

'Giving the dope': Australian Army Nurse Anaesthetists during World War I

Kirsty Harris

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Abstract

More than 2500 trained Australian army nurses served overseas during World War I. Many were called upon to act outside their normal nursing practice and one new area was that of anaesthetics. Due to a lack of medical officers in the latter part of the war, a number of Australian theatre sisters trained and worked as nurse anaesthetists in Casualty Clearing Stations in France.

The British Army provided three months' training for Australian, British and New Zealand nurses in the use of chloroform and ether. Australian nurses were enthusiastic volunteers as trained nurses at home had already carved out a small but unofficial place for the profession in this role. In addition, Canadian and American army and civil nurses were already trained and used as nurse anaesthetists.

While nurses were successfully used without recorded incident, at the end of the first training course, the Director General of Medical Services, Australian Imperial Force, decreed that the nurses would not be further trained or used. This was out of step with the other countries participating, and this paper examines some possible reasons for the change of heart.

Introduction

While nurse anaesthetists have provided anaesthesia care in the United States for more than 100 years and, today, Certified Registered Nurse Anaesthetists are the primary anaesthesia caregivers in the US military¹, Australia's military nurses have not followed the same advanced practice. This has possibly been the result of a decision in World War I to keep anaesthesia in the hands of doctors.

During World War I, the shortage of doctors due to wear and tear², and the demands on them to operate, generally prevented any opportunity for them to work solely as anaesthetists. On the Western Front in allied Casualty Clearing Stations (CCS), where many operating tables could be in use at the same time³, anyone - including dentists⁴, chaplains and orderlies - could be pressed into service as anaesthetist.

By the latter part of 1917, the lack of medical officers reached crisis point and the British Director General of Medical Services (DGMS), responsible not only for British services but overall for Australian and other colonial forces, began to investigate ways of relieving doctors from their duties as anaesthetists. One solution was to use the services of professional trained nurses working in forward areas. Staff Nurse Elsie Tranter, an Australian Army nurse, noted the scheme called for nurses '.....so as to free Medical Officers for medical and surgical wards. To this end,

two hundred and fifty (250) volunteers have been called for from amongst all the nurses on service⁵.'

The course was open to allied nursing sisters and VADs (Voluntary Aid Detachment workers) considered suitable. Nine members of the Australian Army Nursing Service⁶ were selected and given permission by the Australian authorities to attend the first course in January 1918⁷. Six Australians passed the course. However, contrary to nurses from other nationalities participating, they were then told that they would not be employed as anaesthetists and that no other nurses would be trained⁶. This paper explores the reasons why crossing the boundary into the medical profession's work became unattainable.

Nurse Anaesthetists

Nurse anaesthetists at the time of World War I were not new. In America, small groups of nurses solely practised delivering anaesthesia⁸. As early as the 1890s, the Mayo Clinic, in Rochester, Minnesota saw the potential of developing a nurse into a competent anaesthetist. Helen Clapesattle writes:

'The Mayos' were good businessmen as well as physicians. Their nurse anaesthetists [sic] provided them with superior surgical conditions and did so with an impressively low mortality rate. An additional benefit was that these

nurses were able to perform a broad range of duties beyond anaesthesia⁸.'

The nurse anaesthetists at Mayo also performed larger numbers of anaesthetics than most physician anaesthetists⁸. The most well known nurse anaesthetist of the nineteenth century, the 'mother of anaesthesia' was Alice Magaw who in 1906 documented that she had performed more than 14,000 anaesthetics without a single complication attributable to anaesthesia⁹.

Another nurse anaesthetist was Florence Henderson, who trained in Nebraska, where, unusual for the time, her training program incorporated anaesthetics. Henderson stated that she learned to administer chloroform and ether anaesthetics "in the taking of my nurses training and the three years following that... after my graduation"⁸.

By 1906, numerous papers in Australian medical journals, written by Australian surgeons who had visited the Mayo Clinic, began to record their impressions of the thousands of open ether anaesthetics given by nurse anaesthetists¹⁰. In the US, the practice of training nurses to deliver anaesthesia spread quickly⁸ and Florence Henderson trained others to administer open-drop ether. As a member of the American Red Cross at the start of World War I, she noted, "I was teaching nurses to give anaesthetics to go overseas"⁸.

Some Canadian trained nurses also had experience in giving anaesthesia. As early as March 1915, Nursing Sister M. Parks was giving anaesthetics at No. 2 Stationary Hospital, France. Nursing Sisters O.G. Nicholson and M.C. Stewart were similarly skilled, even employing the intra-tracheal method. By January 1918, seventeen Canadian sisters were trained as army nurse anaesthetists¹¹.

Even poorly trained Russian Red Cross nurses administered anaesthesia but their training came solely 'on the job'. Sophie Botcharsky worked on the Russian Front from October 1914 with Professor Pitroff, a famous surgeon. Extracts from her biography of her first day are quite graphic:

"Pitroff. .. kept the three young sisters to help him operate. Vera was frightened, and exclaimed, 'But we haven't even seen operations - nothing - just little ones!'... Pitroff whistled coolly... 'Well, you must use your common sense!' Pointing a finger at me he said, 'You will give the anaesthetic!' ...a soldier was brought in and arranged on the operating-table. His heavy, limp body was hot with fever, which I could

feel as I put on the mask and started counting the drops... I kept thinking that I knew nothing of what I was doing, nothing; then I remembered that patients died under chloroform and I felt for the pulse... Feeling that the operation was nearing an end I gave less and less chloroform. Pitroff... said, 'Enough.' We knew the operation was over... Pitroff turned back. 'Show me how much chloroform you used, sister,' he said, and seeing that it was very little he nodded. 'Well done, sisters, well done!' "¹²

The Australian Experience

At the time of the outbreak of war, Australian trained nurses had little exposure to administering anaesthesia. In general, it was not part of the training curriculum set by either the Australasian Trained Nurses Association (ATNA) or the Royal Victorian Trained Nurses Association (RVTNA), although the Launceston General Hospital Training School for Nurses listed 'Minor Surgery - Anaesthetics' as a subject in 1904¹³. However, unofficially, in country areas where no other doctor was available, nurses gave anaesthetics under the doctor's supervision^{14,15}. Even theatre nursing as a specialty had only gained momentum from around the turn of the century. Although Brisbane Hospital included 'the operating room' in their nursing staffs responsibilities in 1891¹⁶, it was not until 1912 that Melbourne Hospital, somewhat belatedly¹⁷, created the position of Theatre Sister replacing male Head Attendants¹⁸. Now, every third-year Melbourne trainee was instructed in theatre management and theatre techniques and practical experience was required before final examinations¹⁹. But this did not include anaesthetics.

Nevertheless Australian trained nurses were not unfamiliar with the practice of anaesthesia; many nurses observed the giving of anaesthesia while waiting for their patient to be operated on; and articles in professional nursing publications such as the RVTNAS journal *Una* provided opportunities to learn general details²⁰. Moreover, nurses working as midwives at home births often administered chloroform for the obstetrician^{14,15}. Their hands-on experience certainly increased with war service, even if unofficially. General Fetherston, the Australian acting DGMS, told a story of Australian nurses on a burning ship which he said demonstrated heroism 'typical of the Australian nurse': "Many of the soldiers ...were badly burnt. There was only one doctor on the ship, who with these four nurses started work.

One nurse gave chloroform while another tended to the burns²¹.”

Violetta Thurstan also recorded that nurses unofficially gave anaesthetics in the first few years of the war. A British trained nurse working in France and Belgium, she wrote in her handbook on war nursing: “Chloroform is administered by the open method, a few drops at a time. Sisters on active service may often have to give an anaesthetic themselves in an emergency when there is no anaesthetist available. The surgeon operating is responsible, and his attention should be immediately called if the patient’s condition becomes abnormal in any way²².”

Since many Australian nurses worked in British military hospitals, no doubt they were occasionally placed in this position - Australian nurses were often preferred for theatre work²³ and were placed in charge ‘as they were considered to have more initiative²⁴. Anaesthesia could also be used on the wards. Thurstan recorded that sometimes chloroform was administered when tetanus spasms were severe²¹ and it was not unusual to use anaesthesia to remove old dressings²⁵.

There may have also been favourable reports from Australian doctors at home that encouraged the Australian DGMS to include Australian nurses in the training program. The shortage of medical officers was being felt in Australia because so many doctors had enlisted. Brisbane Hospital brought doctors out of retirement to cope with the reduced numbers of honoraries and residents but there were still difficulties due to the rising number of operations. Although inexperienced medical help was forthcoming when newly graduated doctors were appointed, nurses were taught to give anaesthetics so that operations could continue¹⁶. Often an extra nurse in the operating theatres gave some assistance with anaesthesia¹⁰. Hobart Hospital was even more dependent on its Matron, Miss Adelaide Gluyas, who became a skilled anaesthetist and gave most anaesthetics for major surgery not just during the war from 1917 but up until 1924, a fact that reportedly enabled the hospital to carry on²⁶.

American doctors working in France also encouraged the British DGMS to employ nurse anaesthetists. The American Army fully utilised the services of its nurse anaesthetists during the war, both for administering anaesthesia and training others. Nurse anaesthetist Agatha Hodgins went to France with the American Ambulance group and while there, she taught both physicians and nurses from England and France how to administer anaesthesia⁹. Surgeon Harvey Cushing also had a female anaesthetist, Miss Gerrard, on his surgical team. In September 1917,

Surgeon Cushing told the Commission investigating the wastage of medical officers, “the work done here could be covered by just half the M.O.’s if they would use sisters or orderlies, as our team was doing, to give anaesthesia²⁷. All these experiences helped convince the authorities that training Australian nurse anaesthetists was appropriate.

Anaesthetic Training

In France, arrangements were subsequently made to train nurses. Each course lasted three months and was both theoretical and practical; the first two months in selected hospitals at the base and the last month in casualty clearing stations. The training included subjects such as the observation of patients before operation in order to judge the indications for and the choice of an anaesthetic; the administration of chloroform, ether, nitrous oxide and oxygen; general considerations as to the extent of anaesthesia and posture during an operation; and conduct in emergencies. Seventy-six nurses in 25 different centres attended the first course in January 1918⁷.

Staff Nurse Elsie Tranter was one of six Australians who successfully completed the course. She and two other Australian nurses - Sisters Aitken and McMinn - trained for the first two months with No. 2 American Base Hospital (New York Presbyterian Hospital Unit) in Etretat. They then were sent to No. 29 British CCS at Grevillers (near Bapaume) in mid-March, but due to the German offensive were evacuated to No. 3 Canadian Stationary Hospital at Doullens on 23 March⁶. Elsie recorded much about her training in her diary:

“16 January: Yesterday we received instruction all day in the use and administration of anaesthetics. Our teacher Miss Penland is very nice indeed and does not seem to think us too much of a bother. When she is in America she is Dr Mayo’s anaesthetist.”

“24 January: While in the hall we heard ourselves described as ‘the three Australians who give the dope’.”

“8 February: Sometimes we have to go to the wards- without Miss Penland- to give short anaesthesia for a dressing. We find this work rather a big mental strain...”

“27 February: My anaesthetics now number 49. We have this week been learning about rebreathing apparatus⁵.”

Elsie recorded the long hours and multiple responsibilities she had while working at Grevillers and Doullens, especially the latter:

“2 April: Yesterday we had a very heavy day’s work. I was just getting to bed when I was called back to the theatre and had to give anaesthetics till eight o’clock this morning.”

“14 April: So far I have given 179 anaesthetics and no casualties so far. Although this work occupies about 12 hours at least of each day we are by no means cut off from our other work. We all have a fair share of work in the dressing station - also pre and post operative nursing.”

“24 April: so far I have given 227 anaesthetics. It is very tiring and trying work, for most of the men are badly wounded and give us a lot of anxiety.”⁵”

It was appropriate that the trainee nurse anaesthetists felt nervous. In 1914, Dr R.W Hornabrook, Australia’s first full time anaesthetic specialist¹⁰, had written: “The black list in the nature of deaths a rising during operation or following on the faulty administration of anaesthetics is a very large one, it must total hundreds, if not thousands, of cases, and it stands as a lasting memorial of which the profession can not be proud²⁸.”

So it was appropriate for Elsie Tranter to be proud of her lack of fatalities. However, it did not affect the outcome. After leaving Doullens, the nurses discovered that Major General Howse, the DGMS of the Australian Imperial Force, refused to sanction the employment of nurses who had done the training⁷. Elsie was both disappointed and annoyed. On 24 May she wrote: “After letting us volunteer for special work, pass our examinations and work away for two months during the retreat the ‘Pow-wows’ of the A.I.F. have decided that they will not allow their nurses to give anaesthetics any longer. We are hoping this decision will be revoked - for we found our work although strenuous most interesting¹⁰.”

The decision was not changed but it is not clear why. The British Army continued to use their newly trained nurse anaesthetists, not just in their own hospitals but also in Australian hospitals. From April to September 1918, several additional surgical teams worked with No. 1 Australian CCS as did three British Territorial nurses from No. 54 General Hospital partly trained in administering anaesthetics whom the staff found to be ‘very useful, not only as anaesthetists, but in relieving medical officers for

other duties⁴. It must have added salt to the wounds of those Australian nurses who had been trained but were then not employed!

Discussion

A.G. Butler, the official medical historian for the war, records that General Howse refused absolutely to participate in the scheme for training nurses for anaesthetic work⁴ but gives no reasons for the decision. There is no mention of it in Braga’s biography of Howse, although he may be suggesting that Howse’s decision may have been one expression of his desire for some autonomy from the British medical services²⁹.

Another reason lies partly in the nature of the war on the Western Front. By mid-1918, after the German offensive in March, it changed from stationary trench warfare to open mobile warfare². This led to a subsequent reduction in casualties⁴, and thus demands on the medical staff. However, conditions for the nurses in forward areas under motor mechanised war were considered more difficult, and the nurses were sent to the rear². This may have been a consideration in removing the nurses from their new employment.

Gwen Wilson, in her history of anaesthesia in Australia, argues that the Australian Army had developed more medically qualified ‘specialist anaesthetists’ than the Canadian, American and English armies, which had for the most part used nurses. Therefore, she suggests that the need to train Australian nurses in this role was reduced¹⁰. In June 1918, the development of an Australian innovation, the Forward Resuscitation Team with its specialist anaesthetist¹⁰, led to another consideration. As women could not officially be sent further forward than a CCS, it meant that there was little purpose in training nurses to be the team’s anaesthetist.

Macpherson’s British medical history of the war gives another possible reason, by suggesting that the small number of Australian theatre nurses in France made it difficult to replace their expertise in the CCSs and base hospitals where their high level of competence was required⁷. Given the availability of more trained nurses in Australia, the time already spent on training the six nurse anaesthetists, and the bonus that they also performed normal nursing duties, it seems too convenient to accept this as the reason for the decision. Katie Holmes in her thesis on nursing in World War I says that the AIF’s decision ‘highlights the ideological conflict involved.. in giving women access to a world dangerously close - physically and ideologically - to combat³⁰ so it is more likely that the decision relates purely to gender.

Certainly several senior AAMC officers opposed staffing of hospitals in the forward zone with female nurses²⁴. The decision of the AIF not to employ women doctors to meet their shortfall also related to gender. Although female doctors were available, such as trained anaesthetist Dr Janet Greig at the Women's Hospital, Melbourne¹⁰. Howse was adamant that war was a man's affair²³, and women would be 'a liability, not an asset' anywhere near the Front³¹. Howse's reply to the suggestion that woman doctors be sent across clearly indicated his view on allowing women to take on traditional male roles 'No damned Female M.O.s in the A.I.F My responsibilities are quite big enough with 1200 nurses'^{24, 29}. The only support to Macpherson's argument is that surgeons no doubt were reluctant to lose a key member of their highly trained team.

These however, do not seem the most likely reasons why the nurses were withdrawn. The real explanation appears to lie in efforts to restrict the anaesthetist profession to trained doctors. In the late nineteenth century, the Australian medical profession - represented by the Australian branches of the British Medical Association - had reached agreement that only medical practitioners should give anaesthetics, and discussion and censure had regularly followed discrepancies¹⁰.

Hornabrook wrote: "The duties of the anaesthetist are heavy and exacting. To recognise these he must receive whilst a student proper training, in the same way as the physician or surgeon, and by men who make a special study of this branch of their profession²⁸".

If a nurse could become an anaesthetist, and it required no special skill such as being a doctor for administration, obviously anaesthesia did not have a place in the forward march of medicine. This was at odds with how medical men saw anaesthetics progressing. During the war, anaesthetics had developed with immense benefit to both patients and surgeons.

The increased supply of special apparatus contributed greatly to this result³². Since 1916, specialist anaesthetists had been appointed as additional officers on the staffs of the British CCSs³² so it is likely that doctor anaesthetists, where possible, would now lobby strongly for maintenance of their hard-won position - as a resident member on staff in a hospital (albeit a military one) with all its privileges and status rather than just the underpaid honoraries they had been²⁸. By 1918, those working in the profession could see a rosy way forward. Wilson writes: "One thing seems to have become firmly fixed in most minds; the determination that, with anaesthesia developing as they saw it, anaesthesia in Australia should remain within the realm of the medically qualified person¹⁰".

Conclusion

In conclusion, while other countries used nurse anaesthetists as a matter of course, and others trained nurses in the latter part of the war, Australia's medical profession did not support their employment. The key reason was that Australian doctors decided that anaesthetists could only be qualified doctors; and to maintain this status, excluded nurses. In addition, the changing nature of the war, the lack of trained theatre nurses, and the ability to send women further forward may have been contributing factors. None of the Australian nurses trained in France appear to have administered anaesthesia following their return home, and the ground broken by other allied nurses in this area was not officially pursued in this country. The nursing profession continued to omit anaesthetics from their training curriculum.

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References

1. 'New Study Shows Surgical Death Rates Not Affected by Type of Anesthesia Provider', American Association of Nurse Anesthetists, 11 Apr 2003, URL: <http://www.aana.com/press/2003/041103.asp>, accessed 28 Apr 2003.
2. Butler A. Official History of the Australian Army Medical Services 1914-1918. III - Special Problems and Services, Canberra: Australian War Memorial; 1943: 527n, 557n, 583, 734.
3. Sister Bessie Weir in Brodie I. An Australian Nurse in British Military Hospitals in France. *Journal of the Royal Victorian Trained Nurses' Association* 1919; XV11(8): 243.
4. Butler A. Official History of the Australian Army Medical Services 1914-1918. II - The Western Front. Canberra: Australian War Memorial; 1940, 492 775n 806.
5. Tranter, Elsie May. Australian War Memorial. DRI 4081A.
6. Bassett J. *Guns and Brooches*. Melbourne: Oxford University Press; 1992, 62.

7. Macpherson Maj Gen Sir W. History of the Great War Medical Services - General History, II. London: His Majesty's Stationery Office; 1923, 165-166.
8. Harris A, Hunziker-Dean J. Florence Henderson- The Art of Open-Drop Ether. *Nursing History Review*, American Association for the History of Nursing; Springer Publishing Company; 2001: 159, 161-163, 166-167, 175, 178.
9. History of Nurse Anesthesia Practice. <http://www.aana.com/aboutlhistory.asp>, accessed 28 Apr 2003.
10. Wilson G. One Grand Chain - The History of Anaesthesia in Australia, 1846-1962, Vol 1. Australian and New Zealand College of Anaesthetists; 1995: 193, 223, 240, 413, 433, 436, 442, 445.
11. Macphail Sir A. Official History of the Canadian Forces in the Great War 1914-1919 - The Medical Services. Ottawa: Minister of National Defence, under Direction of the General Staff; 1925: 228.
12. Botcharsky S, Pier F. They Knew How to Die. London: Peter Davies; 1931: 8-10.
13. Launceston General Hospital Training School for Nurses. Rules and Regulations. 18 Aug 1904, in Royal Victorian College of Nursing Archives, The University of Melbourne, Box 4 Correspondence 1909-1910.
14. Hobbs V. But Westward Look - Nursing in Western Australia 1829-1979. Perth: University of Western Australia Press for Royal Australian Nursing Federation (WA); 1980.
15. Durdin J. They Became Nurses- a history of nursing in South Australia 1836-1980. North Sydney: Allen & Unwin; 1991: 24, 83.
16. Gregory H. A Tradition of Care - a history of nursing at the Royal Brisbane Hospital. Brisbane: Boolarong Publications; 1988: 28, 57.
17. Inglis K. Hospital and Community - a history of the Royal Melbourne Hospital. Melbourne: Melbourne University Press; 1958: 98.
18. Gwillim P. The History of Nursing at the Royal Melbourne Hospital 1846-1951, BA (Hons), 10, University of Melbourne Archives, Royal Victorian College of Nursing, Box 99, Industrial papers 1911-1964.
19. Burchill E. Australian Nurses since Nightingale 1860-1990, (Morley J. ed.). Richmond: Spectrum Publications; 1992: 39.
20. Stuart W. Anaesthesia from the Nursing Standpoint. *Una - The Journal of the Royal Victorian Trained Nurses' Association* 1911; IX(3): 60.
21. The Work of Military Nurses. *Una - The Journal of the Royal Victorian Trained Nurses' Association* 1918; XVI (10): 308.
22. Thurstan V. A Text Book of War Nursing. London: GP Putnam's Sons; 1917: 131, 142.
23. Scanlan Sister, Royal Red Cross. Australian nurse with Queen Alexandra's Imperial Military Nursing Service in Egypt, *Australian War Memorial*; 27, 373/65, nd , 2.
24. Tyquin M. Neville Howse - Australia's First Victoria Cross Winner. South Melbourne: Oxford University Press; 1999: 82, 102, 122.
25. Barker M. Nightingales in the Mud - The Digger Sisters of the Great War 1914-1918. Sydney: Allen & Unwin; 1989: 121.
26. Craig C. Launceston General Hospital- First Hundred Years 1863-1963. Launceston: Board of Management of the Launceston General Hospital; 1963, 42.
27. Cushing H. From a Surgeon's Journal - 1915-1918. Boston: Little, Brown and Company; 1936: 180, 205.
28. Hornabrook R. Some of the Difficulties the Anaesthetist has to contend against. *The Australian Medical Journal* III, New Series, Melbourne: Shipping Newspapers Ltd; 16 May 1914, 1559-1560.
29. Braga S. Anzac Doctor: the life of Sir Neville Howse, Australia's first VC. Alexandria: Hale & Iremonger Pty Ltd; 2000: 117, 233.
30. Holmes K. Between the lines. BA Honours thesis, The University of Melbourne; 1984; 81. In *Australian War Memorial*, MSS 1025.
31. Scates B, Frances R. Women and the Great War: Melbourne: Cambridge University Press; 1997: 45.
32. Macpherson Maj Gen Sir W et al (Eds). History of the Great War Medical Services - Surgery of the War, 1. London: His Majesty's Stationery Office; 1922: 185.