ARTICLE

CHANGE MANAGEMENT

4 Ways to Make Evidence-Based Practice the Norm in Health Care

by Margaret M. Luciano, Thomas A. Aloia and Joan F. Brett

This article is made available to you with compliments of Medtronic for your personal use. Further posting, copying, or distribution is not permitted.
Evidence-based practice is held as the gold standard in patient care, yet research suggests it takes hospitals and clinics about 17 years to adopt a practice or treatment after the first systematic evidence shows it helps patients.

Why such a long delay when patient health is on the line? Part of it is the challenge of adapting practices to fit the environment. Attempting to simply “plug in” a new practice to a different hospital
or clinic often conflicts with existing practices and meets resistance from care providers. But deviating from the evidence-base can weaken the effectiveness of the practice and lessen the benefits. Leaders have to balance two conflicting needs: to adhere to standards and to customize for the local context.

Based on our research on organizational change and our conversations with hundreds of healthcare providers, we’ve outlined four approaches to help health care leaders adapt evidence-based practices while staying close to the foundational evidence. These approaches are based on an organization’s 1) data; 2) resources; 3) goals; and 4) preferences. Each of these approaches has its own opportunities and challenges, and for any to succeed, it is necessary to understand the local context and the people in it. It is also important to consider any legal or professional guidelines that may restrict options. In practice the move to standardization and best practices reduces rather than creates risks, as they often replace idiosyncratic or outdated practices and preferences.

**Understand the data: How relevant is the evidence-base to our local context?**
Sometimes you need to adapt a practice because the data behind it doesn’t match your own context. What if the evidence-base is constructed from different patient populations, hospitals with different structures or cultures, or countries with different regulatory environments and payment structures? Some practices will be more generalizable than others (e.g., the evidence to support the importance of hand hygiene applies across most contexts), and understanding the data helps to objectively determine appropriate modifications (e.g., changing certain medication dosages based on patient age and BMI). When adapting evidence-based practices to the local context, it is important to consider what is similar, what is different, and why those might matter.

Leaders should also consider whether existing data is sufficient to support implementing a new practice (either in the original or modified form), or if additional data should be collected to verify the efficacy before a widespread roll-out. For example, enhanced recovery practices advocate for early patient ambulation after surgery. However, most of the initial research was conducted on young-adult patients, as opposed to elderly patients. Therefore, additional research was needed to understand whether the practice needed to be modified for a patient population that tends to be more frail and have a higher risk for falls. Notably, even after the adapted evidence-based practice is implemented, more data should be collected to enable ongoing reassessment and making adjustments if needed.

**Look at your resources: How can we make substitutes without compromising results?**
Sometimes organizations need to adapt based on resources. Are the specific resources used in the original implementation not feasible or desirable in one’s local context? Resources include infrastructure, supplies, space, and staff. For example, for many smaller hospitals, costs prohibit administering the same brand name drugs as major academic research hospitals. Accordingly, they may need to substitute and/or pair other medications to achieve equivalent effects.
Resource-related adaptations shift the reactions to evidence-based practices from “we don’t have the resources to do that” to “how can we apply these practices with the resources we do have?” Adaptations require understanding the purpose or goal of the new practice to determine the appropriate substitutes. For example, hospitals lacking sophisticated electronic health records may not be able to implement electronic patient smart order sets, but could still attain similar improvements in care coordination by using paper checklists. In making resource-based adaptations, collecting additional data on the customized resources can also help assure that substitutes achieve similar results to the initial evidence-based research.

**Define your goals: What are our goals and how can we meet them?**

The goal of implementing an evidenced-based practice should not be the implementation itself. Defining your goals in terms of a patient-centered outcome will help you generate appropriate modifications. For example, many hospitals have the goal of reducing inpatient length of stay. If the change leaders focus just on the inpatient length of stay itself, they may create a program that rushes the patient out of the hospital before they are ready. If instead the goal is to optimize recovery from illness or surgery, the focus shifts to the patient experience, and reduction in inpatient length of stay is simply the residue of a provider and patient-friendly program.

Sometimes there’s little data to guide local adaptations, but understanding the overarching goals of the new practices can help. Take for example how innovations in dynamic pain control developed for major in-patient procedures can be adapted for minor out-patient procedures. Still focusing on the goal of dynamic pain control, providers can prescribe different preoperative pain medication for minor outpatient procedures that manage pain without the drowsiness associated with the medications used for in-patient procedures.

**Identify your preferences: How can we make adoption more comfortable?**

Personal preferences of powerful individuals or coalitions of care providers too often becomes the motivating force behind whether or not to adopt evidence based practices. A health care system moving to a standardized set of tools and equipment found that physicians preferred specific tools (e.g. surgical staples or scalpels) because those were what they had been trained on. Physicians continued to request those tools despite evidence showing they cost three times more and had no effect on patient outcomes.

Preferences driven by subjective, idiosyncratic reasoning inhibit adopting new approaches that can attain better health outcomes, reduce expenses, and decrease errors. So health care leaders need to determine why providers have certain preferences. Some preferences focus on how the evidence-based practice is enacted, rather than what it is.

For example, care providers may be happy to use specific equipment for a procedure if it is easily accessible. To avoid surgical site infections when inserting a central venous catheter, providers should clean the skin with chlorhexidine antiseptic, use a sterile drape/dressing, and wear a sterile mask, hat, gown and gloves. Why not help care providers use all of these items by packaging them...
together in an easy to access location? Similarly, offering training on new tools or techniques can give care providers the opportunity to ask questions about them and get more comfortable using them.

When leaders make compliance with the new practices as easy as possible, they can encourage adoption without unnecessarily revising the core elements of the evidence-based practices.

**Adjusting your approach**

When weighing if and how to adapt evidence-based practices, within legal and professional guidelines, you need to consider both the technical and human elements involved.

In our experience, start with the original source data as it has the most fidelity to the desired outcomes and will enable objective decisions about customizations. Then, guide conversations about how a given practice should be adapted locally. If responses from the providers include resistance about available resources, consider substitutes that would address these concerns, yet still attain the results the evidence supports. Engaging users in how to best utilize existing resources to implement the new practices creates ownership of the process.

If staff react to the new best practice with asking “why are we doing this,” reaffirming the higher-order goals may help explain why adopting the evidence based practice is crucial. Alternatively, if resistance is rooted in language such as “I like” and “I want”, try to understand the underlying preferences and values. For preferences related to how the practice is enacted, consider alignment with other practices and try to create innovative solutions. For preferences related to the content of the practice, discuss the higher order goals and what the research supports. Shared commitment to these goals makes users more open to how “we could achieve our goals” by using what “the research shows”.

Listen, understand the context and your people, and then revise the new practice when necessary. Leaders that can move fluidly across these approaches create a disciplined and adaptive way to implement evidence-based practice — one that fosters joint-problem solving, facilitates agreement, and relieves the tensions associated with customizing research recommendations.

---

**Margaret M. Luciano**, PhD, is an assistant professor in the WP Carey School of Business at Arizona State University, Tempe, AZ.

**Thomas A. Aloia**, MD, MHCM is the Chief Value and Quality Officer in the Office of the Chief Medical Executive and a Professor in the Department of Surgical Oncology at the University of Texas – MD Anderson Cancer Center, Houston, TX.

**Joan F. Brett**, PhD, is an associate professor in the WP Carey School of Business at Arizona State University, Tempe, AZ.