

From Hunter to Helmand: Military Medicine Then and Now

14–15 November 2014

Speaker (Day 1)	Title	ABSTRACT	BIOGRAPHY
Brigadier Chris Parker CBE	Introduction	--	Formerly of the Royal Army Medical Corps, Chris Parker served as the Medical Advisor to the International Security Assistance Force Afghanistan. Prior to that he was Commandant of the Royal Centre for Defence Medicine at Selly Oak where he was responsible for the care and support to casualties returning from overseas, a position in which he drew considerably on his experience in front line medical roles in Northern Ireland, the Balkans and Iraq.
Dr Sam Alberti	Chairing	--	Sam Alberti is Director of Museums and Archives at the Royal College of Surgeons of England. In 2014–15 he is Visiting Professor at the University of Edinburgh. A historian of medicine, his books include <i>Morbid Curiosities</i> (Oxford, 2011) and <i>Medical Museums</i> (ed. with Elizabeth Hallam, RCS, 2013).

Dr Simon Chaplin	John Hunter as Army Surgeon	For John Hunter, military service was a transformative experience. It helped him regain his health and gain his independence from his brother. The opportunity to travel – if only to Belle-Île and Portugal – allowed him to indulge his interest in natural history and collecting. And the contacts he formed in his time in the army helped to secure his career in private practice on his return to London. Alongside all of this, of course, was the actual surgical and medical experience he gained, which informed his ideas about the physiological processes of healing – an area of interest that formed the underpinning of his intellectual life for the next three decades.	Simon Chaplin is Director of Culture & Society for the Wellcome Trust. Previously he was Head of the Wellcome Library, where he was responsible for leading an ambitious transformation strategy to create a new library for the 21st century. Before joining the Wellcome he was Director of Museums and Special Collections at The Royal College of Surgeons of England. He is Secretary of the British Society for the History of Science and a Trustee of the Florence Nightingale Museum.
Mr Michael Crumplin	Some Gain through Pain - Early Nineteenth-century Military Medicine	The impressively successful management of injured service personnel in Afghanistan today has been built on two hundred years of harsh experience. Until the advent of antiseptic surgery, anaesthesia and the comprehension of modern post trauma pathophysiology, the challenges posed to our medical forebears, 200 years ago, were severe. The occurrence of swathes of contagion and the delivery of overwhelming numbers of casualties eventually resulted in some improvements. Through the Seven Years War (1756–63) and particularly the wars against Republican and Napoleonic France (1792–1802 and 1803–15), advances in military public health and surgery were slow to evolve. Eventually, between 1805 and 1815, considerable progress was made with the management of certain diseases and surgical techniques. Reform and unrest in the Royal Navy resulted in improved health and welfare of sailors and there were also some remarkable surgical achievements. The virtual eradication of scurvy and smallpox and the adequate provision of food to both arms of the services were achieved by concerted national effort. By 1814, the Army Medical Department, after a slow start, became a well-organised and efficient support for Britain’s land forces. The surgery of warfare in the British Army was at a peak, which was not further improved until almost the end of the nineteenth century.	Michael Crumplin is a retired consultant surgeon. He was educated at Wellington College and the Middlesex Hospital. For over 40 years he has taken an interest in military, naval and surgical history. He writes, lectures nationally and internationally and also advises students, researchers, authors and the media. He has published four books and has acted as medical advisor for many programmes. His principle purpose with history is to promote interest in the human cost of war. He is an honorary curator at the College of Surgeons, and is treasurer and trustee of the Waterloo Association, also coordinating the educational committee for Waterloo 200.

Dr Katherine Foxhall	Medical Experimentation in the Post-Napoleonic Navy	<p>Historians have often emphasised the links between war and medical advancement. In this talk, I examine a less well-researched aspect of military medicine: the opportunities for the development of medical knowledge provided by peace. My focus is the work of naval surgeons from 1815 – 1845, the decades following the end of the Napoleonic wars. This period witnessed a newly confident military culture of scientific and medical experimentation and enquiry. Naval surgeons turned their attention to subjects as diverse as disinfection and ventilation, post-mortem examination and vaccination. They also experimented with different methods for the prevention of scurvy. This talk discusses how it was not just time that surgeons gained in the early nineteenth century after the demands of war, but new kinds of bodies on which to work. Their subjects included emigrant children and convicts, as well as the sailors themselves. Although isolation from land allowed ships to become in some ways ‘laboratories’, I also examine how the surgeons’ work at sea was intimately connected to debates about changing medical authority in Britain and its colonies.</p>	<p>Katherine Foxhall is Lecturer in Extra-European History at the University of Leicester. Her first book, <i>Health, Medicine and the Sea</i> (Manchester, 2012) examined the health of convicts and emigrants who went to Australia in the nineteenth century. Her research interests continue to focus on the histories of disease, maritime medicine, environment and migration.</p>
Sir Barry Jackson	Medicine and Surgery in the Crimea	<p>The Crimean War took place in the mid-1850s when medicine and surgery were yet to undergo the huge advances of the late nineteenth and early twentieth century. In the theatre of war disease was rife, very few medicines had therapeutic effect and the range of surgical operations was limited in scope. Medical personnel treated vast numbers of ill and injured and Florence Nightingale made her name a household word. The Russian medical services coped with even larger numbers of patients than did the allies of Great Britain and France. But it was also a war of firsts – war photography, live war reporting by telegraphy and the Victoria Cross (three of which were awarded to doctors). This heavily illustrated lecture will place the war in context and outline the medical and surgical services that supported the siege of Sevastopol and the battles of Alma, Balaclava and Inkerman.</p>	<p>Barry Jackson is a retired consultant surgeon. He worked at St Thomas’ Hospital, London specialising in intestinal surgery. He is a past President of both The Royal College of Surgeons of England and the Royal Society of Medicine. In retirement he has an interest in medical and military history and has lectured widely on the medical and nursing aspects of the Crimean War.</p>

<p>Professor Christine Hallett</p>	<p>Nurses and Wound Sepsis in the First World War</p>	<p>The wounds encountered by military surgeons and nurses during the First World War (1914-18) were complex. During the first few months of the war, such wounds took clinicians by surprise, because of the severity of the anaerobic infections with which they were complicated. Long-serving members of the RAMC, many of whom held high rank, were likely to have gained their experience of wound care on the dry South African veldt during the Second Anglo-Boer War (1899-1902). Such experience had not prepared them for wounds obtained on the heavily-manured fields of Flanders and Northern France. The uncertainty which was occasioned by early encounters with severe wound sepsis led to treatment controversy. A number of options were advocated, including 'conservative treatment' with dry dressings, the liberal use of antiseptics, and the surgical excision of infected tissue. This paper examines the work and perspectives of nurses in implementing such treatments. It focuses both on nurses' personal reflections (in diaries, letters and narratives) and on their professional writings for textbooks and journals. It concludes that, although nurses were aware of treatment controversies and had their own views on which treatments were most likely to succeed, they rarely expressed these openly. Rather, they concentrated their energies on implementing with precision whatever treatment had been prescribed and took pride in the careful execution of some very complex measures, such as the packing or irrigation of deep wounds. They also implemented a range of labour-intensive nursing-care measures (including patient hygiene, feeding and hydration) which would promote healing.</p>	<p>Christine E. Hallett is Professor of Nursing History and Director of the UK Centre for the History of Nursing and Midwifery at the University of Manchester, UK. She is Chair of the UK Association for the History of Nursing, and was founding Chair of the European Association for the History of Nursing. Her research interests encompass the history of wartime nursing, with particular focus on the First World War, the history of nursing education and the history of nursing practice. Her publications include <i>Containing Trauma: Nursing Work in the First World War</i> (Manchester, 2009); <i>First World War Nursing: New Perspectives</i> (with Alison Fell) (Routledge, 2013); and <i>Veiled Warriors: Allied Nurses of the First World War</i> (Oxford University Press, 2014).</p>
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Mr Peter Starling	War is the Only Proper School of the Surgeon	<p>The First World War saw an increase in the variety and complexity of weapons facing the soldier on the front line. This was a dramatic change from the recent South African War. Wounds were more severe, added to which was the danger of infection, especially in France and Flanders. Surgery had to change too, despite some wounds being considered best left to let nature take its course. As the war progresses surgeons were willing to operate on areas of the body previously left, such as the abdomen and chest. To meet the demands of this surgery anaesthetics had to change and blood transfusion and wound shock were also looked at in a different light. This paper will examine the advances in surgery during the First World War and how anaesthetics and transfusion kept pace with them.</p>	<p>Pete Starling is a retired Medical Support Officer, Royal Army Medical Corps. In 1994 he became Curator RAMC Museum, Curator, AMS Museum in 1998 and was Director from 2007 until 2014. Pete gained a MA at the University of Birmingham with a dissertation on surgical improvements during the First World War and he holds the Diploma in the History of Medicine his dissertation being on recruitment, gallantry and death of medical officers during the First World War. He is a Fellow of the Royal Historical Society.</p>
Dr Andrew Bamji	The Role of the Great War in the Advancement of Facial Reconstruction	<p>Facial surgery came of age in Britain in the First World War, when the large numbers of facial casualties produced by the new war conditions (trench warfare, artillery and machine guns) were concentrated by Harold Gillies and his colleagues, first at Aldershot and in 1917 at the Queen's Hospital, Sidcup. At the latter and its associated convalescent units over 1000 beds were available, and medical personnel from Britain, the Dominions and the United States learned rapidly from each other's mistakes. The process was enabled by improving understanding of sepsis, blood loss and anaesthesia, but the surgeons developed new techniques that allowed the reconstruction of faces rather than hasty, crude repair and the covering of defects with masks. In the work of the hospital we can see also a change in surgical attitudes, with the development of multidisciplinary working (the patient being included in the team) as well as a sensitive approach to rehabilitation. This will be illustrated by case histories drawn from the surviving casenotes, and correspondence from relatives detailing patients' post-war achievements.</p>	<p>Andrew Bamji (Gillies Archivist, BAPRAS) was Consultant Rheumatologist at Queen Mary's Hospital, Sidcup. Following his discovery of the WW1 plastic surgical notes from the hospital he developed an interest in the changes in medicine and surgery wrought by the Great War. He has lectured widely on the work of Harold Gillies and his Sidcup colleagues with reference to techniques, the development of a multidisciplinary approach and the rehabilitation of the facially injured.</p>

Mr John Black	Closing	--	<p>John Black was appointed Consultant General Surgeon in Worcester in 1978, with an interest in vascular surgery but became a “first-wave” laparoscopic surgeon in 1990. He served as the first Medical Director of Worcester Royal Infirmary and chairs the charity that built and runs the Charles Hastings Education Centre. He was Training Programme Director in General Surgery in the West Midlands Region during the change to the Calman system and joined the SAC in 1998, and was Chairman from 2004 to 2007. He was elected to the Council of The Royal College of Surgeons of England in 2003 and in July 2006 became Honorary Treasurer. He was elected President of the Royal College of Surgeons from 2008-2011.</p>
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Speaker (Day 2)	Title	ABSTRACT	
Mr David Barnard CBE	Chairing	--	<p>David Barnard is Chairman of the Board of Trustees of the Hunterian Collection. He was consultant oral and maxillofacial surgeon to the Portsmouth Hospitals for 26 years. He was elected Dean of the RCS Faculty of Dental Surgery 1998-2001 and President of the British Association of Oral and Maxillofacial Surgeons in 2004. He enjoyed professional links with the Royal Navy over 40 years.</p>

<p>Professor Joanna Bourke</p>	<p>'Howling in Chorus like Cats on a Roof': The Experience of Surgery during the Second World War</p>	<p>Bodily pain in wartime is unique. It is purposefully inflicted, resolutely public, and relentlessly acute. But how did American and British servicemen during the Second World War <i>feel</i> about their wounds? What were their attitudes to the surgeons who attempted to heal them? Although wounding could be a blessing (a way to escape the killing fields), it was also a test of the person's masculinity and had to be endured in culturally-appropriate ways. What rules of comportment did wounded men feel they had to follow? Was silence as much a communicative act as screams? Through an analysis of letters, diaries, and war memoirs, I explore the divergent ways in which wounded men attempted to make sense of and come to terms with surgery in the field. The way wounded men responded to front-line surgery tells us a great deal about their views about the meaning of war, the body, and suffering.</p>	<p>Joanna Bourke is the author of eleven books, including histories on modern warfare, military medicine, psychology and psychiatry, the emotions, rape, and what it means to be human. In 2014, she published <i>The Story of Pain: From Prayer to Painkillers</i> (Oxford) and <i>Wounding the World: How Military Violence and War-Games are Invading our Lives</i> (Virago).</p>
<p>Professor Mark Harrison</p>	<p>Managing the Wounded In World War II</p>	<p>This lecture assesses some of the major innovation in the management of the wounded in various theatres of the Second World War. Focusing primarily, though not exclusively, on the British Army, it will show how the advent of mechanized warfare and the use of aircraft revolutionized casualty disposal and that this had a major impact on the success with which the wounded were treated. These innovations – organizational as much as technical in nature – laid the foundations for rapid improvements in the care of the wounded which preceded and magnified the contribution made at the end of the war by penicillin.</p>	<p>Mark Harrison is Director of the Wellcome Unit for the History of Medicine at the University of Oxford. He has published widely on the history of disease and medicine, especially in relation to the history of war and imperialism from the seventeenth to the twentieth centuries. His books include two monographs on medicine in the First and Second World Wars respectively: <i>The Medical War</i> (2010) and <i>Medicine and Victory</i> (2004), both of which won the Templer Medal Prize.</p>

<p>Professor Edgar Jones</p>	<p>Shell Shock and its Relevance for Afghanistan</p>	<p>Mild traumatic brain injury (mTBI) has been described as the signature injury of the campaign in Afghanistan. In terms of symptoms, it bears a close resemblance to shell shock, a common disorder amongst British soldiers engaged in trench warfare. After the Battle of the Somme, shell shock threatened to undermine the fighting capacity of the British Expeditionary Force. As an apparently new and puzzling illness, it attracted the attention of many leading doctors who researched its causation and explored a wide range of treatments. New management strategies were devised and much was discovered about the nature of neuro-psychiatric battle casualties. This presentation compares mTBI with shell shock and debates whether lessons learned in 1914-18 can be reapplied to the current campaign in Afghanistan.</p>	<p>Edgar Jones is professor of the history of medicine and psychiatry at the Institute of Psychiatry and King's Centre for Military Health Research. He is programme leader for the MSc in War and Psychiatry and works in the field of military psychiatry exploring how individuals cope with the intense stress of war and its effects on their mental state. He is the co-author of <i>Shell Shock to PTSD, Military Psychiatry from 1900 to the Gulf</i> (2005).</p>
<p>Professor Peter Roberts CBE SM</p>	<p>Chairing</p>	<p>--</p>	<p>During his 30 years as a consultant general and trauma surgeon, Peter Roberts spent a decade as joint professor of military surgery, RCS England and the Royal Army Medical College. He now holds the Emeritus Chair of Military Surgery in this College. He has served around the world in his capacity as a military surgeon, including numerous deployments on active service, spanning the Falkland Islands to Afghanistan. He remains active in teaching and examining the broad topic of trauma care, and continues to care passionately about the quality of medical care provided to service personnel deployed on war-like operations. It has been his privilege to care for them.</p>

<p>Professor James Ryan OBE</p>	<p>From the Falklands to Afghanistan: Radical Change in the Care of War-Injured Soldiers</p>	<p>Medical care in the field for British servicemen and women has reached a point where highly sophisticated care is regarded as the norm and will be expected by politicians, the public and service families, not to mention those deployed on future operations. Will such care always be deliverable? It was not possible during the Falklands war of 1982. There is a further warning from history. Clinton Dent, reporting from South Africa during the Boer war, noted in a 1900 <i>British Medical Journal</i> article the high standards of care for British wounded in the field at this time but commented, 'a terrible awaiting in store for us when we next have to face the hideous horrors of war amidst unfavourable surroundings'. His comments are a timely reminder of the need to heed the lessons from history.</p>	<p>James M Ryan is Emeritus Professor at University College London and at St George's, University of London; he is also International Professor of Surgery at the Uniformed Services University of the Health Sciences. Prof. Ryan was the Leonard Cheshire Professor in Conflict Recovery at the Department of Surgery, UCL from 1995 until 2007. In 2007 he moved to St George's University of London to lead the Centre for Trauma, Conflict & Catastrophe Medicine. Prior to coming to UCL in 1994, Professor Ryan was Joint Professor of Military Surgery at the Royal Army Medical College and the Royal College of Surgeons of England. His war and disaster medical experience covers military and humanitarian operations in Northern Ireland, Cyprus, The Falkland Islands, Nepal, the Balkans, the Caucasus, the Middle East and Central Asia. His interests are in the fields of ballistic injury, terrorist injury, and military and conflict medicine.</p>
<p>Julia Midgley</p>	<p>Between the Lines: Drawings of Military Medicine, a Fly on the Wall Portfolio</p>	<p>With unprecedented access to military medical facilities including the Army Medical Services Training Centre (Strensall Camp), the Defence Medical Rehabilitation Centre (Headley Court) and the Tactical Medical Wing (RAF Brize Norton) artist Julia Midgley has created over 150 reportage sketches showing military surgeons in training and the rehabilitation of servicemen and women after surgery. Julia will look at examples of the work of official War Artists from the World Wars as well as reportage artists who have focused on medicine, military and civilian, in the 20th and 21st centuries. She will then focus on her <i>War Art & Surgery</i> drawings, describing the experience of working with recovering service personnel as well as the drawing process. There are parallels between the work of a surgeon and that of a reportage artist. Both use their hands as tools, rely on intense scrutiny, and respond to small nuances of change in their subjects or patients.</p>	<p>Julia Midgley is a printmaker and artist who specialises in drawing. She has practised as a reportage/documentary artist for several decades. Her work features in public, private, and corporate collections in the United Kingdom and abroad. She recently retired as Reader in Documentary Drawing at Liverpool School Art & Design (part of Liverpool John Moores University); she is a member and past Vice President of the Manchester Academy of Fine Arts, a Fellow of the Royal Society of Painter Printmakers, a member of Reportager, and a member of Art+Archaeology.</p>

Surgeon
Lieutenant
Commander
Jowan
Penn-
Barwell

**Driving
Performance
Improvement -
Learning from the
Past, Improving the
Future**

Since the time of Hunter, the management of military casualties has changed significantly resulting in higher number of 'unexpected survivors' despite the mutilating injuries sustained from the rise of the improvised explosives device in current conflicts. The Defence Medical Services has risen to the challenges by developing strategies that are now accepted as the 'standard' that services in the NHS should strive for.

This paper looks at how we measure the performance of complex systems like the military trauma healthcare, and what the current level of performance is in the Defence Medical Services. The techniques for driving improvement in this system from training, research and a tight feedback cycle will be examined. We will then move on to consider some of the specific techniques and procedures that have led to the very high level of performance that we have seen in the last few years of recent conflict i.e. the use of pre-hospital blood, the experienced Medical Emergency Response Team (MERT); the advances in Damage Control Resuscitation which incorporates damage control surgery and the timely use of blood and blood products before the expedient transfer of casualties to the UK for definitive treatment. The lessons learnt from this period of recent history are essential and are the building blocks for the future to ensure that we continue to deliver the highest standards of care for all military personnel.

By critically analysing the lessons from the recent and not so past, a strategy to improve future care of combat casualties may be mapped. This requires setting priorities, recognising gaps in capability and translation of research from lab to bedside to battlefield. At the same time as understanding the most recent lessons, one must be

Jowan Penn-Barwell joined the Royal Navy in 2000, and after completing his Commando training he was appointed to 30 Cdo RM and completed his first operational tour in Afghanistan in 2006 as their Regimental Medical Officer.

He is currently a Trauma & Orthopaedic registrar with a research interest in combat limb injuries and pursued this with a year-long research fellowship at the prestigious US Army Institute of Surgical Research where he investigated techniques to reduce infection in open fractures. Upon his return to the UK he set up and leads the SeLECT Military-Civilian research group which has published clinical research on outcomes following combat trauma. His current fascination is terminal ballistics.

mindful and prepared to fight a different war to the last. In improving future care of the combat injured, the opportunities to improve survival will be extremely challenging and will focus on improving those currently killed-in-action. A greater improvement in current medical care will be optimise functional recovery via better limb reconstruction and regeneration of bone, nerves, skin and muscle.

Finally, in order to deliver a capable clinical pathway relies not on only improving understanding, research and technology but better preparation of the clinical teams to deliver optimal care. All of this needs engagement and collaboration between both military and civilian healthcare and this paper will outline how this this preparing future military surgical capability.

The Lord
Ribeiro CBE

Closing

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Bernard Ribeiro qualified as a doctor at Middlesex Medical School in 1967 and then specialised in surgery, five years later being awarded Fellowship of the Royal College of Surgeons (FRCS). From 1979 until his retirement in April 2008, he was consultant general surgeon at Basildon Hospital with a special interest in urology and colorectal surgery, pioneering the use of invasive keyhole surgery, and helping to establish the advanced laparoscopic unit. He was elected to the Council of the RCS in 1998 and served as President from 2005 to 2008. In 2012, Lord Ribeiro was confirmed as Chair of the Department of Health's Independent Reconfiguration Panel, advising the Secretary of State for Health on changes to local health services in England.

War, Art and Surgery

THE WORK OF HENRY TONKS AND JULIA MIDGLEY

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