

On evidence, the role of journals, medical practice and the internet

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“Although the reader may be the ultimate judge, they cannot judge that which has not yet been published.”
(Ray, 2002)

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2020 A new year, a new decade. What have we learned in the past 10 years? What knowledge or protocols have been successfully translated from theory into daily practice? What themes and topics persist, unsolved or inadequately dealt with?

1998 marked the 175th anniversary of the foundation of *The Lancet*, and the inspiration for this article comes from the anniversary lecture of that year, held by J.P. Vandenbroucke. The lecture, entitled ‘Medical Journals and the Shaping of Medical Knowledge’, is pertinent because it draws attention to the wider discussion surrounding evidence, journals, and their combined role within medical practice.

One area under heavy scrutiny in recent months has been the ‘Evidence-Based Medicine’ dilemma, and the question of whether clinicians should prostrate themselves at the altar of evidence, or back their powers of clinical observation and knowledge whilst treating patients.

As per previous topics of this column, this has of course occurred before. In the early 19th century, when such ghastly practices as bloodletting continued to be used, a change was finally afoot. Amongst a coterie of physicians challenging the antique views of Galenic humourists, it was one Pierre Charles Alexandre Louis (1787–1872) who took large steps toward disproving inaccurate traditions, by means of his ‘numerical method’. Founder of the Médecine d’Observation in Paris, Louis took on established thought, notably disproving the prevailing notion that pneumonia could be adequately treated by bloodletting.

The *American Journal of Medical Sciences (AJMS)* rejoiced, claiming it marked “the start of a new era in science” (via Faguet, 2008). Others, however, were initially not so convinced. Fierce opposition met Louis’s work, with disgruntled physicians unwilling to abandon their perceptions, traditions, and individual preferences.

As time passed, the medical world warmed to his approach, and today Louis is considered a forebearer of epidemiology and statistics. However, modern

day appraisals of his work do raise important questions, with uncertainties arising as to the robustness of his methods. Patient comparison groups were revealed to be inappropriate given the subject matter and desired outcomes, and the arithmetic was flawed. Furthermore, according to Morabia’s (1996) analysis of the work, “early bloodletting seems to reduce the duration of a pneumonitis disease in patients who survive from this disease but may also increase the overall short-term mortality.” So, the evidence was flawed, but celebrated, and it heralded a positive change in treatment and outcomes. Should fingers be pointed?

Then as now, for all the discussion of evidence, it is somewhat surprising that little has been said of the critical role which medical journals play(ed) in such a matter. After all, it is the role of journals to keep clinicians abreast of trends, document research knowledge, and highlight new developments. Was the *AJMS* at fault for celebrating Louis and his numerical method, or were they justified in spreading his upheaval of treatment-by-tradition? Are journals today at fault for championing certain causes, or should clinicians disregard them, and instead trawl endlessly through zettabytes of data on the internet, and make their own minds up?

In his lecture, Vandenbroucke posed a vision of the future: “Imagine ... we abolish all edited journals by decree, and we invite anyone who thinks that he or she has a relevant fact or opinion to put it somewhere on the internet.”

In the 22 years since Vandenbroucke’s lecture, the world has changed irrevocably, and nowhere is this truer than as regards knowledge transfer. I would argue that whilst journals have indeed moved online, with their physical forms still extant if only out of tradition, what they represent is as important as ever. The exponential increase in accessibility of knowledge and evidence has arguably made the barrier to entry more stringent. Content is more visible, and feedback more immediate; anything published stands to receive a much wider and more immediate appraisal than would have previously been the case. This is surely good for progress.

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