

SORT: Evidence Table of Key Clinical Recommendations

We would like each article to include an Evidence Table (also called “SORT” or “Strength of Recommendations Table”). This table will help readers understand the main points of your article, and the strength of evidence that supports its recommendations. The table should contain the key clinical recommendations and strength of recommendation ratings for your article as shown in the sample below:

Clinical recommendation	Evidence rating	References	Comments
Obtain an ECG in patients presenting with chest pain.	C	1, 2	Based on expert opinion and consensus guideline in the absence of clinical trials.
Patients with two normal highly sensitive troponin tests an hour apart can safely be sent home.	B	10	Based on consistent results from cohort studies showing reduced ER length of stay and no change in mortality.
Patients with chest pain should immediately receive oxygen and if not allergic an aspirin tablet.	A	17, 18	Based on consistent evidence from RCTs showing reduced mortality.
<p>ECG = electrocardiogram.</p> <p>A = consistent, good-quality patient-oriented evidence; B = inconsistent or limited-quality patient-oriented evidence; C = consensus, disease-oriented evidence, usual practice, expert opinion, or case series. For information about the SORT evidence rating system, go to https://www.aafp.org/afpsort.</p>			

The SORT table is intended to highlight the most important three to seven recommendations from your article for clinicians. Each recommendation must be accompanied by a SORT rating of A, B, or C as defined below (for a full description of the SORT system, see <https://www.aafp.org/afpsort>). Your recommendations should emphasize interventions and approaches that improve patient-oriented outcomes (e.g. morbidity, mortality, quality of life) over disease-oriented evidence (e.g. biomarkers, surrogate endpoints).

- You should have three to seven recommendations. Try to identify a range of recommendations, for example, one each about screening, prevention, diagnosis, and two about treatment.
- Each statement should be in the form of a recommendation and should not just present a fact or piece of medical trivia. For example, “Use the Wells score to determine the risk of

DVT in patients with leg pain” is a recommendation, while “Of patients presenting with leg pain, 16% have a DVT” is not.

- An “A” recommendation should be based on consistent evidence of improved patient-oriented outcomes from well-designed studies. Use clear, directive language as this is a recommendation that should be applied to most patients, such as “Patients age 50 to 74 years should receive screening for colorectal cancer.”
- A “B” recommendation is based on lower quality evidence of improved patient-oriented outcomes or inconsistent evidence. These statements should use language such as “Consider...” or “...is a practice option” or “...may be effective.”
- A “C” recommendation is often something that is standard of care, but for which there have been no clinical trials or trials have only reported disease-oriented outcomes. In this case, the recommendation statement should reflect the strength of recommendation, and the “Comment” column should clarify that this is a recommendation “based on expert opinion in the absence of clinical trials” or “based on evidence from clinical trials with blood pressure reduction as the outcome.”

If you are not comfortable assigning the strength of recommendation (below), our medical editors will do that for you.

To rate the strength of evidence supporting key clinical recommendations, please use the following guidelines:

Strength of recommendation	Definition
A	Recommendation based on consistent and good quality patient-oriented evidence*
B	Recommendation based on inconsistent or limited quality patient-oriented evidence*
C	Recommendation based on consensus, usual practice, expert opinion, disease-oriented evidence,** and case series for studies of diagnosis, treatment, prevention, or screening
<p>* Patient-oriented evidence measures outcomes that matter to patients: morbidity, mortality, symptom improvement, cost reduction, quality of life.</p> <p>** Disease-oriented evidence measures intermediate, physiologic, or surrogate endpoints that may or may not reflect improvements in patient outcomes (i.e., blood pressure, blood chemistry, physiological function, and pathological findings).</p>	

Use the table below to determine whether a study measuring patient-oriented outcomes is of good or limited quality, and whether the results are consistent or inconsistent between studies:

Type of Study			
Study quality	Diagnosis	Treatment/Prevention/Screening	Prognosis
Level 1 Good quality patient-oriented evidence	Validated clinical decision rule	Systematic review/meta-analysis of randomized controlled trials (RCTs) with consistent findings	Systematic review/meta-analysis of good quality cohort studies
	Systematic review/meta-analysis of high-quality studies	High quality individual RCT +	Prospective cohort study with good follow-up
	High quality diagnostic cohort study *	All or none study ++	
Level 2 Limited quality patient-oriented evidence	Unvalidated clinical decision rule	Systematic review/meta-analysis of lower quality clinical trials or of studies with inconsistent findings	Systematic review/meta-analysis of lower quality cohort studies or with inconsistent results
	Systematic review/meta-analysis of lower quality studies or studies with inconsistent findings	Lower quality clinical trial +	Retrospective cohort study or prospective cohort study with poor follow-up

	Lower quality diagnostic cohort study or diagnostic case-control study *	Cohort study	Case-control study
		Case-control study	Case series
Level 3 Other evidence	Consensus guidelines, extrapolations from bench research, usual practice, opinion, disease-oriented evidence (intermediate or physiologic outcomes only), and case series for studies of diagnosis, treatment, prevention, or screening.		

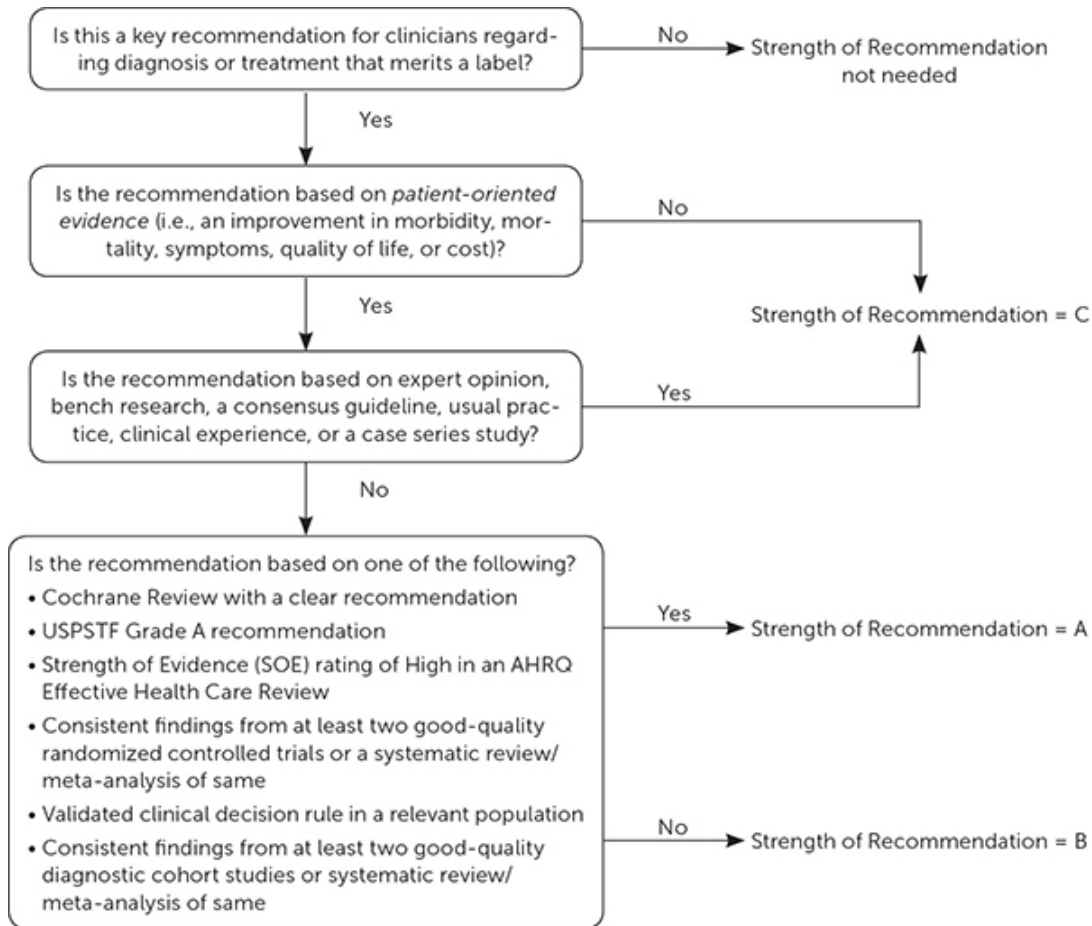
* High quality diagnostic cohort study: cohort design, adequate size, adequate spectrum of patients, blinding, and a consistent, well-defined reference standard.

+ High quality RCT: allocation concealed, blinding if possible, intention-to-treat analysis, adequate statistical power, adequate follow-up (> 80%).

++ An all-or-none study is one where the treatment causes a dramatic change in outcomes, such as antibiotics for meningitis or surgery for appendicitis, which precludes study in a controlled trial.

Assessing Consistency of Evidence Across Studies	
Consistent	Most studies found similar or at least coherent conclusions (coherence means that differences are explainable). <i>or</i> If high quality and up-to-date systematic reviews or meta-analyses exist; they support the recommendation.
Inconsistent	Considerable variation among study findings and lack of coherence. <i>or</i> If high quality and up-to-date systematic reviews or meta-analyses exist, they do not find consistent evidence in favor of the recommendation.

Please use the following algorithm for determining the strength of a recommendation based on a body of evidence (applies to clinical recommendations regarding diagnosis, treatment, prevention, or screening). Although this provides a general guideline, authors and editors should adjust the strength of recommendation based on the benefits, harms, and costs of the intervention being recommended. Again, if you are unsure how to apply these ratings, the medical editors will do this for you. At a minimum, you should create a summary table with recommendations and references for each recommendation.



For more information on how to apply these ratings, please see the [explanatory article](#) published in the February 1, 2004, issue of *American Family Physician*.