lone researcher I suppose on my PhD, I rely quite heavily on people I met during my ACF and the network within Emergency Medicine, I think is quite important.” (19)

There were specific interviews where it was very clear that there were many positive experiences such as open communication and understanding of the ACF in terms of expectations, and local support, allowing challenges to be addressed without any real associated stress.

*ACCS is Acute Care Common Stem which usually refers to the first two years of EM training - the ACF period usually includes this ACCS time.

Theme 5: Recurring generic practicalities and hurdles

During the interviews recurrent challenges were a central theme that significantly shaped the fellows' experiences of the programme. These hurdles encompassed issues related to supervision, balancing clinical and academic duties, and the inherent structural complexities of ACFs more broadly beyond just EM.

A notable concern expressed by participants centred around the availability and engagement of supervisors, which was considered crucial for guiding ACFs effectively. Despite supervisors often being well-qualified and senior, their limited availability was felt to hinder the fellowship experience.

> *"I think ensuring that there is a programme lead, or several programme leads perhaps would help."* (19)

This scenario suggests that perhaps ACFs could benefit from having more supervisors who might have more time to dedicate to their supervisees: certainly, participants identified Academic Clinical Lecturers (ACLs) who have experienced ACFs as potentially providing that extra support.

> *"I think I've been really lucky, 'because I've had two particular people who are ACLs who've been unbelievably supportive and really, really, really helpful."* (1)

> *"And I did manage to give that advice to the next ACF who came after me. And it would have been helpful to have that advice before I started, I think."* (11)

> *"You almost want a clinical lecturer who has been through the process perhaps to take a lead on organising that ACF programme."* (19)

The challenge of managing academic activities alongside full-time clinical duties was another significant hurdle. Many fellows found this balance demanding.

> *"I have felt that my clinical competence has suffered. Procedural stuff, decision making."* (2)

Additionally, the overarching structure of the ACF often led to extended training time beyond initial expectations, causing significant personal and professional impacts.

> *"So, I ended up doing another six months of emergency medicine at the end of my EM programme which really annoyed me because it then… my understanding of part of the ACF was that you wouldn't have to extend your training time." (3).*

This extension not only affected fellows' career trajectories but also contributed to a pervasive sense of stress regarding the future.

The recurring challenges related to supervision, work-life balance, and training time extensions, point to the critical need for addressing these practicalities, which are particularly salient within specialties like EM, where distinct challenges arise.

Theme 6: Emergency medicine specific challenges

Emergency Medicine ACFs faced several challenges that were perceived as distinct to the specialty. A key issue was the timing of the fellowship alongside the Acute Care Common Stem (ACCS) years, when trainees are required to complete intensive competency-based placements in anaesthetics, intensive care, and acute medicine. Variability in how ACF time was structured across institutions created concerns about completing required competencies and potential implications for future training applications.

> *"Now I am applying for prehospital emergency medicine (PHEM) training, and one of the criteria is you need six months of ICM, six months of anaesthesia… If I'd have done what the current ACFs are doing, losing clinical time, I wouldn't have met the essential criteria." (12)*

Some participants also reported uncertainty about training timelines and progression, contributing to anxiety about future career planning:

> *"I really didn't know whether the ACF would last just three years… That did provoke some anxiety, I suppose, around what do I need to do and when." (14)*

In addition, the limited number of senior academic leaders within UK EM meant that some fellows lacked access to established research groups or specialty-specific mentorship:

> *"Part of it was also not having the leadership of a chair in emergency medicine… that would have had research projects that you kind of slip into." (3)*

Despite these challenges, many fellows valued the academic time as an opportunity to step back from the intensity of clinical EM and develop research capability.

> *"The biggest point is…the time to reflect on what I want to do and how I want to do it, and then to have access to resources to develop specific skills." (14)*

These EM-specific challenges highlight the tension between meeting clinical requirements and developing as an academic trainee within a specialty with a relatively young research infrastructure.

Discussion

Summary of themes and integration with existing research

Overall, EM ACFs in this study offered detailed and nuanced accounts of navigating clinical academic training within a pressured specialty. Participants described both the benefits of protected research time and supportive supervisory relationships, alongside persistent uncertainty, structural variability, and challenges balancing academic and clinical responsibilities. Together, these experiences provide important insight into how the ACF operates in practice for EM trainees.

The transcripts represented a rich experience from a varied cohort of EM ACFs across multiple institutions. Whilst some programmes appeared to have evolved positively in response to previous feedback, participants also highlighted wide variation in structure, supervision, and access to academic opportunities. Set against a growing concern about the sustainability of the clinical academic workforce [11], these findings illustrate both the strengths and vulnerabilities of EM ACFs developing clinical academic careers and provide an important foundation for understanding where progress is still needed.

The element of surprise appeared pervasively through most of the ACF experiences. It is mostly lack of familiarity and understanding amongst the wider clinical teams which engender negative feelings. This is particularly striking where the ACCS programme is being compressed to accommodate academic training, because it represents added pressure to what is already a technically pressured time of gaining competencies, rotating through specific specialties, and making exam progress. This has also been

found in UK academic surgical training [12]. Furthermore, there is some emerging evidence that time away from clinical practice can impact on retention of skills [13]. Even without the elements of surprise, this period would have the potential to generate pressure around academic and clinical attainment in a time designed solely for clinical attainment. Therefore, ACFs felt that this should have been explicit a priori. Furthermore, every attempt to mitigate additional pressure of uncertainty should be made, otherwise we almost set them up to 'fail'. A one-size-fits-all answer may not be feasible regionally; however, as has been argued by other specialties' strong leadership and robust transparent pathways would represent a significant improvement in many regions [12].

Varied experiences of how the progress of the ACF was being measured mean that the direction of the ACF frequently felt uncertain. This has been highlighted in a review of clinical academic training in the UK [12]. Whilst flexibility and personalisation had demonstrable advantages, they do not mutually exclude the idea of having a clear direction. In many accounts, the direction of the ACF experience felt unclear to the point where fellows experienced anxiety as to whether what they were doing was "the right type of thing", "enough" or even "too much". Multi-faceted support and supervision may improve this, especially in the context of a framework for each ACF to negotiate agreed goals for milestone reviews. Such a framework may benefit from being specialty-specific, centrally generated and agreed using the experience of those in our interview pool.

Loneliness and isolation are common experiences within research and academia [14-16]. The COVID-19 pandemic significantly underscored the value of community as participants experienced heightened isolation during periods of lockdown and social distancing. This situation exacerbated the already prevalent issue of loneliness, particularly highlighted in contexts such as PhD programs, where isolation is a well-known concern [14]. Further, the nature of EM involves irregular shift work, which can disrupt personal and social life contributing to a sense of detachment from peers and family who may have more regular hours [17].

There are very predictable junctures in an EM ACFs experience where isolation will be felt, which creates an opportunity for mitigation. Rotation out of sync with a support system of peers is entirely predictable. Similarly, the limited pool of EM researchers is well known, hence reducing the potential for developing networks. The NIHR incubator for emergency care is developing multi-professional networks for early career researchers and has a national database of mentors, which will help mitigate the difficulty of finding local mentors [18].

There are clear examples of positive counter-practices to the challenges presented. Excellent and responsive supervision was a clear contributor to a successful fellowship, as was the alignment of personal research interests with relevant support. The access to training opportunities and exposure to networks were repeatedly cited as firmly positive attributes of an ACF programme. Relationships, mentorship, networking have

been identified in the literature as key interventions to strengthen clinical academic careers [14]. There was an overwhelming sense that in their recounting of the challenges, our cohort were doing so in the hope of positive change for future ACFs.

The interviewees provided useful suggestions for the future of ACF programs for EM academic trainees including formally using designated junior academics in a supervisory role for ACFs because of having more time and a closer relevant experience to being an ACF. Having very few early to mid-career clinical academics in EM does limit the potential for this currently. The balance of clinical and academic work and its impact on clinical training is a perennial challenge which links strongly to the value placed on the future of clinical academics [11-15]. If the overall drive is to foster and encourage, then the natural shift would be to celebrate fellows' existence within a specialty programme and hence adapt to help their development [16].

RCEM as the standard setter for EM training should review how the logistics of ACFs ought to be developed in a way which does not penalise the attainment of either competencies or essential time-based criteria to be able to sub-specialise. The NIHR integrated clinical academic pathway recommends a standard duration of 3 years for an ACF, with 75% of the time devoted to specialist clinical training and 25% to research training [4]. Meanwhile, the RCEM strategy allows flexibility for the completion of the ACF within 3 or 4 years [5]. This duration issue is significant for EM ACFs - with proponents and opponents of both lengthened and shorter timescales. Neither ought

to be an automatic barrier for those aspiring to be clinical academics but the lack of clear information in the planning of the ACF leads to ongoing confusion about its implications for both the individual's personal and professional life. Equally the specialty must recognise its pace in comparison to other specialties, such that time to slow down, think and plan is fundamental to the requirements of developing research. All this comes down to whether EM as a professional entity places value on its capacity to protect and continue to produce high-calibre researchers.

There are parallels to be drawn with resident doctors in less than full time training or those in dual specialty training. While exploring these issues was out of scope for the current work, further exploration will be an important goal for future work.

Limitations

We acknowledge the positionality and reflexivity of the research team and their contributions to the study's design. To minimise potential limitations, we invited a non-clinician qualitative researcher to join the team and ensure the report was contextualised. We also pre-piloted the interview stems with a non-emergency ACF, reviewed transcripts with members of the wider team, and reached a consensus on themes and sub-themes.

Study participants constituted a self-selected population who responded to the invitation to participate in the survey and, subsequently, the interviews. Given the limited pool of fellows, purposive sampling was used to ensure representation from all locations. However, because we did not capture demographic data at the interview

stage, we could not determine whether the ACFs interviewed were representative of the overall cohort. Despite this, we managed to interview 20 out of the potential 34 ACFs.

Implications for policy and practice

The following recommendations are for consideration for EM trainees, supervisors, funders and RCEM to improve ACFs in emergency medicine:

1. Standardised ACF induction across all regions to sign post:
    - Agreed pre-commencement meetings with relevant clinical, academic(s), administrative, HR regional leads.
    - Formal ACF structure with personalisation where applicable.
    - Clear outline for the rotational plan.
    - Clear ARCP expectations.

2. Multiple supervisors (ideally some junior) to mitigate the challenge of any communication breakdown with a single supervisor impacting a full ACF period:

- Defined intervals for supervision meetings (with job-planned time for those supervisors).

3. RCEM research committee to consider the findings of this qualitative study and how to support improvements in academic training for emergency medicine residents, building on its existing role in sharing best practice and mentoring residents in research through the Trainee Emergency Research Network and other forums, such as the NIHR incubator for emergency care. A designated RCEM lead would also enhance the profile and importance of ACF for resident doctors and the future of emergency medicine research.

Conclusion

EM ACFs offer valuable protected research time for resident doctors, but the findings of this qualitative study show that resident doctors face challenges in structure, supervision and direction. A tailored approach for the individual, alongside improvements in planning and clear information on the structure of the ACF, as well as standardised induction emerge as key takeaway messages for academic clinical fellows in EM, their supervisors, and funders to consider. A designated RCEM lead would also enhance the profile and importance of ACF for resident doctors and the future of emergency medicine research.

Conflict of interest statement

The authors declare no conflict of interest.

Authors contributions

LB and TS participated in the research design, conducted the interviews, carried out the data analysis, and led the writing of the manuscript and are joint first authors and both have the right to list their name first in their CV. RF contributed to study design, data analysis and final write-up. AJ contributed to the research design, provided senior authorship and guidance throughout the project, and participated in writing and revising the manuscript. VN and RB provided project oversight and contributed to the manuscript by suggesting revisions and offering feedback. All authors reviewed and approved the final manuscript.

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References

1. IAT Guide [Internet]. NIHR. NIHR; 2023 Jan [cited 2025 Oct 15]. Available from: https://www.nihr.ac.uk/iat-guide.

2. Long B. The Road to Academic Emergency Medicine - emDocs [Internet]. emDocs. 2016 [cited 2025 Oct 15]. Available from: https://www.emdocs.net/road-academic-emergency-medicine/

3. Andreotti E. ACEM Research Requirement – Is it worth the effort or the money? *Emergency Medicine Australasia* 2025;37(5):e70152.

4. MACH-Track - Melbourne Academic Centre for Health [Internet]. Melbourne Academic Centre for Health. 2025 [cited 2025 Oct 15]. Available from: https://machaustralia.org/future-leaders/mach-track/

5. Royal College of Emergency Medicine Research Strategy 2020 Position Statement [Internet]. Royal College of Emergency Medicine; 2019 [cited 2025 Oct 15]. Available from: https://res.cloudinary.com/studio-republic/images/v1635605996/RCEM_Research_Strategy_2020/RCEM_Research_Strategy_2020.pdf?_i=AA\

6. Shanahan T, Barrett L, Fish R, Newcombe V, Body R, Jafar A. Survey of current and former academic clinical fellows in emergency medicine in the UK. *Eur J Emerg Med*. 2022;29(4):304-306. doi:10.1097/MEJ.0000000000000912.

7. DeJonckheere M, Vaughn LM. Semistructured interviewing in primary care research: a balance of relationship and rigour. *Fam Med Community Health*. 2019;7(2):e000057. doi:10.1136/fmch-2018-000057.

8. Clarke V, Braun V, Hayfield N. Thematic analysis. *Qualitative psychology: A practical guide to research methods*. 2015;3:222-248.

9. Bonner C, Tuckerman J, Kaufman J, et al. Comparing inductive and deductive analysis techniques to understand health service implementation problems: a case study of childhood vaccination barriers. *Implement Sci Commun*. 2021;2(1):100. doi:10.1186/s43058-021-00202-0.

10. Jafar AJN. What is positionality and should it be expressed in quantitative studies? *Emerg Med J*. 2018;35(5):323-324. doi:10.1136/emermed-2017-207158.

11. Maxwell P. Urgent intervention needed to address decline in clinical academics [internet]. London: Medical Schools Council; 15 July 2025 [cited 17 July 2025]. Available: https://www.medschools.ac.uk/latest/news/urgent-intervention-needed-to-address-decline-in-clinical-academics.

12. Crispi V, Bolton W, Chand M, Giuliani S, Wykes V, Mathew RK. Barriers to Clinical Academic Surgical Training and Career Development in the United Kingdom: A Review from the National Institute for Health and Care Research (NIHR) Advanced Surgical Technology Incubator (ASTI) Group. *British Journal of Hospital Medicine*. 2025;86(3):1-12.

13. Main PAE, Anderson S. Evidence for recency of practice standards for regulated health practitioners in Australia: a systematic review. Hum Resour Health. 2023 Feb 24;21(1):14. doi: 10.1186/s12960-023-00794-9. PMID: 36829163; PMCID: PMC9951142.

14. Raine G, Evans C, Uphoff EP, et al. Strengthening the clinical academic pathway: a systematic review of interventions to support clinical academic careers for doctors and dentists. *BMJ Open*. 2022;12(9):e060281. doi:10.1136/bmjopen-2021-060281.

15. Finn G, Morgan J. Inequalities in UK clinical academic careers: a systematic review and qualitative study. [Internet]. 2020. Available from: https://documents.manchester.ac.uk/display.aspx?DocID=54518

16. Payne R, Frejah I, Abbey E, Badcoe R, Delaney B, Mitchell C. Transitioning between clinical and academic practice from the perspectives of clinical academic trainees, academic training programme directors and academic supervisors: a mixed methods study. BMC Medical Education. 2025 Feb 13;25(1).

17. Cottey L, Roberts T, Graham B, Horner D, Stevens KN, Enki D, et al. Need for recovery amongst emergency physicians in the UK and Ireland: a cross-sectional survey. BMJ Open. 2020 Nov;10(11):e041485.

18. Emergency incubator 2022 [internet]. London: Royal College of Emergency Medicine; 2022 [cited 17 July 2025]. Available: https://www.rcemlearning.co.uk/emergency-care-incubator-2022.

Tables

Table 1: Themes and descriptions identified through thematic analysis

Theme label	**Theme expansion**
Elements of surprise	Structural ambiguity and unexpected barriers
Direction within ACF	Inconsistent guidance and supervision impact perceived direction
Loneliness and isolation	Professional isolation and detachment from clinical peers
Engagement	Enthusiasm linked to research alignment and supervisory support
Recurring generic practicalities and hurdles	Challenges of balancing academic and clinical demands
Emergency medicine-specific challenges	Reduced exposure to key rotations and limited academic mentorship within EM

Table 2: Thematic branch table showing main themes, and corresponding nodes identified through thematic analysis.

Theme 1: Elements of surprise
• Academic time • ARCP (Annual Review of Competence Progression)* • Length of training

• Preparation • Sub-specialty training opportunities
Theme 2: Direction within ACF
• Stages of commencement • Curriculum • Academic supervision • Finance • Length of training • Future steps
Theme 3: Loneliness and isolation
• Expectations and perceptions of departments • Negativity • Isolation • Ideal ACF • COVID-19 pandemic
Theme 4: Engagement
• Research training • Local ACF interaction • Mentorship • Trainee networks • Academic time
Theme 5: Recurring generic practicalities and hurdles
• ACF funders • ARCP • Ideal mentorship • Funding • Broader programme leadership and knowledge of fellows
Theme 6: Emergency medicine specific challenges
• Clinical competency • ACCS** • Finance • Length of training • Clinical time • ACRP

*ARCP – Annual Review of Competence Progression (ARCP), the UK's annual assessment of trainee progression."

**ACCS - ACCS is Acute Care Common Stem which usually refers to the first two years of EM training - the ACF period usually includes this ACCS time.

Figure 1: *Overview of how ACFs are supported in the four devolved nations in the United Kingdom.*