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How to Interpret and Use a Clinical Practice Guideline or Recommendation
Users' Guides to the Medical Literature

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IMPORTANCE Clinicians may rely on recommendations from clinical practice guidelines for management of patients.

OBSERVATIONS A clinical practice guideline is a published statement that includes recommendations that are intended to optimize patient care. In the guideline development process, a panel of experts formulates recommendation questions that guide the retrieval of evidence that is used to inform the recommendations. Typically, methods of guideline development, a summary of the supporting evidence, and a justification of the panel's decisions accompany the recommendations. To use such guidelines optimally, clinicians must understand the implications of the recommendations, assess the trustworthiness of the development process, and evaluate the extent to which the recommendations are applicable to patients in their practice settings. Helpful recommendations are clear and actionable, and explicitly specify whether they are strong or weak, are appropriate for all patients, or depend on individual patients' circumstances and values. Rigorous guidelines and recommendations are informed by appropriately conducted, up-to-date systematic reviews that consider outcomes important to patients. Because judgments are involved in the interpretation of the evidence and the process of moving from evidence to recommendations, useful guidelines consider all relevant factors that have a bearing in a clinical decision and are not influenced by conflicts of interest.

CONCLUSIONS AND RELEVANCE In considering a guideline's recommendations, clinicians must decide whether there are important differences between the factors the guideline panel has considered in making recommendations and their own practice setting.

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Multimedia

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Clinical Scenario

A family physician is seeing a 25-year-old woman with seasonal allergic rhinitis. This year, her nasal and ocular symptoms are severe enough that she is seeking medical care. After the physician and patient discuss the treatment options, the physician initiates single therapy with an intranasal corticosteroid but is aware of an alternative treatment, an intranasal H_1 antihistamine.

To inform her decision, the physician searches for an evidence-based recommendation and finds the following: "In patients with seasonal allergic rhinitis, we suggest an intranasal corticosteroid rather than an intranasal antihistamine (conditional recommendation, moderate certainty of evidence)."[1]

The physician explains to the patient that a conditional recommendation means that the therapy is likely to be the best choice, but because of the patient's particular situation, it may not be. The physician prescribes an intranasal corticosteroid but explains that she will follow up with the patient with a telephone call after she reads further about this recommendation.

Clinical Practice Guidelines

In treating patients, clinicians frequently rely on recommendations from clinical practice guidelines that can be defined as statements that include recommendations intended to optimize patient care. In the guideline development process, a panel formulates recommendation questions that guide the retrieval of evidence that informs the recommendations. Typically, methods of guideline development, a summary of the supporting evidence, and a justification of the panel's decisions accompany the recommendations. This documentation can inform clinicians interested in ascertaining the trustworthiness of the guideline development process and fully understanding the recommendations. Building on prior Users' Guides addressing guidelines,[2-6] this Users' Guide provides suggestions

for understanding guideline methods and recommendations for clinicians seeking direction in evaluating clinical practice guidelines for potential use in their practice.

Using Recommendations From Guidelines

Box 1 presents direction for using recommendations from clinical practice guidelines.

Is the Recommendation Clear and Actionable?

Helpful recommendations are easy to follow, avoid ambiguous language, and are explicit about their direction (eg, for or against an intervention) and strength (ie, the extent to which clinicians can be confident that adherence to the recommendation will do more good than harm). They clearly indicate for which patients the recommendation is intended and which ones might benefit from the intervention of interest or an alternative intervention.

Are the Patients, Intervention, Alternatives, and Recommended Action Clear?

The following example represents an unclear recommendation from a guideline addressing latent tuberculosis infection[7]: "All children living with HIV who have successfully completed treatment for TB [tuberculosis] disease may receive isoniazid for an additional 6 months. *(Conditional recommendation, low-quality evidence)*." This recommendation may leave clinicians in doubt about whether they should prescribe an additional 6 months of isoniazid therapy or whether to prescribe this treatment regimen for some patients but not others.

Another recommendation from the same guideline states: "Either a tuberculin skin test (TST) or interferon-gamma release assay (IGRA) can be used to test for LTBI [latent tuberculosis infection]. *(Strong recommendation, very low-quality evidence)*."[7] Clinicians wondering which of the 2 tests to use may remain uncertain after considering this recommendation.

In contrast, the following recommendation is clearer about which test should be used and for whom. In addressing diagnostic testing of latent tuberculosis infection, another guideline states: "We recommend performing an interferon-γ release assay (IGRA) rather than a tuberculin skin test (TST) in individuals 5 years or older who meet the following criteria: (1) are likely to be infected with *Mtb [Mycobacterium tuberculosis]*, (2) have a low or intermediate risk of disease progression, (3) it has been decided that testing for LTBI [latent tuberculosis infection] is warranted, and (4) either have a history of BCG [bacillus Calmette-Guérin] vaccination or are unlikely to return to have their TST read *(strong recommendation, moderate-quality evidence)*."[8]

Recommendations in which the patients, intervention, alternatives, and recommended course of action are all clear and explicit, without use of ambiguous language, will be more helpful than those in which clinicians have to make inferences regarding any of these features. Once it becomes evident to clinicians that a recommendation leaves them uncertain of the specific course of action being suggested, they should seek alternative guidance.

Box 1. Users' Guides for Assessing a Clinical Guideline Recommendation

1. Is the recommendation clear and actionable?
   a. Are the patients, intervention, alternatives, and recommended action clear?
   b. Is the strength of the recommendation clear?
2. Was the evidence summarized with rigorous systematic review methods?
3. Did the guideline panel consider all outcomes important to patients?
4. Did the panel make appropriate judgments in the interpretation of the evidence and the decision of the final recommendation?
   a. Did the panel appropriately consider the magnitude of effect and the relative importance of the outcomes?
   b. Did the panel consider all relevant factors for formulating recommendations?
   c. Is the strength of the recommendation appropriate?
   d. Did the panel avoid having conflicts of interest influence their judgments?
5. Does the recommendation apply to a specific patient?
   a. Are there any important differences between the recommendation question and the clinical question of the patient?
   b. Do any of the contextual factors that have an important bearing in the recommendation differ in the patient's setting?

Is the Strength of the Recommendation Clear?

Useful recommendations are accompanied by a designated strength, characterized somewhat differently by different systems (**Table 1**). The strength provides direction regarding how clinicians should use the recommendation. Different guideline-developing organizations and systems use different labels or wording to reflect the strength of a recommendation.

For example, the US Preventive Services Task Force recommendation statements[9] classify recommendations with letters. A and B recommendations indicate to offer or provide a certain service; C recommendations mean to offer or provide this service for selected patients, depending on individual circumstances; D recommendations mean that the use of the service is discouraged; and I recommendations mean that the evidence is insufficient and clinicians should assess the considerations that are relevant and explain the uncertainty to patients. The American College of Cardiology/American Heart Association guidelines classify the strength of recommendations as strong, moderate, or weak, which have different meanings, depending on whether the intervention is determined to be beneficial or not.[10]

The Grading of Recommendations Assessment, Development and Evaluation (GRADE) approach[11] uses a binary method that classifies recommendations as strong or weak (also known as conditional).[12] Guideline panels make strong recommendations when they judge that all or almost all fully informed people would make the recommended choice and weak when the majority of informed people would choose the recommended choice, but an important subset of physicians and patients would not. Weak recommendations mandate shared decision making, ideally using formal decision aids. Although demonstration of reliability of judgments supporting guidelines is limited, the interrater reliability of trained users of GRADE to assess the quality of evidence has been

Table 1. Comparison of Systems to Classify the Strength of Recommendation According to Messages to Clinicians

	Classification system			
	ACC/AHA	GRADE	NICE	USPSTF
Use the intervention	Class I (strong), class IIa (moderate)	Strong for	Must offer/refer/advise	A, B
May use, depending on circumstances	Class IIb (weak)	Conditional/ weak for conditional/ weak against	Consider	C
Do not use the intervention	Class III (no benefit), class III (strong)	Strong against	Do not offer/do not refer/ do not advise; must not	D
Other	NA	NA	NA	I

Abbreviations: ACC/AHA, American College of Cardiology/American Heart Association; GRADE, Grading of Recommendations Assessment, Development and Evaluation; I, insufficient; NA, not applicable; NICE, National Institute for Health and Care Excellence; USPSTF, US Preventive Services Task Force.

shown, and in a study from 2013 involving 25 raters (all of them evaluating 16 outcomes) it was 0.72 (95% CI, 0.61-0.79) (indicating 72% agreement).[13]

Other organizations, such as the National Institute for Health and Care Excellence (NICE),[14] express their recommendations to reflect the strength of the recommendation. For instance, "offer" is used when there is more certainty in the recommendation, and "consider" is used when there is less. Table 1 provides a comparison of the strength of recommendation classifications across different systems.

Guideline panels make recommendations classified as "weak," "C," "less certain," or something similar under 2 circumstances: (1) when evidence is low quality and so the magnitude of benefits and harms is uncertain; and (2) when benefits and harms are closely balanced. Whatever the reason, clinicians using such guideline recommendations are advised to discuss with patients the implications of the choices they are considering.[15] Moreover, when weaker recommendations are provided, clinicians should examine the reasons for them and the extent to which these issues are relevant to their practice, and discuss with patients the considerations that may affect their choice. Guideline panels that issue a weak recommendation usually provide, in comments associated with the recommendation, suggestions about its implementation. In addition, some guideline development groups produce decision aids that facilitate the shared decision-making between patients and clinicians.[16,17]

Recommendations in which the strength of the recommendation is explicit are easier to use than those in which it is not. Clinicians using recommendations should examine how the guideline developers classify the strength of the recommendations, as well as the definition and implications of the strength of the recommendation.

Was the Evidence Summarized Using Rigorous Systematic Review Methods?

When formulating a recommendation, panels consider the effects of the interventions on health outcomes.[12] Rigorous guidelines result when panels rely on systematic reviews that consider all the best available evidence and explicitly assess its certainty or quality. Rigorously conducted systematic reviews synthesize the evidence from available studies and, whenever possible, combine the results across studies by using meta-analyses.[18] Failure to use a systematic review increases the likelihood of a misleading recommendation based on an unrepresentative sample of the evidence.

A rigorous systematic review may yield high-quality, trustworthy evidence or very low-quality, uninformative evidence. Clinicians need to know which is the case or whether the evidence is somewhere in between. The most widely used guideline-developing organizations and systems use explicit frameworks to rate the quality or certainty of the evidence underlying a recommendation. Panels formulating credible recommendations consider the certainty of the underlying evidence as a key factor, particularly in deciding the strength of recommendations.

For example, the US Preventive Services Task Force classifies the certainty of evidence as high, moderate, or low according to characteristics of the study design, applicability, number and size of the studies, inconsistency of findings across studies, and availability of evidence.[9] The Oxford Centre for Evidence-Based Medicine classifies the evidence in 5 levels based on study quality, imprecision, inconsistency, and effect size.[19] The American College of Cardiology/American Heart Association classifies the certainty of the evidence in 3 levels (A, B, and C) based on the study design, number of studies available, and consistency with indirect evidence.[10] The Agency for Healthcare Research and Quality classifies the strength of the evidence as high, moderate, low, and insufficient, and NICE describes a modification of GRADE in their guideline manual (but states that the choice of method is open to the guideline developer, depending on approval by NICE).[20] **Table 2** provides a comparison of terminology, considerations, and levels of evidence across these rating systems.

In addition, optimally useful guideline recommendations should rely on systematic reviews that are up to date. For instance, a guideline panel issued a strong recommendation for the use of conservative management over arthroscopic surgery in patients with degenerative knee disease.[21] This recommendation was based on a systematic review completed immediately before the guideline panel's meeting and included a clinical trial published a few weeks before.[22] This trial, in which researchers reported a lack of benefit of knee arthroscopy, had an important influence in the synthesized results of the systematic review, and its omission might have resulted in a different recommendation.

Clinicians should hesitate to use recommendations developed without the benefit of current systematic reviews that include an explicit rating of the quality of the evidence. If clinicians are aware of new evidence published after the recommendation was formu-

Table 2. Comparison of Systems Used to Assess Evidence

	Classification system[a]					
	ACC/AHA	AHRQ	GRADE	NICE	OCEBM	USPSTF
Terminology	Level/quality of evidence	Strength of evidence	Certainty/quality of evidence	Quality of evidence	Levels of evidence	Quality of the overall evidence
Considerations	Study design, No. of studies, consistency with indirect evidence	Study design, applicability, inconsistency	Risk of bias, inconsistency, imprecision, indirectness, publication bias, magnitude of effect, dose-response relationship, opposing residual confounding	Risk of bias, inconsistency, imprecision, indirectness, publication bias	Study design, effect size, sample size, risk of bias	Risk of bias, applicability, inconsistency, No. of studies/ participants
Levels	A, B-R (randomized), B-NR (nonrandomized), C-LD (limited data), C-EO (expert opinion)	High, moderate, low, insufficient	High, moderate, low, very low	High, moderate, low, very low	Levels 1-5	Good, fair, poor

Abbreviations: ACC/AHA, American College of Cardiology/American Heart Association; AHRQ, Agency for Healthcare Research and Quality; GRADE, Grading of Recommendations Assessment, Development and Evaluation; NICE, National Institute for Health and Care Excellence; OCEBM, Oxford Centre for Evidence-Based Medicine; USPSTF, US Preventive Services Task Force.

[a] Discrepancies in the numbers of systems exist between Tables 1 and 2 because the AHRQ and OCEBM do not have a system for classifying the strength of recommendations.

lated, they should judge to what extent the new evidence accords with the evidence used when the recommendation was formulated. The older the guideline, the greater the concern that new important evidence exists that might change the recommendation.

Did the Guideline Panel Consider All Outcomes Important to Patients?

Appropriately developed recommendations report consideration of all outcomes that are important to those whom the recommendation may affect.[23] Investigators and the guideline panels that rely on their published studies may be tempted to focus on surrogate outcomes for which there is evidence of a strong association with patient-important outcomes. Because interventions that modify surrogate outcomes often do not provide the anticipated effect on the patient-important outcome with which they are associated,[24] such a focus can be problematic.

For example, several potential outcomes need to be considered in the treatment of patients experiencing a gout flare to determine a treatment: pain, patient global assessment of treatment effects, health-related quality of life, activity limitation, adverse events, joint tenderness, joint swelling, and serum urate levels. When formulating a recommendation addressing this issue, a guideline panel determined the outcomes of primary interest to patients: pain, joint tenderness and swelling, patient global assessment, and serious adverse events, but not serum urate.[25] Clinicians using guideline recommendations should assess whether the panel addressed all outcomes important to patients and appropriately prioritized those likely to be more important.

Did the Panel Make Appropriate Judgments in the Interpretation of the Evidence and the Decision of the Final Recommendation?

Evidence is essential, but evidence alone is insufficient to make recommendations. Clinicians considering use of a recommendation need to understand whether the guideline panel assessed the extent to which the desirable consequences of an intervention outweigh its undesirable ones.

Did the Panel Appropriately Consider the Magnitude of Effect and the Relative Importance of the Outcomes?

The absolute effects of interventions vs comparators on health outcomes such as mortality, morbidity, and adverse outcomes have a major role when recommendations are formulated. The guideline panel must consider and report effects in absolute rather than relative terms. For example, a 50% relative risk reduction can mean an absolute reduction in an outcome from 2% to 1% or from 40% to 20%. The higher the magnitude of the benefits and the lower the magnitude of the harms, the more likely a panel will be to make a recommendation for one intervention over another.[15]

Balancing benefits and harms requires inferring the preference that patients would have when all outcomes are considered simultaneously. For example, when formulating a recommendation on prostate cancer screening with prostate-specific antigen test, a guideline panel had to make inferences regarding the trade-off between a small reduction in the risk of prostate cancer and a small increased risk of complications from biopsies and subsequent treatments, including incontinence, resulting from consequences of screening vs no screening.[26] Panels can base such inferences on a number of sources: studies addressing the relative importance patients place on the outcomes (still underrepresented in the medical literature), consultation with patients and patient organizations, or the opinion of panel members, including patients. The guideline report should demonstrate that the panel focused on determining not only the relative importance of the outcomes but also certainty about the relative importance.

When evaluating desirable and undesirable outcomes, panels consider both magnitude and importance of effects and a potentially complex relation between these outcomes. Patients are likely to consider the same absolute reduction in risk more important if the adverse outcome is less likely (a reduction of 2% to 1%) than more likely (a reduction from 40% to 39%). Panels have to weight smaller benefits in more important outcomes (eg, a 1% reduction in

stroke) against larger harms in less important outcomes (eg, a 3% increase in serious gastrointestinal bleeding). Thus, clinicians have to consider whether the way in which the panel has considered the magnitude of effect and relative importance of the outcomes makes sense for the specific context.

In addition, clinicians should judge to what extent the assumptions the panel made regarding values and preferences are likely to hold for the majority of patients in their practice (ie, how likely the values and preferences are to vary across patients). In the prostate cancer screening recommendation, the panel inferred that most older men would place greater importance on avoiding complications than on a very small reduction in the risk of death from prostate cancer and therefore recommended against screening.[26] Clinicians reading the recommendation must determine whether the panel correctly assessed potential value and preference judgments that may be relevant for patients in their practices.

Did the Panel Consider All Relevant Factors for Formulating Recommendations?

In addition to the trade-off between benefits and harms, other factors also influence guideline recommendations. One key factor is the certainty of the evidence.[27] Resources may also be relevant when recommendations are developed. Typically, guidelines that assess expensive and resource-intense interventions are more likely to include assessment of cost in the recommendation.

Other factors may also be relevant for specific recommendations, such as acceptability (patients' willingness to receive an intervention or their likely adherence to the intervention), feasibility of implementation, and equity.[28] Feasibility may be a particular issue for patients with chronic conditions for whom the burden of treatment may be overwhelming.

Feasibility considerations may also be relevant at a systems level. For example, a guideline panel issued a strong recommendation for screening for cervical intraepithelial neoplasia in women using human papillomavirus testing followed by colposcopy over using visual inspection with acetic acid followed by colposcopy.[29] A key reason for this recommendation was the lack of training of clinicians in performing visual inspection in the setting for which the recommendations were formulated. Clinicians using guideline recommendations must determine to what extent the panel included all relevant factors when developing a recommendation.

Is the Strength of the Recommendation Appropriate?

Guideline panels that issue strong recommendations must demonstrate confidence that the desirable consequences of using one intervention over another clearly outweigh the undesirable ones,[15] and thus that all or almost all fully informed people would prefer the recommended choice. In contrast, guideline panels make weak recommendations when they determine that even though the majority of people would make the recommended choice, an important subset would not.[15] Clinicians using strong recommendations need to make sure that the strength is appropriate; those using weak recommendations, that they understand the panel's rationale.

For example, a panel making a strong recommendation for conservative management over arthroscopic surgery for patients with degenerative knee disease were confident first that arthroscopic surgery does not improve long-term pain or function compared with conservative management, and second that recovery from the procedure is relatively long. The panel expressed further confidence that all or most patients would place a higher value on avoiding the burden (eg, inconveniences associated with undergoing a surgery and with the recovery period, including time off work and postoperative limitations) and cost of the procedure than the modest probability of a small transient improvement. Clinicians, understanding this rationale, need to decide whether the balance between desirable and undesirable consequences indeed warrants a strong recommendation.

In most instances, evidence regarding critical outcomes classified as low or very low, C, insufficient, or anything similar (depending on the system used) will result in uncertainty regarding the balance between desirable and undesirable consequences of using one intervention over another.[12] In such situations, a recommendation of "weak," "C," "less certain," or similar strength (depending on the system used) will usually be warranted. Thus, clinicians should be skeptical when they encounter a strong recommendation based on low-certainty evidence.

There are, however, exceptions. These include life-threatening situations and uncertain benefits and the certain risk of harms.[12] In such a case, if a guideline panel explains the rationale for an A, strong, or similar-strength recommendation despite suboptimal evidence, the recommendation becomes much more useful.

Not only low-certainty evidence but also a close balance between desirable and undesirable outcomes typically warrants weak recommendations.[15] For example, a guideline panel made a weak recommendation for the use of a short course of dexamethasone over no drug for patients with sore throat.[30] Their justification was that although dexamethasone was unlikely to cause serious adverse events, pain reduction was modest and there were likely no benefits regarding recurrence or days missed from school or work. Thus, the panel reported that although the majority of patients would choose to use the steroid, a small subset would decline, and therefore issued a weak recommendation.

In summary, when guidelines present strong recommendations, clinicians should look for a succinct, transparent evidence summary that ideally the guideline authors have provided and then decide whether the balance between benefits vs harms and burdens (ie, any practical considerations that may make receiving the intervention undesirable [eg, need for medical visits or procedures, time-consuming regimen of use]), as well as the quality of the underlying evidence, warrants a strong recommendation. When clinicians are presented with a guideline with weak recommendations, their understanding of the evidence will allow them to guide patients to optimal decisions.

Did the Panel Avoid Having Conflicts of Interest Influence Their Judgments?

The decisions that guideline panels make when formulating a recommendation invariably require judgment regarding the magnitude of effects, the quality and certainty of the evidence, uncertainty and variability in patients' values and preferences, and how other factors influence the recommendation.[28,31,32] These judgments may be vulnerable to conflicts of interest (COIs).

The most common COIs that can affect the development of guidelines are financial and intellectual interests of the guideline

authors. Both have in common the presence of a secondary interest that may bias the judgment regarding the intended primary interest to issue a recommendation that best serves the relevant patient population.[33] To be credible, guideline panels must minimize the influence of COIs on the recommendations.

Because experts are usually well-known researchers who have published articles related to the topic of the guideline and received grants or sponsorships, recruiting a panel of experts who are free from any type of COI may be challenging, and many organizations focus on financial COI and allow only some panelists with financial conflicts.[34,35] Other strategies that guideline developers use include recusal of panelists for recommendations in which they have COIs,[36] choosing a panel without COIs that receives training and information about the subject matter from conflicted experts, or insisting at the very least that panel chairs be unconflicted.[37] In addition, guideline panels that make and report judgments and their rationale systematically and transparently can limit intellectual COIs.

Guideline development groups usually combine several strategies to manage COIs. For example, the American Society of Hematology manages COIs through panel composition, disclosure of financial and nonfinancial conflicts, and recusal from panel deliberations and voting.[35]

Clinicians evaluating guideline recommendations should examine the methods used to minimize the influence of COIs. For example, a recommendation from a guideline in which panel members were required only to declare such conflicts and in which many members had COIs is more likely to be influenced by COIs than one in which no panel members were allowed to have a COI or in which they were recused from discussions related to their COIs. **Box 2** provides more guidance on where to find information about guideline panels' COIs and how to assess their importance. Clinicians may also consider whether they have any concerns about COIs that could arise because of the funding for the guideline development process or the funding for the organization that sponsors the guideline.

Box 2. Finding and Assessing the Extent to Which a Guideline Panel Avoided Having Conflicts of Interest Influence Their Judgments

Where to Find Information About Conflicts of Interest of Panel Members

Trustworthy guidelines report conflicts of interest of each guideline panel member (and of the panel organizers who may have accepted industry funds for the guideline) explicitly and transparently.

When this information is reported, clinicians will find it easy to locate. Guideline developers typically report panel members' conflict of interest disclosures in a clearly labeled specific section of the guideline document, and sometimes provide conflict of interest disclosure forms of each panel member as supplementary material.

How Can Users Judge the Extent to Which Conflicts of Interest Influenced Panel Members' Judgments?

The extent to which conflicts of interest influenced panel members' judgments depends on the magnitude of the presence of conflicts of interest (eg, proportion of panel members who had conflicts of interest), magnitude and type of conflict (eg, money received from a company that manufactures a relevant drug, device, or service), type of conflict of interest (eg, nonfinancial vs financial), and the strategies used to minimize those conflicts during the process of formulation of recommendations (eg, excluding panel members with a particular type of conflict from a particular recommendation).

The extent to which conflicts of interest influenced panel member judgments is a continuum, which ranges from no important influence to completely biased. The closer to no important influence, the more trustworthy the guideline recommendations.

The smaller the proportion of panel members with conflicts of interest, the less likely it is that their judgments were influenced.

The more strategies used to minimize the conflicts of interest (eg, allowing a maximum proportion of panel members who have conflicts or a maximum amount for the financial conflicts of interest, asking panel members with conflicts of interest to recuse themselves from discussions related to such conflicts, not allowing conflicted panel members to vote), the less likely it is that these influenced the panel's judgments. Trustworthy guidelines are more likely to describe in detail these strategies in their methods section, or to provide easy access to the organizations' policies.

Does the Recommendation Apply to a Specific Patient?

Are There Any Important Differences Between the Recommendation Question and the Clinical Question of the Patient?

Recommendations from a guideline may be directed to patients who are different from those a clinician encounters. Consider, for example, a clinician seeing a patient with severe knee osteoarthritis for whom, in addition to conservative management and arthroscopic surgery, osteotomy or joint replacement is also an option. A strong recommendation for using conservative management over arthroscopic surgery is unlikely to be helpful for this clinician because, as the guideline authors describe,[21] this recommendation applies to patients with mild to severe osteoarthritis, in which osteotomy or joint replacement is not under consideration. Important differences between the clinical context, involving either patients or interventions, and those to which the recommendation applies limit the applicability of a recommendation. Thus, clinicians should judge to what extent the characteristics of the population for whom the recommendations were formulated are similar enough to those of the specific patient they are treating.

Do Any of the Contextual Factors That Have an Important Bearing in the Recommendation Differ in the Patient's Setting?

Another issue that may compromise the applicability of a guideline recommendation is substantial differences between factors considered by the panel in making the recommendation and the judgments that the panel made about them vs the context in which the recommendation will be used. For example, in a guideline that recommended use of surgical closure over anticoagulant therapy in patients with patent foramen ovale and cryptogenic stroke, the panel acknowledged that the procedure was expensive, but did

permit consideration of cost to influence their recommendation.[37] Clinicians treating a patient who needs to pay for this procedure out of pocket may not find this recommendation helpful because the procedure may be unaffordable.

Clinical Scenario Resolution

Applying this Users' Guide leads the physician to conclude that the guideline recommendation for treating the patient with seasonal allergic rhinitis[1] meets most rigorous standards, with 1 exception: there is no description of appropriate management of COIs. Nevertheless, the recommendation clearly specifies the population, intervention, and alternative; the authors conducted a systematic review that combined results across studies by using a meta-analysis; and they assessed the quality and certainty of the evidence. However, the physician notes that the guideline is several years old, but is unaware of more recent guidelines or any new trials with potentially practice-changing results that the authors did not consider.

When formulating their recommendation, the panel considered nasal and ocular symptoms, quality of life, work and school performance, and adverse effects; evaluated the certainty of the evidence; and addressed patients' values and preferences, resources and cost-effectiveness, and the acceptability and feasibility of implementation. The panel concluded that the benefits of corticosteroids over antihistamines in symptom reduction and quality of life are likely small, but probably worth the higher costs of corticosteroids. The recommendation was weak because of the small differences in health outcomes, suggesting that patients' choices would likely differ according to their values and preferences, as well as costs.

The physician decides that she has no concerns about the applicability of this recommendation to her patient. Therefore, she concludes that this guideline is rigorous and the recommendation is helpful. Because it is a weak recommendation, the physician discusses with the patient the limited benefits and cost considerations. On a tight budget, despite a week with minimal symptoms while using corticosteroids, the patient opts for the antihistamines, at least until she finds out how well they work for her.

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