

A light on medical practice in 19th-century Canada: the medical manuscripts of Dr. John Mackieson of Charlottetown

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Abstract

DURING HIS LONG CAREER AS A PHYSICIAN in Charlottetown, Dr. John Mackieson (1795–1885) compiled 4 medical manuscripts: 2 sets of case records, a synopsis of the medical conditions that were common in his day and a formulary. As primary sources, these documents provide information about medicine in 19th-century Canada and augment our knowledge of the problems of medical practice in that era. They illustrate aspects of the work of Dr. Mackieson, a generalist with interests in surgery and obstetrics, and they facilitate an understanding of the rationale underlying the treatments that he and his contemporaries used. Although 150 years old, the case records can be appreciated for their relevance to the art of medicine. Two excerpts from the case records, presented in this article, provide a sense of Dr. Mackieson's writings and introduce a discussion on the significance of these manuscripts in relation to the ideas on disease and treatment that governed medical practice, both in Prince Edward Island and elsewhere in Canada, in the 19th century.

Résumé

AU COURS DE SA LONGUE CARRIÈRE DE MÉDECIN à Charlottetown, le Dr John Mackieson (1795–1885) a produit quatre manuscrits médicaux : deux séries de dossiers de cas, un résumé des problèmes médicaux communs à l'époque et un formulaire. Comme sources originales, ces documents fournissent de l'information sur la médecine au XIX^e siècle au Canada et augmentent notre connaissance des problèmes que connaissait l'exercice de la profession à l'époque. Ils illustrent des aspects du travail du Dr Mackieson, généraliste qui s'intéressait à la chirurgie et à l'obstétrique, et aident à comprendre la justification des traitements utilisés par ses contemporains et lui-même. Même s'ils ont 150 ans, il est possible d'apprécier les dossiers de cas à cause de leur pertinence à l'art de la médecine. Deux extraits des dossiers de cas présentés dans cet article donnent une idée des écrits du Dr Mackieson et lancent une discussion sur l'importance de ces manuscrits par rapport aux concepts de la maladie et du traitement qui régissaient l'exercice de la médecine, tant à l'Île-du-Prince-Édouard qu'ailleurs au Canada, au XIX^e siècle.

On Nov. 5, 1821, John Mackieson, a young Scottish physician (Fig. 1), left Liverpool, England, where he had been practising, for Prince Edward Island, then part of British North America. Born near Stirling in Scotland on Oct. 16, 1795, he had trained in Glasgow, where, on Nov. 7, 1815, the Faculty of Physicians and Surgeons of the City of Glasgow pronounced him "a fit and capable person to exercise the Art of Surgery and Pharmacy."¹ Mackieson's career in Charlottetown lasted 64 years,^{2–7} until his death on Aug. 27, 1885, at nearly 90 years of age. He wrote a great deal, compiling case records, a synopsis of significant medical conditions and a formulary; he also kept a personal diary. His 4 medical manuscripts, described briefly here, are significant because they augment the few primary sources concerning medicine and medical practice in 19th-century Canada. Varying in their focus and purpose, they are of interest in illustrating several different aspects of practice.



Education

Éducation

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The medical manuscripts

Medical and surgical case records

The first of the manuscripts, entitled, in abbreviated form, *Sketches of Medical and Surgical Cases*, is a 628-page folio book of records of 258 patients whom Mackieson saw from 1826 to 1857.⁸ The decorative calligraphy of the title page and the statement that the text contains “Notes and Practical Remarks” (Fig. 2) suggest that he thought of publishing this manuscript, although the notes added to some of the case records also suggest that keeping abreast of advances in knowledge was important to him. The addition of the designation “surgeon” after his name indicates his desire to be regarded as such; he was also interested in obstetrics, another high-risk field of work. Mackieson was, in the full sense of the term, a general practitioner, and his versatility is quite evident in the *Sketches*.

Of the case records in the *Sketches*, about half are medical, a quarter surgical, another quarter obstetric or gynecological and a few psychiatric. In each case Mackieson made the diagnosis rapidly, sometimes describing key signs and symptoms but always emphasizing the treatment and the clinical course, as is evident in the following summaries of 2 of his cases.

Case 1: Sanguineous hemiplegia (Nov. 23, 1839)

A 34-year-old colonial secretary had been treated in England by “celebrated practitioners” with “very liberal” doses of mercury that “shook his constitution a good deal.” On the Island, a “faltering” of his speech, distortion of the mouth to the right, and paralysis and loss of feeling on the left side of the body indicated a stroke. Mackieson was called in, arriving at 2 am, 1 hour after the onset of the illness. He noted that the blood that had already been drawn

during venesection “appeared quite healthy — exhibited no buff” (i.e., there was no evidence of leukocytosis). The vascular system did not appear to be “under any unusual excitement,” but because the face was flushed Mackieson recommended cupping over the occiput and further venesection.

He recapitulated the treatment: bleeding from the arm; sinapisms (mustard plasters) on the left side and blisters between the shoulders; cupping over the occiput; calomel (mercury), jalap, croton oil and Epsom salts in an infusion of senna by mouth; hot baths to the feet and cold water to the head; and a diaphoretic mixture. Despite, or perhaps because of, this regimen, the patient’s condition did not improve quickly enough to satisfy a family friend, who advised the wife to find a different physician. So “another Practitioner (who had rendered himself inimical to the present attendants)” took over the care. The patient died 6 days later. Mackieson attributed death to an excess of sudorific powders, which caused the patient to be “Cholericized out of existence.”

Casting such a wide therapeutic net was characteristic of this era,⁹ and in this and other cases Mackieson was following standard therapy. In using mercury, for example, he was giving treatment similar to that given by the “celebrated” English physicians who had seen the patient earlier.

Case 2: Lingering labour (Sept. 16, 1837)

Labour in a 40-year-old woman began with abdominal pain and breaking of the waters. Mackieson arrived the following morning. The pains were “gripping and inefficient.” Mackieson wrote, “I tried for the first time the effects of the ergot of rye. I dropped about 15 grains in a nutmeg grater, put it into a teacupful of boiling water in a teapot to infuse for 15 minutes, and gave it in two doses at intervals of 10 minutes.” After more ergot

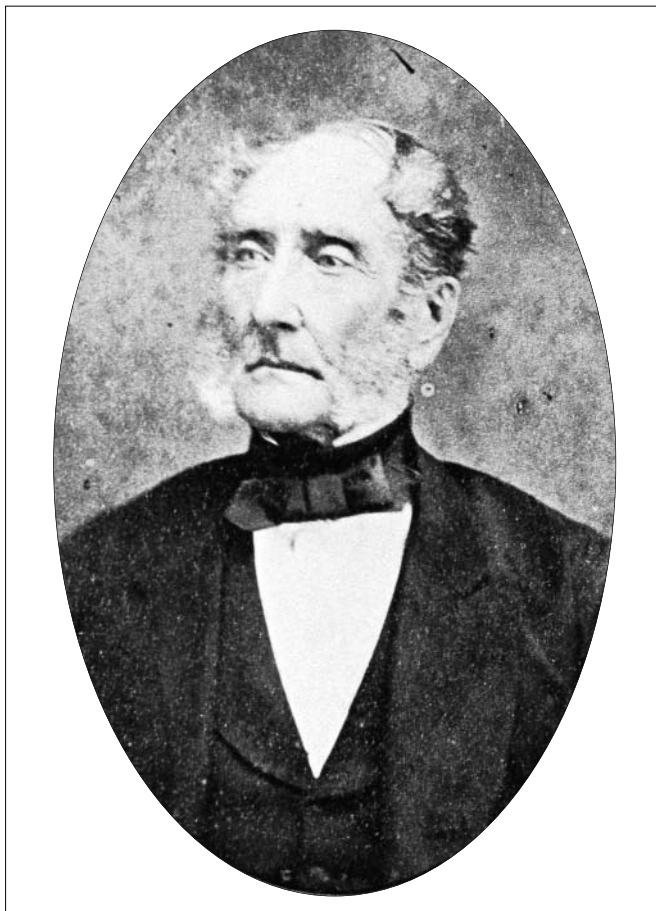


Fig. 1: Dr. John Mackieson (1795–1885). Portrait circa 1874. Courtesy of the Public Archives and Records Office, Prince Edward Island (accession no. 2398/8c).



the pains become more frequent, but spasmodic rather than general and effective. The os uteri dilated further, and, using the forceps, Mackieson delivered “a strong healthy girl.” He was pleased, because the mother’s previous labours in England had always been “severe,” it having been necessary once to destroy the fetus to permit its delivery. He added a note to the effect that “as there was no mechanical obstruction in the way, I considered myself perfectly justifiable in trying to accelerate and modify the labour period . . . and from the severe nature of the pains I thought it but proper to assist with the forceps.”

The work of obstetrics was demanding, time consuming and hazardous: antenatal care was nonexistent, there was then no hospital in Charlottetown, and the rate of maternal and infant death was always a concern. Mackieson sometimes had to travel for 2 or 3 hours to attend patients, and, working on his own, he had to rely on his judgement and skill in difficult situations. His readiness to try ergot emphasizes his willingness to use an agent that he had not used before.

Code of medical experience

The second manuscript, dated 1855, was an attempt to provide a *Conspectic View of the Treatment of the More Important Cases in Medicine, Surgery, and Obstetrics*.¹⁰ As it was addressed to “The General Practitioner,” Mackieson may have thought of publishing this manuscript also. Subtitled *Codex Experientiae Medendi*, it summarized in 85 pages the features and treatment of some of the common diseases and disorders of his day. The range of these conditions was broad, including, for example, erysipelas, inflammation of the joints, urinary stones, anorexia, hysteria and disorders of pregnancy. His compilation of the *Codex* at the age of 60 confirms Mackieson’s desire to keep himself informed and to pass on to others the knowledge he had gained in his long career.

Case records of mentally ill patients

*A Record of Cases of Insanity in the Lunatic Asylum near Charlottetown*¹¹ is the third manuscript. It is dated 1868 and comprises the records of 113 patients with mental illness whom he saw from then until 1874. (He had been appointed medical superintendent of the asylum in 1847, but no earlier case records have been found.) The *Record* gives a good idea of the crude regimens to which the mentally ill were subjected: shower baths, even soakings with cold water, together with the same tonics, stimulants, sedatives and purgatives that the organically ill received. Analytical psychotherapy was unknown, but Mackieson seems to have wished to go beyond the standard medical

regimens. His aim, as presented in the opening of the manuscript in what are probably his own words — for he both read and wrote poetry — was to

Minister to a mind diseased,
Pluck from the memory a rooted sorrow,
Raze out the within troubles of the brain
And, with some sweet oblivious antidote,
Cleanse the stuff’d bosom of that perilous stuff
Which weighs upon the heart.

A formulary

The fourth manuscript, dated 1876, is *A Formulary of Medical and Surgical Prescriptions*.¹² These were taken from “standard authorities” and from Mackieson’s own experience. Written when he was 83, the *Formulary* is the most ambitious and structured of the 4 manuscripts. In this carefully handwritten 488-page pharmacopoeia, he systematically listed “Recipes, Formulae, Compounds, and Pharmaceutical Preparations” by their pharmacologic action. Detailed and comprehensive, it catalogues the remedies that were used by Mackieson and his contemporaries. The *Formulary* was dedicated “To the Medical Students of

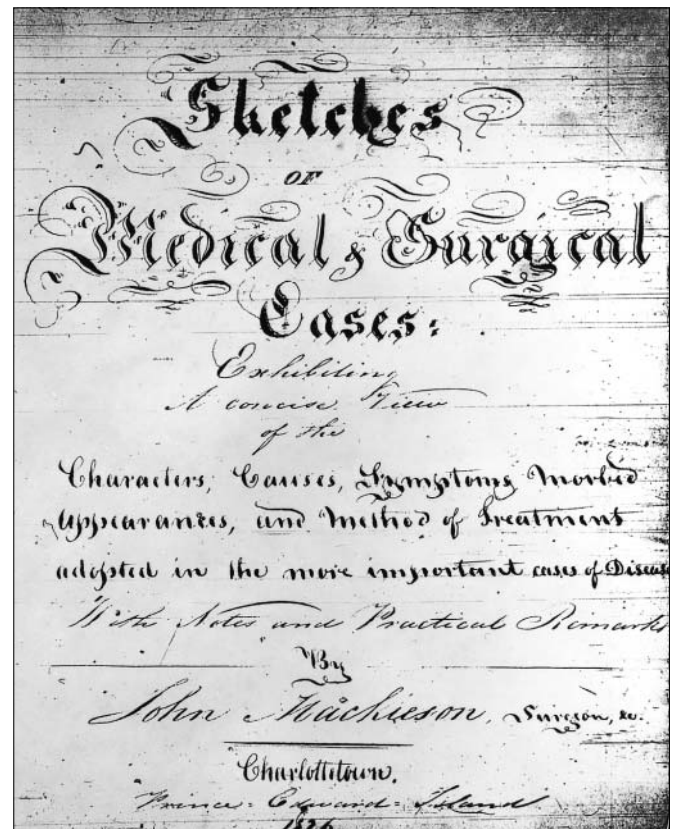


Fig 2: Title page of Dr. Mackieson’s *Sketches of Medical and Surgical Cases*. The year 1826 indicates the year of his first case record; the last case he wrote up was from 1857. Courtesy of the Medical Society of Prince Edward Island.



the University of Glasgow . . . by their Sincere Friend the Author." Had it been published or even just presented to his alma mater, it would have nicely rounded out the career that had begun 60 years earlier in Glasgow.

Commentary

Dr. John Mackieson's manuscripts are significant because they are among the very few original accounts of practice by 19th-century Canadian physicians. Others include documents studied by Watson,¹³ Roland,¹⁴ Spaulding¹⁵ and Duffin.¹⁶ Duffin's study is of enormous value because her comprehensive analysis of the practice of James Langstaff provides a benchmark against which Mackieson's records can be evaluated in determining whether the latter's practice was a representative Canadian one. Certainly the common causes of death and the most frequent therapies in Langstaff's practice in the 1850s,¹⁷ for example, are also apparent in Mackieson's case records. Similarities such as these indicate the value of Mackieson's manuscripts as a further source relating to medicine and medical practice in Canada in the middle decades of the 19th century.

What, then, do the Mackieson manuscripts tell us about medical practice in Canada? Although the *Sketches* confirm much of what we know about medical conditions and the high rates of disease and death in this era — indeed every page of the case records does this — Mackieson's firsthand descriptions add a personal dimension that is lacking in secondary sources. His case records illustrate the simple means of diagnosis that were available to him, the only diagnostic equipment being the recently introduced stethoscope, and they bring home the disability and death that resulted from Mackieson's inability to effectively treat his patients' illnesses. The obstetric case records in particular paint a stark picture of the lack of prenatal care and the high maternal and infant death rates. Mackieson's eyewitness descriptions bring an immediacy to his case records, allowing us to look through a window, as it were, at a family that has lost its mother or at a mother grieving over her dead infant. The *Formulary* provides a wealth of information about the countless therapeutic prescriptions that were available to the practitioner, but it is the *Sketches* that remind us that many of these remedies were both noxious and impotent.

The *Sketches* tell us much about disease and medical practice in Mackieson's day, but they are also of interest in another respect. By providing an impetus to determine the rationale for the treatment he used, they enhance our understanding of his management of the cases and the treatment he prescribed. Why, for example, did he resort to venesection so frequently, and why did he prescribe toxic chemicals such as mercury, even though they

"shook" his patients' constitutions "a good deal"? To attribute such practices to empiricism or the absence of "science" is naive and erroneous, for the manuscripts show that Mackieson made every effort to keep abreast of the medical literature, much of which was, in fact, "scientific." Consider, for example, a textbook by Thomas Watson, whom Mackieson quoted more than once, in which the rationale for venesection and the administration of mercury is explained. For venesection the reasoning was as follows: in inflammatory disorders, of which there were so many in that era, blood was considered the fuel for the flame of inflammation, so that the removal of blood would dampen this fire;¹⁸ in noninflammatory disorders, such as stroke, bleeding was thought to diminish stress on the blood vessels and minimize the hazard of inflammation supervening on the mechanical injury.¹⁹ As for mercury, it was used to "equalize" the circulation and, by redistributing the blood, to remove it from the inflamed part.²⁰ Such concepts were the accepted science of the day, and Mackieson adhered to them in treating his patients. Understanding this, we have a greater appreciation of what Mackieson and his contemporaries endeavoured to do with such therapies. Regarded by Warner as the 2 remedies "most emblematic of regular therapeutics,"²¹ they were, after all, even though injurious, among the few 19th-century remedies that seemed to be effective.

Finally, these manuscripts tell us a good deal about Mackieson as a physician. He comes across as conscientious, diligent and caring, a doctor who gave his patients his whole attention. Reflecting on his experiences and reading the current literature were important to him, because he thereby deepened his knowledge of the natural history of disease and of current and accepted remedies. Mackieson was not only interested in keeping up with the medical science of his day, however; he was also concerned with the art of medicine. It is characteristic of him that, in the *Codex*, as well as quoting Watson, he should refer to the Hippocratic teaching that in medicine knowledge must be derived from accurate observation of facts.

Mackieson was a physician with whom we, a century and a half later, can readily identify. His concerns as a physician are still important: to bring to the care of patients the accurate observation of facts and the sound use of up-to-date knowledge, skills and technology. The manuscripts that Dr. John Mackieson left behind remind us that, although the science of medicine has changed greatly, its art has changed little.

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