Delfini Pearls: Key Considerations for the Evidence- & Value-based Organization and for Evidence- and Value-based Clinical Quality Improvement Efforts

RELIABLE EVIDENCE IS THE KEYSTONE FOR VALUE-BASED CLINICAL QUALITY IMPROVEMENT (CQI)

An Evidence-and Value-based Approach to Healthcare Quality

· **A quality healthcare system** is one that is effective, patient-centered, safe, timely, efficient and equitable--Institute of Medicine (IOM). Effective QI groups **identify reliable and clinically useful science to close quality, satisfaction and cost gaps.**

· An evidence-based quality improvement (EBQI) approach is required to identify reliable and useful scientific information— the foundation for making optimal decisions, taking right actions and achieving desired outcomes.

 · Reliable evidence increases predictability of outcomes which helps avoid the problem of low-quality evidence leading to wrong decisions.
 · Low quality evidence frequently exaggerates benefits and underestimates safety issues.
 · Study results should not be seriously considered until critical appraisal suggests the results can be trusted.
 · Patients need reliable information about benefits and risks to make right choices.
 · One review of >60,000 studies reported that 7% passed criteria for high quality and clinical relevancy.

· Quality in healthcare using **an evidence-based approach** requires that efforts be directed to the acquisition, assessment and consideration of reliable and usable scientific evidence as a key component of healthcare decision-making.

 · For healthcare interventions (prevention, screening, diagnosis and therapy) affecting health status outcomes,* **quality improvement methods** require the assessment of reliable and clinically useful evidence as part of the development and decision processes.

· A **value-based approach** includes evidence along with a variety of considerations (net gains and net losses) which, at a minimum, include healthcare outcomes, patient and clinician perspective and other considerations.

*Morbidity, mortality, symptom relief, emotional/physical functioning, health-related quality of life or an intermediate marker with a direct casual chain to one of these outcomes.

SOME CONSIDERATIONS FOR CREATING AN EVIDENCE- AND VALUE-BASED ORGANIZATION

The 5 Core Requirements For Evidence-Based Clinical Quality Improvement

1. Effective leadership demonstrably committed to an evidence-based approach, including providing support for the work (see details below**);
2. A culture committed to high quality and patient-centered care and the appropriate use of evidence to achieve this;
3. A correct and effective evidence-based approach;
4. Correct work components which include resources, principles, concepts, structures, approaches, methods, processes, standards and tools; and,
5. Skilled and engaged individuals in the right roles.

The Organization requires—	**Does the mission statement reflect organizational priorities?**
• Competencies in recognizing opportunities (gaps) • EBM values & principles (mission statement, quality plan, business plan) • Culture: (organizational understanding) • Effective and committed leadership	Is commitment to an evidence- and value-based approach a core value and is it demonstrated in written documents such as the mission statement, value or quality plan and business plan? **Quality of healthcare Information affects outcomes:** **Quality of the Information→Decision →Action→Outcome**
**Leadership is required to— • Set priorities • Develop strategies and tactics • Motivate and create alignments, eliminate disincentives and misalignments • Communicate and set tone • Create structures and infrastructure • Provide resources, ensure capacity and reserves	Do leaders understand and utilize the methods of an evidence- and value-based approach to effectively improve outcomes? Leaders must teach, encourage, demonstrate and persuade as well as establish norms, incentives and systems that place "value" at the center and root out inadvertent "penalties" for taking the "net" view.
Cultural considerations include— • Formal and informal leaders • Understanding and commitment • Attention to opportunities, improvements, hazards and sustaining what works • Environment of learning • Adaptability	For an evidence-based culture, the principles, methods and tools of EBM must thrive in the committees, work groups and daily lives of all healthcare professionals engaged in medical decision-making.
Work Elements needed include— • Principles and concepts • Approaches, methods, processes and standards	**Evidence- & Value-based Quality Improvement Steps** (not necessarily linear)*** Phase 1. Organizational Readiness

(which need to include updating) • Structures • Information and access • Tools • Considerations and decision mechanisms • Implementation mechanisms • Measurement mechanisms • Feedback mechanisms • Communication mechanisms (internal, external) • Resources and time • Skilled and effective managers, workers and work groups in needed roles	Phase 2. Clinical Improvement Project & Team Selection Phase 3. Project Preparation & Outline Phase 4. Evidence Identification, Selection & Review Phase 5. Clinical Content Development Phase 6. Impact Assessment Phase 7. Communication Tools Development Phase 8. Implementation. Create, Support and Sustain Change Phase 9. Measure and Report Phase 10. Update and Improve

Why EBM and Critical Appraisal of Medical Evidence is a "Must"

We recommend that all health care professionals engaged in medical decision-making, QI project groups, users of guidelines and other secondary sources scrutinize all such documents for validity (likelihood of being true) and usefulness rather than relying on endorsement by experts and professional societies, reliance upon which, in some instances, may lead to suboptimal outcomes.

At a minimum, we suggest you ask the following questions:

1. Are the recommendations from the information source rigorously evidence-based and are their development processes transparent? This requires understanding principles of scientific validity and should include your performing a critical appraisal audit of the science upon which the recommendations are based. There are many resources available to help readers evaluate information sources for validity. Readers need to know the strength of the evidence associated with each recommendation.

2. Is this information relevant to patients' needs? Are the expected outcomes clinically significant and will they provide reasonable estimates of benefit? Are the important recommendations/options (with benefits, risks, harms, uncertainties, alternatives and costs of each choice) provided? Do the recommendations accommodate differing patient values and preferences?

3. Can this quality improvement initiative be implemented and is it likely to succeed? How will the QI project impact outcomes in the setting in which it is applied? Can one measure the effect of implementation?

4. How current is the information?

5. Who developed the recommendations? Were both evidence and clinical perspectives included? Were all appropriate disciplines and perspectives represented as needed?

6. Are the limitations described?

7. Are there ethical issues to be considered?

Although peer-review of guidelines and other recommendations is desirable, we believe that the type of checklist above provides a more appropriate solution for the evaluation of secondary sources for validity and clinical usefulness than expert or professional group statements and endorsements because it helps remove the bias which may be present in any group making clinical recommendations based primarily on consensus and low quality evidence.

In conclusion, we believe that **any information from clinical guidelines or other secondary sources should be evaluated for validity and clinical usefulness** before accepting any recommendations from the secondary source, no matter how prestigious the group. Several groups (including ourselves) have created tools to evaluate clinical practice guidelines. These tools can also be used to help structure your own guidelines or create adaptations from existing guidelines. A link to our evaluation tool is available at the **Reader Resource** web page.

***Tools to guide and inform these phases are freely available at www.delfini.org.