

Royal Society of Medicine, Colt Foundation Research & Clinical Innovation Meeting 2022

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The Royal Society of Medicine (RSM–Military Medicine Section), Colt Foundation Research & Clinical Innovation Meeting has been at the core of Defence Medical Services (DMS) academic activity since its inception in 2007. Initially, the meeting sought submissions from medical officers, typically undertaking higher degrees, but in recent years the scope of the meeting has been broadened to include all healthcare professional disciplines.^{1,2} This reflects the strategic directions of both UK Healthcare and the DMS towards greater interdisciplinary healthcare delivery models and integrated research³ in which shared role understanding and supportive team structures have been identified as themes that promote collaborative success in military medical teams.⁴ The top six abstracts for the Colt Research prize, published here in *BMJ Military Health*, reflect this diversity as they span several disciplines and both academic and Defence institutions.

Following anonymisation, 20 abstracts were passed to a panel of Defence academics convened by the DMS Medical Director. The review process was double blinded and took into consideration the following areas: background rationale, methodology (originality of aim(s), scientific and statistical rigour), clarity and aim, relevance of results, appropriateness of conclusion, military relevance and overall level of academic writing. The authors of the six highest scoring abstracts were invited to give a 7 minute

oral presentation. We would like to thank Surgeon Captain Jason Smith, Colonel Mike Smith, Colonel Tom Wooley, Colonel Linda Orr, Group Captain Alex Bennett, Colonel Mark Bailey, Lieutenant Colonel Arul Ramasamy and Major Amos Simms for their participation in the judging panel.

Congratulations to Major Iain Parsons for his winning entry this year titled '*Improvements in orthostatic tolerance with physical training are augmented with heat acclimation and associated plasma volume expansion; a randomised controlled trial*'. Parsons has published several peer-reviewed articles in this area and delivered an accomplished presentation, highly relevant to the military population.^{5,6}

The *BMJ Military Health* essay prize was introduced in 2019 in order to provide an opportunity for more junior medical officers to demonstrate their ability to clearly articulate a balanced and informative view of a topical issue relevant to the DMS. Although the winner receives £100 from the RSM Military Section and an impressive line in their curriculum vitae, undoubtedly the greatest prize is publication of their essay in *BMJ Military Health* in recognition of the close alliance between the RSM Colt Foundation Meeting and our triservice medical journal.

The calling notice, released in June 2022, gave the title: '*How should the DMS prepare for an article 5 NATO collective defence operation with the prospect of high volume of combat casualties?*'. Five submissions were received. All essays were of a high standard and the authors should all be commended. The essays were anonymised and scored by a panel of Defence academics against a matrix that included: the ability to structure a logical argument, the quality and balance of supporting evidence, the appropriateness of the conclusion, the level of academic writing and adherence to the instructions for the authors. We are most grateful to Alison Bess (Secondary Healthcare Academic Manager) for handling these, as well as the research and quality improvement

(QI) submissions, and we would like to recognise the following personnel for the generosity with their expertise and time in scoring the essays and providing written feedback: Surgeon Commander Ed Barnard, Lieutenant Colonel David Naumann and Lieutenant Colonel Johno Breeze.

The winner this year was Major Mark Riley. He explored several key topics including prolonged field care, post-traumatic stress, training healthcare professionals for combatant roles and recruitment and retention of medical personnel. As the essay title implies, he has drawn on contemporary data to illustrate the potential scale of future operations.⁷

Finally, this meeting also hosts DMS' primary QI prize, supporting the strategic aim of making QI central to healthcare delivery. Group Captain Di Lamb, as chair of the DMS QI working group, convened a judging panel. The authors of the top six abstracts were invited to give a 7 min presentation. This year's winner was Captain Montague Mackie for his work titled '*Improving antibiotic prescribing in-line with clinical guidelines for operations in a deployed medical treatment facility*'.

The audience also heard from three guest speakers. Professor Kevin Fong has a unique background in both physics and medicine. He spoke about his role as National Clinical Advisor in Emergency Preparedness and Response for COVID-19. He explained the difference between complicated and complex systems and how this influenced building mathematical models that predicted the extent of COVID-19's impact early on. This was both a fascinating insight and inspirational to those with an interest in QI in how to approach problems. Professor Karim Brohi, Clinical Director for the London Major Trauma Network, ran a workshop-style session deconstructing the challenges of running large randomised controlled trials. This made the audience question their priorities for further research and highlighted the impact that decisions taken early on have on a project's success. Finally, we heard from Captain Kat Matthews, army physiotherapist and professional triathlete. Kat spoke about the extraordinary dedication and scientific approach she has taken in training to achieve finishing second in the World Ironman Championship in 2021 and being the first woman to break 8 hours for the distance in 2022.

The continued success of this meeting depends on the submission of abstracts

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and high levels of attendance on the day. The authors can anticipate a closing date for abstracts of 1 September 2023 prior to the 2023 meeting which is scheduled for 7 December and will again be sponsored by the Colt Foundation.

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