

SWARM BMJ Awards 2016 Entry

The problem: SWARM was set up to provide a route into research in anaesthesia, pain and perioperative medicine for NHS clinicians. Outside of the highly academic stream provided by the NIHR, there was historically little opportunity or incentive for anaesthetists to engage. Given that up to 10 million operative procedures take place in the NHS every year, a huge opportunity for exploring best practice was going begging. Anaesthetists in training were concentrating on achieving their clinical modular targets, and disengaged with the process of systematically measuring outcomes, which should be part of the core business of the job.

Baseline measurement: 80 of all 167 Anaesthesia trainees across the Peninsula school answered a survey on their research experience. Fifty-one (64%) had had no experience at all. Of the 29 trainees who had, nearly all had simply collected data for single centre studies. We determined that major barriers were short post durations (maximum 2 years in one hospital) and lack of credibility to lead a large project. (see SWARM baseline survey for more details). We also found that anaesthetic trainees had minimal understanding of the UK landscape for clinical research, specifically that few had recruited patients to NIHR portfolio badged studies, understood what the UK Comprehensive Clinical Research Network was, had applied for grant funding or worked with CRN research nurses within their hospitals. Few had published original clinical research in peer reviewed journals of any type.

What you did: The key aims of SWARM therefore were collaboration and education. We knew if we could establish a regional network of anaesthetic trainees to conduct multi-centre research and audit across all 6 centres in our region, then there was a high potential for making an impact to patient care, both directly through the specific projects and through fostering clinicians who were active in research and innovation. We sought to provide an environment for engagement: provide training in research and scaling projects across the region to allow trainees to continue to remain involved as they migrated around the deanery.

Your findings: Within a year - 80 % of Peninsula trainees declared substantial involvement in clinical research. We have run 10 high quality collaborative projects over the past 4 years, producing well over 40 meeting abstracts and national or regional presentations (several prizewinning) as well as numerous publications.

Projects have had high clinical impact - THAnCS, Take Home Analgesia after C Section, our telephone survey of 159 ladies in the week after caesarian section highlighted inadequacies in analgesia prescription, e.g. that 64% of mothers had purchased additional over the counter painkillers. Issues have since been addressed across the region.

Looking backwards and forwards: The SWARM project has seen massive engagement of trainees in meaningful research - it is now expected rather than exceptional for Peninsula anaesthetic trainees to have been local leads or recruited to a SWARM project. We run a research training meeting every year including a "dragon`s den" style session where projects for the ensuing year are pitched and then voted on. The SWARM timeline file shows all 8 projects to October 2014. In 2015 we launched CUPPA (see below) and ran ProULTRA - a survey of patient experience of the consenting process for regional anaesthesia.

We have definitively proved the potential of trainee led perioperative research: in 2013 the 6 centres of SWARM recruited 586 of the UK`s 1560 patients to LAS VEGAS, a large snapshot observational study. SWARM led recruitment of several hundred across the SW to SNAP - a patient satisfaction survey. These efforts culminated in 2015 in CUPPA, SWARM`s own grant funded multicentre Randomised Controlled Trial which has recruited over 90/120 patients across 6 centres in 7 months.

Out of SWARM`s success has grown national success: the Research & Audit Federation for Trainees (RAFT) launched in 2013 and chaired to date by SWARM`s Tom Clark - this is a collaboration of all 16

trainee led anaesthetic research groupings in the UK - seeking to scale up projects to a national level. The SNAP patient satisfaction survey, run through RAFT recruited 14000 patients in 2 days, while iHype, a project on intraoperative hypotension is now in advanced set-up.

Costs and originality: The SWARM blueprint is of collaborative effort with an altruistic philosophy. Individual members contribute effort and expertise hugely, without direct remuneration. A crucial part of the model was the decision to publish under the group name "SWARM" rather than as individual authors - this has maintained harmony and zeitgeist, but created a requirement for a platform to acknowledge individual contributions. Hence there were nominal start up and recurring costs to maintain a website (www.ukswarm.com) and a secure web based project management platform (Basecamp) where discussions and project planning take place in virtual space. These have been managed through a recurring Peninsula Deanery Innovation Grant of around £2000 since 2013.

A research fellowship, sponsored in part by PenCLAHRC, the Collaboration for Leadership in Applied Health Research and Care, was launched in 2015 whereby a Peninsula trainee spends a year leading multicentre SWARM projects aimed at patient benefit. The Research portion of the post costs around £12 000 per year. The fellow is currently working up SWARM's participation in PQIP a pilot project in collecting detailed outcome data after major surgery.

RAFT, the national trainee led collaboration have had excellent support from the Royal College of Anaesthetists, National Institute of Academic Anaesthesia and Association of Anaesthetists, all of whom have hosted RAFT face to face meetings for the members to take the projects to the next level. The NIHR has similarly endorsed, supported and publicised the SWARM model as an exemplar for other specialities (see Insight article attached).

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SWARM