

## Book Reviews

The book begins by charting the rise of the Dutch life insurance industry and the early debates about the necessity of medical selection. Horstman shows convincingly how an advisory role distinct from family practice emerged, due both to the industry's desire for objective risk assessment, and to the NMG's concern that medical assessment by family practitioners breached patient confidentiality. The central sections deal with the broader implications of insurance work for medical practice. In her account of medical examination she shows that company worries about the reliability of doctors' assessments led to an increasing standardization of the examination code and recourse to "objective" procedures such as urine analysis. Here she echoes the argument of Marguerite Dupree, whose study of Scottish life examinations pointed to a transition from diagnosis founded upon the patient's narrative to dependence on scientific measurement. The destructive effect of life work on the traditional relationship between doctor and patient was also evident in the demise of professional secrecy, when the NMG resolved, in 1910, that practitioners could inform companies of cause of death. Doctors' expectations that this co-operation would have public benefits, in the form of mortality statistics or industry sponsorship of periodical medical examinations, went unfulfilled. Indeed Horstman's closing sections indict the companies for abandoning the ethical principles they initially espoused, and for fostering a culture in which health risk was understood as an individual rather than a collective responsibility.

There are two areas in which fuller contextualization would be helpful. First, despite the importance to the analysis of the life companies' strategic decisions, little is said about their business history. Matters such as their membership statistics, their range of policies and their fluctuating profitability are consigned to footnotes (p. 63), while the mortality and morbidity regimes in which they operated are dealt with only cursorily (p. 31). Second, it is surely difficult to consider the impact of life insurance in isolation from mutual health insurance. Scholars estimate that by 1920 some

23 per cent of the Dutch population had sickness cover, including, for many, medical assistance. It would therefore be interesting to know whether this played an equally significant part in transforming the public role of medicine in the Netherlands.

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**Kirk Jeffrey**, *Machines in our hearts: the cardiac pacemaker, the implantable defibrillator, and American health care*, Baltimore and London, Johns Hopkins University Press, 2001, pp. xiii, 370, illus., £33.00 (hardback 0-8018-6579-4)

Whilst the identification of progress in medicine with the introduction of one sophisticated piece of medical technology after another is self-evident for many and a source of concern for a few, there are not many historical studies that shed much light on the processes involved. Kirk Jeffrey's careful and detailed work, focusing on the emergence and deployment (largely in the USA) of two related technologies, the cardiac pacemaker and the implantable defibrillator, is one that does. The first prototype pacemakers emerged at a time, between the two world wars, when neither clinical practice nor knowledge of cardiac arrest could accommodate such a device. Nor were the material and electrical technologies on which such a device necessarily depended then up to the job. The pacemaker that, in the late 1950s, did begin to find a place in medical practice was a very different device from that we now know. It was initially conceived for emergency resuscitation of hospital patients suffering ventricular standstill. The notion of an *implantable* pacemaker came later, and this device was developed, more or less simultaneously, in many places. In each of them collaboration between cardiac surgeons, defining the requirements that would have to be met, and engineers, was central. Gradually, some of these designs succeeded in attracting

industrial interest and the pacemaker industry was born. Jeffrey's study illustrates very well the process by which scientific, clinical, and technical discussion regarding the relative merits of one or other design is gradually transformed into competition between commercial products vying for shares of the world market. When the Medicare programme came into operation, in 1966, the overall size of the pacemaker market grew rapidly, for most of it was in the USA. Manufacturers prospered. Further innovation, including the search for new applications of the device, was then shaped by the exigencies of the market. A reputation for technological sophistication was one competitive strategy, preferred by some commercial competitors. Others placed more weight on a reputation for reliability and the customer-support they provided. These are the central elements in the history of almost any modern medical technology. A strength of Jeffrey's book lies in its comparison of the pacemaker with the implantable defibrillator that came later. There were some similarities: the initial response of the clinical community was once more one of scepticism. What this second story illustrates is the effect of the new regulatory climate, and the concern with cost containment, that emerged in the 1970s, with "technology" identified as a major culprit. By 1980, demonstrating clinical safety and efficacy was no longer enough. Economists had arrived on the scene.

*Machines in our hearts* is more a study in the history of technology than in the history of medicine. It would be a pity if medical historians, or health policy analysts, were put off by the technicalities. It is precisely the book's attention to the motive forces of reputation-making and (still more) commercial competition in shaping these technologies, their uses and their growth, that helps us understand something of the fundamental quality of late-twentieth-century American medicine. The last chapter, 'The 1990s and beyond', looks to the future. Jeffrey anticipates the emergence of a cardiac implant to treat congestive heart failure (CHF): "the single most frequent cause of hospitalization in patients over age 65". If and when it comes, this will be

"an important source of future revenue growth for the manufacturers": probably not a matter of major interest for historians of medicine. But what of the demarcation of the role of the cardiologist, for this too may change? Getting to grips with where innovative health care technologies come from, how they are affected by (and affect) our expectations of medicine, and its organization, surely obliges us to look across the boundaries of our own scholarly disciplines too.

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Barbara Clow, *Negotiating disease: power and cancer care, 1900–1950*, Studies in the History of Medicine, Health and Society Series, Montreal and London, McGill-Queen's University Press, 2001, pp. xviii, 237, £18.95 (paperback 0-7735-2211-5).

Medical pluralism is a term that social historians of medicine have long associated with the eighteenth century, but only very rarely with the early twentieth. The dominating theme here has not been continuing pluralism but rather the rise of medical science and the tendency of modern states and their medical professions to establish medical monopolies. Barbara Clow uses the example of cancer care to analyse the construction of medical authority in Canada, and she suggests that medical culture in early-twentieth-century North America was far more pluralistic than often assumed.

The book centres around the careers of three popular providers of more or less heterodox cancer cures in the Canadian province of Ontario, whose influence extended far beyond the provincial borders. Hendry Connell was a physician who developed an enzyme extract that, he believed, dissolved cancer cells by proteolysis. John Hett, also a doctor, experimented with a combination of sera that he assumed would restore the endocrine balance of patients and trigger an immune response to the rogue cells. Finally, Rene Caisse, a trained nurse,