### Newsletter of the International Society for Evidence-Based Health Care Newsletter 12, July 2013

#### Mission

The mission of the International Society for Evidence-Based Health Care is to develop and encourage research in evidence-based health care and to promote and provide professional and public education in the field.

### **Vision**

The society is inspired by a vision to be a world-wide platform for interaction and collaboration among practitioners, teachers, researchers and the public to promote EBHC. The intent is to provide support to frontline clinicians making day-to-day decisions, and to those who have to develop curricula and teach EBHC.

### Key objectives of the Society

- > To develop and promote professional and public education regarding EBHC
- > To develop, promote, and coordinate international programs through national/international collaboration
- > To develop educational materials for facilitating workshops to promote EBHC
- > To assist with and encourage EBHC-related programs when requested by an individual national/regional organization
- > To advise and guide on fundraising skills in order that national foundations and societies are enabled to finance a greater level and range of activities
- > To participate in, and promote programs for national, regional and international workshops regarding EBCP
- > To foster the development of an international communications system for individuals and organizations working in EBHC-related areas
- > To improve the evidence systems within which health care workers practice.





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### **Editorials**

#### **Editors Choice**

Both Evidence-Based Medicine and the International Society continue to evolve. Some of that evolution will be highlighted at the 2nd International Society for Evidence-Based Health Care conference in Taormina, Sicily this November. There is a great program of plenaries, abstract presentations, workshops, and small group sessions and over 150 participants already registered. More details are available at <a href="https://www.ebhc.org">www.ebhc.org</a> (and also see the end of this newsletter).

The good work of the GRADE working group continues (<a href="www.gradeworkinggroup.org">www.gradeworkinggroup.org</a>), with several new articles in their series being published in the Journal of Clinical Epidemiology. This issue of the newsletter includes a summary of a recent study examining whether the use of GRADE improved the agreement of assessors looking at quality of evidence from systematic reviews. The improvement suggests the effort of learning GRADE might be worthwhile. Those wanting to learn more might wish to sign up for the preconference workshop at the conference in Sicily.

I always find it valuable to see how someone else teaches important EBM concepts. Steve Woloshin has recently done a great short video of how to interpret "forest plots" using the Cochrane logo as his example - an amazing few minutes viewing, walking clearly through elements of the forest plot. It is on the Testing Treatments website (<a href="www.testingtreatments.org">www.testingtreatments.org</a>), where the TTi team keeps an eye out for helpful and interesting clips and articles about EBM issues. Finally, if you have not signed up to the AllTrials initiative - whose motto is "All trials published; all results reported" - please do so at their website now; and you might consider a donation to this volunteer team (see the letter from Ben Goldacre in this issue).

Paul Glasziou

### All trials registered; all results reported

Dear Friends

We launched the AllTrials campaign 6 months ago, and with your help it's taken us where we never expected. Major organisations around the world are now taking this problem more seriously than ever before, and we have the opportunity to take practical action that could raise the level of clinical trial transparency worldwide. We don't want history to record that we didn't do something because we couldn't afford it. We need your help to grab this opportunity.

All of you adding your voices has already had great impact. The problem of trial results being withheld has been well documented for three decades, with poorly implemented fixes along the way, but now there is clear policy movement. You helped MEPs put transparency at the heart of the clinical trials regulation in Brussels; brought worldwide pressure to a head with Dartmouth University taking the lead in the US; organisations in Australia, Europe, South America and Asia coming on board and you encouraged 350 medical bodies, regulators, patient groups, pharmaceutical companies, professional and learned societies to sign up and start joined up discussions on what they can all do – we will publish a detailed report on this in a few days time.

Everything we've done has been on a shoestring. If everyone who signed up to the campaign gave £10 now we could take the step up the campaign needs to take to respond to the opportunity we've found ourselves facing. Every little bit (and every big bit) helps. Donate at <a href="www.justgiving.com/alltrials">www.justgiving.com/alltrials</a> or email <a href="mailtrials@senseaboutscience.org">alltrials@senseaboutscience.org</a> to donate in other ways.

Best regards

Ben Goldacre & Síle Lane for AllTrials

### **Beware the Hyperactive Therapeutic Reflex**

### Paul Glasziou

Nearly 15 years ago when I first presented the results of our systematic review on antibiotics for acute otitis media[1], one paediatrician snarled "You're making it too complicated. It's simple: otitis media is an infection; the treatment of infection is antibiotics." So that was that. The art of therapeutics could be boiled down to a simple reflex: right diagnostic label -> right treatment. As a young GP researcher I felt slightly bruised by the comment, but am now thankful for the stimulus to consider why we need more nuanced approaches to treatment. Diagnosis is an important, though not always essential, first step. Individual treatment involves knowing more than the label though. Tolstoy noted that "No two unhappy families are unhappy in the same way", which is true not only for mental illness but nearly all illness. Typical cases are the rarity.

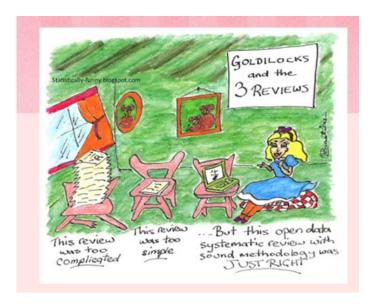
To help patients rather than fighting diseases means considering consequences not labels. Those consequences can be current or future symptoms, which will vary considerably based on the extent of the condition and the person with the condition. The "label=treatment" reflex commonly leads to over treatment: "otitis media = antibiotics": "depression = SSRI"; "diabetes = oral hypoglycaemic"; "asthma = inhaled corticosteroid"; etc. For each of those conditions, some patients will benefit from the "reflex" therapy, but that will not account for the enormous range of severity and future risk within any disease category. For someone labelled as "hypertensive" the impact of a antihypertensive drug might be a relative risk reduction of around 25% but the Number Needed to Treat (NNT) varies from treating 13 people for 5 years to prevent one CVD event, to treating 80 for 5 years[2], depending on age, blood pressure level, and other risk factors. That NNT of 80 means 79 of the folk treated for 5 years did not benefit from it. Further, the recent Cochrane review of 12 randomized trials (8,900 patients) of antihypertensive drug therapy for adults with mild hypertension (systolic blood pressure (BP) 140-159 mmHg and/or diastolic BP 90-99 mmHg) and without cardiovascular disease found no overall effect: an NNT of infinity.

So where should we draw the line? Many patients might be interested in where we do, suggesting we might involve them in such valueladen decisions. As Glyn Elwyn recently tweeted: Evidence-Based Medicine + Shared Decision = smart health decisions.

The "label=treatment" reflex has a further danger: when the definition of a disease is expanded - by changing the blood pressure, HbA1c or other threshold - the newly defined are at high risk of overtreatment. A new series in the BMJ is examining this problem for a range of conditions. For example, CT angiography has almost doubled the number of patients who appear to have pulmonary emboli but this has not changed the mortality from pulmonary embolism. So should we revolt against the tyranny of disease labels? Probably not - they do serve as a useful initial guide to thinking about management. But we need to be more sceptical about the arbitrariness of many disease definitions, and more cautious about our therapeutic reflexes. We must diligently remember to treat the patient not the label.

### References

- 1. Del Mar C, Glasziou P, Hayem M. Are antibiotics indicated as initial treatment for children with acute otitis media? A meta-analysis. BMJ. 1997 May 24;314(7093):1526-9.
- 2. www.health.govt.nz/publication/new-zealand-cardiovascular-risk-charts
- 3. Diao D, Wright JM, Cundiff DK, Gueyffier F. Pharmacotherapy for mild hypertension. Cochrane Database Syst Rev. 2012 Aug 15;8:CD006742. doi: 10.1002/14651858.CD006742.pub2.



Title: Goldilocks and the three reviews

Author: Hilda Bastian

Goldilocks is right: that review is FAR too complicated. The methods section alone is 652 pages long! Which wouldn't be too bad, if it weren't that it is a few years out of date. It took so long to do this review and go through rigorous enough quality review, it was already out of date the day it was released. Something that happens often enough to be rather disheartening.

.... continued at <a href="http://www.statistically-funny.blogspot.com.au/2013\_06\_01\_archive.html">http://www.statistically-funny.blogspot.com.au/2013\_06\_01\_archive.html</a>

Hilda also has a new Scientific American blog: Absolutely Maybe: Evidence and uncertainties about medicine and life

http://blogs.scientificamerican.com/absolutely-maybe/



### Notes from the 7th International Shared Decision Making Conference 16 – 19 June, Lima, Perú

Following on from some of the discussions at the last of these biennial meetings in Maastricht 2011, there has been a growing interest in strengthening the links between 'Evidence-based healthcare' researchers and those working in 'Shared Decision-Making' (also often referred to as 'Patient-Centred Care'). This makes great sense as many ISEHC members will know that EBHC integrates the best available evidence with clinical expertise and patient preferences. Shared decision-making researchers have been building a body of research which identifies effective strategies for the implementation of evidence into practice through greater involvement of patients in healthcare decisions, explicit communication of the options and their benefits and risks along with eliciting what is important to the individual patient. Those who attended the ISEHC conference in Delhi last year will also recall some discussions on this same topic.

The International Shared Decision-Making Conference (ISDM 2013) was held in Lima, Peru from 16-19 June with around 200 delegates and was chaired by ISEHC board member Victor Montori. This year there was a popular preconference workshop on GRADE and Gordon Guyatt highlighted in his keynote address the many complimentary aspects of EBHC and SDM. Other keynote speakers included Glyn Elwyn, Ron Epstein, Peter Ubel, Gary Schwitzer and Maggie Breslin. Papers and symposia covered a wide range of themes including measurement of SDM, tools for use in the clinical encounter, the relationship between clinical practice guidelines and SDM, new strategies in SDM for cancer screening and treatment, mental health, provider training, cultural aspects of SDM and SDM for low resource settings. There was strong support for a joint meeting of ISDM and ISEHC with the next ISDM conference to be hosted in Sydney in 2015. We hope that many ISEHC members will be actively involved! Future newsletters will let you know more about this exciting development in our field.

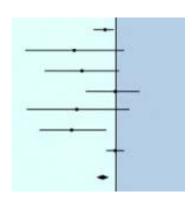
Information provided by Associate Professor Lyndal Trevena (Chair ISDM Sydney 2015)

### **Teaching & Practice Tips**

### What does the Cochrane logo tell us

A video and PowerPoint explanation.

http://www.testingtreatments.org/2013/02/02/what-does-the-cochrane-logo-tell-us/



This video and animated slide presentation prepared by Steven Woloshin shows how the Cochrane logo was developed, and what it tells us. The presentation explains relative risks, confidence intervals, forest plots, and

standard and cumulative meta-analyses. Read on to watch the video or download the slides.

Systematic reviews are the best way to understand the effects of treatments because they consider all the relevant, reliable evidence. This resource will be useful for teachers, lecturers or others who want to explain systematic reviews using clear and informative visuals.

You can watch the video (8 minutes 23 seconds) by clicking the link. The video is in M4V format.

You can also download the slides (926 KB, PPT format).

Information provided by Prof. P. Glasziou

### The Do-It-Yourself 1-day EBM Workshop

http://www.cebm.net/index.aspx?o=6370

The Centre for Evidence-Based Medicine (CEBM) in Oxford has a number of useful tools on their website, including a full set of materials for a 1-day EBM workshop.

## The following are the presentations and templates to run a One-Day course on Evidence-Based Practice

After the workshop, participants should be able to:

- 1. formulate an answerable question
- 2. track down the best evidence
- 3. do rapid critical appraisal of controlled trials
- 4. apply the evidence to individuals' care
- 5. evaluate the effectiveness and efficiency of your educational process.

### **Presentations**

Presentations should be cited as: name, title, Place the title of the overall website next and underline it, include the date of access. Also, place a link to the website (<a href="http://www.cebm.net/index.aspx?o=6370">http://www.cebm.net/index.aspx?o=6370</a>) at the end of the citation. Copy and paste the URL so that you ensure you have it down accurately.

Introduction (Carl Heneghan) [ PDF | PowerPoint ]

Randomised Controlled Trial (Carl Heneghan) [ PDF | PowerPoint ]

Finding the Best Evidence (Owen Coxall) [ PDF | PowerPoint ]

Worksheets

RCT Appraisal Worksheet [PDF]

Systematic Review Appraisal Worksheet [ PDF ]

Information provided by Prof. C. Heneghan (Director of CEBM & Fellow of Kellogg College, University of Oxford)

The following is an interview conducted between Paul Glasziou and Dr Richard Nicholl.

### Interview with Dr Richard Nicholl Neonatal Unit: Northwick Park Hospital

I am here today with Richard Nichol who is a fulltime neonatologist at Northwick Park Hospital in London.

**Paul:** Could you just describe the setting here first of all?

Richard: We are a neo natal unit in North West London we are described as a level 2 neo natal unit, we look after mostly babies above 27 weeks gestation we have just under 5000 deliveries a year I think we are fairly typical of many neo natal units that look after premature babies in the UK setting. I work with 3 consultant colleagues we have a tier of 7 middle grade doctors in training and 7 arrestees who are at the beginning of their pediatric careers.

**Paul:** Can you tell me how you got started in Evidence-Based Medicine?

Richard: When I started in 1995 the concept of EBM was pretty new in the UK and if I am honest it was a term I was not familiar with when I was appointed as a consultant and that was coming from some very immanent UK teaching hospitals. So at that time it was new and it was especially new to already established senior consultants and there was either a lot of passive resistance or skepticism about it and the whole philosophy but we have got around that now especially locally and it is now pretty well embedded in practice and even if people are not doing it they ask me to do it on their behalf. But when I started in those days as a senior registrar the expectation was you needed to research, you needed to publish, you needed to grow your CV to get the consultant interviews so when I was just starting as a consultant I was still writing the odd abstract and posters and things like that and I remember one of my then colleagues Mike Leadman who sadly is deceased but he was a great guy with some very strong views, I must have been describing going to a meeting to present a poster or something and he said that these meetings are a waste of time in the odd instance registrars presenting their little studies and I felt this was a heretical statement and I was quite shocked and then he was waving around this journal that I had never heard of or seen before called EBM and said this is what you need this will give you the answers to your questions and to be fair that debate has been repeated only recently in the pages of the BMJ there was a debate about international meetings should you go, should you not go - that debate is still very valid in modern arguments. I think there was a lot of sense in what he said but I still go to the occasional conference in spite of all that.

**Paul:** Can you tell us how you started in the journal clubs and what you do now?

Richard: Once I got interested in the 90s, like many people of went to learn some of the courses at Oxford, for example and at the Institute of Child Health, we started small and we started doing the journal clubs, like many Neo natal we have a work book where the guys on the ward rounds write down the jobs for the day, my style on the ward rounds is to run it very businesslike I don't spend a lot of time teaching on the ward rounds. I would prefer to write down the question on the ward round and then revisit in a seminar type setting. My memory as a trainee was of many ward rounds where the senior doctors were talking in abstract terms about cases they had seen that I had not seen and maybe that was called teaching but I don't think we actually learned a lot, that often if we were honest, people recording anecdotes, so if people are asking forgone questions, how does surfactant work, they can go and look that up in a text book, if they want to know why we are giving surfactant immediately rather than at 6 hours, as an example, then we can do that at the journal club and review the evidence. So from time to time we have kept a bank of questions because there is no doubt the same questions come up time and again and my view is if a question gets asked twice and certainly three times then that is a red flag you need to do a journal club on that subject and there are some parts of medicine that don't change very much, like anatomy say, so I can probably cite examples we have done that as a journal club maybe 10 years ago and it probably doesn't have to be revisited because it is very unlikely that the evidence would have changed. So the method we use has been described well, framing an answerable question, searching for the evidence

and appraising it in the journal club, the searching has changed over the years there are now so many ways and so many places that the search itself can be confusing and we all I guess have personal favorites. I am very keen on the Curbside MD site which uses natural language and searches across various sites, it's a meta search engine it searches across many sites and I think that's a quick nice tool. If I am advising trainees I usually start with that as well as Cochrane and Pub Med and the more established ones.

**Paul:** Can I ask do you do the searches yourself and your trainees do their own searches or does someone help with that?

Richard: I do the search myself, I encourage the trainees to do the search, and some are more keen than others, I think it is a very difficult for them to do an efficient search if they have never done it before, I think definitely people need training in how to search but I think part of the learning process could be to saying have a go at searching and then compare it with me because I will know where to look and how to look rather than just going to go to Google, not that there is anything wrong with Google its very useful, or simply going to Pub Med. That can be part of the learning process as well, I will say what did you search and how did you search and why do you think there are differences in what we have found.

**Paul:** Can I ask you about the record keeping of the journal clubs?

**Richard:** We have a shared drive, there is a folder entitled Evidence Based Medicine and a folder entitled Critically Appraised Topics. We have a template for the educational prescription which is from the book, which you are the editor of, so we use educational prescription and occasionally I have used the cat maker software but often I use it as a free text and then the hardcopy is put into people pigeon holes and then electronic bit is saved on the server and it is very useful as people will ask question that has come up before and I can refer to it, if its busy, there isn't time to look at this know but it is on the server if you look there is a CAT on the server on whatever the particular topic is. I think there are 60 CATS and if people want to push that a bit further they can get it published in the College Journal of Archives of Disease of

Childhood in the Archimedes section that Bob Phillips runs and some of these topics have been written up as Archimedes topics and this is very satisfying because it all very well having local CATS but I think you want something of sufficient quality that it can be cascaded out to other people to look at as well.

**Paul:** What things would you like to see changed to improve the Evidence-Based Medicine in your setting here?

**Richard:** A few things, putting up educational agenda, it's pleasing that EBM is now officially part of the postgraduate syllabus so the college expects and the membership exam for the college of pediatrics EBM is now in there. But on the ground it's not being taught as much as it could, it's still very patchy. The other thing I was thinking is often it is said that people have this throwaway line that many people think that 95% of papers are not evidence based. I think there is a potential to improve the peer review process and the referring process because I get sent paper 2 or 3 times a year, what I do is I put them through the journal club with the junior doctors who know little about EBM, they can pick up that the blinding is not explicit, they can pick up that the randomisation was not correct, there is an issue with the whole referring process and we have seen the recent high profile problems with papers that have been over interpreted, MMR is the most obvious one and I wonder if those types of papers had been through a more quality assured referring process that we would not have the outcome that we have seen.

**Paul:** I notice the hand washing thing, rather than have just 'wash your hands' you've got a much more interesting poster than most.

Richard: The theme is there has been an obsession in the NHS with guidelines and I have been persuaded, over the last year that we need to move from guidelines to care bundles it a pretty new term for me and is established in adult practice in preventing long line sepsis' and preventing sepsis' in adults. But we has an outbreak of infection in the unit a couple of years ago and rather than put up a lot of sign to tell people to wash their hands more we reviewed the evidence that you could impose a strategy that reduced

infection but not just short term, there is a paper from Geneva where the reduced MRSA for 5 years after the initial posters and lectures. So we did that in miniature and we have nice graph showing the ESVL bacteria disappearing after a few months, I can't say that's cause and effect, but whatever the outcome was it was a good one. It was putting up the poster, it was having video lecture of the guy washing his hands and having lots of meetings with the midwives and the neo natal nurses and the trainee doctors. So it seemed to work.

**Paul:** That's fantastic – thank you for your time today.



### 'Dispelling Drug Myths' with Humour & Podcasting

**Dr James McCormack** 

I imagine many of us who have been teaching the concepts of evidence for a long time get to a point where you wonder if possibly there could be a better/different way to get the concepts across without boring your audience to death. Or maybe that's just me who has those types of thoughts. Nonetheless, I have a passion for dissemination of evidence, a love of music, and a zeal for engaging audiences with the use of humour and if the audience can be both informed AND entertained it's a win for everybody.

I started out a number of years incorporating popular music into my presentations and this technique has always been well received. An example is a lecture Mike Allan and I did in New Zealand back in 2011.



http://vimeo.com/31518313

Over the last couple of years I've even used movie clips to get the messages out. I thought why not let Hitler describe the problems with using surrogates so I created a parody entitled the Surrogate Battle using a clip from a great World War 2 movie called Downfall.

http://youtu.be/XCv0CTNRa3I

I also decided to try incorporating evidence messages directly into popular music. I took a few popular songs, used the basic gist and lyrics of the songs, re-worked the lyrics to incorporate relevant evidence-based messages and added a video overtop.

By far the most the popular, with over 16,000 views on You Tube, is a parody of the mega-hit Somebody that I Used to Know by Gotye called Some Studies That I like to Quote. This song was designed to get clinicians thinking about the problem of strictly following cardiovascular guidelines/target shooting and NOT using evidence to help their patients make decisions.



http://youtu.be/lj8bPX8IINg

I've also done one entitled Drug Too, which is yet another parody/spoof of the Cee Lo Green song Forget You.



http://youtu.be/OlfOW8candA

I have 3 more that are just about finished. One on the principles of evidence using the Coldplay song Viva la Vida, one on Minimally Disruptive Medicine using the Eagles song Take it Easy and one that will explain the benefits of drugs for primary prevention in absolute numbers using the tune of 8675309 (Jenny) – so, stay tuned.

### Research & Reviews

# Reassurance after diagnostic testing with a low pretest probability of serious disease: systematic review and meta-analysis

### A Rolfe, C Burton

**IMPORTANCE:** Diagnostic tests are often ordered by physicians in patients with a low pretest probability of disease to rule out conditions and reassure the patient.

**OBJECTIVE:** To study the effect of diagnostic tests on worry about illness, anxiety, symptom persistence, and subsequent use of health care resources in patients with a low pretest probability of serious illness.

**EVIDENCE ACQUISITION:** Systematic review and meta-analysis. We searched MEDLINE, the Cochrane Central Register of Controlled Trials, EMBASE, PsychINFO, CINAHL, and ProQuest Dissertations electronic databases through December 31, 2011, for eligible randomized controlled trials. We independently identified studies for inclusion and extracted the data. Disagreements were resolved by discussion. We performed meta-analysis if heterogeneity was low or moderate (I2 < 50%).

**RESULTS:** Fourteen randomized controlled trials that included 3828 patients met the inclusion criteria and were analyzed with outcomes categorized as short term (≤3 months) or long term (>3 months). Three trials showed no overall effect of diagnostic tests on illness worry (odds ratio, 0.87 [95% CI, 0.55-1.39]), and 2 showed no effect on nonspecific anxiety (standardized mean difference, 0.06 [-0.16 to 0.28]). Ten trials showed no overall long-term effect on symptom persistence (odds ratio, 0.99 [95% CI, 0.85-1.15]). Eleven trials measured subsequent primary care visits. We observed a high level of heterogeneity among trials (I2 = 80%). Meta-analysis after exclusion of outliers suggested a small reduction in visits after investigation (odds ratio, 0.77 [95% CI, 0.62-0.96]).

### **CONCLUSIONS AND RELEVANCE:**

Diagnostic tests for symptoms with a low risk of serious illness do little to reassure patients, decrease their anxiety, or resolve their symptoms, although the tests may reduce further primary care

visits. Further research is needed to maximize reassurance from medically necessary tests and to develop safe strategies for managing patients without testing when an abnormal result is unlikely.

### COMMENTARY facilitated by Associate Professor Jane Smith

The impact of ordering investigations and getting normal test results on patients' well being and health seeking behaviour

### **Background to the Issues**

In primary care and secondary care tests are often ordered in patients without any clear diagnosis, or specific physical findings, as a triage tool "just in case" there may be something serious going wrong in a patient. There is a presumption that ruling out a diagnosis by getting normal results back is a good thing. But most patients with vague symptoms are unlikely to have a serious illness. It is known that clinicians commonly order diagnostic tests in patients, with vague symptoms such as tiredness, with one study showing the majority of "tired patients" had tests done but they were abnormal in only 3% of them.(1) This suggests that it is unlikely for testing in patients without specific diagnostic symptoms or signs, to show abnormal results, or a give a diagnosis. Then what about the normal results reassuring the patient and doctor alike that nothing serious is going on, and that the patient is healthy?

#### The Paper

Reassurance after diagnostic testing with a low pretest probability of serious disease
This is a systematic review and meta-analysis of 14 RCTs published about the impact of normal diagnostic test results on patients' illness worry, anxiety, ongoing symptoms, and health seeking behaviour. The time spans analysed were less than 3 months (short term emotional relief) and more than 3 months (long term cognitive relief). Inclusion criteria for participation were patients with a low risk of disease.(2) Investigations included endoscopy and/or H pylori testing (for dyspepsia), ECG, blood tests or continuous event monitoring (for chest pain or palpitations respectively), imaging (for back pain or headaches).

### Results

But the results suggest contrary to our clinical behaviour and beliefs, there is NO reassurance provided to patients by normal test results, in fact, some studies suggested an increase in anxiety resulted. Regarding "health seeking" after investigations; The only changes found were that if 16 patients with dyspepsia were endoscoped, or 26 patients with low back pain had X rays, there would be one less visit to the doctor, at a cost of \$4,000 to \$16,000, plus irradiation to save \$40-\$100, this is a false economy.

### Conclusion

Doing less achieves more.

### References

Gialamas A, Beilby JJ, Pratt NL, Henning R, Marley JE, Roddick JF. Investigating tiredness in Australian general practice. Do pathology tests help in diagnosis? Aust Fam Physician. 2003;32(8):663-6. Epub 2003/09/17.

Rolfe A, Burton C. Reassurance after diagnostic testing with a low pretest probability of serious disease: systematic review and meta-analysis. JAMA Intern Med. 2013 Mar 25;173(6):407-16. Epub 2013/02/27.

## The GRADE approach is reproducible in assessing the quality of evidence of quantitative evidence syntheses

RA Mustafa, N Santesso, J Brozek et al.

**OBJECTIVE:** We evaluated the inter-rater reliability (IRR) of assessing the quality of evidence (QoE) using the Grading of Recommendations, Assessment, Development, and Evaluation (GRADE) approach.

**STUDY DESIGN AND SETTING:** On completing two training exercises, participants worked independently as individual raters to assess the QoE of 16 outcomes. After recording their initial impression using a global rating, raters graded the QoE following the GRADE approach.

Subsequently, randomly paired raters submitted a consensus rating.

**RESULTS:** The IRR without using the GRADE approach for two individual raters was 0.31 (95% confidence interval [95% CI] = 0.21-0.42) among Health Research Methodology students (n = 10) and 0.27 (95% CI = 0.19-0.37) among the GRADE working group members (n = 15). The corresponding IRR of the GRADE approach in assessing the QoE was significantly higher, that is,

0.66~(95%~CI=0.56-0.75) and 0.72~(95%~CI=0.61-0.79), respectively. The IRR further increased for three (0.80~[95%~CI=0.73-0.86] and 0.74~[95%~CI=0.65-0.81]) or four raters (0.84~[95%~CI=0.78-0.89] and 0.79~[95%~CI=0.71-0.85]). The IRR did not improve when QoE was assessed through a consensus rating.

**CONCLUSION:** Our findings suggest that trained individuals using the GRADE approach improves reliability in comparison to intuitive judgments about the QoE and that two individual raters can reliably assess the QoE using the GRADE system.

J Clin Epidemiol. 2013 Jul;66(7):736-42; quiz 742.e1-5. doi: 10.1016/j.jclinepi.2013.02.004. Epub 2013 Apr 23.

### The GRADE JCE Series (continued)

The Journal of Clinical Epidemiology's series on GRADE is continuing with a number of new articles since the last newsletter. Below is a list of the articles so far this year.

Guyatt GH, Oxman AD, Schünemann HJ. GRADE guidelines-an introduction to the 10th-13th articles in the series. J Clin Epidemiol. 2013 Feb:66(2):121-3.

Brunetti M, Shemilt I, Pregno S,et al. GRADE guidelines: 10. Considering resource use and rating the quality of economic evidence. J Clin Epidemiol. 2013 Feb;66(2):140-50.

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## Systematic reviews supporting practice guideline recommendations lack protection against bias

JP Brito, A Tsapas, ML Griebeler, Z Wang, GJ Prutsky, JP Domecq, MH Murad, VM Montori

**OBJECTIVE:** To evaluate the quality of systematic reviews (SRs) affecting clinical practice in endocrinology.

STUDY DESIGN AND SETTING: We identified all SRs cited in The Endocrine Society's Clinical Practice Guidelines published between 2006 and January 2012. We evaluated the methodological and reporting quality of the SRs in duplicate using the Assessment of Multiple Systematic Reviews (AMSTAR) tool. We also noted if the guidelines recommendations that are clearly supported by SRs acknowledged their quality.

**RESULTS:** During the 5-year period of study, endocrine guidelines cited 69 SRs. These SRs had a mean AMSTAR score of 6.4 (standard deviation, 2.5) of a maximum score of 11, with scores improving over time. SRs of randomized trials had higher AMSTAR scores than those of observational studies. Low-quality SRs (methodological AMSTAR score 1 or 2 of 5, n = 24, 35%) were cited in 24 different recommendations and were the main evidentiary support for five recommendations, of which only one acknowledged the quality of SRs. **CONCLUSION:** Few recommendations in endocrinology are supported by SRs. The quality of SRs is suboptimal and is not acknowledged by guideline developers.

J Clin Epidemiol. 2013 Jun;66(6):633-8. doi: 10.1016/j.jclinepi.2013.01.008. Epub 2013 Mar 16.

## Citation bias favoring statistically significant studies was present in medical research

AS Jannot, T Agoritsas, A Gayet-Ageron, TV Perneger

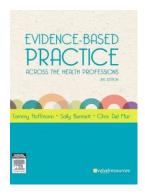
**OBJECTIVE:** Statistically significant studies may be cited more than negative studies on the same topic. We aimed to assess here whether such citation bias is present across the medical literature.

STUDY DESIGN AND SETTING: We conducted a cohort study of the association between statistical significance and citations. We selected all therapeutic intervention studies included in metaanalyses published between January and March 2010 in the Cochrane database, and retrieved citation counts of all individual studies using ISI Web of Knowledge. The association between the statistical significance of each study and the number of citations it received between 2008 and 2010 was assessed in mixed Poisson models. **RESULTS:** We identified 89 research questions addressed in 458 eligible articles. Significant studies were cited twice as often as nonsignificant studies (multiplicative effect of significance: 2.14, 95% confidence interval: 1.38-3.33). This association was partly because of the higher impact factor of journals where significant studies are published (adjusted multiplicative effect of significance: 1.14, 95% confidence interval: 0.87-1.51).

**CONCLUSION:** A citation bias favoring significant results occurs in medical research. As a consequence, treatments may seem more effective to the readers of medical literature than they really are.

J Clin Epidemiol. 2013 Mar;66(3):296-301.

### **Resources & Reviews**



Evidence-Based Practice Across the Health Professions. 2<sup>nd</sup> Ed (2013) Tammy Hoffmann, Sally Bennett, Chris Del Mar

With the growing importance of evidence-based practice in health and health education, how can students and practitioners learn how to become "evidence-based practitioners"? How can they find the right kind of evidence to answer their clinical questions, evaluate this evidence and then integrate these findings smoothly into everyday practice while taking into account the practice context and the patient's concerns?

The second edition of *Evidence-Based Practice* across the Health Professions provides readers with the expert knowledge and guidance to become evidence-based practitioners. It breaks down an often overwhelming concept in a manner suitable for both health professionals and students, offering a guide to assist in the search, interpretation and application of research findings across a truly broad range of healthcare professions. This revised and expanded edition now contains 17 chapters — with contributors from over a dozen health disciplines, many of them leading experts in their field — and is accompanied by online resources for both educators and students.

Beginning with a general overview of the concepts of evidence-based practice and research study design, the chapters that follow examine the practical use of evidence to answer clinical questions regarding the effectiveness of interventions, diagnostic accuracy, prognosis, and

patient experiences and concerns. Of particular interest to practicing health professionals may be the chapters concerned with the appraisal and understanding of systematic reviews, meta-analyses and clinical guidelines. The final few chapters provide guidance and tools for implementing research evidence into practice at both an individual and organisational level.

A particular advantage of this textbook is its practical approach to teaching evidence-based techniques. The key points discussed in the text are illustrated and reinforced by the accompanying chapters which are devoted to posing clinical questions and providing discipline-specific worked answers via guided literature searching and critical appraisal. With the addition of exercise physiology, pharmacy and paramedicine to the clinical questions posed in this second edition, there are now questions covering a dozen different health professions. Whatever the professional background, these chapters provide ample opportunity for the reader to practice critical appraisal skills while also demonstrating the transferability of evidence-based practice principles across a wide range of health disciplines and clinical queries.

In conclusion *Evidence-Based Practice across the Health Professions* provides readers with a firm grasp of the concepts and techniques of evidence-based practice, demonstrating how they can be applied across a broad range of health disciplines. Combining a clear and straightforward explanation of the topic with practical examples, the text provides a good starting point for those wishing to use evidence-based techniques in their daily practice, or a welcome refresher for those already versed in its use.

Information prepared by Bridget Abell (Research Fellow – CREBP)

### **Workshops & Conferences**



San Francisco 2013 August 18th - August 21th Online registration closes on 12 August.

Registration is also possible at the venue from 15:00 on 18 August.

Register here: http://www.gin2013.net/register.html



2nd Conference of International Society for EBHC 6th International Conference for EBHC Teachers and Developers

### Evidence, Governance, Performance





The countdown to the EBHC International Joint Conference 2013 has begun: the 6th edition of the International Conference of Evidence-based Health Care Teachers & Developers will be held jointly with the 2nd Conference of International Society for Evidence-based Health Care. Here are some of the workshops and theme groups for the afternoon sessions.

Full program at: http://www.ebhc.org/

### **SELECTED WORKSHOP**

- Integration of EBM Into Undergraduated Medical Curriculum Ferwana Mazen
- Beyond Critical Appraisal Engaging Clinicians in Using Best Pre-appraised Evidence Services Haynes Brian
- Integrating the teaching of shared decision making into the teaching of evidence-based practice why and how? Tammy Hoffmann, Chris Del Mar, Victor Montori
- Conducting Systematic Reviews and Meta-analysis (SR/MA) Prasad Kameshwar

### THEME GROUPS

- Massive Open Online Course (MOOC) for teaching EBHC skills: Burls Amanda
- Integrating the teaching of shared decision making into the teaching of evidence-based practice why, how and what else do we need to know? Tammy Hoffmann, Chris Del Mar, Victor Montori
- How do I timely update my knowledge via evidence resources: Kuo Ken N
- ➤ Learning of EBHC at undergraduate level what are the lessons learnt? Young Taryn

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### Preventing Overdiagnosis, International Conference, September 10-12, 2013

Dartmouth Institute for Health Policy & Clinical Practice, Hanover, New Hampshire, US, in partnership with BMJ, Consumer Reports and Bond University, www.preventingoverdiagnosis.net

Monday, September 9, 2013			Welcome Reception, Monday night 6pm Hanover Inn, Hanover, New Hampshire, USA						
Tuesday, September	r 10, 2	2013							
8:00 - 9:00am	9.0	Walk in lovely surrounds of Dartmouth							
9:00 - 10:00am	18	Registration							
10:00 – 11:15am		Opening plenary: Welcome ceremony (10.00-10.15)  What is Overdiagnosis and what's driving it?  Lisa Schwartz & Steven Woloshin, Darfmouth, co-authors Overdiagnosed;  Otis Brawley, author <i>How we do Harm</i> , American Cancer Society  Chair: Ray Moynihan, Bond University							
11:30 - 13:00pm What is Overdiagnosis & what's driving it? Concurrent sessions 1	OPEN	A defining verdiagnosis	1B Expanding disease definitions and medicalization	1C Risk as disease	1D What's driving overdiagnosis	1E Workshop Screening: assessing the harms			
13:00 - 13:30pm	R.			Lunch Break					
13:00 - 14:30pm	E	Destay asselsus with poster presentary							
14:30 – 16:00pm What do we know about Overdiagnosis? Concurrent sessions 2	O 2. S	A creening and verdiagnosis - deneral	2B Breast & prostate cancer Screening	2C Mental disorders	2D Workshop interactive How should we define disease?				
16:00 - 16:25pm		Tea and coffee break							
16:30 – 18:00pm What do we know about Overdiagnosis? Concurrent sessions 3	o' el	A overdiagnosis & vertreatment - Iderly, end of life are	3B Breast & prostate cancer screening	3C Examples of overdiagnosis	3D Examples of overdiagosis II	3E Workshop How should we define normal?			
19: 00 pm		Dinner							

8:00 - 9:00am		Walk in lovely surrounds of Dartmouth						
8:00 – 9:00 am Strategic planning meetings	Research	Education	Communication	Policy				
9:00 – 10:00am	Virginia Moyer, C	Plenary: what can we do about overdiagnosis?  Virginia Moyer, Chair, USPSTF; Barry Kramer, Dir. Division Cancer Prevention, NCI;  Jim Guest, President & CEO Consumer Reports;  Chair : Fiona Godlee, Editor-in-chief, The BMJ						
10:00 - 10:30 am	7	Tea and coffee break						
10:30 - 12:00pm What can we do about Overdiagnosis? Concurrent sessions 4	4A Communicating about overdiagnosis - the examples of breast & prostate cancer	4B Health systems re- sponding to overdiag- nosis	4C Preventing overtesting & overtreatment -initiatives	4D Workshop Promoting awareness of the harms of screening				
12:00 - 12:30pm	8	Lunch	break					
12:00 – 13:15 pm	0	Poster sessions with poster presenters						
13:15 - 14:45pm What can we do about Overdiagnosis? Concurrent sessions 5	5A Communicating about overdiagnosis with patients/citizens	5B Initiatives to prevent overdiagnosis	5C Policies & interventions to reduce overdiagnosis	5D Workshop Preventing Overdiagnosis in Emergency Department - PE as example				
14:45 – 15:00pm		Tea coffee break						
15:00 - 19:00pm Hike in the hills - walking meetings	Hike in	Hike in the beautiful Vermont Hills (with wet weather alternative)						
19:30 pm		Din	ner					

### Save the Date! Conferences in 2014

### **GIN 2014 Conference Announcement**



Under in 2014!

Dr Sue Phillips
President, GIN 2014 Conference
Important Dates:
Abstract Submission Opens
Registration Opens
Deadline for Abstract Submissions
Notification of Acceptance of Abstracts
End of Early Registration
Online Registration Closes
Conference

Therapeutic Guidelines Ltd is delighted to extend a warm invitation on behalf of the Board of Trustees of the Guidelines International Network (G-I-N) and the Scientific Committee to attend the GIN 2014 Conference that will be held in Melbourne, Australia on 20-23 August 2014

GIN is an international network that was established in 2002 to support collaboration between organisations and individuals that specialise in the development and implementation of guidelines for health professionals. The GIN 2014 conference theme is "Creation and Innovation: Guidelines in the Digital Age". We hope that you will take advantage of this opportunity to participate in the next GIN conference and look forward to welcoming you to Melbourne and the Land Down

Professor Paul Glasziou Chair, GIN 2014 Scientific Committee

11 November 2013 11 November 2013 Midnight\* 28 February 2014 11 April 2014 16 May 2014 15 August 2014 20-23 August 2014



The 3rd International Society for Evidence-based Health Care Conference will be held in the NTUH International Convention Center

Theme - Knowledge Translation and Decision Making for Better Health: Challenge of Globalization.

### November 6-9, 2014, Taipei, Taiwan

Hosted by the Taiwan Evidence-Based Medicine Association (TEBMA) in cooperation with Center for Evidence-Based Medicine, Taipei Medical University

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### **MAILING LIST**

We would like to keep our mailing list as up to date as possible. If you are planning to move, have moved, or know someone who once received the newsletter who has moved, please e-mail <a href="maddock@mcmaster.ca">maddock@mcmaster.ca</a> or write your new address here and send to Deborah Maddock, CE&B, HSC 2C12, McMaster University Health Sciences Centre, 1280 Main Street West, Hamilton, ON L8S 4K1, Canada. Thank you!

NAME:
ADDRESS:
CITY:
PROVINCE OR STATE:
POSTAL CODE:
COUNTRY:
TELEPHONE:
FAX:
E-MAIL:

### SIGN UP A COLLEAGUE!

If you would like to encourage a colleague to attend the workshop next year, please e-mail

maddock@mcmaster.ca or write the address here and send to Deborah Maddock, CE&B, HSC 2C12, McMaster University Health Sciences Centre, 1280 Main Street West, Hamilton, ON L8S 4K1, Canada. Thank you!

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