In previous editorials in this series (1, 2), we described a path that leads from health care research evidence to evidence-based health care. The steps include getting the evidence straight, developing evidence-based clinical policy, and then applying the policy.

A policy is a statement of what should be done. Policies come in many forms. Health policies, for example, determine the funding of health care, and public health policies cover such issues as immunization and screening. Clinical policies, the focus of this essay, state what should be done in clinical practice.

Clinical policies may be created by organizations and committees, but as clinicians, we also have our own personal policies for handling specific clinical situations (3). Personal policies are essential for action but are often problematic, particularly if they do not include evidence beyond our own clinical experiences. Formal policies are similarly problematic if they do not incorporate the best evidence. Evidence-based medicine provides ways to find and incorporate research evidence in clinical policies, both formal and personal.

Why do we need clinical policies?
Clinicians often make substantially different management decisions for similar clinical situations. This variation in practice often occurs in geographically close communities and is not consistently explained by differences in patient characteristics or preferences (4, 5). More important, variation in management often includes practices that are inconsistent with good evidence about optimal care.

Inadequacy of individual clinical practice is a problem. In response, professional bodies, businesses, and government agencies are developing formal clinical practice guidelines, practice parameters, clinical standards, consensus statements, expert recommendations, decision analyses, care paths, and disease management programs. As these groups develop clinical policies, they face a spectrum of challenges, from keeping up with the evolution of medical knowledge at the input end to handling often perplexing differences in the circumstances of care delivery at the output end.

Requirements for evidence-based clinical policy
The development of evidence-based clinical policy involves several stages, including defining the clinical problem, finding and appraising evidence, and converting the best evidence into clinical policy. Defining the clinical problem to be addressed is crucial, and a precise definition can convert a hopeless global problem into a number of soluble discreet ones. For example, generating clinical policies for evaluating and managing everyone with high blood pressure is much more difficult than generating guidelines for specific, well-defined subgroups within that large population. In the process of considering these subgroups, policy developers can set aside circumstances in which they (parallel with policy developers) lack the requisite evidence, such as the use of certain drugs for hypertension during pregnancy and the management of persons with several conditions.

We have discussed the second step, finding and appraising the evidence, in the previous articles in this series (1, 2). We described how recent important advances in evidence retrieval, summarization, and valuation have greatly enhanced the assembly of evidence for guideline and policy development. Development of sound evidence-based policies also requires us to recognize that not all evidence is created equal. The Canadian Task Force on Periodic Health Examination (6) pioneered the process of grading the strength of evidence, and their approach has since been adopted and adapted by many other groups. Recently, Guyatt and colleagues (7) have proposed a modification for grading evidence for health interventions, giving priority to systematic reviews of evidence and the size of effect that is judged clinically important (Table).

| Table. Grades of Recommendations for a Specified Level of Baseline Risk* |
|------------------|---------------------------------|
| **A1** | RCTs with homogeneous results, with all CIs on one side of NNT |
| **A2** | RCTs with homogeneous results, with CIs overlapping threshold NNT |
| **B1** | RCTs with heterogeneous results, with all CIs on one side of threshold NNT |
| **B2** | RCTs with heterogeneous results, with CIs overlapping threshold NNT |
| **C1** | Non-RCTs and observational studies, with all CIs on one side of threshold NNT |
| **C2** | Non-RCTs and observational studies, with CIs overlapping threshold NNT |

* CIs = confidence intervals; NNT = number needed to treat; RCTs = randomized controlled trials. Modified from reference 7.
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Why do we need clinical policies? A policy is a statement of what should be done. Policies come in many forms. Policies (as defined above) may not be directly linked to clinical practice. However, it is possible, for example, that policies that have been through all of these steps and that fit our overall clinical setting. When deciding whether a particular policy is desirable, we consider the following: evidence, circumstances, and preferences (9, 10).

Requirements for evidence-based clinical policy

The development of evidence-based clinical policy involves several stages, including defining the clinical problem, finding and appraising evidence, and converting the best evidence into clinical policy. Defining the clinical problem to be addressed is crucial, and a precise definition can convert a hopelessly global problem into a number of soluble discrete ones. For example, generating clinical policies for evaluating and managing everyone with high blood pressure is much more difficult than generating guidelines for specific, well-defined subgroups within that large population. In the process of considering these subgroups, policy developers can set aside circumstances in which they (parallel with policy developers) lack the requisite evidence, such as the use of certain drugs for hypertension during pregnancy and the management of persons with several conditions.

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Table. Grades of Recommendations for a Specified Level of Baseline Risk

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>RCTs with homogeneous results, with all CIs on one side of NNT</td>
</tr>
<tr>
<td>B</td>
<td>RCTs with homogeneous results, with CIs overlapping threshold NNT</td>
</tr>
<tr>
<td>C</td>
<td>RCTs with homogeneous results, with all CIs on one side of threshold NNT</td>
</tr>
<tr>
<td>D</td>
<td>RCTs with heterogeneous results, with CIs overlapping threshold NNT</td>
</tr>
<tr>
<td>C1</td>
<td>Non-RCTs and observational studies, with all CIs on one side of threshold NNT</td>
</tr>
<tr>
<td>C2</td>
<td>Non-RCTs and observational studies, with CIs overlapping threshold NNT</td>
</tr>
</tbody>
</table>

The quality of the evidence-based, can quickly become outdated as new evidence emerges.

Formal policy is also limited in its ability to take different subgroups of patients into account. For example, the recommendations in a patient’s expected event rate have numbers needed to treat and the probability that a patient will benefit from a treatment. Some subgroups of patients are more likely to be harmed than helped despite solid evidence of efficacy for the “average patient” (20). At present, the formation and application of clinical policy is too often arbitrary and authoritarian, at both the organizational and personal clinical level. It is our view that formal clinical policy development must involve “front-line” practitioners and
that policy cannot be effectively or safely applied without the active collaboration of practitioners who understand the basis for the policy as well as the circumstances and wishes of the patient. On the other hand, practitioners cannot continue to be so informal and idiosyncratic in dealing with individual clinical problems. Fortunately, emerging evidence shows that involving local practitioners in policy development, coupled with responsive local systems, can succeed where the creation of national guidelines fails (21).

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This EBM note was also published as an editorial in ACP Journal Club. 1997;126:A-14-16.
Transferring evidence from research into practice: 3. Developing evidence-based clinical policy

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*Evid Based Med* 1997 2: 36-38
doi: 10.1136/ebm.1997.2.36

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