

Western University

Scholarship@Western

---

Office of Military Academic Medicine

Campus Units and Special Collections

---

10-1-2017

**Calgary, Edmonton and the University of Alberta: the extraordinary medical mobilization by Canada's newest province**

Mark P. Da Cambra

Vivian C. McAlister O.C.

Follow this and additional works at: [https://ir.lib.uwo.ca/military\\_medicine](https://ir.lib.uwo.ca/military_medicine)

---

# Calgary, Edmonton and the University of Alberta: the extraordinary medical mobilization by Canada's newest province

Mark P. Da Cambra, MD, MSc  
Vivian C. McAlister, MB

The views expressed in this paper are those of the authors and do not constitute the views or policies of the Canadian Armed Forces.

Accepted for publication Aug. 25, 2017

## Correspondence to:

M. Da Cambra  
Royal Canadian Medical Service  
7 High Park Gardens  
Toronto ON M6R 1S8  
mdacambra@gmail.com

DOI: 10.1503/cjs.012117

## SUMMARY

The Canadian contribution of medical services to the British Empire during the First World War was a national endeavour. Physicians from across the country enlisted in local regiments to join. No other region provided more physicians per capita than the newly formed province of Alberta. Largely organized through the Medical School of the University of Alberta, the No. 11 Canadian Field Ambulance out of Edmonton and the No. 8 Canadian Field Ambulance out of Calgary ultimately enlisted between one-third and half of the province's doctors to the war campaign. Many individuals from this region distinguished themselves, including LCol J.N. Gunn from Calgary, who commanded the No. 8 Canadian Field Ambulance; Maj Heber Moshier, one of the founders of the School of Pharmacy at the University of Alberta; and Dr. A.C. Rankin, who would go on to be the first Dean of Medicine at the University of Alberta. These Canadian heroes, and the many others like them who served with the No. 8 and 11 Field Ambulances, personify the sacrifice, strength and resilience of the medical community in Alberta and should not be forgotten.

Health care personnel from all over Canada were mobilized in support of the British Empire war effort during the First World War. No other region in Canada provided more physicians proportionately than Alberta and Western Canada. It is estimated that about 30% of all practising physicians from the Prairies enlisted. A report from the *Edmonton Bulletin* on May 31, 1916, declared, "Third of City's Medical Men on Military Duties." It stated that from Edmonton alone 35 out of the city's 112 (31%) physicians had enlisted. By October 1918, 216 out of an estimated 400 (54%) physicians from the province of Alberta, who had joined the Confederation of Canada only 13 years prior, had joined the cause.<sup>1</sup>

Physicians who volunteered in the Canadian Army Medical Corps (CAMC) were assigned a military rank and attached to a battalion. Albertans were the main source of 2 deployed medical units. The No. 8 Canadian Field Ambulance from Calgary was created in December 1915, and the No. 11 Canadian Field Ambulance was created in 1916 and comprised members from the University of Alberta Faculty of Medicine and the Manitoba Medical College.<sup>2</sup> Although some physicians remained in Canada performing enlistment medicals and providing care at military bases, the majority were sent out to the Western Front together with nurses, ambulance drivers and stretcher bearers. Each field ambulance operated immediately behind the regimental first aid stations. Their role was to receive, triage and stabilize casualties. Patients treated at the field ambulance would then often be sent to a dressing station, casualty clearing station, or a field hospital.<sup>3</sup>

The No. 8 Field Ambulance was organized in Calgary in December 1915 under the command of LCol S.W. Hewetson. It had a strength of 10 officers and 182 men of other ranks. They set sail from Halifax on Apr. 1, 1916, aboard the S.S. Adriatic, arriving in England 8 days later.<sup>2,4</sup> Members of the No. 8 Field Ambulance made it to the front line in France on May 8, 1916, as

part of the 3rd Canadian Division. The No. 8 rotated through the Front along with the No. 9 (from Montreal) and the No. 10 (from Winnipeg) Canadian Field Ambulances on 1-month cycles throughout their 3 years in the war. The No. 8 saw 14 separate battles throughout the war, including multiple mass casualty scenarios involving mustard gas attacks. The No. 8 Field Ambulance was present at some of the greatest battles in Canadian history. During the Battle of Vimy Ridge, it handled more than 2000 casualties in a single day (April 1917) and it handled 3300 casualties at Passchendaele (October 1917).<sup>5,6</sup> There is an account of 12 fractured femurs awaiting a single doctor's attention. On one occasion, the No. 8 even came under direct fire, during which it lost 23 men and 80 others were wounded. LCol Hewetson ultimately died of an infection during the war, and the second commanding officer, LCol J.N. Gunn, was appointed.<sup>5,6</sup> LCol Gunn was born in Ontario in 1879 and trained in medicine at the University of Toronto. He moved to Calgary in 1907, where he practised as an eye specialist. For his service with the No. 8 Field Ambulance, he was awarded the Distinguished Service Order. Unfortunately, his tenure was cut short, as he suffered trench fever twice and was forced to leave his command on Feb. 27, 1917.<sup>4,5</sup> His obituary stated that LCol Gunn was among the first to

suggest blood transfusions as a means of saving life early in the war. The initial concept of transfusing patients in hemorrhagic shock on the battlefield with fresh whole blood was pioneered by other Canadian physicians, such as Drs. L. Bruce Robertson in the First World War and Norman Bethune in the Spanish Civil War, both also University of Toronto medical school alumni. This breakthrough would subsequently be recognized as "the most important medical advance to come from the First World War" by the Royal Army Medical Corps.<sup>7,8</sup>

The No. 8 Canadian Field Ambulance was one of the very few that returned as a complete unit in March of 1919.<sup>9</sup> At the end of the War, 100 officers and 2000 men, mostly from Alberta, had become part of the No. 8. LCol Gunn talked in a speech about the very high code of honour among stretcher bearers in his unit: "None considered any risk too great or any task too hard if it meant relief for some stricken man. Their duty was not over until every man had been picked up."<sup>9</sup>



**Fig. 1.** Soldiers from the No. 8 Canadian Field Ambulance, C section, reading the English periodical *Bystander*, Lille, France, 1918 (Glenbow Museum Archives NA-4400-1).



**Fig. 2.** LCol John Nisbet Gunn of the No. 8 Canadian Field Ambulance, Calgary, Alberta, circa 1919 (Glenbow Museum Archives NA-4002-26).



During their time in France, the No. 8 Canadian Field Ambulance had acquired a Distinguished Service Order, a Distinguished Conduct Medal, 5 Military Crosses and 20 Military Medals.<sup>3,9</sup>

The No. 11 Field Ambulance was organized simultaneously in Edmonton and Winnipeg in March 1916 under the command of LCol J.D. McQueen. The mobilization of medical personnel was under the control of a committee of civilians composed of the presidents of the University of British Columbia, University of Alberta, University of Saskatchewan and University of Manitoba. It had a strength of 10 officers and 179 men of other ranks. Members of the No. 11 departed Halifax on May 22, 1916, aboard the S.S. Adriatic and arrived in England a week later.<sup>2,10</sup> They ultimately ended up near the front line in

France on Aug. 11, 1916, as part of the 4th Canadian Division. Dr. Heber H. Moshier, Professor of Physiology and one of the founders who helped establish the School of Pharmacy at the University of Alberta in 1915, went on to command the No. 11 (Western Universities) Canadian Field Ambulance.<sup>10</sup> This unit is closely associated with the University of Alberta, because when it left for the Front in March 1916, it included numerous faculty members,



**Fig. 3.** Dr. H.H. Moshier, commander of the No. 11 Canadian Field Hospital, and one of the founders who helped establish the School of Pharmacy at the University of Alberta in 1915 (The Canadian Letters and Images Project).



**Fig. 4.** Canadian advanced dressing station in the German Line, east of Arras, France, September 1918 (Library and Archives Canada).



**Fig. 5.** LCol Allan C. Rankin of No. 1 Canadian General Hospital (Montreal) and first Dean of Medicine of the University of Alberta, circa 1918 (D.M. Gilchrist. 100 Years of Medicine, University of Alberta, 2006).

15 medical students and 6 theology students. Maj Moshier was killed in action on Aug. 29, 1918, while moving forward to assess the best location for a new advanced dressing station near Arras, France.<sup>1</sup>

Although many Albertan physicians joined local regiments, some elected to explore opportunities in larger centres. Bacteriologist Dr. Allan Coats Rankin, who came from Bangkok, was the Director of the Provincial Laboratory in Edmonton. He and Dr. J.C. Fyshe, superintendent of the Royal Alexandra, Strathcona and Isolation Hospitals in Edmonton, went off to join the No. 1 Canadian General Hospital in Montreal. Rankin's distinguished military career began with his work to suppress the 1914 outbreak of cerebrospinal meningococcal encephalitis in Britain's largest military training camp at Salisbury Plain. There were 399 cases in the Canadian Expeditionary Force, and 219 died. Subsequently, he went door-to-door searching and vaccinating Belgians for typhoid fever, averting another epidemic.

He was then transferred to a mobile laboratory unit in France, where he and LCol G.G. Nasmith confirmed the first German chlorine gas attack and researched the best gas masks to prepare for future attacks.<sup>1</sup> Later, Dr. Rankin went on to describe trench fever in the *Lancet*<sup>11,12</sup> and confirmed that troops from India had brought malaria with them to the Western Front. He was ultimately awarded a Companion of the Order of St. Michael and St. George by King George V and, in 1920, he became the first Dean of Medicine of the University of Alberta.

The contribution of medical care to the British Empire coalition by the Province of Alberta during the First World War cannot be overestimated. The extraordinarily high enlistment levels of physicians from the Prairies (30%–50%) compared with the rest of the country (10%), combined with the increasing influx of casualties being repatriated to Canada from theatre, resulted in a severe shortage of physicians at home. At one point there were only 3 professors (Drs. Revell, Collip and Jamieson) and 7 part-time lecturers and demonstrators remaining in the School of Medicine at the University of Alberta.<sup>5</sup> The fact that the School could continue to function at all with this staffing level for prolonged periods of time is a testament to the commitment and determination

of the faculty. These Canadian heroes, and the many others like them who served with the No. 8 and No. 11 Canadian Field Ambulances, personify the sacrifice, strength and resilience of the medical community in Alberta and should not be forgotten.

**Affiliations:** From the Royal Canadian Medical Service, Toronto, Ont. (Da Cambra, McAlister); and the Division of General Surgery, Western University, London, Ont. (McAlister).

**Competing interests:** None declared.

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

## References

1. Davies, A.D. Faces of War: Alberta doctors run headlong into battle. *Edmonton Journal*, Aug. 29, 2014.
2. Canadian Army Medical Corps. Ottawa (ON): Library and Archives Canada. Available: [www.bac-lac.gc.ca/eng/discover/military-heritage/first-world-war/Documents/canadian%20army%20medical%20corps.pdf](http://www.bac-lac.gc.ca/eng/discover/military-heritage/first-world-war/Documents/canadian%20army%20medical%20corps.pdf) (accessed 2017 Aug. 15).
3. Baldwin C. Alberta ambulance drivers in World War I. Stories from the archives. Glenbow Museum, 2007.
4. Gunn JN, Dutton S. *Historical Records of Number 8 Canadian Field Ambulance 1915-1919*. Toronto: Ryerson Press; 1920.
5. Lampard R. *Alberta's Medical History: Young, and Lusty and Full of Life*. Library and Archives Canada Cataloguing Publication; 2008.
6. Smithers, FA. Detailed memoirs of the 8th Canadian Field Ambulance World War I. Calgary (AB): Glenbow Archives, Glenbow Museum; 1919:GLEN glen-3801.
7. Stansbury LG, Hess JR. Blood transfusion in World War I: the roles of Lawrence Bruce Robertson and Oswald Hope Robertson in the "most important medical advance of the war". *Transfus Med Rev* 2009;23:232-6.
8. Tien A, Beckett A, Pannell D. The University of Toronto's lasting contribution to war surgery: how Maj. L. Bruce Robertson fundamentally transformed thinking toward blood transfusion during the First World War. *Can J Surg* 2017;60:152-4.
9. Gunn JN, Dutton EE. Records of No. 8 Canadian Field Ambulance: Canada, England, France, Belgium, 1915–1919. Toronto (ON): Ryerson Press; 1920.
10. Canada. Army. 11th Canadian Field Ambulance (Western Universities). Diary of the Eleventh: Being a record of the XIth Canadian Field Ambulance (Western Universities), Feb. 1916-May 1919. Hall AR, Best CT, Roe JM, editors. [Winnipeg?: n.p.]; 1919?.
11. O'Connell MD, Hunt GH, Rankin AC. Trench fever. *Lancet* 1915;186:1368-9.
12. Hunt GH, Rankin AC. Intermittent fever of obscure origin, occurring among British troops in France. The so-called trench fever. *Lancet* 1915;186:1133-6.