

Searches against major engines or provides those who open free accounts the ability to choose from a list of hundreds. Using the “SiteSnaps” feature, you can preview any page in the results and see where your terms appear in the document. Allows results or documents to be saved for future use.

With the maturation of the World Wide Web, these search engines have become powerful tools and are the primary method by which many Internet sites (including some of those in this summary!) are located, obviating the need for a note pad next to one’s computer to write down sites of particular interest or importance. It is important to note, however, that the commercialization of these search engines should interject a note of caution to the medical professional that the search results obtained may be ordered according to preferences by a commercial entity. This may be helpful in the case of buying a part for an automobile but a liability in locating objective medical information.

Great Lecture . . . What Do I Need To Know?

The Internet was originally developed by the United States Department of Defense as a military tool by academics interested in protecting information from destruction. Its development can be traced from the military through academic institutions to the commercial sector, along the way multiplying exponentially. What was “quirky” in 1989 is mainstream and viewed as essential in 2009. Multiple uses of the Internet, for commerce, for information or for disinformation, have been found and successfully applied.

Caveats to using the Internet

“Emails never die.” This is a statement made by a colleague that I have tried (somewhat successfully) to keep in mind while fuming over the latest communication from a colleague. Electronic mail is an excellent way to communicate (and disseminate) information; however, it is admissible in American courts of law and can be resurrected (to one’s advantage or disadvantage) at anytime in the future.

“Wherever you go, you leave breadcrumbs.” There are methods to detect where you have been on the Internet (Buying Ferraris on company time?) and therefore how you live your life. While this may be helpful in designing a world of commerce to your liking, remember that your employers may be less than pleased with your time management. Likewise your personal home computer can be a source of tracking based on the record of your movements through various Internet sites.

“There is safety in numbers.” Before one becomes paranoid of using a computer for searching, recall that the Internet is so ubiquitous, the online community so vast, that it is unlikely to notice a single user wandering through its various domains. For instance, the online game “World of Warcraft” (www.worldofwarcraft.com - I shudder to introduce you to this website!) advertises that 11.5 MILLION subscribers are active worldwide (with sales starting in China this year!). It is extremely unlikely that “they” will find you wending your way through the Internet with such vast online user communities active (not impossible, though!). So do not be paranoid, just be prudent.

Where to go?

One can start anywhere on the Internet. From a Personal Digital Assistant (PDA) to a computer, one can tailor the Internet experience to look up a drug interaction (www.fda.gov for the US Food and Drug Administration or www.pdr.net for the Physicians’ Drug Reference of the US), find the latest article referenced in a lecture or in the news (www.bbc.co.uk for the BBC or www.cnn.com for the Cable News Network), or check the latest sports results (www.sprtsillustrated.cnn.com for instance). Why do this? In the US, and soon I suspect throughout the globe, patients will have the access to medical information from the Internet at news and other layperson web sites and be asking about specific drugs and the drug’s suitability for treating their particular problem.

It is our job as medical professionals to decide what information is scientifically and medically sound in order to advise patients regarding appropriate treatments (or information) regarding their health. In this regard, the Internet has made physicians’ lives more interesting (and busier) as we struggle to keep up with the myriad of information and disinformation that is broadcast daily throughout the World Wide Web.

CAN THE PULMONARY ARTERY CATHETER BE REPLACED BY LESS INVASIVE CARDIAC OUTPUT MONITORS?

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Monitoring of cardiac output (CO) is used in the context of anesthesia and intensive care to: (i) detect, before clinical signs become obvious, that cardiovascular performance is altered ; (ii) find the causes of alteration ; (iii) change therapy ; (iv) improve outcome and resource utilization.

In the literature, CO monitoring has been approached in different but complimentary knowledge domains. These concern (i) technical issues (what is really measured and how is CO calculated ?; are the measurements continuous versus discontinuous ?); (ii) invasiveness, which according to the definition of this term can classify different CO monitors as invasive, minimally invasive or non invasive; it is worth mentioning that it is not because a monitor is considered as non invasive that it can be used under all clinical circumstances; for instance, transoesophageal doppler monitors are considered as non invasive but their use in awake, non intubated patients is nearly impossible; (iii) diagnostic performance as compared to a gold standard or reference technique; most of the literature on comparisons of CO monitors has been dedicated to diagnostic performance; (iv) changes in medical practice based on information provided by each type of CO monitors; (v) changes in outcome and resource utilization.

In this presentation, in order to answer the question formulated in the title, I will discuss two issues: (i) comparisons of diagnostic performance with focus on the statistical tools¹⁻³, used for comparisons and the clinical relevance of these comparisons; with the statistical tools and adequate clinical reasoning we should be able to assert the interchangeability of different CO monitors (ii) the impact of CO monitoring on patient outcome and resource utilization ; I will analyse critically the available literature and attempt to explain why the use of CO monitors has not results in measurable changes in patient outcome.^{4 5-8 9}.

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C-REACTIVE PROTEIN AND PROCALCITONIN: PROGNOSTIC AND THERAPY GUIDANCE TOOLS IN INTRA-ABDOMINAL SEPSIS

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Among the recent advances in the management of intra-abdominal sepsis are the use of two biomarkers of inflammation, C-reactive protein (CRP) and procalcitonin (PCT). Both biomarkers were investigated for their potential use for diagnosis, prognosis and therapy guidance¹⁻³. Any use of these two biomarkers must be based on a detailed understanding of their biology. The goals of the presentation are to review: (i) the biology of CRP and PCT; (ii) the diagnosis and prognosis performances of the two biomarkers in bacterial (including intra-abdominal) sepsis; (iii) the potential use of these biomarkers to guide therapy.

C-reactive protein (CRP), named for its capacity to precipitate the somatic C-polysaccharide of *Streptococcus pneumoniae*, was discovered in 1930 (see for a review⁴ and is a major component of the acute phase reaction (APR). In healthy young adults, the median concentration of CRP is 0.8 mg/l, the 90th centile is 3.0 mg/l, and the 99th centile is 10 mg/l⁵. Within 24 h after onset of inflammation, levels can increase as much as 1000-fold⁵. Measurements of plasma CRP concentrations are routinely used in clinical practice to diagnose acute inflammation, follow up its response to therapy, diagnose infection in immuno-compromised host when other clinical signs are not sensitive.

Procalcitonin (PCT) is a peptide barely detectable in healthy patients but its concentration can be increased several thousand fold in cases of inflammation secondary to bacterial and fungal infection but also to non-infectious causes⁶⁻⁹. As a biomarker of inflammation/ bacterial and fungal infection, as comparable to other biomarkers such as C-reactive protein (CRP)⁵, PCT is particular in that the significance in terms of outcome (beneficial, deleterious or neutral) of its increased concentrations is not