Editorial

The Academic Surgical Collaborative: Launching a new trainee research collaborative

1. Introduction

The first trainee research collaborative (TRC) in medicine began in 1986, when General Practitioners orchestrated a research project for regional trainees [1]. Whilst there has been a proliferation of research collaboratives across the UK, and an increase in the proportion of publications written by collaborative groups [2], TRCs have only become more widespread relatively recently. Multicentre surgical research projects led by trainees [3,4] have firmly cemented the resurgence of the TRC and its role within the surgical profession [5]. The National Research Collaborative website is dominated by the surgical disciplines and at present twenty-nine out of the thirty-seven collaboratives listed are surgically themed [6].

Surgical TRCs are an opportunity for trainees at all levels of experience to develop their research involvement [7]. Junior trainees are supported as their exposure to research and audit increases [8] by more senior colleagues who are able to offer advice and experience. As trainees mature, TRCs can help to identify research questions, assist networking, offer academic support and mentoring, provide motivation to finish work [8] and improve access to funding [9]. TRCs are an educational tool, promote future collaboration, and increase the exposure of trainees at all levels to research and audit [1]. Finally, TRCs allow trainees to learn basic research methodology, to assist in the co-ordination of multicentre studies, and to recruit willing collaborators from other centres who may otherwise be inaccessible [7].

Bhangu identifies that surgical trainees are highly suited to the delivery of collaborative work; they are regularly in contact with each other, are motivated and desire evidence of involvement in research [10]. However, now we find medical students are leading national audit projects (STARSurg) [10], giving them an early taste of collaborative research. International level, trainee led surgical collaborative projects have also begun to establish [10], with GlobalSurg announcing it had completed patient recruitment for its first programme in January 2015 [11].

This short paper describes the establishment of the Academic Surgical Collaborative (ASC): a new TRC. We describe the ASC’s positioning within TRCs and its guiding philosophies. Some time, to create a new collaborative. The group established a website [12] and registered with the National Research Collaborative within a fortnight.

The ASC’s focus is on meta-research such as evidence synthesis and the critical appraisal of the methodological and reporting quality of research. The need for research in this field has been illustrated by the recent establishment of the Meta-Research Innovation Centre at Stanford University (METRICS) [13]. Research project ideas at the ASC are centrally coordinated by a core team but proposals are encouraged from all members. Relatively small working groups take on each research project with an assigned project coordinator. A central coordinator helps steer the projects and ensures milestones are achieved and that progress is made. The ASC uses smaller teams in contrast to other existing collaboratives. The ASC’s focus on methodology and reporting quality does not require multi-centre primary research, so to date has not yet needed the large, multi-author groups seen in other collaboratives. These smaller groups prevent the loss of control and ownership of a project that can occur with large-scale collaborative research [14].

Trainees can be frustrated when they commit time towards work that is irrelevant or never published [8] and can be deterred from research by slow, unproductive projects. The ASC have found that when focussed individuals commit together to meet a tight deadline, high quality work is produced quickly. In our experience, this reduces, or can even eliminate trainee frustration. The ASC’s philosophy exploits the basic motivators in successful research; a high level of interest and tangible outputs. At the same time we advocate high standards of research and publication ethics.

The ASC emulates the guiding principles of collaboratives that have come before it; utilising enthusiastic trainees, shared success, an endorsement from the National Research Collaborative, strong mentorship, trainee level leadership, partnerships with academics and institutions as well as a dependable administrative infrastructure [9]. Our online portfolio [12] demonstrates the breadth of the ASC’s research, with heavy junior trainee involvement. These initial successes we hope to build upon.

2. The establishment and philosophies of the ASC

The ASC established formally in October 2014, after the director (RA) assembled a small group of medical students and junior doctors, many of whom had been working together informally for some time, to create a new collaborative. The group established a website [12] and registered with the National Research Collaborative within a fortnight.

The ASC’s focus is on meta-research such as evidence synthesis and the critical appraisal of the methodological and reporting quality of research. The need for research in this field has been illustrated by the recent establishment of the Meta-Research Innovation Centre at Stanford University (METRICS) [13]. Research project ideas at the ASC are centrally coordinated by a core team but proposals are encouraged from all members. Relatively small working groups take on each research project with an assigned project coordinator. A central coordinator helps steer the projects and ensures milestones are achieved and that progress is made. The ASC uses smaller teams in contrast to other existing collaboratives. The ASC’s focus on methodology and reporting quality does not require multi-centre primary research, so to date has not yet needed the large, multi-author groups seen in other collaboratives. These smaller groups prevent the loss of control and ownership of a project that can occur with large-scale collaborative research [14].

Trainees can be frustrated when they commit time towards work that is irrelevant or never published [8] and can be deterred from research by slow, unproductive projects. The ASC have found that when focussed individuals commit together to meet a tight deadline, high quality work is produced quickly. In our experience, this reduces, or can even eliminate trainee frustration. The ASC’s philosophy exploits the basic motivators in successful research; a high level of interest and tangible outputs. At the same time we advocate high standards of research and publication ethics.

The ASC emulates the guiding principles of collaboratives that have come before it; utilising enthusiastic trainees, shared success, an endorsement from the National Research Collaborative, strong mentorship, trainee level leadership, partnerships with academics and institutions as well as a dependable administrative infrastructure [9]. Our online portfolio [12] demonstrates the breadth of the ASC’s research, with heavy junior trainee involvement. These initial successes we hope to build upon.

3. Future goals and encouraging new members

The collaborative fully encourages the involvement of new trainees and medical students with an interest in research and in surgery. New and ongoing research projects will always be at the core of the ASC; however a focus is also maintained on education.
New members receive research training and insights via their senior team members when working on a new project. Members are offered realistic opportunities to present and publish their work and then co-ordinate their own research projects in the future. A driving force for the establishment of the West Midlands Research Collaborative was frustration felt by trainees performing small, single-centre trials [9]. One of the many justifications for establishing the ASC was to address the frustration felt by trainees who had an unfulfilled desire to be educated in surgical research methodology.

The collaborative offers career support informally, but plans to expand to provide training events and conferences to cover; electives, research at medical school, job applications, surgical skills, research skill development during surgical training and advice on higher degrees. In the future the intent is to expand this to run formal workshops in these areas. This will be assisted by the recently launched International Journal of Surgery Careers (www.ijscareers.com). This resource has been written by ASC members and aims to provide education to all trainees on the above topics. It also seeks to establish a single, central, accessible webpage from which it will be possible to search for relevant conferences, prizes, fellowships and bursaries.

4. The ASC’s links to scientific journals

The ASC has links with the Annals of Medicine and Surgery (AMS) and the International Journal of Surgery (IJS), and ASC members are encouraged to take part in the peer-review process and to expand their knowledge in critical appraisal. With time, and sufficient experience, several ASC members have joined the Editorial Board of AMS.

5. Conclusions

TRCs have been successful in both encouraging skill acquisition and producing high quality research. The ASC will continue to evolve and grow and we hope you support us on our journey.

Prior presentations

Nil.

Ethical approval

Not applicable.

Financial interests

None of the authors has a financial interest in any of the content of this manuscript, nor sources of funding to declare in relation to this work.

Author contribution

All listed authors were involved in the article concept, development of article principles, critical review of the final article and approval of the final draft.

Other contributors are acknowledged in the Acknowledgements section.

Guarantor

Dr Thomas Edward Pidgeon.

Conflicts of interest

No conflicts of interest exist.

Acknowledgements

The authors wish to acknowledge Eric Edison and Christopher Limb of the Academic Surgical Collaborative who reviewed the manuscript and provided suggestions on layout.

References

[1] D.J. Timmins, S.H. McFarlane, N.S. Butler, Facilitating a trainee collaborative study, J R Coll Gen Pract [Internet] 39 (327) (1989 Oct) 423–424 (cited 2015 Jan 2). Available from: http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=1712129&tool=pmcentrez&rendertype=abstract.

[2] J.C. Goldsack, S.S. Sonnad, Changing trends in surgical research: an analysis of 50 years of collaborative practices, JAMA Surg [Internet], Am Med Assoc 149 (8) (2014 Aug 1) 873–874 (cited 2015 Jan 2). Available from: http://archsurg.jamanetwork.com/article.aspx?articleid=1882752.

[3] Multicentre observational study of performance variation in provision and outcome of emergency appendicectomy, Br J Surg [Internet] 100 (9) (2013 Aug) 1240–1252 (cited 2014 Dec 17). Available from: http://www.ncbi.nlm.nih.gov/pubmed/23842836.

[4] T.D. Pinkney, M. Calvert, D.C. Bartlett, A. Georghiou, V. Redman, G. Dowswell, et al, Impact of wound edge protection devices on surgical site infection after laparotomy: multicentre randomised controlled trial (ROSSINI Trial), BMJ [Internet] 347 (2013 Jan) f4305 (cited 2014 Dec 25). Available from: http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3905488&tool=pmcentrez&rendertype=abstract.

[5] A.G. Kolias, C.J. Cowie, A. Tarnaris, P.J. Hutchinson, P.M. Brennan, Ensuring a bright future for clinical research in surgery with trainee led research networks, BMJ [Internet] 347 (2013 Jan) f5225 (cited 2015 Jan 2). Available from: http://www.ncbi.nlm.nih.gov/pubmed/23965517.

[6] National Research Collaborative [Internet]. 2014 (cited 2015 Jan 2). Available from: http://www.nationalresearch.org.uk/?page_id=–5#fs-tabbed-862.

[7] Trainee Research Collaboratives (The Association of Surgeons in Training) [Internet], (cited 2015 Jan 2). Available from: http://www.asit.org/resources/collaboratives.

[8] David Bartlett, T.D. Pinkney, K. Futaba, L. Whisker, G. Dowswell, on behalf of the WMRC, Trainee led research collaboratives: pioneers in the new research era. BMJ careers [Internet] (2012) (cited 2015 Jan 2). Available from: http://careers.bmj.com/careers/advice/view-article.html?id=–20008342.

[9] G. Dowswell, D.C. Bartlett, K. Futaba, L. Whisker, T.D. Pinkney, How to set up and manage a trainee-led research collaborative, BMC Med Educ [Internet] 14 (2014 Jan) 54 (cited 2015 Jan 2). Available from: http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=4229745&tool=pmcentrez&rendertype=abstract.

[10] A. Bhangu, A.G. Kolias, T. Pinkney, N.J. Hall, J.E. Fitzgerald, Surgical research collaboratives in the UK, Lancet [Internet], Elsevier 382 (9898) (2013 Sep 28) 1091–1092 (cited 2014 Dec 15). Available from: http://www.thelancet.com/article/S0140-6736(13)60213-9/fulltext.

[11] GlobalSurg. Global surgery research [Internet]. (cited 2015 Mar 7). Available from: http://globalsurg.org/.

[12] The Academic Surgical Collaborative [Internet]. Online. 2015 (cited 2015 Jan 3). Available from: http://www.surgicalcollaborative.com/.

[13] METRICS, The Meta-Research Innovation Center at Stanford [Internet], 2015 (cited 2015 Jan 2). Available from: http://metrics.stanford.edu.

[14] D. Stokols, R. Harvey, J. Gress, J. Fqua, K. Phillips, In vivo studies of transdisciplinary scientific collaboration lessons learned and implications for active living research. Am J Prev Med [Internet] 38 (2 Suppl. 2) (2005 Mar) 202–213 (cited 2014 Dec 31). Available from: http://www.ncbi.nlm.nih.gov/pubmed/15694529.

The Academic Surgical Collaborative

Thomas E. Pidgeon*
University Hospital Coventry and Warwickshire NHS Trust, Coventry, CV2 2DX, UK

Alexander J. Fowler
Barts and the London School of Medicine and Dentistry, QMUL, London, UK

Katharine Whitehurst
University College London Medical School, London, UK
