

No. 3 Canadian General Hospital (McGill) in the Great War: service and sacrifice

Lt-Col Andrew Beckett, MD
Edward J. Harvey, MD

Accepted for publication Sept. 6, 2017;
Published online Dec. 1, 2017

Correspondence to:

A. Beckett
Royal Canadian Medical Services
McGill University Health Centre
L9.411-1650 Cedar Ave
Montreal QC H3G 1A4
andrew.beckett@dcsurgerysolutions.com

DOI: 10.1503/cjs.012717

SUMMARY

During the Great War, McGill University fielded a full general hospital to care for the wounded and sick among the Allied forces fighting in France and Belgium. The unit was designated No. 3 Canadian General Hospital (McGill) and included some of the best medical minds in Canada. Because the unit had a relationship with Sir William Osler, who was a professor at McGill from 1874 to 1885, the unit received special attention throughout the war, and legendary Canadian medical figures, such as John McCrae, Edward Archibald and Francis Scrimger, VC, served on its staff. The unit cared for thousands of victims of the war, and its trauma care advanced through the clinical innovation and research demanded by the nature of its work. Although No. 3 Canadian General Hospital suffered tragedies as well, such as the deaths of John McCrae and Osler's only son Revere, by the war's end the McGill hospital was known as one of the best medical units within the armies in France.



COL. H. S. BIRKETT PRESENTING OFFICERS OF THE HOSPITAL TO HIS ROYAL HIGHNESS THE DUKE OF CONNAUGHT ON THE CAMPUS OF MCGILL UNIVERSITY, APRIL 22, 1915

Fig. 1. No. 3 Canadian General Hospital (McGill) on parade Apr. 22, 1915, on the McGill University Campus. The Duke of Connaught can be seen shaking hands with Colonel Birkett.

The news on Aug. 4, 1914, that the British Empire had declared war on Germany flashed across the whole of the Empire, and patriotic enthusiasm exploded to support what was thought to be a noble cause — protecting Belgian neutrality and stopping German militarism. Montreal, then the largest city in Canada and its leading academic centre, was not spared this excitement. McGill University, which was affiliated with 2 of the leading medical establishments of Canada, the Royal Victoria Hospital (RVH) and the Montreal General Hospital (MGH), began its patriotic service by providing hospitals and medical services to support the fighting men in what was

thought would be a brief war. Physicians, surgeons, nurses and even medical students from these institutions would go on to make up No. 3 Canadian General Hospital (McGill), hereafter referred to as No. 3 CGH. This facility would become internationally recognized because of its famed staff and numerous accomplishments.

At the outbreak of the Great War (1914–1919), McGill and its affiliated hospitals were already powerhouses of medical research and innovation in Canada. Dr. Henry S. Birkett was Dean of Medicine in 1914, and immediately on hearing that war had broken out, he began making plans to offer a full general hospital to be placed at the disposal of the Empire. This intention was communicated to the Minister of Militia and Defence, Sir Sam Hughes, who accepted Birkett's offer of a full general hospital with 1040 beds.¹

Much of the fame associated with the hospital at the time resulted from its affiliation with Sir William Osler, who had been on faculty at McGill and on staff at MGH from 1874 to 1884. In 1914, Osler was the Regius Professor of Medicine at Oxford University. Under his influence, the creation of No. 3 CGH was expedited, and his only son, Revere Osler, was offered a position as an assistant quartermaster within the McGill unit.¹

No. 3 CGH was organized based on the academic medical (and sometimes military) leadership of the McGill faculty. Dr. Henry Birkett was made Commanding Officer after taking a King's commission as a colonel. Lieutenant-Colonel James Elder was named the Officer in Charge of Surgery. Dr. John McCrae, a physician and poet, would be pencilled in for the post

of Officer in Charge of Medicine. Many other members of the McGill unit, such as Edward Archibald, Francis Scrimger, Jonathan Campbell Meakins and John George Adami, who would later go on to fame, were placed in leadership positions. Seventy-two nurses were selected to go overseas with the unit: 36 from the RVH and 36 from the MGH, under the direction of the hospital matron, Katherine Osborne MacLatchy.¹

Planning for the McGill unit started in the Fall of 1914 and ran through the Winter of 1915. Military training was carried out on the playing fields of the McGill campus, where doctors and nurses were taught to salute and drill in order to give medical practitioners a military bearing. Courses on modern military medical and surgical practice were taught in the lecture halls of McGill's medical school and in conference rooms and auditoriums of the RVH and MGH. The University Club of Montreal, across Sherbrooke St. from the McGill campus, served as first officers' mess for No. 3 CGH.^{1,2} After months of training, No. 3 CGH was officially mobilized on Mar. 5, 1915, as part of the Canadian Expeditionary Force.^{1,3}

While the rest of No. 3 CGH trained, 2 of its members — now Major John (Jack) McCrae from the Department of Medicine at MGH and Captain Francis Scrimger — entered into active duty before the rest of their hospital comrades. Major McCrae, despite not having served in the military for more than 10 years, had many military connections because of his service in the South African War (1899–1902) as a gunner. Immediately on hearing news of the declaration of war while in England, he offered his services and began lobbying for a place in the artillery, which he found as the Medical Officer of the 1st Canadian Artillery Brigade. At the same time, Major McCrae was officially offered the position of Officer in Charge of Medicine, so he made an agreement with then Colonel Birkett to return to the No. 3 CGH when it arrived in France. Before leaving for the Canadian troop concentration centre in Valcartier, Que., Major McCrae had dinner with his old friend Sir Andrew MacPhail to discuss his upcoming military mission.²

Captain Francis Scrimger, who was a junior house surgeon at the RVH, was affiliated with the Royal Montreal Regiment and crafted a similar agreement to allow him to go overseas with the first contingent, which left from Quebec on Oct. 3, 1915, for Plymouth, England.⁴

These 2 illustrious members of No. 3 CGH would be the first of the unit



Colonel Birkett, Commanding Officer, in his office

Fig. 2. Colonel Henry S. Birkett, Dean of Medicine, McGill University.

to experience the horror of the Great War at the Second Battle of Ypres in Belgium (Apr. 22 to May 25, 1915), where the first large-scale use of poison gas in the history of warfare was carried out. Both of these physician-soldiers would go on to earn their reputations because of their association with this battle. Captain Scrimger received the Victoria Cross (VC) after retrieving the wounded during the fighting; his citation described how he had shown “the greatest devotion to duty among the wounded at the front” during “very heavy fighting.” To this day, Scrimger is the only Canadian Medical Officer to have won the VC. Although McCrae did not receive any military decorations for valour, he perhaps has achieved a more lasting immortality through his poem “In Flanders Fields,” which was inspired by events during the Second Battle of Ypres.

While McCrae, Scrimger and the rest of the 1st Canadian Division were fighting at Ypres, training and preparation of No. 3 CGH continued in Montreal. On Apr. 22, 1915, the unit paraded before Prince Arthur, Duke of Connaught and Strathearn, on the McGill campus and was officially pronounced ready for duty. On May 6, 1915, the unit departed for England aboard the SS Metagama to the strains of “O Canada” for further training and preparation before arriving in the active theatre of war. During the voyage, 2 appendectomies were performed in an otherwise uneventful crossing.¹

On the night of June 17, 1915, the unit finally arrived in France after crossing the English Channel on the SS Huanchaco and disembarked at Boulogne. The hospital was set up in Dannes-Camiers, and by Aug. 7, 1915, was deemed ready to receive casualties. The first operation by No. 3 CGH in France was carried out by James Elder on Aug. 9, 1915.¹

On account of its close association with Sir William Osler, many dignitaries and the medical elite of the time would visit the hospital. Visits by Dr. Harvey Cushing, the renowned American neurosurgeon, were common, as on Oct. 31, 1916.⁵ On July 20, 1915, the Prime Minister of Canada (1911–1920), the Right Honourable Sir Robert Borden, visited the unit.¹ On Sept. 4, 1915, Sir William Osler, who had been given the rank of Lieutenant-Colonel, visited the unit with his son, Revere.¹ Queen Amélie of Portugal would also visit the hospital in September 1915. Notable visitors to No. 3 CGH included Princess Victoria of Schleswig-Holstein



Lieut.-Col. J. M. Elder, C.A.M.C. in his office

Fig. 3. Lieutenant-Colonel James M. Elder, Officer in Charge of Surgery, No. 3 Canadian General Hospital (McGill).

and Queen Mary of England in July 1917.⁶ The visitors did not distract from the true work of the unit — caring for the victims of war. While treating casualties from the heavy fighting at the Battle of Loos in September 1915, a McGill private described the week as “the busiest since we opened — a confusion to me of blood, gaping wounds, saline and bichloride.”¹ A medical student wrote that “all night I washed dirty, lousy boys — lads from our part of the world (Canada).” He “saw passing on a stretcher a still figure, covered with the Union Jack — another added to the long roll who die for Canada.”

The McGill medical students who came over with No. 3 CGH were enlisted as stretcher-bearers and orderlies. As typical medical students, they were keen to work with the staff surgeons of the hospital and often tried to get away from scut work on wards. Often they would remove themselves from their ward duties, much to the dislike of the nursing staff, such as Clare Gass, to observe procedures in the operating room. Later Gass would soften and admit that “the dear boys” had contributed much to the functioning of the No. 3 CGH.⁷ Gass was also one of the first people to have seen McCrae’s poem, “In Flanders Fields,” copying it into her diary.⁷

Not only did No. 3 CGH members produce some of the best memoirs and poetry of the Canadian experience during the Great War, they also produced major advances in trauma care. On Oct. 27, 1915, Major Edward Archibald carried out the first blood transfusion at No. 3 CGH from a volunteer donor of the unit.¹ On Nov. 6, 1915, Lieutenant-Colonel Elder remarked that

the unit had performed more than 500 operations for combat injuries and admitted more than 3000 patients. He also observed that “some of the smells of the wounds are awful and the necessary incisions gastly [sic].”⁸ Colonel Birkett noted that some of the “tissues are so rotten with infection that portions can be removed by the handful.” The unit continued to work out of its collection of tents at Dannes-Camiers until Colonel Birkett, along with Majors McCrae and Meakins, found a better and more permanent location at the old Jesuit College at Boulogne in November 1915. No. 3 CGH was ready for operations at its new location on 27 January 1916.¹

In addition to caring for the wounded and ill, members of No. 3 CGH carried out valuable research. Lieutenant-Colonel Elder kept meticulous diaries and notes during his service in France and later reported his findings and data in publications such as the *Canadian Medical Association Journal*. In June 1916, Elder published a seminal paper on “trench foot,” a condition that was plaguing the Allied armies as their troops spent miserable wet weeks in the muddy slime of the trenches.¹ In it Elder noted incidentally that the No. 3 CGH had almost completely switched to chloroform as a general anesthetic agent from the traditional ether.¹ In another paper published in 1917, Elder proposed that for patients in hemorrhagic shock, blood was the best fluid to give, although saline was able to tide the patient over until a transfusion could be arranged.¹

The unit would also report on some of the emerging horrors of modern warfare, including the clinical effects of poison gases, such as mustard gas, which appeared in 1917. They studied these effects via postmortem examinations conducted at the unit.¹ The McGill unit produced other innovations, such as telephone probes to electrically guide the locations of foreign bodies.¹ The x-ray department of the unit made advancements in foreign body localization. And in 1917, after a study of 146 cases, medical staff noted that infected hemothoraces should be drained as soon as possible to avoid the consequences of empyema.¹ No. 3 CGH also created mobile surgical teams consisting of a surgeon, anaesthetist, nursing sister, and orderly, who could deploy forward to carry out emergency operations close to the front line.¹

No. 3 CGH would support the Easter Monday assault by the Canadian Corps in the Battle of Vimy Ridge on Apr. 9, 1917. By Apr. 10, the first casualties started arriving at No. 3, and by the end of the battle on Apr. 14, they had admitted about 2000 patients. Most of the wounds were from machine gun bullets, received as Canadian troops stormed the ridge.¹

After the Second Battle of Ypres ended in May 1915, McCrae returned to No. 3 CGH to take up his duties as Officer in Charge of Medicine. However, he would never be the same after the horrors he experienced at Ypres. He became withdrawn and often spent long

hours away from the hospital riding Bonfire, his horse, with the constant companionship of Bonneau, the dog that adopted him. There is some evidence that McCrae wished to stay with his beloved artillery brigade, identifying himself more as a soldier and gunner than as a physician. When called “sir” by a wounded soldier, he would say, “Don’t call me sir or doctor; I am a soldier, just like you.” McCrae was promoted to the rank of Lieutenant-Colonel and made Consultant in Medicine to the British Expeditionary Force on Jan. 24, 1918.⁹

However, before McCrae could take up the post, he contracted pneumococcal pneumonia, which quickly developed into meningitis. On Jan. 28, 1918, Lieutenant-Colonel John McCrae died without knowing the outcome of the war. The funeral was to be a large, but sombre affair; Colonel Elder remarked that it was “was one of the most impressive funerals I have ever seen.” Following McCrae’s coffin on a gun carriage was his faithful horse, Bonfire. Many other distinguished mourners followed, including Lieutenant-General Sir Arthur Currie, the Commander of the Canadian Corps.

Lieutenant Revere Osler came to France with the unit, serving as its quartermaster. However, Osler longed for the more direct role of a war combatant and therefore transferred to the Royal Field Artillery unit as an artillery officer. During the gruelling, rain-soaked Battle of Passchendaele (also known as the Third Battle of Ypres), Revere was seriously wounded by shelling on Aug. 30, 1917. He was brought to a casualty clearing station for treatment after an evacuation that took several hours. Because of Osler’s fame, Dr. Harvey Cushing of the Harvard Unit and Dr. George W. Crile of the Western Reserve Unit were summoned to operate on his perforated colon and mesenteric vessels after a transfusion of whole blood was given. However, little could be done, and Osler died on Aug. 31, 1917. Sir William Osler went into deep mourning, and it is said that he was never the same after his son’s death, losing much of his well-known enthusiasm and passion for life.⁵

By the end of the war, No. 3 CGH had admitted 81 689 medical patients and 52 389 wounded; even more astonishing, it had carried out 11 395 operations with a death rate of less than 1%.¹ The unit ceased operations on May 29, 1919, and returned to Canada on July 2 of that year. Most of the unit members would return to Montreal and their hospitals and try to resume their lives and careers.¹

Major Francis Scrimger, VC, went on to become the Chairman of Surgery at McGill. A medical student would say of him that “despite his shuffling gait and unmilitary bearing, we were all a bit in awe of him, as he was the only VC winner that we knew.” Scrimger would later die of a myocardial infarction at his home in 1937. His wife, Nursing Sister Elaine Carpenter, never remarried. Of the war, Scrimger would say, “We won, but the

sacrifice, how awful it was.” Scrimger’s own son would die during the Second World War.⁴

Major Edward Archibald became Surgeon-in-Chief at the RVH. He went on to become a world leader in thoracic surgery and trained Dr. Norman Bethune, another Great War veteran. Archibald served in the Second World War as the Surgical Advisor to all of the Canadian Army.⁸

No. 3 CGH members had mixed feelings about their service during the Great War: pride for what they had accomplished, sorrow about comrades and those many patients they had lost, and uncertainty about the future. Most would integrate back into civilian life as best they could and try to remember the good times of comradeship during the war. However, many would simply prefer not to talk about it. Authorities during the war considered No. 3 CGH to be “the best medical unit in France” and noted that “James McGill builded [sic] better than he knew.”¹

Today, throughout the RVH and the MGH are many plaques and displays that remind us of McGill’s proud service, accomplishments and sacrifices during the Great War through No. 3 CGH. The legacy of No. 3 CGH lives on today, with several staff surgeons within McGill University Health Centre serving as Regular Force Royal Canadian Medical Service surgeons. Nurses from the Canadian Forces Trauma Training Centre (East) also maintain this proud tradition of McGill’s contribution to the care of the Canadian Armed Forces.

Affiliations: From Royal Canadian Medical Services (Beckett) and McGill University, Montreal, Que. (Beckett, Harvey).

Competing interests: E.J. Harvey is the Chief Medical Officer of Greybox Healthcare (Montreal) and Chairman of the Board of NXSens Inc. (Montreal). No other competing interests declared.

Contributors: Both authors contributed substantially to the conception, writing, and revision of this article, and approved the final version for publication.

References

1. Fetherstonhaugh RC. *No. 3 Canadian General Hospital (McGill) 1914–1919*. Montreal (QC): Gazette Printing Company; 1928.
2. McCrae J. *In Flanders Fields and Other Poems*. Toronto (ON): William Briggs; 1919.
3. MacPhail A. *The Medical Services*. Ottawa (ON): Department of National Defence; 1925.
4. Kingsmill SF. *Frances Scrimger: Beyond the Call of Duty (Canadian Medical Lives)*. Toronto (ON): Hannah Institute and Dundurn Press; 1991.
5. Cushing H. *From a Surgeon’s Journal 1915–1918*. Boston (MA): Little, Brown and Company; 1936.
6. Pirie AH. *No 3 Canadian General Hospital (McGill) in France (1915, 1916, 1917): Views Illustrating Life and Scenes in the Hospital, with a Short Description of Its Origin, Organisation and Progress*. Middlesbrough (UK): Hood and Co.; 1923.
7. Mann S, editor. *The War Diary of Clare Gass, 1915–1918*. Montreal/Kingston: McGill-Queen’s University Press; 2000.
8. Entin MA. *Edward Archibald, Surgeon of the Royal Vic*. Montreal (QC): McGill University Libraries; 2004.
9. Graves D. *Crown of Life: The World of John McCrae*. St. Catherines (ON): Vanwell Publishing Ltd; 1997.