

Consensus TBL Summaries for Clinical Decision-making

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Abstract

TBL (the bottom line) summaries were developed to decrease the number of messages received when searching MEDLINE / PubMed via SMS. We propose a method of increasing the evidence base available to clinicians by retrieving multiple TBLs simultaneously. Providing relevant, consensus evidence from current literature may increase a clinician's confidence in making patient management decisions and evidence-based practice at the point of care.

Introduction

In many parts of the world, mobile phones vastly outnumber Internet connected computers. We wanted to take advantage of the pervasiveness of mobile phones as a health resource by developing a tool to search MEDLINE through SMS text messaging. TBL summaries were devised to decrease the number of messages of abstracts retrieved. An evaluation validated the TBL's accuracy as a summary of the published abstract. [1]

Many physicians, because of time constraints and lack of easy access to full-text articles, rely solely on journal abstracts to make clinical decisions. [2] We developed a method of presenting multiple TBLs to increase the evidence foundation by which healthcare providers make their clinical decisions.

Method

Using wireless handheld devices like smartphones or even desktop computers, a physician can search MEDLINE through a PICO (patient, intervention, comparison, outcome) formatted method [3] or by free-text, natural language query. From the retrieved results, a selection can be made of the abstracts of interest) or the top most current journal articles (Figure 1. The next screen (Figure 2) will display the TBLs of selected articles for quick reading.

• 6. Acute appendicitis: influence of early pain relief on the accuracy of clinical and US findings in the decision to operate—a randomized trial. Vermeulen B, Morabia A, Unger PF, Goehring C, Grangier C, Skjjarov I, Terrier F. Radiology, 1999 Mar; 210(3):639-43. PubMed ID: 10207461
[\[TBL\]](#) [\[Abstract\]](#) [\[Full Text\]](#) [\[Related\]](#)

OR TBLs

Figure 1. Abstracts can be selected individually or at random.

PMID 15258869: [\[Abstract\]](#) [\[TBL\]](#) [\[Full Text\]](#)
The objective of this study was to determine if judicious dosing of morphine sulfate can provide pain relief without changing important physical examination findings in patients with acute appendicitis. The median change in VAS was 20 mm after morphine and 0 mm after placebo (P =.01). In this pilot study, patients with clinical signs of **appendicitis** were treated with morphine and had significant improvement of their pain without changes in their physical examination.
PMID 15809382: [\[Abstract\]](#) [\[TBL\]](#) [\[Full Text\]](#)
Early administration of buccal oxycodone provides a significant pain relief to children with acute abdominal pain, without adversely altering the clinical signs or obscuring the surgical diagnosis.
PMID 16199711: [\[Abstract\]](#) [\[TBL\]](#) [\[Full Text\]](#)
Our data show that morphine effectively reduces the intensity of pain among children with acute abdominal pain and morphine does not seem to impede the diagnosis of appendicitis.
PMID 18723709: [\[Abstract\]](#) [\[TBL\]](#) [\[Full Text\]](#)
Morphine can reduce pain in patients with acute **appendicitis** without affecting diagnostic accuracy. Trial registration number:

Figure 2. Multiple TBLs are displayed for review.

Result and Discussion

With a few clicks, the clinician is presented with multiple TBLs that will increase the evidence base to support, guide, or negate a management or diagnostic plan. Having a consensus of articles might increase a healthcare providers confidence to make a clinical decision. [4] Access to the full abstract and full-text version of the articles is always available.

The example above provides a consensus on pain relief in patients suspected of acute appendicitis. This will assure the physician that pain relief in patients with acute abdominal pain, especially children, will not mask the physical findings clinicians rely upon.

Conclusion

We developed a resource that can potentially increase evidence base available to healthcare providers at the point of care and promote evidence-based practice.

References

1. Do Computer-generated Summaries, “The Bottom Line (TBL)” Accurately Reflect Published Journal Abstracts? Tom O, Fontelo P, Liu F. AMIA Annu Symp Proc; 2007;1135
2. Family physicians' use of medical abstracts to guide decision making: style or substance? Barry HC, et al. J Am Board Fam Pract. 2001 Nov-Dec;14(6):437-42
3. http://pubmedhh.nlm.nih.gov/nlmd/pico/nlp_pico_new.html
4. Can journal abstracts alone be used for clinical decision making? Fontelo P, et al. bmj.com, 11Jun2009.http://www.bmj.com/cgi/eletters/337/dec29_1/a3123#215071