

Editorial

Evidence-based medicine journal club

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Critical Care is introducing a new section to the website (www.ccforum.com) – the evidence-based medicine journal club. The aim of this section is to help individuals to evaluate critically the current literature and assess the likelihood of it changing clinical practice.

A journal club is a group of individuals who meet regularly to evaluate critically the clinical application of recent articles in the medical literature. As an entity, journal clubs have a long history in postgraduate medical education, which is well documented by Linzer [1]. The earliest reference to a journal club is found in a book of memoirs and letters by the late Sir James Paget [2], a British surgeon and one of the founders of modern pathology. He describes a group at St. Bartholomew's Hospital in London in the mid-1800s with 'a kind of club ... a small room over a baker's shop near the Hospital-gate where we could sit and read the journals.' It is believed that Sir William Osler established the first formal journal club at McGill University in Montreal in 1875, though Osler himself might have been aware of similar gatherings that were taking place elsewhere [3]. The purpose of Osler's early journal club was 'for the purchase and distribution of periodicals to which he could ill afford to subscribe'. Over the ensuing one and a half centuries, journal clubs have taken a variety of forms that have evolved to meet the needs of the participants. Three goals, however, have persisted over the years: to keep up with current literature, to impact clinical practice, and to teach critical reading skills [1].

Evidence-based medicine is '... the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients.' [4]. The term 'evidence-based medicine' was coined at McMaster Medical School in Canada in the 1980s [5]. Some important concepts regarding the implementation of evidence-based medicine were presented in a classic series – entitled *Users' Guides to the Medical Literature* – that appeared in the *Journal of the American Medical Association* from 1993 to 2000 [6]. When using the principles of evidence-based

medicine to evaluate an article critically, we seek to answer two questions [7]. First, are the results of the study valid? Second, are the results clinically useful? Many young trainees are frustrated with their early journal club experiences because too often the more senior faculty focus on the minutiae that make the answer to the first question 'maybe' or 'no', without giving a satisfactory answer to the second question.

The Department of Critical Care Medicine in the University of Pittsburgh School of Medicine was the first academic department of critical care medicine in the USA, and it has established an international reputation for excellence in clinical care, education, and research. With its Multidisciplinary Critical Care Training Program, the Department has trained more than 550 fellows in critical care, including many of the most distinguished clinicians and researchers in the field of critical care medicine worldwide.

Each month the Department convenes a multidisciplinary evidence-based journal club. With the guidance of a faculty mentor, fellows in the University of Pittsburgh Critical Care Training Program lead the discussion of an article, which is chosen based on the following criteria: the article must have been published within the past 2 years and not previously discussed in the journal club; the study must contain no major flaws of methodology; and the results of the study, if valid, must impact clinical practice in some way.

After the fellow's presentation, the article is open for debate. As is the case in many journal clubs, things sometimes get bogged down in minutiae. However, the overall tone is one of truly trying to understand the implications of the study. A point is made always to answer the second question, which has been rephrased to read as follows: 'Based on the results of this study, should we change clinical practice?' Afterward, the fellow and faculty mentor prepare a written record of the proceedings in the form of an expanded abstract with a three to four paragraph commentary. These proceedings,

previously available only to members of the Department, will now be available in *Critical Care* online. To say that things have changed considerably since Osler's time would be a gross understatement. It is unlikely that he could have imagined the dissemination of journal club proceedings over the internet. Even so, we are sure that he would approve.

Competing interests

The author(s) declare that they have no competing interests.

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