*J R Coll Physicians Edinb* 2014; 44:158–62
http://dx.doi.org/10.4997/JRCPE.2014.216


# Regimental Medical Officer Charles McKerrow: saving lives on the Western Front

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**ABSTRACT** Ayrshire general practitioner Charles McKerrow was appointed regimental medical officer (RMO) to the 10th Battalion Northumberland Fusiliers in 1915. At this time, fundamental restructuring of the military medical service on the Western Front had two main effects: surgical capability was moved forward as close to the front as possible and specialist stretcher bearers were trained to apply emergency first aid at the place of injury and to triage casualties appropriately. The specialist stretcher bearers were the equivalent of today's combat medical technicians. The reorganisation was undertaken in a rapid, improvised 'bottom-up' manner and there are very few official records to detail the process. McKerrow and RMOs of his calibre were integral to the successful implementation and operation of this reorganisation so their personal archives are the primary sources for its history. McKerrow's record is particularly detailed and insightful on the process; he was not only an extraordinarily fine medical officer but also provided expert testimony on a period of military medical change that was enduringly successful.

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**KEYWORDS** archives, combat medical technician, Great War, military medicine, regimental medical officer, stretcher bearer

**DECLARATIONS OF INTERESTS** Dr Emily Mayhew is the author of *Wounded: the long journey home from the Great War*, from which this material on RMO Charles McKerrow is drawn.

Even if only one archive remained from a regimental medical officer (RMO) on the Western Front, as long as it was the one written by Ayrshire general practitioner Charles McKerrow, historians would have enough material to explain much of the story of the achievements and dedication of the men and women who reorganised and ran a system of military medicine so effective it remains the standard in the 21st century. Regimental medical officers distinguished themselves in the Great War.[1,2] Every day that he was at the front, McKerrow endeavoured to bring comfort and healing to the men in his care and to ensure that the system put in place to cope with casualties was the best possible under the dreadful circumstances of the First World War.

In the first months of the war, the existing medical system had failed catastrophically, necessitating its complete reorganisation.[3–5] The military medical authorities of the day had the wisdom to let medics on the ground conceive and implement the changes required to treat new and terrible wounds. Speed and improvisation were key so there were no long policy meetings, Treasury committees or memoranda to circulate. Accordingly, very little material was left in the national archives to detail the process and so it is almost invisible in the official histories of the war. The only direct testimony we have to the changes is from the personal archives of medical personnel and patients themselves, archives such as that of Charles McKerrow at the Imperial War Museum in London. Through his words, we can track the progress of military medicine under unprecedented pressure and of medical staff struggling to make headway in a world of horror.

## MCKERROW'S BACKGROUND

Charles McKerrow joined his father in general practice at No.5 Barns Street, Ayr, after an education that included Cambridge (he qualified in 1908) and a surgical residency in the Frauenklinik in Vienna.[4] He was married to Jean Craik, who, in addition to looking after their young son George, took on the usual duties of a GP's wife of the time, part practice manager, part receptionist. Their living room doubled as a waiting room during the workday.

McKerrow had volunteered for service with the Royal Army Medical Corps (RAMC) as soon as it became obvious that the war was likely to last considerably longer than first thought. He was assigned as RMO to the 10th Battalion Northumberland Fusiliers, 68th Brigade, 23rd Division. Before leaving he had a portrait photograph taken for Jean in Edinburgh, for which he didn't pose proudly in his new uniform as many others did but wore a suit, probably his Sunday best, to show her that he would always be first and foremost Doctor McKerrow of Barns Street (Figure 1). With the war a

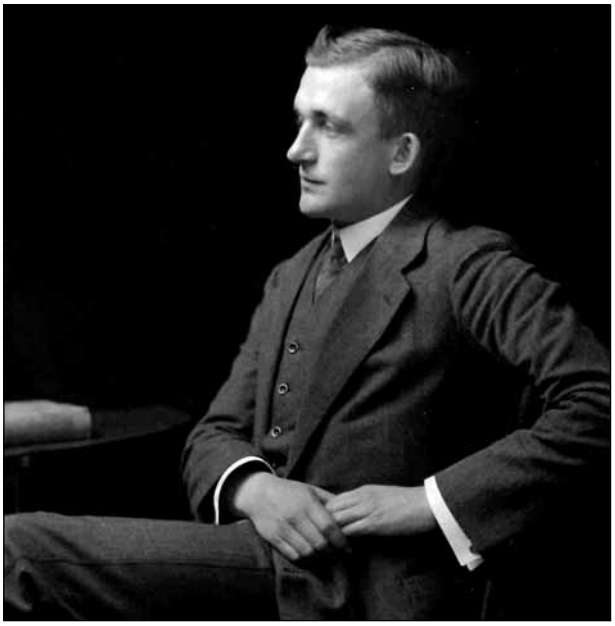

**FIGURE 1** Portrait of Charles McKerrow.

year old, he took up his new post in August 1915, travelling to a billet in a farmhouse in Laventie with cows in a shed for neighbours and a tin roof peppered with bullet holes, in the northern Pas de Calais in France.

## REORGANISATION AT THE FRONT

McKerrow arrived in France as an entirely new military medical system for the retrieval and treatment of casualties was being implemented. Regimental medical officers were essential and fundamental to the new organisation. The modern weapons used in the war were causing a volume of severe wounds the like of which no medical officer, whatever his experience in previous wars, had ever seen. High-powered rifles fired cyclindro-conical bullets that hit fast and deep; artillery shrapnel blew huge blooms of trauma and both had blast energy that caused as much damage as the actual physical impacts themselves. (It should be noted that in this paper, wounds that are not from received from bullets are generally referred to as 'shrapnel' wounds. Initially shrapnel referred to the numerous lead balls that dissipated when a shell was fired, but the word now refers also to the fragments of shell casing that also caused serious casualty.) The wounds were complex, bled heavily and were the ideal environment for infection and sepsis. They needed to be dealt with quickly or else men simply bled to death in the back of an ambulance on its way to the base hospital miles away from the battlefield.

Part of the solution had been to move as much surgical capacity as possible into forward positions: casualty clearing stations that had been intended for dressing changes and dispensing of hot drinks became field hospitals with teams of surgeons, operating equipment and auxiliary staff. Of equal importance was the creation of specialist stretcher

**FIGURE 2** Stretcher bearers (with kind permission of Imperial War Museums)

bearers (Figure 2).[7,8] No longer would it be enough for medical treatment to begin once a casualty had been carried well clear of the battlefield. Instead, emergency first aid should begin as soon as he was found.

### *Training of the new stretcher bearers*

Men were recruited for the new role and sent on a ten-week training course at the Cambridge Military Hospital in Aldershot. Here they learned fundamental skills of emergency medicine: haemorrhage control, handling of broken limbs, management of shock and cold (invisible killers at the front) as well as increasing their general fitness and ability to carry heavy loads. The course at the Cambridge was only the beginning. They were issued with their own textbooks – the *Oxford War Manuals*[9] – and told that they would be given weekly lectures by their RMOs on medical subjects to be determined as the need arose, and that these would be proper lectures, 'not to be skipped or rushed'.[10] The RAMC directive on the new role of stretcher bearers was quite clear:

> The RMO should always have the keenest regard for his own personnel of medical orderlies and the stretcher bearers. On the knowledge, initiative and courageous spirit of these men both he and the unit will have to rely greatly. Good orderlies and stretcher bearers are worth any amount of trouble. He should know them all by name, get to know their histories, should cultivate their acquaintance and understand their individual characteristics so as to learn which of them is fit to be a leader in any undertaking… Generally he should care of them in all ways to the very best of his powers.[11]

McKerrow found that his own personnel consisted of two teams of bearers, 16 men in each, led by (Corporals or Sergeants?) Clark and Kirtley, two of the first team leaders appointed to the new role. As instructed, McKerrow gave the first of his weekly lectures on 30 August 1915 on the subject of gas in which 'they seemed interested'.[12] The first gas attack had taken place on the

Eastern front in January 1915. It had been largely ineffective, although subsequent attacks in April 1915 on the Western Front were not. Gas school was part of a significant response by the Allied military medical authorities to develop masks, medical treatment and defensive equipment (in addition to its own weapons).[13]

From then on, except in heavy fighting, McKerrow stuck to the weekly schedule of lectures, noting that he always saw great improvement afterwards. The stretcher bearers developed a particular expertise in the prevention of trench foot and travelled to other battalions to pass on their knowledge and treat bad foot cases. McKerrow had great respect for the new expertise in the bearer corps and he, Clark and Kirtley developed a mutually 'keen regard' for each other. Within six months of his arrival, McKerrow had instructed them to set up small aid posts of their own during the fighting where they could treat slight wounds on the spot and to use their discretion in triage as to which cases they brought direct to him at the main regimental aid post (RAP). If they needed to fill in gaps in their knowledge to run the posts, then McKerrow adjusted his lecture schedule accordingly.

Reflecting the course curriculum at the Cambridge Military Hospital, McKerrow worked to develop the optimum speed and carrying power of his bearer teams. For the Northumberlands the sight of their RMO and his two bearer team leaders surveying the battlefield with maps and notebooks became a familiar one. When it was safe, they paced out routes from likely attack points, dug new access trenches, made bays in existing trenches where bearers could pass one another. They drew new maps and updated old ones, passing copies round to everyone, making sure they could be understood. They loaded up stretchers and practised the routes from aid post to rear over and over again. Minutes saved meant lives saved. Controlling haemorrhage, splinting broken limbs, dispensing morphia and removing shrapnel fragments – all needed to be done as fast as possible. But it needed commitment from RMOs, commitment like McKerrow's: 'It is all just a matter of getting casualties out of the trenches quickly and we have so speeded things up in our section that we get the wounded out at a run. The best Chicago pork packer could not go quicker.'[14]

## VISIBILITY AND COURAGE

As the battalion moved, first to Vimy and then to Amiens, McKerrow noticed something else as he, Clark and Kirtley scouted the battalion trenches. It made them visible to the Northumberlands. The men liked being able to spot the doc and his men and being recognised by them in turn. It gave them a kind of confidence that they would be found and brought in whatever the circumstances of the battles ahead. McKerrow made sure he went out whenever there were new arrivals to the battalion and tried to learn their names.

It wasn't just McKerrow's visibility that gave them hope. He was establishing a reputation as an RMO of extraordinary courage. During one attack he had run out to help a wounded man and been pursued by a hail of firing. Despite this, he treated the casualty and found a bit of tin roofing to serve as a stretcher. He dragged him back to safety, under fire the entire way. It was, he noted in his diary (but not in his letters home to Jean), 'a queer thing that, as soon as one gets some work to do among the wounded, one ceases to notice the shelling'.[15] When news came through that a casualty they had worked particularly hard to save had survived, McKerrow allowed himself a quiet moment of pleasure: 'I rather look on this as a good performance on the part of the stretcher bearers and of course myself. There are some compensations out here after all.'[16]

## RELATIONSHIP WITH THE STRETCHER BEARERS

As McKerrow came to rely more and more on the expertise of the men of his bearer teams, he did his best to look after them in all the ways he could think of. They were, he noted, 'a most obliging lot but it adds a little personal flavour to their effort when they know that their comfort is in my care.'[17] He couldn't have done it without Jean and her long supply line from Ayr. She sent socks and clean shirts for men too busy mapping to go to the battalion laundry. She found mousetraps for the aid posts and lice combs for the men. Using her experience from the practice she sourced exactly the right kind of scissors that were needed to cut away ragged uniforms and trim hairlines so wounds could be treated ('about four inches long with blunt points').

Scissors were lost as easily as lives on the Western Front, and McKerrow and his bearers were always short of them and couldn't depend on army resupplying. Jean and the Ayr post office were considerably more reliable. She sent vegetables and other food, and McKerrow always cooked up something he could share with his team. He wrote to thank her: 'Because of you I am able to keep my own men very comfortable.'[18]

## KNOWLEDGE EXCHANGE

McKerrow and his fellow RMOs at the frontline worked together to ensure their own expertise was continually updated as conditions, weaponry and tactics changed in their sectors. The continuing stability of the front allowed for an informal knowledge exchange to consolidate into professional networks. A range of divisional medical societies were formed by and for RMOs at the front (for example, the Rouen Medical Society). They held regular conferences on medical conditions and circulated newsletters and journals.

There was no centralised direction of these societies; they were created and run to benefit medics on the ground in France – and therefore relatively few records





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from them remain – but they were of considerable use in disseminating new information and research in the treatment of casualties, which was in turn passed on stretcher bearers and orderlies via the weekly lecture. Reporting back after a conference on abdominal wounds, McKerrow noted that they were 'just about the worse case one can have,' and reinforced the need for speed of evacuation to surgery above all in such cases.[19]

## FRONTLINE TREATMENT AND PROBLEMS

In May 1916, McKerrow and the Northumberlands were moved in preparation for the forthcoming offensive in the valley of the Somme. Death had got to their position before them and the walls of the RAPs were thick with fragments of corpses of German and French soldiers from the previous year's fighting. McKerrow ordered posts sprayed against the smell, but it was so bad he couldn't sleep in his medical dugout and so moved a stretcher out into the open at night. He told Jean little of this, instead writing to her that she could be certain that during the next three months he would be cautious to excess. He would 'make a most vile patient' so they would have to hope he wouldn't get even a nice cushy wound.[20]

As reinforcements arrived for the battalion, McKerrow, Clark and Kirtley went round to make sure they knew they had been noticed. Routes to the aid post were rehearsed and remapped, and McKerrow started hoarding medical supplies, ignoring an official directive received in June to reduce non-essential belongings to a minimum. On 1 July 1916, the Northumberlands attacked at La Boiselle.[21] They lost 2,440 men and 70 officers, including 70 men from one small mining town alone and a number of stretcher bearers. McKerrow treated a thousand cases in three days without stopping. His bearers worked out on the field, in their own small aid posts and in shell holes trapped with the wounded they had gone to carry in. When McKerrow finally had time to reflect on their efforts, his praise was unbounded:

> No-one could have possibly equalled my stretcher bearers… As one hardbitten chap said to me: 'they are doing what Christ would do.' It really is very find to see these chaps passing through storms of shell to help their comrades. I am very proud of them and hope they will get some rewards apart from the inward ones of their conscience.[22]

The line bucked and surged, always causing severe problems for the medical teams who had to find new sites for aid posts and ensure everyone knew their location. At one point McKerrow found himself in a captured German RAP with a prisoner of war (PoW) orderly to help him. His experience as a resident in Vienna stood him in good stead as he was able to communicate with the man in his own language. Then the line moved again, the PoW was taken away and McKerrow had to make a new aid post from a hole in the ground, a pile of sticks and borrowed greatcoats for a roof.

By 16 August he was the only RMO left in the whole brigade, with inexperienced replacements taking their places. Now it was the turn of experienced stretcher bearers to lecture the new arrivals. A brief rest in billets and then at the end of September the battalion was back at the Somme. On 26 September McKerrow reported that they 'went over the top yesterday and lost about two thirds of those who went. We had to bring in a lot of men from No Mans Land after dark. Not very cheery work… one of my best stretcher bearers was sniped in the head.'[23]

By the end of September, there was almost no one left from his original team of bearers, apart from Clark and Kirtley. New teams were being organised weekly, but inexperience at the Somme was a dangerous state. Many were shot during their first carry, despite the best efforts to train them. The stress got to everyone. Even McKerrow's horse, Tommy, who was grumpy and kicked but could turn on his tail if required, went mad and attacked a groom. Army veterinarians came to destroy him and it was a very low moment for the RMO.

The Northumberlands were finally moved back from the front line in October 1916. McKerrow dug new aid posts in the Ypres salient in the last unoccupied corner of Belgium and asked Jean to send him a Flemish dictionary. There wasn't the intensity of fighting there had been in the Somme valley, but it was still dangerous. On 1 November , McKerrow lost one of his finest bearers; 'a hero' who had carried and treated scores of casualties, survived the offensive but was shot in the stomach by a sniper. Hundreds of reinforcements arrived to join the Northumberlands. They all needed innoculations, particularly against typhoid and tetanus, so McKerrow trained his bearers to give injections. Many of the newcomers were scared when they saw the syringes come out, but the few remaining survivors knew that there were dead men in the walls of their trenches and centuries of filth in the fields, and they needed all the help they could get.

## TRENCH FEVER

Ypres in November gave McKerrow time to recover and think about more than the immediate medical needs of his men. Despite everything he had gone through he still retained 'a much more lasting hatred of the microbe than of the Boche'.[24] Infectious diseases were starting to be a significant challenge for the military medical system on the Western Front and, although McKerrow did not note a specific problem with influenza, he did have numerous cases of what was known as 'trench fever'[25] in the battalion. He decided to investigate its causes and sent Jean weather and temperature data from his diaries.

As usual, his stretcher bearers made a significant contribution to his work, but this time in a less conventional manner than that prescribed by the RAMC. Kirtley went down with trench fever himself and agreed to be sent to McKerrow's dugout rather than the nearest field hospital for observation and treatment. McKerrow monitored him constantly and wrote up his findings for a research paper, 'Pyrexias of doubtful origin in an infantry battalion on active service'. In early December he read the paper to general acclaim at a divisional medical conference. It was the largest research study of the topic to date conducted by an officer in a forward position and accordingly he was asked to prepare it for publication.[26]

## PREMATURE DEATH

McKerrow was advised that he might take leave after Christmas 1916. In the meantime there were reinforcements constantly arriving who needed noticing in the battalion. On 20 December McKerrow and Clark left their dugout for the forward trenches at Zillibeke to meet their men. On their way, at 10am, a shell exploded close by and wounded both of them severely in the abdomen. Shell fragments tore apart McKerrow's intestinal vasculature. The Northumberlands were horrified. Never had the bearer machine worked more rapidly as McKerrow and Clark were rushed to the surgeons in the field hospital behind Poperinghe, but it was too late. McKerrow knew as well as anyone what his wound meant and quietly made his goodbyes to colleagues as he bled to death. Clark died first and then McKerrow, having 'maintained an absolute quietness and calmness throughout'.[27] He was 33 years old.[28]

Jean, as McKerrow would have wished, did not collapse and held firm. She finished his article on trench fever and submitted it for publication in the *Journal of the Royal Army Medical Corps* for 1918. The Northumberlands were devastated at the loss of an RMO widely acknowledged to be the finest in the entire division. McKerrow was buried in what would become the Lijssenthoek Military Cemetery. His men built a stone cross for his grave and many joined McKerrow's colleagues in writing to Jean of his courage and fortitude.

There were no more McKerrows in practice at Barns Street by the end of the war. McKerrow's father George died in 1917 and his brother, also called George, had become an engineer. No.5 Barns Street became ordinary residential accommodation and there is no sign today of the extraordinary medical family which once worked there. In 1922 McKerrow's little son died and eventually Jean left Ayr to marry again. McKerrow's diary and letters were transcribed and bound into two archive volumes which were eventually donated to the Imperial War Museum in London by his great nephew, Stewart Murray. They constitute a remarkable record of change, adaptation, courage and service by one RMO who also symbolised an entire system rebuilt and operated by medics utterly dedicated to saving the lives of the men who fought around them in the trenches of the Western Front.

***Acknowledgements*** I am grateful to McKerrow's great nephew and niece, Stewart Murray and Margaret McMillan, who provided supplementary personal information in correspondence, and to Dr Stefan Slater.

## REFERENCES


1 Davidson A. *Fred's war. a doctor in the trenches*. London: Short Books; 2013.
2 Clayton A. *Chavasse, Double VC*. Barnsley: Pen & Sword Military; 2006.
3 Harrison M. *The medical war: British military medicine in the First World War*. Oxford: Oxford University Press; 2010.
4 Whitehead IR. *Doctors in the Great War*. Barnsley: Leo Cooper; 1999.
5 Blair JS. *A centenary history of the Royal Army Medical Corps 1898 to 1998*. Edinburgh: Scottish Academic Press; 1998.
6 *The Medical Directory 1914*. p.1367
7 Mayhew E. *Wounded From battlefield to Blighty, 1914–1918*. London: Bodley Head; 2013.
8 Dupuy G. *The stretcher bearer*. Oxford: Hodder & Stoughton; 1915.
9 *Oxford War Manuals*. Oxford: Hodder & Stoughton; 1915–7.
10 The whole duty of an RAMC officer. *J R Army Medical Corps* 1916; 32:289.
11 The whole duty of an RAMC officer. *J R Army Medical Corps* 1916; 32:289.
12 McKerrow C. Diary entry, 30 August 2015. Personal archive (93/20/1), Imperial War Museum, London.
13 Freemantle M. *Gas! Gas! Quick, boys: how chemistry changed the First World War*. Stroud: History Press; 2013.
14 McKerrow C. Letter to Jean McKerrow, 25 January 1916. Personal archive (93/20/1), Imperial War Museum, London.
15 McKerrow C. Diary entry, 30 January 1916. Personal archive (93/20/1), Imperial War Museum, London.
16 McKerrow C. Letter to Jean McKerrow, 10 January 1916. Personal archive (93/20/1), Imperial War Museum, London.
17 McKerrow C. Letter to Jean McKerrow, 30 November 1915. Personal archive (93/20/1), Imperial War Museum, London.
18 McKerrow C. Letter to Jean McKerrow, 30 November 1915. Personal archive (93/20/1), Imperial War Museum, London.
19 McKerrow C. Diary entry, 25 January 1916. Personal archive (93/20/1), Imperial War Museum, London.
20 McKerrow C. Letter to Jean McKerrow, 21 April 1916. Personal archive (93/20/1), Imperial War Museum, London.
21 Peacock B. *The Royal Northumberland Fusiliers*. London: Leo Cooper; 1970.
22 McKerrow C. Diary entry, 10 July 1916. Personal archive (93/20/1), Imperial War Museum, London.
23 McKerrow C. Diary entry, 22 September 1916. Personal archive (93/20/1), Imperial War Museum, London.
24 McKerrow C. Letter to Jean McKerrow, 21 April 1916. Personal archive (93/20/1), Imperial War Museum, London.
25 Peacock A, Pearson W. The Peacock versus the louse (pediculus humanus corporis): one soldier's contribution to combating trench fever in the First World War. *J R Coll Physicians Edinb* 2010; 40:256–62.
26 McKerrow C. Pyrexias of doubtful origin in an infantry battalion on active service. *J R Army Medical Corps* 1918; 30:175–186.
27 Letter from Sister Constance Druce to Jean McKerrow, 20 December 1917.
28 McKerrow's grave can be viewed on the Commonwealth War Graves Commission website: http://www.cwgc.org/find-war-dead/casualty/145903/McKERROW,%20CHARLES%20KENNETH