



Research and Audit Federation of Anaesthetic Trainees (RAFT) – Delivering anaesthetic research training opportunities in the UK

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RAFT is a UK wide collaborative for research and QI in anaesthesia and intensive care. We believe that research and QI are not just for academics but something that everyone can get involved with. In fact, we believe that this is key to improving patient outcomes and experiences of perioperative care.

Our mission:

- Coordinate and support high quality trainee lead research and quality improvement projects
- Support trainee, locally employed and SAS anaesthetists of comparable experience with research and quality improvement and fulfil 2021 RCoA curriculum goals (see below)
- Understand and address the barriers for trainees taking part in research
- Advocate for and champion our members
- Communicate effectively and engage widely
- Attract national funding
- Work ethically, efficiently and in an environmentally sustainable manner



Trainee Research Networks (TRNs)

Trainee research networks are the heart and soul of RAFT. These are regional groups run by trainee anaesthetists across the UK. They link several different hospitals to work collaboratively to identify and address important research questions and quality improvement areas. Often from humble beginnings (just like RAFT) many have blossomed into well-established formal research and QI networks.

► *Is research aware: demonstrates an understanding of the evidence-based approach to anaesthetic and perioperative care*

Key capabilities

A	Demonstrates knowledge of different research approaches in scientific enquiry
B	Develops the skills required to be current with national guidelines, best practice and relevant publications, appreciating the principles of an unbiased literature search
C	Explains the principles of Good Clinical Practice (GCP)
D	Explains the role of research evidence in clinical practice
E	Describes essential statistical techniques used in research



► *Is research ready:*

- Develops critical appraisal skills; gains a broader understanding of data management and research methodology; communicates research evidence to patients and colleagues in a meaningful way

Key capabilities

A	Assesses the quality of research and its place in the literature when considering changes to practice
B	Can communicate to patients, the public and colleagues the strengths and limitations of evidence underlying anaesthetic and perioperative practice
C	Develops the ability to critically appraise published literature
D	Describes key approaches to improving patient outcomes through research including: clinical trials, stratified medicine, genomics, informatics, qualitative techniques, systematic review and meta-analysis, health services research
E	Explains the details of data protection in research
F	Describes the key components of research and its governance with emphasis on ethical considerations and ethics committees, translation into practice and the roles of Trust and University research and development departments
G	Applies a variety of statistical techniques used in research and understands their strengths and limitations



► *Is research experienced: has engaged with research, applies the governance involved in research, evaluates and communicates research findings clearly*

Key capabilities

A	Practises evidence-based medicine based on critical analysis and awareness of current literature and national and local guidelines, with a detailed knowledge in an area of special interest in anaesthetic or perioperative practice
B	Recognises where research can ask relevant questions; appreciates how to study these; where findings can be applied to patient care and can communicate these to patients in a meaningful way
C	Promotes a culture of professional critical enquiry with the ability to understand and apply new and future areas of research and related practice eg. informatics, genomics, stratified medicine, population and global health
D	Demonstrates practical knowledge of research principles and governance and how to translate findings into practice
E	Formulates relevant research questions and designs a studies to answer them
F	Demonstrates the processes for effective clinical decision making where research is absent or contradictory



The 2021 Curriculum – moving through:

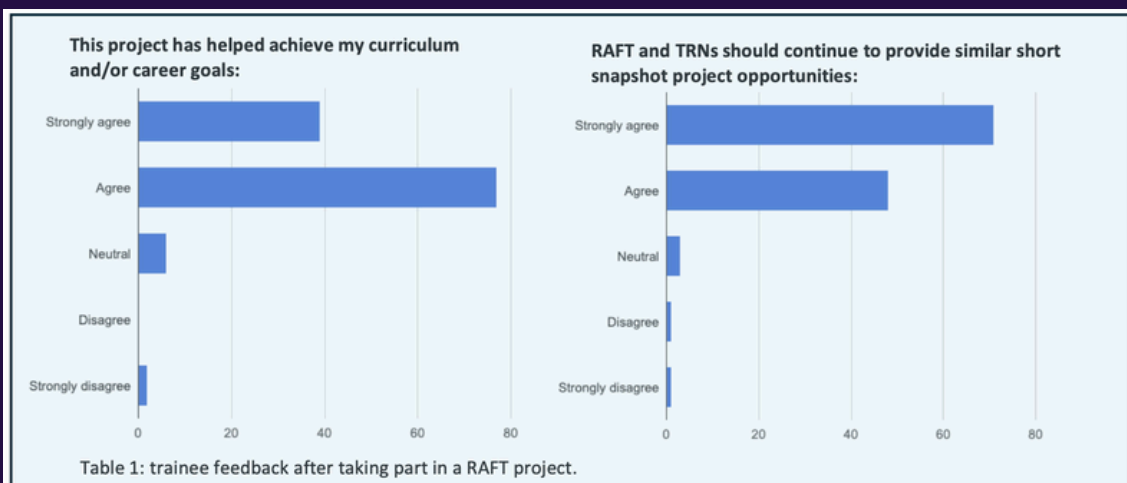
- Stage 1 “research aware”
- Stage 2 “research ready”
- Stage 3 “research experienced”

This Project

There are specific training requirements in anaesthesia for research and quality improvement (QI), each with separate RCoA curriculum domains. The COVID19 pandemic had a great effect on the ability to conduct trainee led research so in November 2022 the new RAFT committee conducted a survey looking at the experiences that anaesthetic trainees have regarding research and QI. Our aims were to identify areas where support can be improved and develop opportunities tailored to trainees.

Results

There were 140 trainee responses from 16 deaneries from which we were able to identify some common themes. Most respondents were on the 2021 RCoA training curriculum (81.4%) and 69.3% were working full-time. The majority had never held an academic training number (80.7%) or undertaken a postgraduate qualification in research/QI (80.4%). 70% of those surveyed knew their departmental lead for QI opposed to 51.7% for research. Regular QI activity was more common with 93.6% trainees taking part in at least one QI project per year compared to 51.4% for research. Common themes from free text questions regarding barriers were lack of time, balancing other training requirements, rotational training, lack of opportunities, lack of support from departments, knowledge gaps, negotiating approval processes and funding.



Conclusions

Following the survey RAFT has developed several targeted interventions to deliver opportunities for anaesthetic trainees that fit curriculum requirements:

- We have delivered education through the national RAFT conference.
- We have advocated that Education Development Time (EDT) and study leave should be available to trainees to undertake these research and QI.
- When designing projects, we consider the dual aims of improving patient care and ensuring that trainees get maximum benefit from their involvement.
- We have delivered two national projects since our trainee survey.
 - The first was a UK survey of clinical practice and feedback from trainee collaborators showed high levels of satisfaction (Table 1).
 - The second is a national research study which currently has the highest number of anaesthetic trainees taking part in the NIHR Associate Principal Investigator scheme (163 trainees with tenure open or complete).

Through our work we have shown that trainees often need to overcome challenges in order to be trained in research and QI and that trainee lead networks play an important role in overcoming these barriers.