

International Society for Evidence-Based Health Care 24th Newsletter Edition, 2017

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 EBHC
- 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.



Evidence-Based Clinical Practice Office
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TABLE OF CONTENTS

RESEARCH and REVIEWS

Primary School kids In Uganda And Their Parents Can Be taught How to Spot Unreliable Claims About The Effects Of Treatments.....	3
Teaching Evidence Based Medicine to Undergraduate Medical Students: Approaches and Challenges	4
Patient and Physician Needs Assessment for the Development of Patient Decision Aids: A Mixed Methods Study.....	5
Speech and Language Research Priorities	6
Missing Data In Randomized Trials, And Use Of The E-Value To Address confounding.....	6
Shared Decision-Making In AMIL Primary Care.....	7

RESOURCES and REVIEWS

Social Systems Evidence Provides An Important Resource For Policymakers And Researchers.....	7
Health Technology Assessment: Fundamental Concepts.....	8
GRADE Adolpment In An Internal Medicine Ward.....	9
Evidence-Based Implementation Of Clinical Decision Support Systems In Electronic Medical Records: How Much Has The Field Advanced?.....	10

WORKSHOPS AND CONFERENCES

SOURCE Evidence-Based Surgery Program Update.....	12
McMaster University Evidence-Based Clinical Practice Workshops.....	13

PRIMARY SCHOOL KIDS IN UGANDA AND THEIR PARENTS CAN BE TAUGHT HOW TO SPOT UNRELIABLE CLAIMS ABOUT THE EFFECTS OF TREATMENTS

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In an era of widely disseminated ‘fake news’ and ‘alternative facts’, people need to know how to spot unreliable claims about the effects of treatments so that they can protect themselves and others from harm. However, patients and health professionals, and the public in general,

often lack the basic skills to judge the trustworthiness of treatment claims.

The [Informed Health Choices \(IHC\) Project](#) has identified Key Concepts that are relevant in making these judgements. After consulting primary school teachers in Uganda, the IHC working group judged that [24 of these Key Concepts](#) could be taught to primary school kids and their parents. We then designed learning resources to teach 12 of those concepts to 10 to 12-year olds and a podcast to teach nine of them to parents of those children. Randomised trials involving over 10,000 children and over 500 parents showed convincingly that young children and their parents can be taught to apply Key Concepts in judging the trustworthiness of treatment claims.

Concept	Control	Intervention	Adjusted difference* (95% CI)	Difference per 100	Odds ratio (95% CI)
PASSING[†]					
				← Favours control Favours intervention →	
Children <i>Primary school resources</i>	26.8%	69.0%	49.8% (43.8% to 54.6%)	49 more children per 100	9.3 (6.6 to 13.2)
Parents <i>Podcast</i>	37.7%	70.5%	34.0% (26.2% to 40.7%)	34 more parents per 100	3.9 (2.8 to 5.6)
Teachers <i>Primary school resources</i>	86.6%	97.6%	11.3% (4.0% to 13.0%)	11 more teachers per 100	7.2 (1.5 to 35.3)
MASTERY[‡]					
Children <i>Primary school resources</i>	0.9%	18.6%	18.0% (17.5% to 18.2%)	18 more children per 100	35.3 (20.6 to 60.7)
Parents <i>Podcast</i>	6.2%	31.6%	26.0% (15.2% to 39.1%)	26 more parents per 100	7.0 (4.0 to 12.1)
Teachers <i>Primary school resources</i>	14.9%	71.8%	56.7% (37.3% to 70.4%)	57 more teachers per 100	14.4 (6.2 to 33.1)

◆ Point estimate 95% confidence interval

* The odds ratios are adjusted for the stratification variables used in each of the trials and clustering in the primary school trial. The odds ratios have been converted to differences using the control group as the reference for the parents and the intervention schools as the reference for the children and teachers.

[†] A passing score for parents was ≥ 11 out of 18 correct answers for questions that addressed nine key concepts. A passing score for children and teachers was ≥ 13 out of 24 correct answers for questions that addressed 12 key concepts.

[‡] A mastery score for parents was ≥ 15 out of 18 correct answers for questions that addressed nine key concepts. A passing score for children and teachers was ≥ 20 out of 24 correct answers for questions that addressed 12 key concepts.

The list of IHC Key Concepts provides a framework for promoting critical thinking about treatment claims - and claims about the effects of other types of interventions - for teachers, researchers, and users of evidence-based practice.

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TEACHING EVIDENCE BASED MEDICINE TO UNDERGRADUATE MEDICAL STUDENTS: APPROACHES AND CHALLENGES

Fariba Aghajafari, Kerry McBrien, Eddy Lang

The Applied Evidence Based Medicine (AEBM) course runs longitudinally during the second year of our three-year undergraduate medical education program at the University of Calgary. The course is divided into two phases; the first provides content learning and the second an opportunity to apply learned concepts. While the majority of students endorse the importance of evidence-based medicine (EBM), our program, like others, has struggled with how to best to deliver this important content and integrate modules within a full and compressed curriculum. Here we provide a brief overview of our course and report on our experience in trying to overcome challenges.

The first phase of the AEBM course consists of a series of lectures with parallel small group learning (SGL) sessions on the following topics: diagnosis, prognosis, therapy, systematic reviews and guidelines. A final exam consisting of multiple-choice questions follows. The second phase consists of either two 30-hour elective blocks (clinical shadowing and/or independent study) or one 60-hour research elective block. An assigned clinically appraised topic (CAT)¹ must be completed and includes 6 components: a PICO (Population, Intervention, Comparison, Outcome) question, literature search, study appraisal, interpretation of the results, and application to a clinical scenario.

One of the major challenges is finding enough preceptors that have the knowledge and skills needed to facilitate the small groups. To overcome this challenge, we tested a Team Based Learning (TBL)² format in 2014 and 2015. Advanced preparation involved a lecture and sessions included a readiness assurance component and an application exercise² Individual readiness assurance tests and group readiness assurance tests consisted of a set of 5-10 multiple choice questions given twice, once individually, and again in groups of 3-5. A facilitated discussion was then held with the larger group (30-40 students) immediately afterwards. In the application exercise, we asked students to read a paper in advance of the session, and discuss the strengths and weaknesses of the paper, and interpretation and apply the results to a case. Over 5 years (two with TBL and three with SGL), both final exam marks and CAT scores were statistically higher in years with TBL; however,

these differences were not educationally meaningful. In addition, our survey results showed that students disliked TBL, as has been found at other centers³. Based on this feedback, we reintroduced the SGL format in 2016.

Another challenge we faced was with the CAT assignment itself, wherein the class demonstrated high variability in their ability to be both comprehensive and concise in their selection and appraisal of a clinical study. In an effort to provide students with a more structured template to follow in completing their CAT assignment, the course incorporated the GATE (Graphic Appraisal Tool for Epidemiological studies) system⁴ using the GATE workbooks in SGL and for CAT assignments. These workbooks provide a detailed template that walks the user through the steps of a CAT: asking a question, acquiring evidence, appraising evidence, and applying evidence. Preliminary feedback from students was that the workbooks were too rigid and prescriptive, and many students became frustrated when a chosen study did not appear to fit into the GATE template. In upcoming iterations of the course, we will endeavor to create a CAT template that provides both clear direction as well as flexibility.

We have provided two examples of how the AEBM course at the University of Calgary has attempted to overcome challenges in teaching EBM to undergraduate medical students. Our course continues to adapt to the needs of students and the curriculum by introducing and assessing new learning tools.

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PATIENT AND PHYSICIAN NEEDS ASSESSMENT FOR THE DEVELOPMENT OF PATIENT DECISION AIDS: A MIXED METHODS STUDY

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Introduction

Shared decision-making (SDM) is defined as the process of joint participation by a physician and a patient in healthcare decision-making, after having discussed treatment options and considering patient values and preferences and resources. Patient Decision Aids (PtDA) are tools designed to help patients make decisions in situations of uncertainty by providing information – often using graphics – regarding the benefits and harms of therapeutic options. There are different types of PtDAs such as videos, cards with written information, or electronic interactive presentations. The use of PtDAs has been shown to have a beneficial impact on patients. This was demonstrated in a systematic review published by the Cochrane Collaboration in 2014, where the effects of PtDAs on people who faced decisions about treatment were evaluated. The results showed a significant increase in knowledge and a greater proportion of people with adequate risk perceptions (RR 1.82, 95% CI 1.52-2.16) as well as less conflict at the time of making a decision related to feeling uninformed and uncertain about their own values. Exposure to PtDAs reduced more than 30% (RR 0.66: IC95% 0.53 - 0.81) the proportion of people who were passive in decision making¹.

The objective of this study was to identify through the strategy of needs assessment the perception and motivation of patients with regard to SDM and preferences when considering different PtDAs. Moreover, we sought to identify at least four health situations in which the use of PtDAs was considered particularly important.

Methods

Our needs assessment strategy was based on the Ottawa Decision Support Framework. We administered a structured questionnaire to explore patients' perceptions regarding health situations in which they had to make a decision and their views regarding different formats of PtDAs. We also

assessed the perceptions of practitioners with regard to SDM and PtDAs using focus group and in-depth interviews.

Results

Data from 62 patients were analyzed. Most (90.2%) patients considered benefits and harms when deciding between competing health interventions; only 18% considered the costs. Most (83.7%) reported that physicians were involved in making their healthcare decisions, and 59% that their relatives were involved. About half (54%) felt they had sufficient information about the advantages and disadvantages of options they were provided with, and 42% of participants felt informed about how often the benefits and harms could occur.

Most patients (80%) reported that they would prefer to receive advice from a health professional, 42% through informational materials and 16% by group discussion with people in the same situation. With respect to the format of information materials, 56% endorsed videos, 44% pamphlets, and 42% information through the Internet. With regard to practitioners' perceptions, the main themes were: 1) advantages of having a support system for SDM, 2) most important health situations where it would be useful to have PtDAs, and 3) Barriers and Facilitators to implementing SDM in the clinic. Specific to the last item, lack of time was identified as an important obstacle to adequately discussing treatment options with patients.

Conclusion

Patients in our study do not place a high priority on costs when making healthcare decisions, and are often influenced by their physician and their relatives. Many patients did not feel adequately informed about the benefits and harms of competing interventions, and PtDAs may play an important role in addressing this deficit. Making PtDAs available in multiple formats may increase their utility for patients.

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SPEECH AND LANGUAGE RESEARCH PRIORITIES

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In the UK, the Royal College of Speech and Language Therapists (RCSLT) and National Institute of Health Research (NIHR) have been collaborating to establish research priorities. A survey of speech and language therapists identified five clinical areas as candidates:

1. dysphagia (swallowing disorders)
2. learning disabilities
3. developmental language disorders
4. aphasia (acquired language disorder)
5. autism

Deciding to tackle dysphagia first, we identified current research in the area, concentrating our efforts on systematic reviews and clinical practice guidelines. We identified areas of uncertainty and used these as topics to guide discussion in a workshop where research questions were generated. This workshop had a multi-disciplinary focus with a number of stakeholders attending, including people with dysphagia, carers, service user organisations and charities, speech and language therapists, other professionals and researchers. Workshop participants proposed 77 questions they felt were particularly important to the profession.

These questions were reworded for clarity and then entered into a survey for prioritisation, which was circulated to a wide range of stakeholders. Analysis is underway to identify a 'top 10' list that we can then promote to key partners and funding bodies with the view of research that matters being carried out to help inform speech and language therapy practice and policy.

We are now working on the process for identifying research questions and priorities regarding the areas of learning disabilities and developmental language disorders. We are keen to hear about and learn from other processes to prioritize research that may be occurring across other health care professions. (lauren.longhurst@rslt.org).

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MISSING DATA IN RANDOMIZED TRIALS, AND USE OF THE E-VALUE TO ADDRESS CONFOUNDING

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Missing data in RCTs

Sensitivity analysis can be used to explore the impact of missing data, which can undermine the validity of a clinical trial. This may be the case even if the trial is well designed, well powered, randomized, blinding all participants, and data is analysed using an intention-to-treat approach. Sensitivity analysis attempts to replace missing observations by making assumptions.

Assumptions can be extreme, such as a worst case scenario in which all patients with missing data are assumed to have had a negative result, or a best case scenario assuming that everyone who was lost to follow-up did well. Neither of these approaches, however, is realistic. Multiple imputation is an approach that attempts to replace missing data with outcomes from patients who remained in the trial, by identifying those whose baseline characteristics are similar to patients who were lost. The strength of this approach depends on how strongly baseline characteristics are correlated with outcomes.

Another example of dealing with missing data is illustrated by the recent APEX trial, which examined the use of Betrixaban, a factor Xa inhibitor, in the prevention of deep venous thrombosis in high risk hospitalized medical patients.¹ One group of high risk hospitalized patients in the ICU received factor Xa inhibitor Betrixaban orally for 35-40 days extending well into the post discharge period where most hospital related clots occur. The comparator group received low molecular weight heparin for 10 days.

The FDA became concerned that 15% of the patients in the trial were excluded after randomization, and that the process for these exclusions may have resulted in patients in the experimental arm (Betrixaban) being at lower risk for bleeding than the control arm. As a result, the FDA required the study chairmen to re-analyse the trial results with post-randomization exclusions added back in.

Exploring the effect of confounding in observational trials

In observational trials one would like to determine whether the difference in outcome is due to the intervention or whether unbalanced covariates (both measurable and non-measurable) are biasing the

results. An article in this past August's *Annals of Internal Medicine* derived a formula to determine whether results from an observational trial could be explained by the intervention or by confounding by non-measurable covariates.² The derived formula described a new measure called the E-value, which is calculated by the formula:

$E = RR + \sqrt{RR \times (RR - 1)}$ where RR is the risk ratio between the treatment group and the comparator group. If the original RR is less than 1, rather than greater than 1, then one takes the inverse of the risk ratio, 1/RR, before applying the formula.

The higher the E-value the less likely it is that results are affected by confounding, and the more likely they are due to the intervention. An E-value of 1 means it would be very easy to explain the results by confounding. The E-value is the association on the RR scale that the unmeasured covariates would need to have with both the intervention and the outcome to explain away an effect, so an E-value of 3 would mean that an unmeasured factor associated with both the intervention and the outcome by RRs of 3-fold each could suffice, but weaker confounding could not. If the E-value withstands further testing, being able to calculate how much non-measurable covariates impact study results will be an important measure to report in order to optimize proper interpretation of observational studies.

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SHARED DECISION-MAKING IN AMIL PRIMARY CARE

Maria Elisa Cabanelas Pazos, Gustavo Gusso

Amil is Brazil's largest health care company, which provides medical and dental benefits, hospital and clinical services, and advanced care management, with approximately 4.6 million beneficiaries. In 2015, Amil started a Project for Primary Care with the launch of "Clubes Vida de Saúde", bringing family medicine concepts, multidisciplinary and coordinated care. Shared decision-making was introduced in order to incorporate patient's value and preferences for decisions in which competing

alternatives were available, which is essential for patient-centered care.

The initial roll-out showed limited uptake by physicians, and so on March 2017, Amil began offering financial incentive to increase compliance. For the criterion "adequate completion of medical records" each item (clinical reasoning and record of shared decision-making) corresponds to 2.5% of additional remuneration over the fixed value, for a total of 5%.

In order to qualify for remuneration, physician's clinical records must be explicit. Recorded statements such as "offered two analgesic options" are necessary to make explicit that patients were engaged in shared care decision-making.

Our preliminary results, after 2 months of this initiative, corroborate with the literature,¹ which shows that less than 9% of professionals record shared decision making, demonstrating there remains significant room for improvement.

July/17	Records evaluation items		final variable remuneration after new policy
	Clinical Reasoning obtained / maximum possible	Shared Decision obtained / maximum possible	Total obtained / Total maximum possible
São Paulo	2,28 / 2,5	0,28 / 2,5	18,66 / 25,0
Rio de Janeiro	2,09 / 2,5	0,12 / 2,5	17,21 / 25,0

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SOCIAL SYSTEMS EVIDENCE PROVIDES AN IMPORTANT RESOURCE FOR POLICYMAKERS AND RESEARCHERS

Stephen Lott

With a growing international focus on evidence-informed policymaking, and in response to the UN's Sustainable Development Goals, Forum+ has launched [Social Systems Evidence](#) to better support

policymakers, researchers and other stakeholders who want to access the best available research evidence in a timely manner.

“For all those looking for evidence to support policy decisions, we’re trying to help you do this better or more efficiently,” said John N. Lavis, Director of Forum+, which is an initiative of the McMaster Health Forum that extends its reach beyond the health sector.

Social Systems Evidence will soon be the world’s most comprehensive, continuously updated repository of research evidence about the programs, services and products available in 16 government sectors and program areas (i.e., community and social services, culture and gender, economic development and growth, education, and transportation), as well as the governance, financial and delivery arrangements within which these programs and services are provided, and the implementation strategies that can help to ensure that these programs and services get to those who need them. Social Systems Evidence will initially be available in English and French, but over time it will also be translated into Chinese, Portuguese, and Spanish.

The addition to the [McMaster Optimal Aging Portal](#) of Social Systems Evidence content regarding the social aspects of aging (such as civic engagement, consumer protection, and transportation) will complement the high-quality information already provided about health aspects of aging. The broader range of content will better support citizens in making informed decisions as they age.

“We are thankful to Michel Grignon, a key collaborator in the Faculty of Social Sciences, and to our funders [the Labarge Optimal Aging Initiative, the Faculty of Health Sciences, the McMaster Institute for Research on Aging, and the Provost’s Strategic Alignment Fund] who have made this possible,” said Lavis.

Visit [Social Systems Evidence](#)

HEALTH TECHNOLOGY ASSESSMENT: FUNDAMENTAL CONCEPTS

Nigar Sekercioglu

Health technology assessment (HTA) explores clinical effectiveness, cost-effectiveness and ethical and social issues related to new health care techniques and guides policy formulation. Assessment of clinical effectiveness is the first step

in a HTA process and is difficult when evidence is unavailable or scarce^{1,2}. Formal assessment procedures are performed using clinical and economic data from quantitative and qualitative studies using primary or secondary data sources³.

Economic evaluation starts with defining the policy objective, policy alternative and view point. Identification, measurement and valuation of cost and health outcomes are considered as three main stages of an economic evaluation¹⁻⁴. The process can be categorized according to valuation of consequences as, cost-minimization analysis (CMA), cost-utility analysis (CUA), cost benefit analysis (CBA) or cost-effectiveness analysis (CEA)⁴.

CMA is used to assess the cost when equally effective interventions are being compared⁴. CUA employs incremental cost utility ratios to measure one or more health outcomes². CBA considers monetary terms as the outcome and employs a benefit-cost ratio or net benefit approaches⁵. The basis of CBA is the comparison of an opportunity cost or shadow price between two options and ignores residual resources forgone as a result of the choice being made⁵. In reality, many projects are not indivisible and resource constraints are shared.

Valuation of one health outcome is measured as the incremental cost-effectiveness ratio (ICER) in CEA^{4,6}. The major limitation of the ICER is uncertainty of the threshold cost effectiveness ratio (critical ratio) referring to an opportunity cost which may or may not be determined or measured. The use of net health benefit, cost effectiveness acceptability curves, decision making planes and sensitivity analyses are employed to help address limitations of the ICER^{7,8}.

As many medical technologies have considerable economic burden to patients and health care systems, a formal, systematic and transparent assessment process is required to weigh pros and cons of the new alternatives over existing technologies. The main goal of an economic policy analysis is to establish and maintain effective resource allocation and equitable distribution of goods in the society. The HTA is essential for a well-functioning market through informing cost-effectiveness.

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GRADE ADOLOPMENT IN AN INTERNAL MEDICINE WARD

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Research consistently shows that there is an important gap between evidence and practice. One approach for bringing evidence to bedside decisions is the use of trustworthy and transparent clinical practice guidelines. Although the last decade has seen significant advances in guideline methodology (<http://www.gradeworkinggroup.org/>), important limitations still remain: (1) only a small number of guidelines have been tailored to clinicians' needs¹; (2) finding relevant guidelines can be laborious and time consuming; and (3) few guidelines are kept up to date². Furthermore, existing trustworthy guidelines are seldom used, either because clinicians are unaware of them or because they believe recommendations are not generalizable to their practice^{3,4}. Developing local guidelines could

address the latter issue by providing context-specific recommendations and involving local clinicians in the recommendation construction process. Below, we describe our approach to developing local clinical practice guidelines.

First, we surveyed all clinicians working in the internal medicine ward of the German hospital in Buenos Aires for relevant questions regarding frequent clinical situations in which they perceived controversy regarding the best course of action. Two methodologists trained in evidence-based decision-making (AI and MR) attempted to inform every unique question that was posed (one every two weeks) following the GRADE-ADOLOPMENT strategy⁵. They first searched for published trustworthy recommendations, developed with the GRADE approach to adopt or adapt. In cases where trustworthy guidelines were unavailable, they performed a rapid systematic review to develop *de-novo* recommendations. Using the acquired information they constructed Summary of Findings (SoF) tables and prepared Evidence to Decision (EtD) frameworks. If values and preferences literature was not available, we substituted our values and preferences for those of patients.

Once every two weeks all clinicians working in the internal medicine ward gathered to construct a recommendation in response to every question, using the SoF tables and EtD frameworks prepared by the methodologists, following the GRADE approach. We did not consider financial or intellectual conflicts of interest in our approach. Both weak and strong clinical practice recommendations were recorded and distributed as official service guidance, and included in an audit program in order to register compliance. In the future we plan to identify those recommendations in which compliance is poor (i.e. less than 90% for strong recommendations and less than 50% for weak recommendations), explore barriers and facilitators and design interventions, when appropriate, in order to improve compliance.

From April 2017 to August 2017, our process identified 31 clinical questions, and recommendations were formulated for ten of those questions; eight weak recommendations and 2 strong recommendations. In all cases, recommendations were developed *de-novo* as trustworthy recommendations to adopt or adapt were not available. All the questions were included in our hospital's audit program.

We successfully implemented a local guideline development program in our internal medicine ward. Having locally developed recommendations may

lead to improvement in the quality of care that the service can offer, strengthening the implementation of those interventions that have proved beneficial and amending those that have not.

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EVIDENCE-BASED IMPLEMENTATION OF CLINICAL DECISION SUPPORT SYSTEMS IN ELECTRONIC MEDICAL RECORDS: HOW MUCH HAS THE FIELD ADVANCED?

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The quality of healthcare in industrialized countries is suboptimal, and preventable medical errors are among the leading causes of death in the United States. Additionally, clinical care has failed to keep pace with advances in medical knowledge. Incorporation of new evidence into clinical practice is slow and inconsistent.

Electronic health records (EHRs) and electronic ordering systems may decrease preventable medical errors and facilitate the uptake of evidence-based guidelines into routine patient care. Clinical Decision Support Systems (CDSS) provide clinician,

staff or patients with relevant information (patient-specific or population-specific) at appropriate times, aimed at improving health and healthcare.¹ Computerised decision support tools improve process metrics (decreased medication errors, increased preventive care and adherence to guidelines), but the effects on patient outcomes are less clear. Furthermore, there are barriers to implementing CDSS, including lack of knowledge sharing, low physician engagement, alert fatigue, disruption of the workflow, failure to pilot-test systems, and inability to measure outcomes.

We reviewed the literature to help inform a framework for successfully evaluating and refining CDSS at our institution (The University of Iowa, IA, USA). We found that, despite differences in processes and local culture at each institution, some basic principles for CDSS can be broadly applied.

In the past decade, developers have moved to standardize and share methods and best-practices for successful CDSS adoption across health-care systems. A 2006 American Medical Informatics Association roadmap included a goal of CDSS adoption throughout the United States.² Since then, new legislation and financial incentives, including “meaningful use,” have advanced uptake. The GuideLines into DEcision Support (GLIDES) project translated paediatric asthma and obesity guidelines into computer-readable language. Nevertheless, vague and inconsistent language in clinical guidelines represents a barrier to CDSS developers. The Clinical Decision Support Consortium (CDSC) and the Center for the Education and Research on Therapeutics (CERT) have developed CDSS repositories to promote collaboration, evaluation and knowledge-sharing across institutions. This evidence has been consolidated into guides that focus on three important themes³:

- 1) Organizational structure and support: Successful CDSS require support across institutional levels, including administrative leadership and clinical champions, to establish goals that align with organizational priorities.
- 2) Use evidence-based CDSS: The design should incorporate the 5 rights concepts (the right information, to the right people, via the right channels, in the right format and at the right time). This can only be achieved by a comprehensive analysis of the workflow. Additionally, CDSS that promote action rather than inaction and those that request a justification for not following advice are more successful.

- 3) Deployment, evaluation and refinement of CDSS: Appropriate deployment with end-user training and pilot testing to identify problems early-on is important. In addition, periodic evaluations after CDSS deployment can ensure they remain up-to-date and relevant to practice.

Evidence-based CDSS are still in their infancy. Knowledge-sharing, central databases and standardization of language in clinical practice guidelines will help advance the field.

References

1. Lyman JA, Cohn WF, Bloomrosen M, Detmer DE. Clinical decision support: progress and opportunities. Journal of the American Medical Informatics Association : JAMIA 2010;17(5):487-92.
2. Osheroff JA, Teich JM, Middleton B, Steen EB, Wright A, Detmer DE. A roadmap for national action on clinical decision support. Journal of the American medical informatics association. 2007;14(2):141-5.
3. Osheroff JA. Improving outcomes with clinical decision support: an implementer's guide: Himss; 2012.

SOURCE Evidence-Based Surgery Program Update

Achilles Thoma, Jessica Murphy

The Surgical Outcomes Research Centre (SOURCE, McMaster University) Evidence-based Surgery (EBS) Working group continues to develop its “Users’ Guides to the Surgical Literature” article series, published in the Canadian Journal of Surgery (CJS). Each article is prefaced with a surgical scenario, and the series is intended to educate surgeons, surgical fellows and residents on how to find, appraise and incorporate evidence from the peer-reviewed literature into surgical practice.

To date there are 19 published Users’ Guides in the CJS, all structured similar to the JAMA medical series, but specifically written with surgeons in mind. The EBS articles use clinical scenarios and content that are relevant to surgeons and are therefore easier to understand, and more applicable to their practices.

Currently, the SOURCE committee has a number of manuscripts within the Users’ Guide article series which are in process and pending publication including:

- How to Assess an Article about Pilot Studies
- How to Assess an Article about Qualitative Studies
- How to Assess an Article about Non-Inferiority Trials

Our most recent publication was: A Users’ Guide to the Surgical Literature: How to Assess an Article Using Surrogate Outcomes¹

EBS Workshops for McMaster Surgery Faculty- Hamilton, ON, Canada

The SOURCE Committee will hold their annual interactive EBS Workshop on February 28th 2018. This workshop is free of charge, and offers attendees a lecture-style introduction, followed by small-group learning opportunities. These tutorial groups are led by surgeons and staff of McMaster University who are extensively trained in health research methodology. Past tutors have included: Dr. Achilles Thoma, Dr. Luis Braga, Dr. Michelle Ghert, Dr. Sheila Sprague and Dr. Forough Farrokhyar. This year’s topic will be Power and Sample Size Calculation. The 2017 workshop, which focused on harm in surgery, had over 25 surgeons, residents and research staff registered. The SOURCE committee received very positive reviews of the Workshop, with all attendees reporting they found the meeting incredibly informative and beneficial to their understanding of the research process.

Look for advertisements of the up-coming SOURCE workshop shortly. If you are interested in attending our 2018 Workshop please contact Jessica Murphy at murphj11@mcmaster.ca

1. Gallo L, Eskicioglu C, Braga LH, Farrokhyar F, Thoma A. Users’ guide to the surgical literature: how to assess an article using surrogate outcomes. *Can J Surg*;60(4): 280-287. 2017 August

McMaster EVIDENCE-BASED Clinical Practice Workshops



McMaster Evidence-Based
Clinical Practice Workshops

Come to McMaster, the birthplace of evidence-based health-care, to join in one of two closely related workshops.

The first caters to clinicians who wish to improve their clinical practice through enhanced skills in reading, interpreting, and applying the medical literature.

The second is designed for clinician educators interested in enhancing their skills for teaching the principles of evidence-based practice to others.

Both workshops are tailored to faculty and community internists, hospitalists, and senior and incoming chief residents.

To experience the BEST in EVIDENCE-BASED Health Care Education at McMaster University Monday, June 4th

— Friday, June 8th, 2018

WHAT IS EVIDENCE-BASED CLINICAL PRACTICE / EVIDENCE-BASED MEDICINE?

Evidence-based clinical practice (EBCP) is an approach to health-care practice that explicitly acknowledges the evidence that bears on each patient management decision, the strength of that evidence, the benefits and risk of alternative management strategies, and the role of patients' values and preferences in trading off those benefits and risks.

WHY ARE EVIDENCE AND VALUES OR PREFERENCES IMPORTANT?

Clinicians are confronted daily with questions about the interpretation of diagnostic tests, the harm associated with exposure to an agent, the prognosis of a disease in a specific patient, the effectiveness of a preventive or therapeutic intervention, and the relative costs and benefits associated with these decisions. Both clinicians and policy makers need to know whether the conclusions of a primary study or a systematic review are valid, and whether recommendations in clinical practice guidelines are sound.

Members of the Department of Health Research Methods Evidence and Impact at McMaster University, in collaboration with other colleagues

in both medicine and in clinical epidemiology, have developed a set of common sense strategies to assist in the critical appraisal of evidence. They have also developed approaches to explicitly considering values and preferences in clinical decision-making, thereby encouraging the practice of EBCP.

WORKSHOP OBJECTIVES

Both streams: To help participants advance their skills in critically appraising the literature, and their skills in acknowledging and incorporating values and preferences in clinical decision making.

Improve your practice stream: To acquire an understanding of common epidemiological concepts (e.g. interpreting hazard ratios, confidence intervals, critical appraisals of a systematic review) and advance their skills in using the literature for quality assurance, improving practice, and judging comparative effectiveness of health care interventions.

Teaching stream: To help participants learn how to teach EBCP using a variety of educational models in different settings, with different types of learners.

WORKSHOP FORMAT

The workshop is offered as a one-week intensive course.

Participants will be learning in interactive small groups led by clinical epidemiologists and

practitioners from McMaster and other institutions. The workshop will consist of small and large group sessions, individual study time and, for the teaching stream, opportunities for workshop participants to lead teaching sessions using their own ideas, materials, and reflecting their own experiences.

WORKSHOP MATERIALS

Prior to and at the workshop, participants will have access on-line to educational materials that include literature on critical appraisal and EBCP, the small group learning format, a set of clinical problems, JAMA evidence, and a variety of other EBCP aids.

WHY COME TO MCMASTER UNIVERSITY?

McMaster University is not only the birthplace of evidence-based medicine, and has produced the definitive evidence-based health care texts. We also continue to lead the world in innovation and advances in EBHC practice and teaching. McMaster's workshop, running for more than 25 years, has provided the model for EBHC workshops throughout the world. over this time, we have developed a cadre of the best EBHC educators in North America who return to the workshop year after year because of the intensely stimulating and educational environment. Come to experience the best in EBHC education!

TRAVEL, FACILITIES AND ACCOMMODATION

The workshop will be held at McMaster University. Upon confirmation of a definite placement in the workshop, you will receive a formal letter, access to the website and background and introductory materials will be provided with general information regarding specifics of the workshop, accommodation and travel.

TRAVEL AND ACCOMMODATION ARRANGEMENTS ARE THE RESPONSIBILITY OF THE REGISTRANT.

Modest accommodation is available on campus. Other accommodations are available in city hotels, 10-30 minutes away by foot, bus or car.

REGISTRATION FEES

\$200 DISCOUNT IF REGISTERED BEFORE Dec 31, 2017

REGISTRATION FEES	Canadian \$	
One member from an institution	\$2800	PLUS 13% Harmonized Sales Tax
Two members from an institution	\$2500 each	PLUS 13% Harmonized Sales Tax
Three or more members from an institution	\$2200 each	PLUS 13% Harmonized Sales Tax

PLUS 13% Harmonized Sales Tax (HST # R119-035-988). Tuition includes all workshop materials, photocopying services, access to computer literature searching and dinner on the first and last evenings.

REGISTRATION ON-LINE AT:

http://ebm.mcmaster.ca/registration_online.htm

Please reference your registration number on all correspondence.

NOTE: CREDIT CARD PAYMENT IS NOT ACCEPTED.

Please complete and return the application form with the registration fee, **(cheque Only)** payable to MCMASTER UNIVERSITY, and send it to:

PLEASE DIRECT ANY INQUIRIES TO:

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 EBCP Workshop Coordinator
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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 ayres@mcmaster.ca or write your new address here and send to Laurel Grainger, HEI, HSC 2C12, McMaster University Health Sciences Centre, 1280 Main Street West, Hamilton, ON L8S 4K1, Canada. Thank you!

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If you would like to encourage a colleague to attend the workshop next year, please e-mail graing@mcmaster.ca or write the address here and send to Laurel Grainger, HEI, HSC 2C12, McMaster University Health Sciences Centre, 1280 Main Street West, Hamilton, ON L8S 4K1, Canada. Thank you!

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