



Letter to the Editor

Emergency general surgery - is there any value in a '100 most cited' list?



Dear Editor,

I read with interest the recent paper by Ellul et al. [1], yet my excitement was unfortunately not sustained through the reading for several reasons. The authors claim that, through their bibliometric analysis, they have established 'the most influential publications in emergency abdominal surgery', which is a strong claim. They further conclude that "by providing the most influential references this work serves as a guide to what makes a citable emergency surgery paper". I think the study results based on the methods provided need a tempered modification in order to justify the claim. The authors seem to ignore the fact by which they have selected the given papers and, thus, the final production of the selected list is not clear. The reader is left somewhat in the dark to the search and selection process. What years were included in the search? What criteria were used for inclusion or exclusion? How did you define 'emergency abdominal surgery', as there seems to be a mix of trauma, emergency surgery, and surgery applied to diseases that (sometimes, but usually not) may present as emergencies. Also, even conditions that are the result of surgery (e.g. surgical complications) are included, but apparently only selective. Surgical complications may rightfully be included, but the variation and spread in topics blurs the picture of what makes a highly cited paper, compared to what topics and, specifically so, how these relate to 'Emergency Abdominal Surgery', if that is what the authors mean to portray. Indeed, the top 100 list contains several papers of dubious relevance to the topic, such as a paper dealing with post-operative pancreatic fistulae after pancreatic surgery in reference 100 (there are several more papers on this topic that are far more frequently cited); or anastomotic leaks after colorectal surgery. One wonders why several other papers in these related categories (some which are far more frequently cited) are not included in the bibliometric data? Could it be that the search methodology is too unspecific? For example, if general guidelines to trauma (such as the 8th edition to ATLS[®]) is cited, why are not transfusion guidelines and papers related to bleeding and hemorrhagic shock in the same period included - some which have far higher number of citations? Why is the guidelines on laparoscopic surgery by Sauerland included (your reference 36; 173 citations), but a similar paper by the same author on open and laparoscopic surgery for appendicitis [3] is not, despite having accrued twice the number of citations (> 340) over a shorter time period? How does a review paper on hernia repair (your reference 30) make the list, if several other papers do not?

Further, when trying to reproduce the search methodology, which is described as straight forward, I found less eligible papers using the [Emergency AND Abdom* AND Surg] search of Web of Science and was not helped by looking into their cited methodology reference [2], which includes no more guidance to how search, selection and evaluation was

done. There seems to be little analysis and a simple lifting of a rather unspecific search list that are extrapolated to represent 'emergency abdominal surgery'. I think the reader is left in the dark as to how the whole literature of 'emergency abdominal surgery' has been searched and evaluated, which reduces the value for the young surgeon or budding academic looking into the selection of such a 'top 100' list.

Lastly, science in general, and surgical research is no exception, has its fashions just as any other field. Every decade sees a trend in topics that attract researchers, produces publications and attracts attention – and, hence, leads to citations. So will "trends" from the 70s, 80s, 90s and into the 2000s have shifted, and areas of interest have changed. One may thus question the value and need for "all time" lists of citations, as many of these will be yesterday's news. While the North American term "acute care surgery" encompasses trauma, surgical critical care, and emergency general surgery, there is less agreement in Europe over the specialty or disciplines who deals with each of the three fields. "General surgery" is believed to cover most acute abdominal conditions requiring surgical evaluation. While both trauma and surgical intensive care may be well-defined domains, the scope of emergency general surgery practice is just starting to see some development in scope, definitions and practice [4,5]. It should thus be clear that search terms, inclusion and exclusion criteria and the ways of retrieving specific "core topics" in emergency abdominal surgery needs a far more sophisticated approach to arrive at results that give meaningful data for specific time periods to the readership and from which we can learn something. I would challenge the authors of the 'top 100' list to go into a better defined core set of criteria to present actual data that applies to emergency general surgery.

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