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Naval Medical Operations at Kingston during the War of 1812

Gareth Newfield

British naval medicine in Kingston, Ontario is a peripheral and seldom-explored aspect of the War of 1812 on the Great Lakes. Men hospitalized ashore disappeared from history, and consequently our understanding of the circumstances and conditions under which they received medical care is quite poor.

The practice of naval medicine in Upper Canada was beset with adversity. Makeshift arrangements instituted before the war created naval medical infrastructure in Kingston which was far from robust, and was often unequal to the demands of an active conflict.

Abstract: Throughout the War of 1812 the practice of naval medicine in Kingston (the headquarters of British naval forces on the Great Lakes) was beset with adversity. Dependent for years upon the army, the Provincial Marine's medical resources were minimal, with problems increasing exponentially after the expansion of the Royal Navy's forces on the lakes in early 1813. Naval surgeons in Kingston faced almost constant shortages of personnel, supplies and facilities, issues which were not fully resolved until the very end of the war. Yet although the standard of care under these conditions has earned a poor reputation in the past, naval medical officers in fact strove to ensure the comfort and recovery of their patients. This article follows the development of naval medical infrastructure in Kingston during the conflict, demonstrating that despite adverse circumstances the care provided was often both sophisticated and effective.

Furthermore, operations in Europe against Napoleonic France dominated the medical resources of the British Army and Royal Navy for much of the war against the United States. Medical officers at the Kingston and Point Frederick shore hospitals faced shortages of facilities, staff and supplies throughout the War of 1812. Many of these issues were not fully rectified until the conclusion of hostilities and mortality rates amongst patients were often high. Yet the grim realities of naval medical care in Kingston were the consequence of adverse circumstances, not inadequate treatment by naval surgeons.

This article explores naval medicine in Kingston during the War of 1812 in terms of the development of hospital infrastructure, personnel, logistics, quality of care, and effectiveness. Drawing heavily upon primary sources, it seeks to shed new light on naval medical activities ashore in order to foster a greater understanding of the conditions under which medical officers laboured to provide effective treatment to British and Canadian naval forces on the Great Lakes.¹

The Question of Space

Kingston was selected as the headquarters of the nascent Provincial Marine in 1789, with construction of a dockyard at Point

Frederick, immediately across the Cataraqui River commencing shortly afterwards. Little effort, however, was made to provide the Marine Department with its own medical infrastructure. As a division of the British Army rather than the Royal Navy, its seamen were expected to rely upon the military hospital (erected by the Loyalists in 1783) in Kingston. Throughout the 1790s, plans to erect a dedicated naval hospital

Résumé : Durant la guerre de 1812, la pratique de la médecine navale à Kingston (alors quartier général des forces navales britanniques dans le secteur des Grands Lacs) fut semée d'embûches. Sous la dépendance de l'armée pendant de nombreuses années, les ressources médicales de la marine provinciale étaient infimes en plus d'être aux prises avec des problèmes de plus en plus nombreux à mesure que s'accroissaient les forces de la Royal Navy dans le secteur. Les chirurgiens de la marine eurent à faire face à une pénurie constante de personnel, de fournitures, d'installations et de services. Ils travaillaient dans des situations pénibles, qui ne s'améliorèrent qu'à la toute fin de la guerre. Et, bien que la qualité des soins dispensés dans ces conditions ait eu mauvaise réputation, les officiers de santé de la marine avaient fait leur possible pour assurer le confort et le rétablissement de leurs patients. Cet article est consacré au développement de l'infrastructure de la médecine navale à Kingston pendant le conflit et montre que, malgré les circonstances défavorables, les soins qui y étaient prodigués étaient souvent à la fois élaborés et efficaces.

were rejected several times owing to a lack of resources, as well as objections from local inhabitants over the potential communication of disease to the town, and the indiscipline of the Marine Department's personnel.² Nonetheless, by 1799 separate military and naval hospitals existed within Kingston.³ The latter was presumably the structure on the west bank of the Cataraqui River identified on an 1816 map of Kingston (by Lieutenant (RN) A.T.E. Vidal) as the "Old Naval Hospital."⁴ Details of its construction are unknown, although an inventory indicates it possessed wards for officers and enlisted seamen, a receiving room for new patients, as well as accommodations for the staff, supply rooms and a morgue.⁵

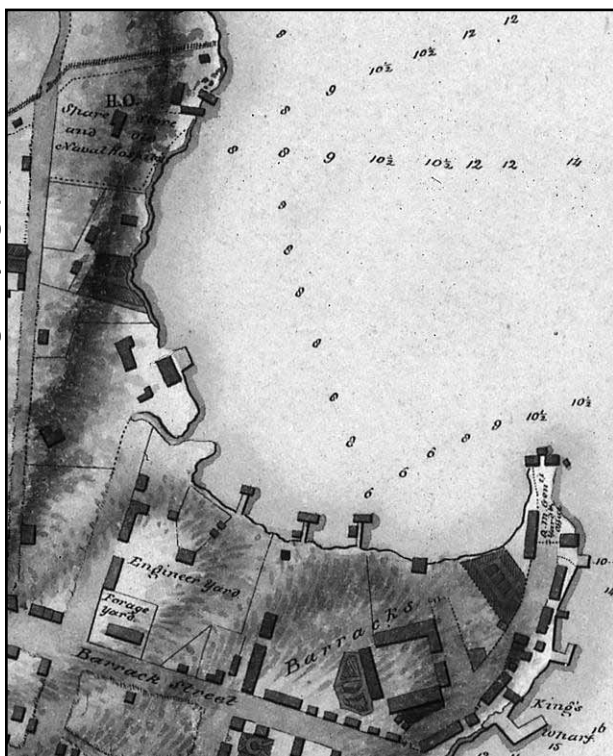
Throughout the first decade of the 19th century this modest facility was frequently unable to provide adequate accommodations for the Provincial Marine's patients. In May 1805 another storey was added to the town's military hospital in order to provide additional space for seamen, as the Marine Department outnumbered Kingston's small peacetime garrison at the time.⁶

During the fall of 1805 the naval hospital was temporarily abandoned and its patients moved into barracks in the town owing to problems with the building's upkeep.⁷ By 1809 these makeshift arrangements had so aggravated the local inhabitants, who generally opposed the presence of military hospitals within the town, that they lobbied Governor-General Sir James Craig for the removal of the garrison hospital because the Provincial Marine had used it almost exclusively for years. Indeed, they argued there was "a much more convenient and healthy place for an Hospital for Seamen" at Point Frederick, "contiguous to their Vessels and Barracks."⁸ Craig, however, rejected the petition, and both hospitals remained in use by naval personnel.

At the commencement of hostilities with the United States in June 1812, Kingston became a key strategic garrison, supply and transit point for the British Army in Upper Canada. It was also the primary headquarters and depot for British naval forces on the Great Lakes, although smaller establishments existed at York and Niagara. As a result of the war the strength of the Kingston's garrison, and thus its medical needs increased and the Provincial Marine was forced to relinquish use of the military hospital to the army. As a result,

the Marine Department sought additional medical facilities closer to the dockyard but its limited resources restricted options. As a temporary measure, the hulk of the HMS *Duke of Kent* (the Marine Department's oldest and most decrepit vessel) was employed as a hospital.⁹ Resting in the mud at the dockyard and moored to shore, this impromptu facility was far from an ideal, although it remained in use well into 1813.¹⁰ Over the course of the severe winter of 1812-1813, these ad hoc arrangements became increasingly unsatisfactory as sick rates among naval personnel increased. The Provincial Marine's main hospital was geographically isolated from the dockyard, and both it and the decaying *Duke of Kent* required constant repair. The hospital had become so dilapidated by 1814 that the entire roof had to be "speedily" replaced in order to ensure the comfort of its patients.¹¹ Clearly the naval medical establishment required better quarters.

In May 1813, Commodore Sir James Yeo of the Royal Navy arrived at Kingston to assume operational control on the Great Lakes from the Provincial Marine following its lacklustre performance against the Americans in 1812. He immediately ordered a complete reorganization of naval infrastructure, including medical arrangements. Captain Richard O'Connor, given command of the dockyard, accordingly sought to concentrate naval medical facilities at Point Frederick. Plans for "a Naval Hospital on Point Frederick, to contain One Hundred Men" were solicited in the *Kingston Gazette* on 8 June 1813.¹² Until 2007, historians assumed this stone building survived as the residence of the commandant of the Royal Military College of Canada.¹³ In fact, the new hospital proposed by O'Connor was a substantial two-storey wooden-framed structure, and was located immediately northwest of the modern residence.¹⁴ This building



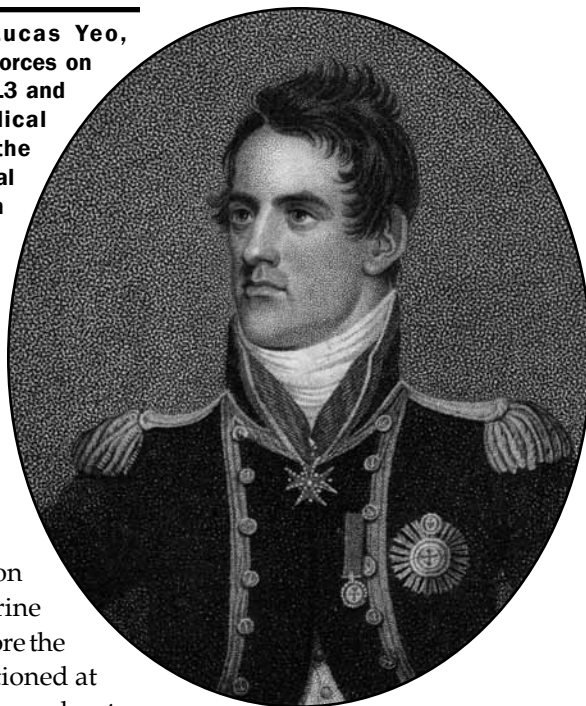
Detail of "Plan of Kingston and Its [sic] Vicinity (etc.)" by Lieutenant (Royal Navy) A.T.E. Vidal, 1816, showing the location of the pre-war naval hospital on the bank of the Cataraqui River at the upper left. Following the relocation of infrastructure to Point Frederick in 1815 this building was utilised as a spare storehouse, as indicated on the map.

appears in a number of mid-19th century artworks, including Henry Francis Ainslie's 1839 watercolour of Fort Henry. Construction, however, proceeded slowly as a result of numerous delays. First and foremost, Sir James Yeo's frantic shipbuilding efforts throughout the summer and fall of 1813 taxed resources to their limits, and a construction estimate for the hospital was not prepared until September 1813.¹⁵ During the fall of 1813 British forces in Upper Canada were temporarily cut off by the American offensives along the St. Lawrence and Montreal frontiers. Faced with a logistical crisis that could have led to the loss of Upper Canada, it is unlikely that the acquisition of resources for the hospital's construction, requiring over £1,200 in funds alone, was the highest priority for naval authorities.¹⁶ The onset of winter would have effectively curtailed any work begun by that point.

Substantial progress was therefore not made on the Point Frederick hospital complex until the spring of 1814. The hospital began to receive patients in June but it was far from complete.¹⁷ Due to the delays in its construction, it lacked many features deemed necessary by naval authorities, such as a stockade to ensure discipline and prevent desertion, which was not built until August 1814.¹⁸ Nor were operations quickly transferred from the Kingston naval hospital, as personnel and infrastructure had become ensconced in the town over the course of the war. Surviving sick tickets from the Royal Navy establishment indicate that the majority of patients landed ashore from the Lake Ontario squadron were admitted to the Kingston naval hospital until late December 1814.¹⁹ The completion of the Point Frederick hospital alleviated longstanding accommodation issues but it was finished too late in the conflict to play a significant role in naval medical

Commodore Sir James Lucas Yeo, commander of British naval forces on the Great Lakes between 1813 and 1815. Yeo monitored medical operations and influenced the development of naval hospital infrastructure in Kingston throughout the war.

Toronto Reference Library, T-15241.



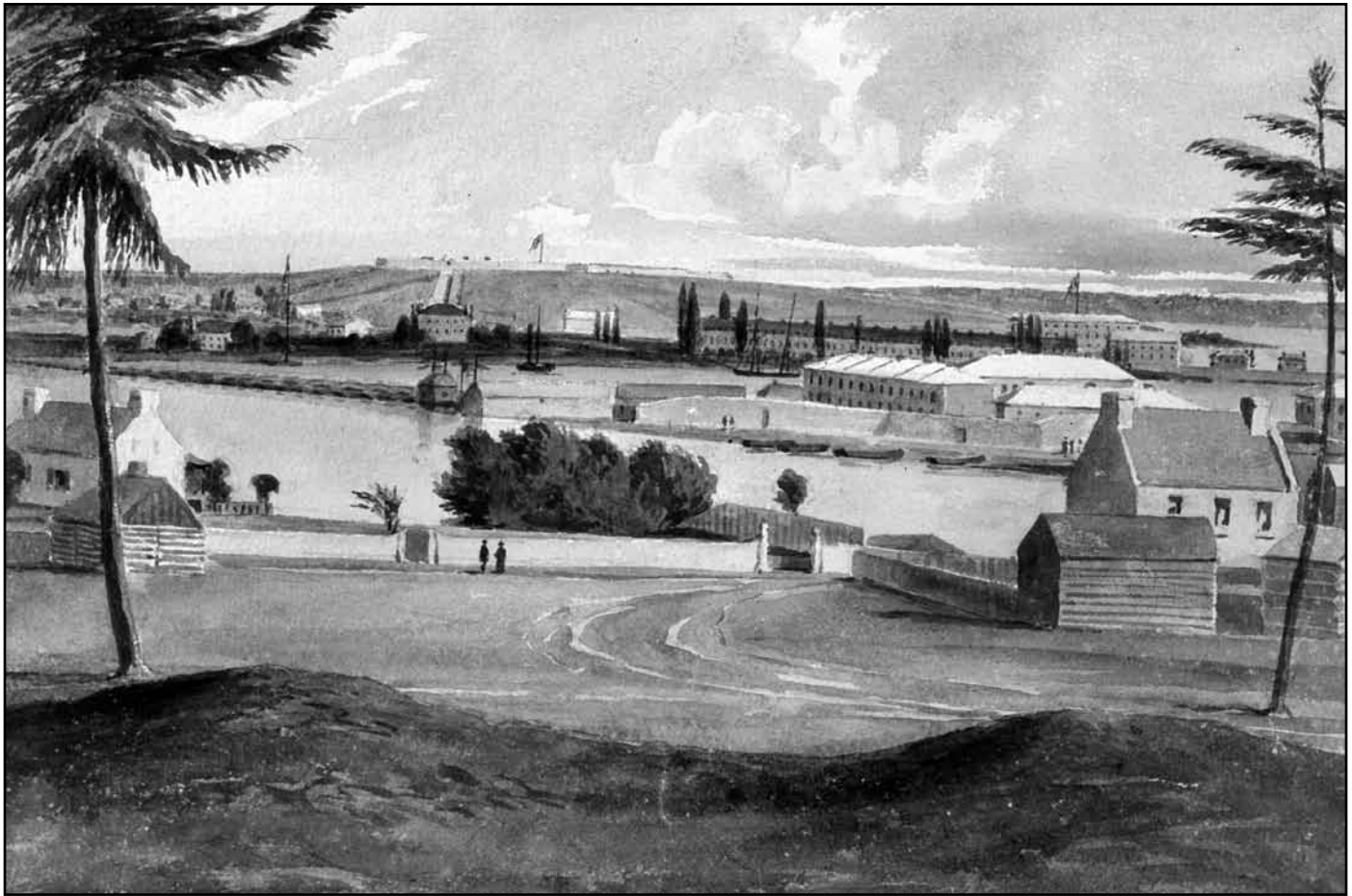
operations in Kingston during the war.

The Shortage of Personnel

Owing to the integration of the Provincial Marine within the British Army before the war, military surgeons stationed at Kingston and other posts throughout Upper Canada provided medical support for its personnel. These were generally members of the Army Medical Department, the staff branch of the British Army's medical services responsible for military medical administration and the operation of general hospitals. The department's structure in Upper and Lower Canada mirrored that in Britain, consisting of various surgeons, apothecaries and physicians as well as storekeepers, but its establishment had been limited to a level of bare functionality since 1803, when many officers were recalled to Europe following the resumption of hostilities against Napoleonic France.²⁰ Between 1808 and 1812 these restrictions had persisted in Upper Canada due to the demands of Britain's increasing involvement in the Peninsular War. The Provincial Marine entered the war with the United States in June 1812 with only one staff officer, Hospital Mate James Geddes, that the Medical Department could spare for the naval hospital in Kingston.²¹ The few appointments of surgeons made to the widely dispersed Provincial Marine in the fall of 1812, such as Dr. Grant Powell at York and Dr. Robert

Richardson at Amherstburg, were predominantly static posts, and had little impact upon the naval medical arrangements at Kingston.²²

As fighting intensified throughout Upper Canada during early 1813 the army's medical personnel were required for other duties, and naval medical organization at Kingston fell into a lamentable state of disrepair. Writing to Commodore Yeo in July, Captain O'Connor complained that "there has not been any Surgical or Medical assistance given to the Artificers, and others employed in the Yard...and as the number employed are now increased, consequently the casualties are more frequent."²³ Responsibility for treating naval personnel and employees had been transferred to the Royal Navy following Yeo's arrival. Since 1805 the Royal Navy's medical affairs were controlled by its Transport Board, having absorbed the arcane Sick and Hurt Board. Due to several reforms in 1806, the naval medical hierarchy was more integrated than that of the army, with no differences in responsibility or rank between ship and shore personnel, except according to individual assignment.



Library and Archives Canada [LAC] Acc.No. 1983-47-86 - C-011872

"Fort Henry, Point Frederick and Tête du Pont Barracks, Kingston, from the old redoubt," by Philip Bainbrigge, 1841. The Point Frederick hospital, the two-storey structure aligned approximately with Fort Henry's western ditch, is depicted in the background.

The Royal Navy was chronically short of medical personnel throughout this period, and the Great Lakes were secondary to the demands of the war in Europe.²⁴ Thus Yeo had received only a handful of surgeons, and initially could spare few for the shore hospital establishment in Kingston. Only the senior medical officer, Thomas Lewis, surgeon of the HMS *Prince Regent* had done duty ashore since his arrival in May, yet was only officially appointed as "surgeon and agent" of the Kingston Naval Hospital on 30 October 1813, presumably after a replacement arrived.²⁵ Over the winter of 1813-1814 Lewis frequently treated over 100 patients at a time. He was the lone doctor until Surgeon Thomas King was seconded from Quebec in April 1814.²⁶ However, British offensive

operations on Lake Ontario (including the capture of Fort Oswego in May) resumed, requiring King's transfer afloat within a month.²⁷ Thereafter Lewis worked alone until joined by Assistant-Surgeon Joseph Scott from Quebec in October 1814.²⁸

Despite early successes during the spring, Yeo's squadron was soon hemmed in at Kingston by Commodore Isaac Chauncey's powerful American squadron, and awaited the completion of the massive 120-gun HMS *St. Lawrence*. Meanwhile, British troops fought a deadly campaign in the Niagara Peninsula. Lengthy periods spent inshore were seldom healthy for naval personnel. Admiral Horatio Nelson famously quipped "ships and men rot in harbour."²⁹ Consequently Lewis was burdened by the squadron's

increasing exposure to insect-borne malaria and other "land" diseases common to Upper Canada, as well as occupational injuries experienced by work parties ashore. Notwithstanding the brief period of freedom afforded by the launch of the *St. Lawrence* in September 1814, the British squadron returned to harbour once more in the fall, and the cycle of winter ailments began afresh. Still, the hospital establishment at Kingston was not augmented until November, when three additional assistant-surgeons were made available by the conclusion of the war in Europe.³⁰ Such shortages of medical personnel were detrimental to the effectiveness of medical care. Under similar conditions in the Niagara Peninsula that summer, Dr. William "Tiger" Dunlop of the British 89th

Regiment worked to the point of utter exhaustion, and lamented dozens of deaths that resulted from a lack of adequate attention.³¹ Presumably the duty of Lewis, and subsequently Scott, was little easier.

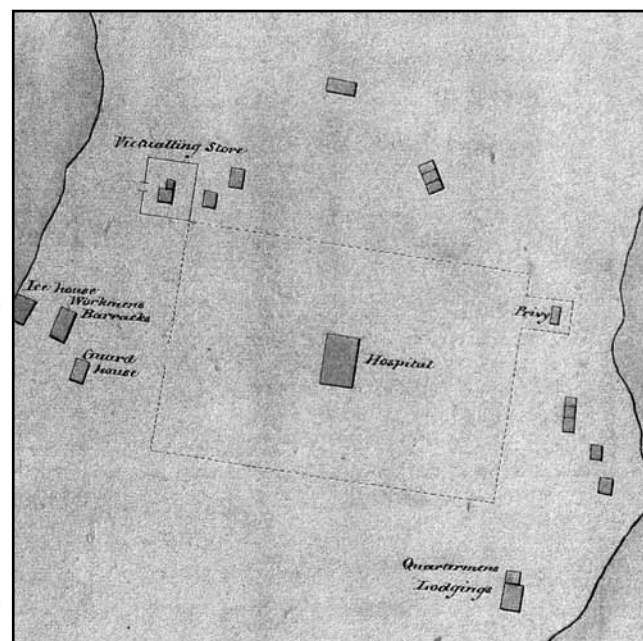
Lewis, as senior surgeon of the hospital establishment, was required to coordinate medical administration, supplies and accounting ashore until late 1814. His onerous workload, however, often caused these duties to suffer. Dunlop himself recognized that military surgeons in Upper Canada “must have been active beyond all precedent if they could keep the office business, the accounts and returns square, without attempting to interfere with the [medical] practice.” It is not surprising that Lewis, cursed with shortages of staff, was unable to keep up with the administration of the hospital.³² To bring matters under control, Commodore Yeo placed medical and administrative matters “under the control of separate persons,” and appointed Purser Arthur Gifford, previously the dockyard’s storekeeper, as the hospital’s agent in November 1814.³³ The disorder Gifford confronted was considerable. Lewis’s record keeping had become unintelligible, and Gifford required the assistance of three other pursers in order to take a “strict and careful survey of the stores necessary & remaining” at the Kingston hospital.³⁴ Still, he was eventually successful, reflected by the greater quantity of documentation from this time in the hospital establishment’s history than from any other point in the war.

Maintaining adequate ancillary staff posed further problems to naval medical authorities in Kingston. In Britain, naval shore hospitals generally utilised civilians as nurses, cooks and so on. Officials at Kingston, however, found this unfeasible due to the expense and scarcity of civilian labour. Indeed, Tom Malcomson’s analysis of Yeo’s

provincial muster book for the period prior to April 1814 indicates that nine men were discharged to the hospital, and probably tended the sick, suggesting hospital officials initially relied entirely upon convalescent personnel.³⁵ Moreover, further additions did not take place until 25 November 1814, when seven civilians from Kingston were hired. Of these, four women worked as nurses, while three men were employed as a clerk, a steward and a general labourer.³⁶ Presumably their time was split between the two naval hospitals by then in use. Yet the onset of winter increased demands upon the shore hospitals. Purser Gifford managed to hire only two more local women as nurses; his overall lack of success forced him to request “ten or fifteen marines to be lent from the fleet for the purpose.”³⁷ Preoccupied by the construction of more ships and a dockyard at Penetanguishene, Commodore Yeo was unable to oblige. He instructed Lewis to again resort to using convalescents by retaining “those persons in the Hospital to do duty as nurses and labourers.”³⁸ Lewis duly prepared a list of convalescent sailors and marines, all of whom were subsequently employed by the shore hospital establishment.³⁹

Ironically it was not until 1815, with the conflict effectively at an end and resources and personnel from Europe becoming more plentiful that the naval hospital establishment reached a level of functional efficiency. Along with the

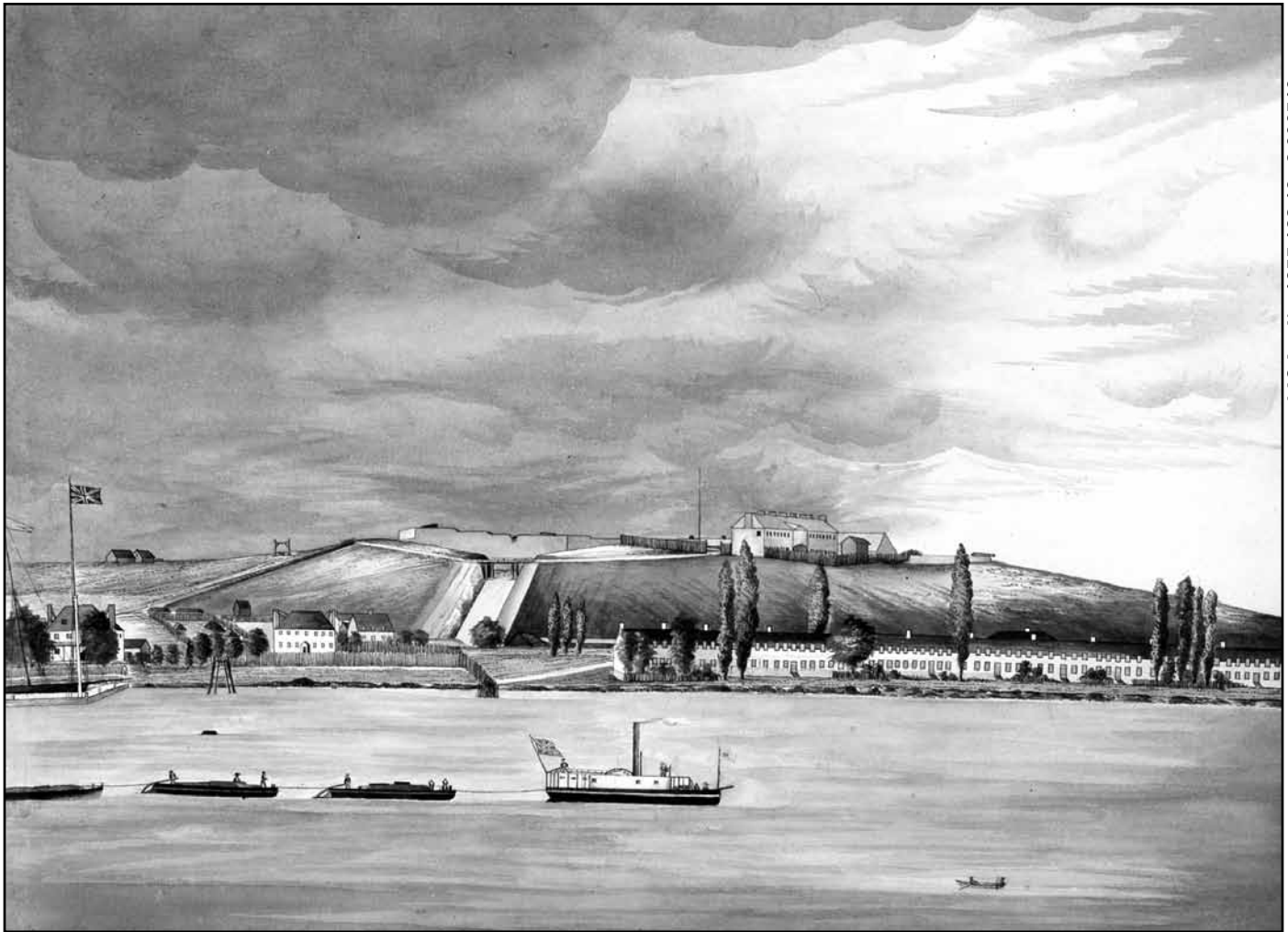
Detail of “A Plan of His Majesty’s Naval Yard Kingston (etc.)”, 1815, illustrating the layout of the Point Frederick naval hospital complex at the end of the War of 1812. Note the hospital’s outbuildings, including the privy and the victualling sheds.



19 convalescents hired by Lewis in December, three more were hired as attendants in January, while other civilians were hired as needed. At the establishment’s peak between January and March 1815 one surgeon, four assistant-surgeons, an agent, a clerk, a steward, 15 labourers, 11 male nurses, 11 female nurses, a cook, his mate, two carpenters and five washerwomen were employed at various times.⁴⁰ Once news of peace with the United States arrived in Upper Canada in March 1815, the naval hospital establishment declined rapidly coincident with reductions to the Royal Navy’s strength on the Great Lakes.

Supply & Demand

The naval medical facilities at Kingston fulfilled dual roles as hospitals and depots for medical supplies on the Great Lakes. Supply shortages were frequent. In 1812, medical materiel for the colonies was issued from the “Army Elaboratory,” the central military medical depot in London, a measure instituted in 1809 to foster inter-service cooperation and improve logistical efficiency.⁴¹ Thereafter, supplies were transferred to the Transport Board of the Royal Navy for shipment, and disbursed



LAC Acc.No. 1955-128-16 - C-000510

"A View of Fort Henry" by Henry Francis Ainslie, 1839, showing the Point Frederick naval hospital and its surrounding complex (white building, centre left) as it appeared in the late 1830s.

upon arrival. Within Upper Canada this system was complicated by two factors. Firstly, medical materiel was often in short supply in British North America due to the ongoing Peninsular War's priority for medical resources. For example, Army Medical Department officials noted in October 1812 that medical supplies in Upper Canada were meagre, and the few stockpiles dated to the American War of Independence.⁴² Secondly, responsibility for the transportation and issue of medical materiel for both services in Upper Canada fell to the army due to the naval establishment's comparative lack of supply infrastructure beyond its dockyards. Thus shortages and logistical problems caused difficulties

for the medical departments of both services. Surviving documents indicate this was particularly true for the naval hospital establishment at Kingston in two principal areas: the supply of medical "necessaries" and clothing.

"Necessaries" was a catchall term applied to consumables such as medicines and bandages. Shortages became particularly evident in early 1814, when Lewis sought to supply the Lake Ontario squadron in preparation for offensive operations that spring. Upon submitting requisitions to the Army Medical Department, Lewis was informed "the Purveyor to His Majesty's Forces at Kingston has stated that it is not in our power to comply...the articles not being in

store."⁴³ In turn Lewis sought to obtain supplies from the civilian market, an option permitted under naval regulations in cases of emergency. In such situations surgeons were allowed to purchase items at a rate not in excess of two pence per man per month.⁴⁴ Such urgent measures soon became commonplace. Barely a month later, Lewis was again ordered to procure "wine and all such other necessaries" locally due to the army's inability to do so.⁴⁵ Towards late 1814, Purser Gifford's inventory of hospital supplies indicates that the state of the Royal Navy's medical supplies ashore had only partly equalized (Yeo's command increased to 2,300 men), despite more resources from Europe (see Table 1).

Table 1: Naval Hospital Necessaries

"Necessaries"	Naval Regulations per 100 men for 3 months afloat, 1808⁴⁶	Stocks at the Naval Hospital at Kingston, Dec 1814⁴⁷
New Linen	6 yards	211 yards (Calico)
Welsh Flannel	4 yards	55 yards
Tea	2¼ lb	304 lb
Sago	4 lb	108 lb (Tapioca)
Rice	8 lb	115 lb ullage rice (useable), 53 lb damaged
Barley	16 lb	n/a
Soft Sugar	32 lb	64 lb
Ginger	2 oz	n/a

Further difficulties were experienced in providing adequate clothing for the Canadian climate to patients ashore. In most circumstances only nightcaps, stockings and shirts were considered hospital clothing, much as patients today would be issued with a bed gown.⁴⁸ The Canadian climate, however, necessitated additional garments; indeed, naval regulations stressed providing patients with adequate winter clothing to protect them from ailments like rheumatism.⁴⁹ Regulations also stipulated patients sent ashore were to take their clothes, and if lacking garments, were to be supplied from "slop cloaths [sic]" from their own ship.⁵⁰ Each sailor should therefore have possessed a complete suit of clothing when admitted to hospital. Yet, contrary to regulations commanders at Kingston, appear to have relied upon the medical establishment to make up deficiencies; sick tickets from the naval hospitals in 1814 list patients receiving substantial issues of clothing upon admission.⁵¹ Large stocks were therefore apparently kept at the Kingston hospital whenever possible (see Table 2).

This atypical system was difficult to maintain in the face of high sick rates and logistical problems during the winter months, and by December 1814 extant stocks were judged to

be inadequate for the needs of the squadron in the coming months. Here again the army's supply failed, and Gifford was ordered to procure clothing locally despite the Army Medical Department's inability to do so beforehand.⁵³ Whether Gifford experienced any greater success is unknown.

Quality of Care

Although evidence from early in the war in scarce, surviving documents indicate that towards the end of 1814 the naval hospital establishment was comparatively well supplied with foodstuffs, furnishings and medical equipment. By the end of the war the two naval hospitals were able to provide sick and injured seamen with comfortable

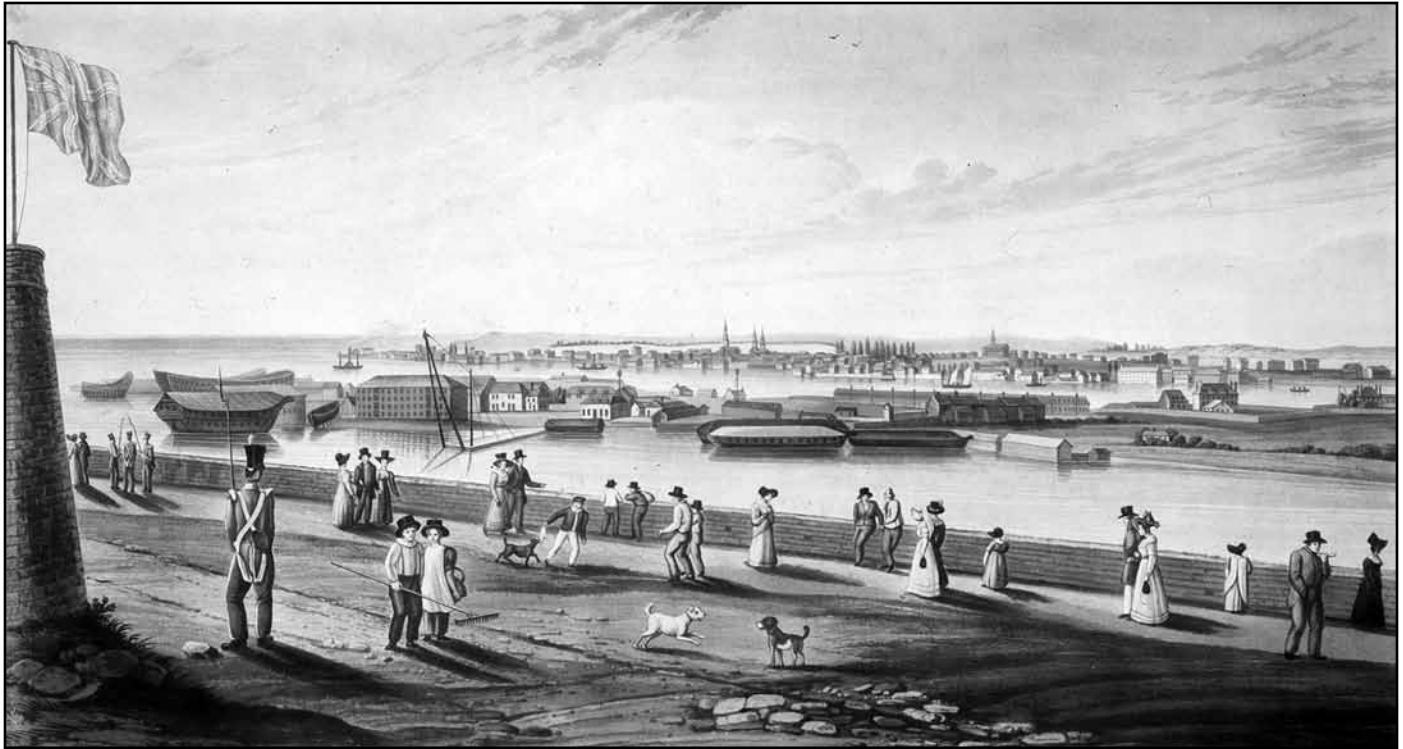
and sanitary environments in which to recover.

Diet was a cornerstone of medical care in the Royal Navy. Regulations delineated hospital rations into full, half, "low" and "spoon" diets. Rooted in the contemporary theory of "nervous excitability," the intent was to counteract physical symptoms with inversely proportionate quantities of food. Regardless, regulations stipulated patients were to be provided with the best provisions available, and additional foodstuffs thought necessary could be purchased locally. Surviving victualling reports from late 1814 indicate these guidelines were closely followed at Kingston, and that patients were well fed. One receipt for December 1814 shows additional quantities of bread, fresh milk, sugar and fowls (presumably for making broth) were purchased on a daily basis in addition to regular foodstuffs.⁵⁴ Postwar tenders corresponding to wartime contracts list typical fare for patients, such as "soft" bread, beef, mutton or veal, fresh vegetables, salt, sugar, tea, milk, eggs and fowls.⁵⁵

In contrast to shortages of necessities and clothing, Gifford's inventory shows the hospitals were well equipped with furnishings and equipment conducive to patients' comfort and needs. Regarding bedding, 1,200 pillows, over 600

Table 2: Naval Hospital Clothing in Stores at Kingston, December 1814⁵²

Article	Servicable	Worn
Nightcaps	419 flannel & 20 linen	99 flannel
Shirts, canvas duck	601	5
Stockings	360 pairs	
Flannel Drawers	626	
Trousers	243	
Breeches	75	
Waistcoats	573 flannel & 243 unspecified	19 flannel
Coats	220	
Greatcoats	34	



LAC Acc. No. 1970-188-1739, W.H. Coverdale Collection of Canadiana - C-041176

"Kingston from Fort Henry" by James Gray, 1828, overlooking the Point Frederick Dockyard with the hospital complex depicted on the far right. Close inspection of this print reveals alterations (such as the dormer windows added to the hospital's attic during its conversion into wards or offices) undertaken in mid-1815.

mattresses, 1,600 sheets, 2,200 blankets, and 165 "bed rugs," along with an indeterminate number of bed frames were listed in the inventory.⁵⁶ Many items, such as hair-filled beds and pillows were specifically prescribed for use in naval hospitals.⁵⁷ Others, particularly green bed rugs noted in the report, were peculiar to the army, reflecting irregularities within the supply system.⁵⁸ Palliative care equipment was also plentiful. Prominent were "close stool" pans, boxes and chairs (rudimentary vessels designed to ease the answering of nature's functions), and over 50 "spitting pots" and "spitting boxes."⁵⁹ Given stereotypes concerning the "puke and purge" effects of contemporary pharmacology, these vessels were essential.⁶⁰ Furthermore, 55 bandage "trusses" for hernia cases (a traditional occupational injury among Royal Navy sailors) were noted.⁶¹

Adequate heating of hospitals was crucial to the recovery of patients, especially during the Canadian winter. In nearby Prescott, Dr. Griffiths of the 1st (Royal Scots) Regiment attributed the slow recovery of his patients to fluctuations in temperature. He noted that while his patients were afforded "every medical comfort, appropriate for the state of the wounded," he found "much difficulty in keeping up a uniform temperature in the apartments of the sick" owing to the lack of stoves and firewood.⁶² Naval officials at Kingston made every effort to overcome this common Canadian problem. Gifford's inventory lists a sizable supply of pokers, tongs, fenders, and dog irons, as well as four iron stoves and associated lengths of piping.⁶³ Large quantities of firewood were regularly ordered; 300 cords were ordered in December 1814 alone.⁶⁴

Hygiene and sanitation (as it was understood in the early 19th century) was also a priority. Regulations were in fact unusually enlightened for a time before antiseptic procedures. It was recommended that wards be scrubbed with vinegar and used bandages be boiled to prevent the spread of contagion.⁶⁵ The hospital inventory lists considerable quantities of brooms, mops and scrubbing brushes, many recorded as worn out, suggesting cleansing was carried out regularly. Regulations also called for the washing of patients and bedding, particularly for those with malarial fevers, a common ailment in Upper Canada.⁶⁶ Numerous washtubs, "slipper baths," quantities of towels and 50 pounds of soap were noted in the inventory.⁶⁷ Local contractors washed the bedding and linen in keeping with common military practices, and such chores were undertaken in great quantity; one

washerwoman received £3 4s for the washing of 192 pieces of bedding over several days in March 1815.⁶⁸

Effectiveness

In light of the numerous difficulties faced by British naval medical personnel at Kingston throughout the war, the question may be asked whether their efforts were effective? Naval hospitals of the period have admittedly acquired a decidedly sinister reputation. British naval historian Christopher Lloyd once remarked that naval hospitals were places “where one usually went to die, not to recover.”⁶⁹ Although the Kingston naval medical establishment’s records are fragmentary, enough evidence exists to provide some insight into the effectiveness of treatment at the two hospitals.

Pitched naval engagements on Lake Ontario were relatively rare and both sides chose to husband their strength in the face of overwhelming opposition. Therefore, except in the case of combined operations such as the attack on Sackett’s Harbor in 1813 or the capture of Fort Oswego in 1814, disease and occupational injuries were the most common cause of hospitalization for naval personnel at Kingston during the war. One of the earliest surviving sick returns from the Kingston hospital lists a typical range and proportion of ailments encountered ashore (see Table 3).

Dr. Douglas recalled that while “fevers” (symptoms associated today with malaria) were prevalent during changes in weather, dysentery “was not to be much dreaded” ashore

Table 3:
Weekly State of the
Naval Hospital 1 Jan 1814⁷⁰

Number in Hospital	103
Fevers	25
Dysentery	44
Consumption of the Lungs	12
Wounds	5
Other Complaints	17

in Upper Canada.⁷¹ However, the lengthy stay of Yeo’s squadron in harbour during the summer and fall of 1814 exposed them to various shore ailments. Dysentery was a chronic problem aboard ship. Period sources noted dysentery was common immediately “after a long series of stormy or rainy weather,” conditions common in the region during the fall and winter, though this was most likely due to fetid conditions amongst sailors sheltering below decks rather than the weather itself.⁷² “Consumption” (tuberculosis) and “pleurisy” (pneumonia) were equally prevalent. The American naval surgeon Dr. Usher Parsons noted that pneumonia and other pulmonary complaints reached epidemic proportions among naval personnel around the Great Lakes during the war.⁷³

In the face of virulent illnesses and other threats to health encountered at Kingston, patient mortality ashore

was often high. Malcomson’s study of a sample group of 466 men from Yeo’s provincial muster book demonstrated the hospital mortality rate at Kingston was 1 patient per every 2.25 men sent ashore.⁷⁴ This is a shocking contrast to Lloyd’s findings, which indicate the navy’s patient mortality rate in Britain during the same period was 1 in 30.⁷⁵ Nonetheless, Malcomson’s analysis of ships’ muster books for various periods between May 1813 and March 1815 supports his original findings. Of 81 men sent ashore from five ships and the gunboat flotilla, the overall mortality rate was 1 in 2.38, while that of the patients sent to the Kingston facility alone was 1 in 2.32.⁷⁶ However, in Malcomson’s opinion Yeo’s provincial book was poorly kept, rendering the accuracy of these figures suspect, while the ships’ muster books represent only portions of the squadron during broad and non-consecutive periods.

The hospital establishment’s patient ledgers, however, provide an entirely different perspective. Though comprehensive records only exist for the period from September 1814 onwards, they indicate mortality rates were more moderate than Malcomson’s findings suggest. Between September and December 1814, 12 of the 145 patients admitted to the two naval hospitals died of their ailments, representing a

The site of the Point Frederick naval hospital, today located on the grounds of the Royal Military College of Canada, with the Commandant’s Residence (a post-war surgeon’s quarters) in the background. The cluster of small pine trees in the centre of the photograph marks the approximate location of the 1813-1814 hospital.



Photograph by author

mortality rate of approximately 1 in 12.⁷⁷ For the period from January to March 1815, the depth of winter, the rate rose sharply. Of 181 patients treated during those three months, 38 died in hospital at Kingston and Point Frederick, a mortality rate of 1 death per every 4.75 patients.⁷⁸ While appalling by modern standards, at no time did rates approach the level of near-certain mortality suggested by Malcomson's analysis. As these ledgers constitute a detailed, on-site record of patients from the entire squadron during a continuous period, they may perhaps be considered more reliable and reflective of the actual mortality rates at Kingston, at least during the last seven months of hostilities.

Naval regulations prohibited sending patients ashore unless absolutely necessary, in which case high mortality rates at Kingston may reflect the higher probability of mortality amongst patients in the worst physical condition. Yet recent examination of the hospital registers indicates the prognosis of patients treated ashore at Kingston was far less bleak than previously believed.

Conclusion

This article constitutes an initial attempt to examine an unexplored aspect of the naval war on the Great Lakes between 1812 and 1815. Comprehensive records for large portions of the war from the naval hospital establishment do not appear to have survived, rendering it difficult to form a detailed picture of the Provincial Marine and Royal Navy's medical activities in the town. The author acknowledges that much of the subject remains open to investigation. The practice of naval medicine ashore at Kingston was fraught with difficulty. In the midst of an active conflict, naval medical officers struggled with shortages of

hospital space, personnel, and crucial supplies to provide adequate medical treatment. While some of these issues originated decades before, most were not fully resolved until the end of the conflict, when the urgency and need had largely abated.

Based on his statistical analysis of Yeo's muster books, Malcomson concluded that naval medical care at Kingston was not very good, and indeed high mortality rates suggest the efforts of Dr. Lewis and his colleagues were far from uniformly successful.⁷⁹ Yet rather than reflecting incompetence among British medical officers, this article has demonstrated that circumstances largely outside of their control produced the unfortunate realities of medical care at the two naval hospitals at Kingston during the War of 1812.

Notes

1. I would like to acknowledge the assistance of Tom Malcomson of George Brown College, Toronto, J. Ross McKenzie of the Royal Military College Museum, Ron Ridley of Fort Henry National historic Site, and Jonathan Moore & Bob Garcia of Parks Canada in the preparation of this article.
2. Porter to Le Maistre, Kingston, 4 September 1790, Library and Archives Canada [LAC], Record Group [RG] 8 I, vol. 287, pp.17-8; Porter to Le Maistre, Kingston, 30 December 1791, *ibid.*, p.19.
3. "Estimate for the expence [*sic*] of Workmanship and Materials Necessary for Repairing the Barracks and other Buildings at the Garrison of Kingston and Point Frederick," Kingston, 17 September 1799, *ibid.*, vol. 546, pp.120-5. This is the earliest documentary reference the author has found to a separate naval hospital at Kingston.
4. "Plan of Kingston and its Vicinity, the Shores and Measures by Lieutenant A.T.E. Vidal, Royal N.," June 1816, United Kingdom Hydrographic Office, B 718. A later copy of this map is held in LAC National Map Collection under the reference number NMC-011378.
5. Untitled survey of hospital stores, December 1814, LAC, *ibid.*, vol. 688D, pp. 195-203. This undated document is included amongst hospital correspondence for that month, specifically an order from Captain Frederick Hickey dated

- 15 December 1814 for an inventory of hospital supplies to be taken.
6. Edwards to Green, Kingston, 3 June 1805, *ibid.*, pp.41-2.
7. Mackenzie to Green, Kingston, 11 October 1805, LAC, *ibid.*, vol. 288, pp.66-8.
8. Citizens of Kingston to Craig, Kingston, 25 March 1809, LAC, RG 8 I, vol. 1334, pp.74-5.
9. R. Malcomson, *Lords of the Lake* (Toronto, 1998), p.26.
10. The hospital ship appears on a map of Kingston drawn by Captain Jacques Viger of the Canadian Voltigeurs prior to the attack on the American base at Sackett's Harbor in May 1813. See R.A. Preston, *Kingston Before the War of 1812* (Montreal, 1959), p.280a.
11. Yeo to Gifford, Kingston, 26 December 1814, *ibid.*, vol.688D, p.162; Gifford to Galloway, Kingston, 27 December 1814, *ibid.*, p.157.
12. *Kingston Gazette*, 8 June 1813, vol. III, no.26.
13. This theory was popularized by R.A. Preston, a professor of History at R.M.C. in his 1959 book *Kingston Before the War of 1812*. Preston's conclusion, however, is based on unspecified sources, and apparently ignored or discounted conflicting cartographic evidence indicated by maps reproduced in his book. In 2006 and 2007, Jonathan Moore and Bob Garcia of Parks Canada discovered cartographic and documentary evidence proving the 1813 hospital was a wooden building located northwest of the commandant's house. The present residence is in fact a former surgeon's house constructed sometime after the summer of 1816. See R.A. Preston, *Kingston before the War of 1812*, p.354.
14. O'Connor to Freer, Point Frederick, 3 September 1813, LAC, *ibid.*, vol.730, p. 122.
15. *Ibid.*
16. *Ibid.*
17. Based on analyses of the ship's muster books for HMS *St. Lawrence* (National Archives of the United Kingdom, ADM 37/5074), HMS *Princess Charlotte* (NAUK, ADM 37/5245), HMS *Star* (NAUK, ADM 37/5636), HMS *Niagara* (NAUK, ADM 37/3577), HMS *Montreal* (NAUK, ADM 37/5633), and the Gunboat Flotilla (NAUK, ADM 37/5002) kindly supplied to me by Tom Malcomson.
18. *Kingston Gazette*, 22 June 1814, vol. IV, no. 22.
19. Sick Tickets for the Kingston/Point Frederick Hospital Establishment, June - December 1814, LAC, *ibid.*, vol. 1846, pp. 1-307.
20. Keate to Holmes, London, 6 July 1803, LAC, RG 8 I, vol. 287, pp. 197-8.
21. "Return of the Hospital Medical Staff serving in Canada under His Excellency Lieutenant-General Sir George Prevost Commanding the Forces, Quebec, 17 July 1812, LAC, RG 8 I, vol. 1218, p.323.

22. L.H. Irving, *Officers of the British Forces in Canada during the War of 1812-15* (Welland, ON, 1908), pp.205-6.
23. O'Connor to Yeo, Kingston, 26 July 1813, *ibid.*, vol. 730, pp. 73-4.
24. B. Lavery, *Nelson's Navy: the Ships, Men and Organization, 1793-1815* (Annapolis, MD, 1989), p.212.
25. "Naval Establishment on Lake Ontario Upper Canada Commencing the 9 May 1813 and Including the 30 April 1814 Wages paid in Canada from Original Entries to All but Those who have Notations against their Names or Discharged with Tickets Provisions Supplied Agreeable to the Custom of the Army from the Different Commissioners, Post to the Date of Their Appearance in the Ships Expressed Opposite Their Respective Names," *ibid.*, ADM 37/5000, p. 107. These ledgers are colloquially known as the "provincial" muster books, wherein all Royal Navy personnel on the lakes were carried on a single list between May 1813 and April 1814. The ledger was subsequently closed, and each ship's establishment was carried on a separate muster book.
26. "Weekly State of the Naval Hospital 1 January 1814," *ibid.*, vol. 688E, p. 12.
27. "An Account of Salaries and Subsistence paid to the Undermentioned Persons at Kingston Upper Canada Between the 1st July and the 30th September 1814," *ibid.*, vol. 688D, p. 99.
28. L. Homfray Irving incorrectly refers to him as "Thomas." See L.H. Irving, *Officers of the British Forces in Canada during the War of 1812-15* (Welland, 1908), p.227.
29. D. Pope, *Life in Nelson's Navy* (Annapolis, MD, 1981), p.134.
30. "A Quarterly Account of Sick and Wounded Seaman and Royal Marines belonging to His Majesty's Ships and Vessels at this Hospital, together with the Charge of Clothes and Funerals, between the 25th of November 1814 and the 31st of December 1814, according to the Account thereof kept by [Mr. Arthur Gifford], Agent of the Hospital," NAUK, ADM 102 / 406. I am indebted to Tom Malcomson for copies of this document and those from ADM 102/406 cited subsequently.
31. T. Dunlop, "Recollections of the American War 1812 - 1814," in *Tiger Dunlop's Upper Canada* (Toronto, 1967), p.25.
32. *Ibid.*, p.34.
33. Yeo to Gifford, Kingston, 25 November 1814, LAC, *ibid.*, p.138.
34. Gifford to Lewis, Kingston, 26 November 1814, *ibid.*, p. 139, and Hickey to pursers of HMS *St. Lawrence*, *Prince Regent* & *Princess Charlotte*, Kingston, 15 December 1814, *ibid.*, p.160.
35. T. Malcomson, "Muster Table for the Royal Navy's Establishment on Lake Ontario during the War of 1812," *The Northern Mariner*, IX, No. 2 (April 1999), pp.41-67.
36. "An Account of Salaries and Subsistence paid to the Undermentioned Persons at Kingston Upper Canada, Between the 1st October and the 31st December 1814," Kingston, 31 December 1814, LAC, *ibid.*, p. 158.
37. Gifford to Yeo, Kingston, 26 December 1814, *ibid.*, p. 164.
38. Yeo to Lewis & Gifford, Kingston, 29 December 1814, *ibid.*, page number unmarked.
39. Lewis to Yeo, Kingston, 29 December 1814, *ibid.*, p.154.
40. "A Quarterly Account of Sick and Wounded Seaman and Royal Marines belonging to His Majesty's Ships and Vessels at this Hospital, together with the Charge of Clothes and Funerals, between the 1st of January 1815 and the 31st of March 1815, according to the Account thereof kept by [Mr. Arthur Gifford], Agent of the Hospital," NAUK, ADM 102/406.
41. N. Cantlie, *A History of the Army Medical Department* (London, 1974), vol.I, p.189.
42. G.A. Kempthorne, "The American War, 1812-1814," *Journal of the Royal Army Medical Corps* LXII (Winter, 1933), p.139.
43. Yeo to Lewis, Kingston, 14 April 1814, LAC, *ibid.*, pp.32-3.
44. *Regulations and Instructions Relating to His Majesty's Service at Sea*, 1808 (London, 1808), p.181.
45. Yeo to Lewis, Kingston, 9 May 1814. LAC, *ibid.*, p. 40.
46. *Regulations...to His Majesty's Service at Sea* (1808), p. 181.
47. Untitled survey of hospital stores, *ibid.*, pp.196-203.
48. See *Regulations...to His Majesty's Service at Sea* (1808), p. 270, and *Regulations to Regimental Surgeons &c.* (London, 1808), p.31.
49. *Regulations...to His Majesty's Service at Sea* (1808), p. 278.
50. *Regulations...to His Majesty's Service at Sea*, 1790 (London, 1801), pp.56-7.
51. Sick Tickets for the Kingston/Point Frederick Hospital Establishment, June - December 1814, LAC, *ibid.*
52. Untitled survey of hospital stores, *ibid.*, p.197.
53. Yeo to Gifford, Kingston, 26 December 1814, *ibid.*, p.163.
54. "Account and Receipt of the Contractor for Victualling the Hospital between the 25 November 1814 & 24 Dec. 1814," Kingston, 1 January 1815, *ibid.*, pp.141-4.
55. *Kingston Gazette*, 7 December 1816, vol. 6, no. 27.
56. Untitled survey of hospital stores, *ibid.*, pp.197-9, p.201.
57. *Regulations...to His Majesty's Service at Sea* (1808), p.271.
58. For an excellent article on British military bedding of the period, see R. Henderson, "Lights Out! Sleeping in Barracks during the War of 1812," *The War of 1812 Website* <www.warof1812.ca/bedding.htm>, accessed on 5 January 2008.
59. Untitled survey of hospital stores, *ibid.*, pp. 196-203.
60. P. Litt, R. Williamson & J. Whitehorne, *Death at Snake Hill: Secrets from a War of 1812 Cemetery* (Toronto, 1993), p.103.
61. Untitled survey of hospital stores, LAC, *ibid.*, p.203.
62. J. Douglas, *Medical Topography of Upper Canada* (Canton, MA, 1985), p.33.
63. Untitled survey of hospital stores, *ibid.*, pp.196, 201-3.
64. *Kingston Gazette*, 14 December 1814, vol. IV, no.12.
65. *Regulations...to His Majesty's Service at Sea* (1808), *ibid.*
66. *Ibid.*, p.270.
67. Untitled survey of hospital stores, LAC, *ibid.*, pp.196-203.
68. Receipt for washing of hospital bedding, Kingston, 20 March 1815, LAC, RG 8 I, vol. 688D, p.171.
69. C. Lloyd, *The British Seaman* (London, 1968), p.259.
70. 'Weekly State of the Naval Hospital 1st Jan'y 1814,' *ibid.*
71. Douglas, *Medical Topography*, p.25.
72. D. Pope, *Life in Nelson's Navy* (Annapolis, MD, 1981), p.134.
73. J. Fredriksen ed. *Surgeon of the Lakes: The Diary of Dr Usher Parsons, 1812-1814* (Erie, PA, 2000), p.22.
74. Malcomson, 'Muster Table,' p.59.
75. Lloyd, *The British Seaman*, p.263.
76. Ship's muster books for HMS *St. Lawrence*, HMS *Princess Charlotte*, HMS *Star*, HMS *Niagara*, HMS *Montreal*, and the Gunboat Flotilla, *ibid.*
77. 'A Quarterly Account...between the 25th of November 1814 and the 31st of December 1814,' *ibid.*
78. 'A Quarterly Account...between the 1st of January 1815 and the 31st of March 1815,' *ibid.*
79. Malcomson, 'Muster Table,' p.64.

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During the Second World War it was realized that many non-combat duties could be performed by women. The Government authorized the creation of the Women's Royal Canadian Naval Service (WRCNS, or more familiarly known as the WRENS), the Canadian Women's Army Corps (CWACs) and the Royal Canadian Air Force (Women's Division).
