



HEALTH

Updating Practice Guidelines: Challenges in Going from Theory to Practice

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Experience as a researcher in determining when an update is needed

- How quickly do guidelines go out of date**
- A surveillance system for assessing changes in the evidence**
- Predictive validity of signals of need for updating**

Experience as a guideline committee chair updating American College of Physicians practice guidelines

- How the ACP Clinical Guidelines Committee looks for signals**
- What's done once assessment has occurred**
- Challenges in producing and disseminating updated reaffirmed guidelines**

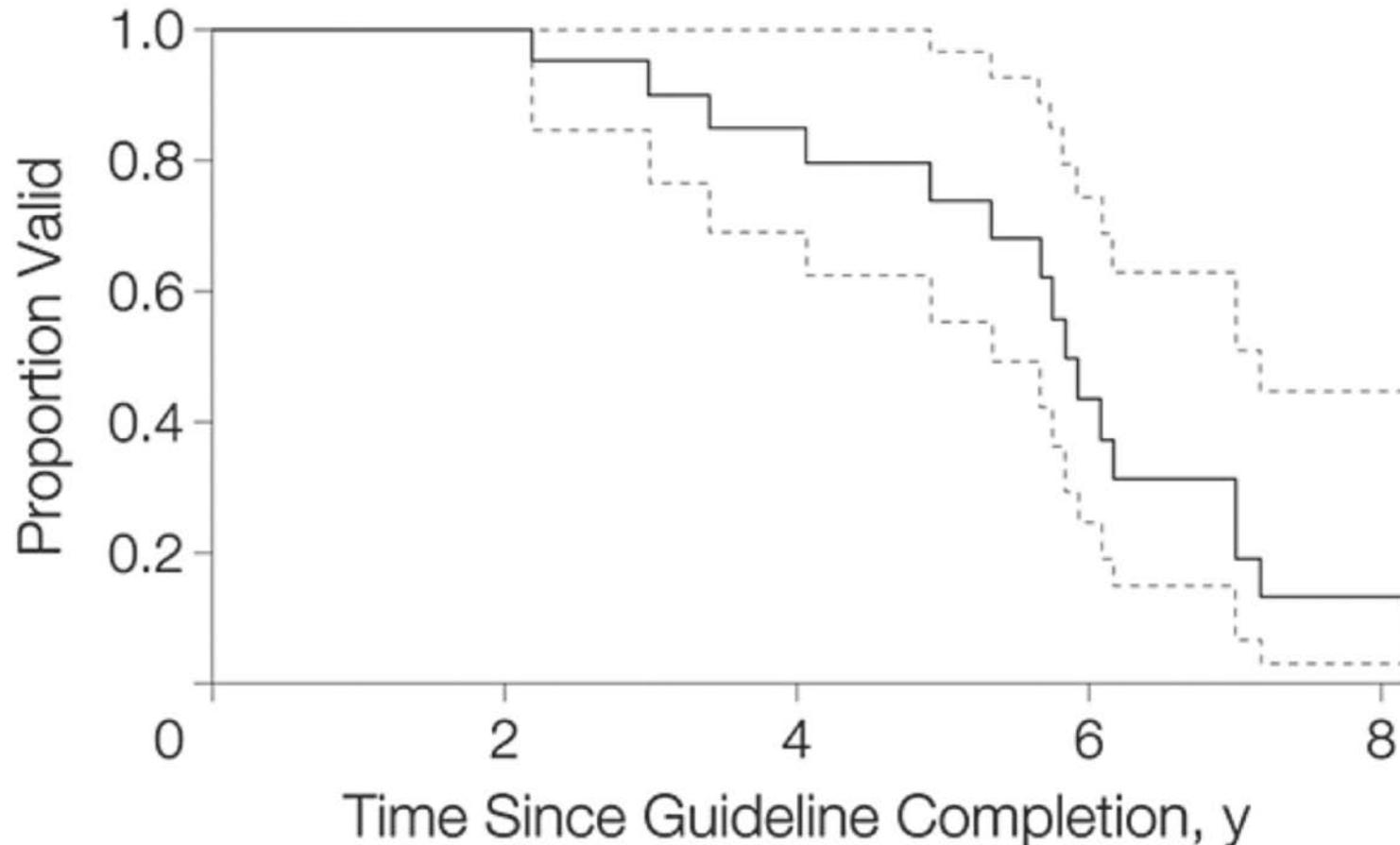
Conceptual model for why guidelines may need updating

We identified 6 situations that may require a guideline to be updated (or withdrawn), including changes in

- (1) the available interventions,**
- (2) the evidence on the benefits and harms of existing interventions,**
- (3) the outcomes that are considered important,**
- (4) the evidence that current practice is optimal,**
- (5) the values placed on outcomes, and**
- (6) the resources available for health care.**

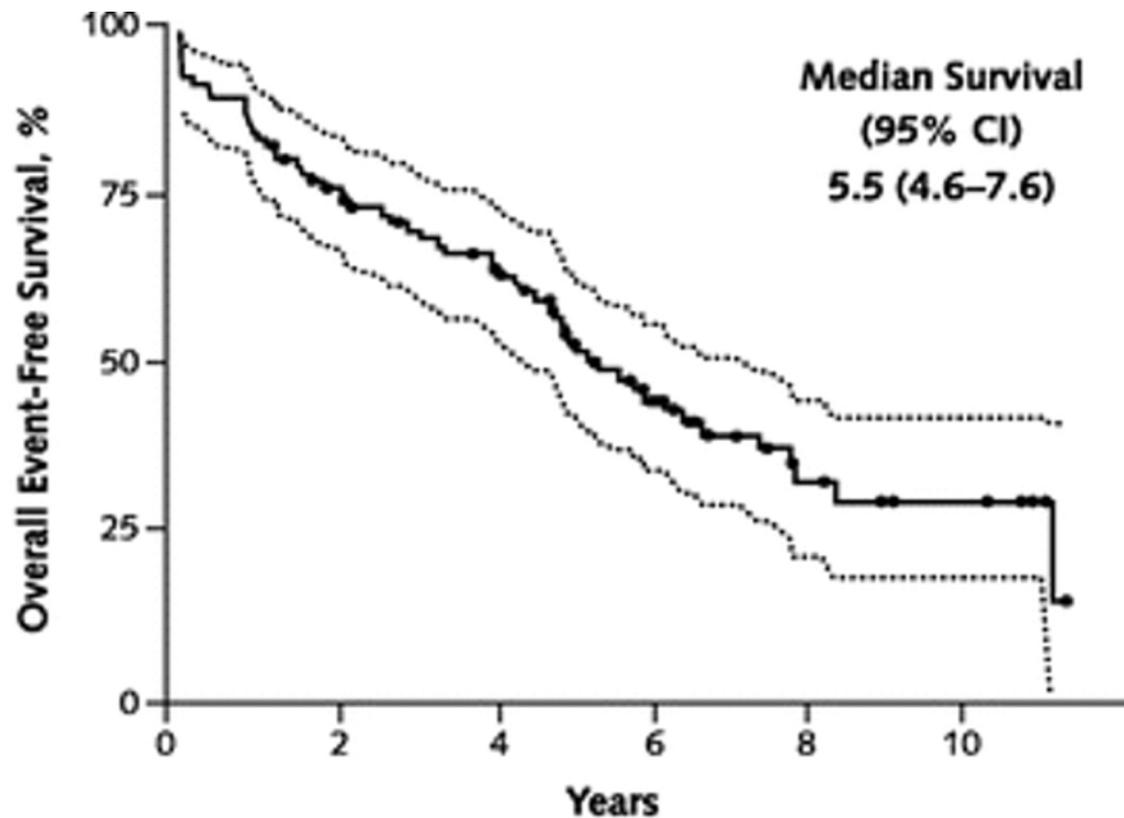
From: Shekelle P, Eccles MP, Grimshaw JM, Woolf SH. When should clinical guidelines be updated? *BMJ*. 2001;323(7305):155-7.

How quickly do guidelines go out-of date?



From: Shekelle PG, Ortiz E, Rhodes S, et al. Validity of the Agency for Healthcare Research and Quality Clinical Practice Guidelines: How Quickly Do Guidelines Become Outdated?. *JAMA*.2001;286(12):1461-1467. doi:10.1001/jama.286.12.1461.

How quickly do systematic reviews go out-of-date?

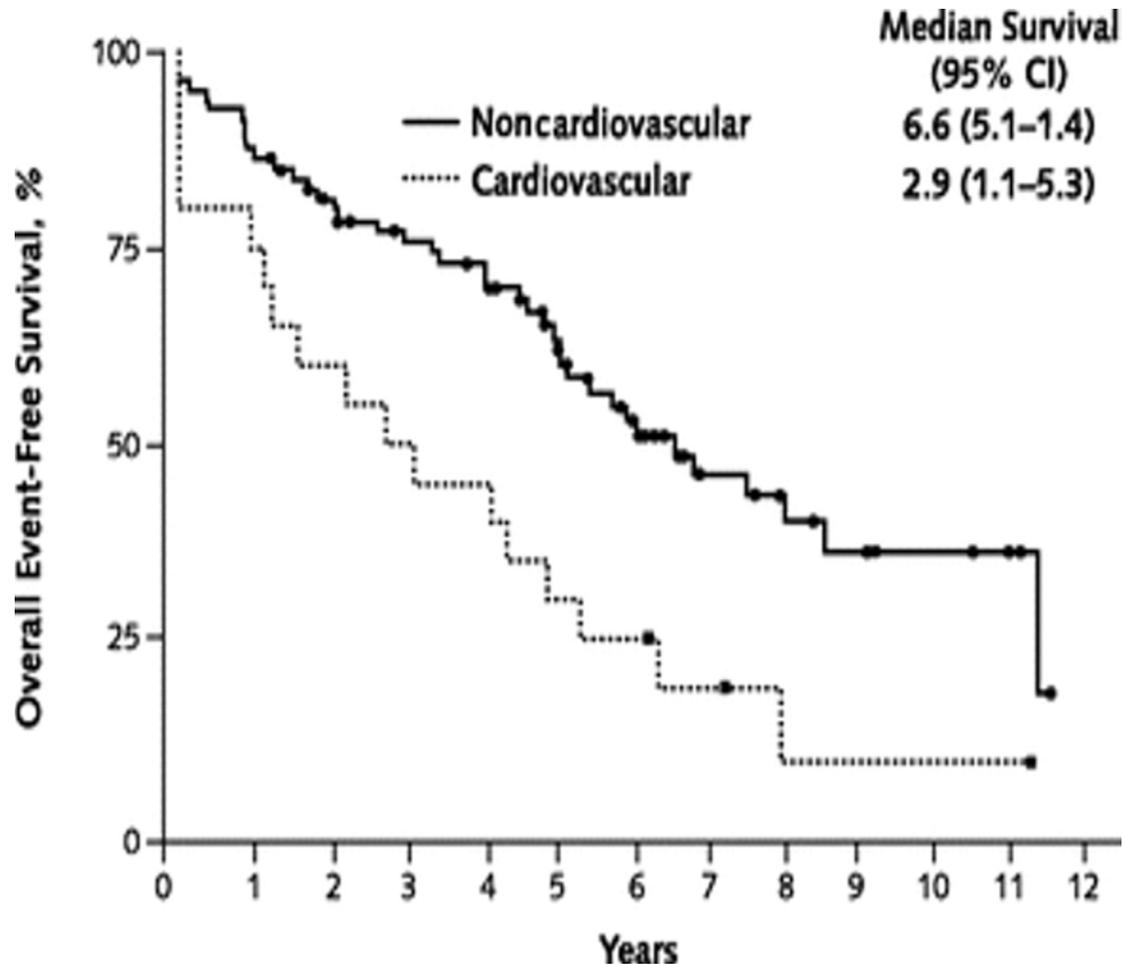


Systematic reviews
at risk, *n*

100 73 59 34 14 6

From: Shojania KG, Sampson M, Ansari MT, Ji J, Doucette S, Moher D. How quickly do systematic reviews go out of date? A survival analysis. *Ann Intern Med.* 2007;147(4):224-33.

How quickly do systematic reviews go out-of-date?

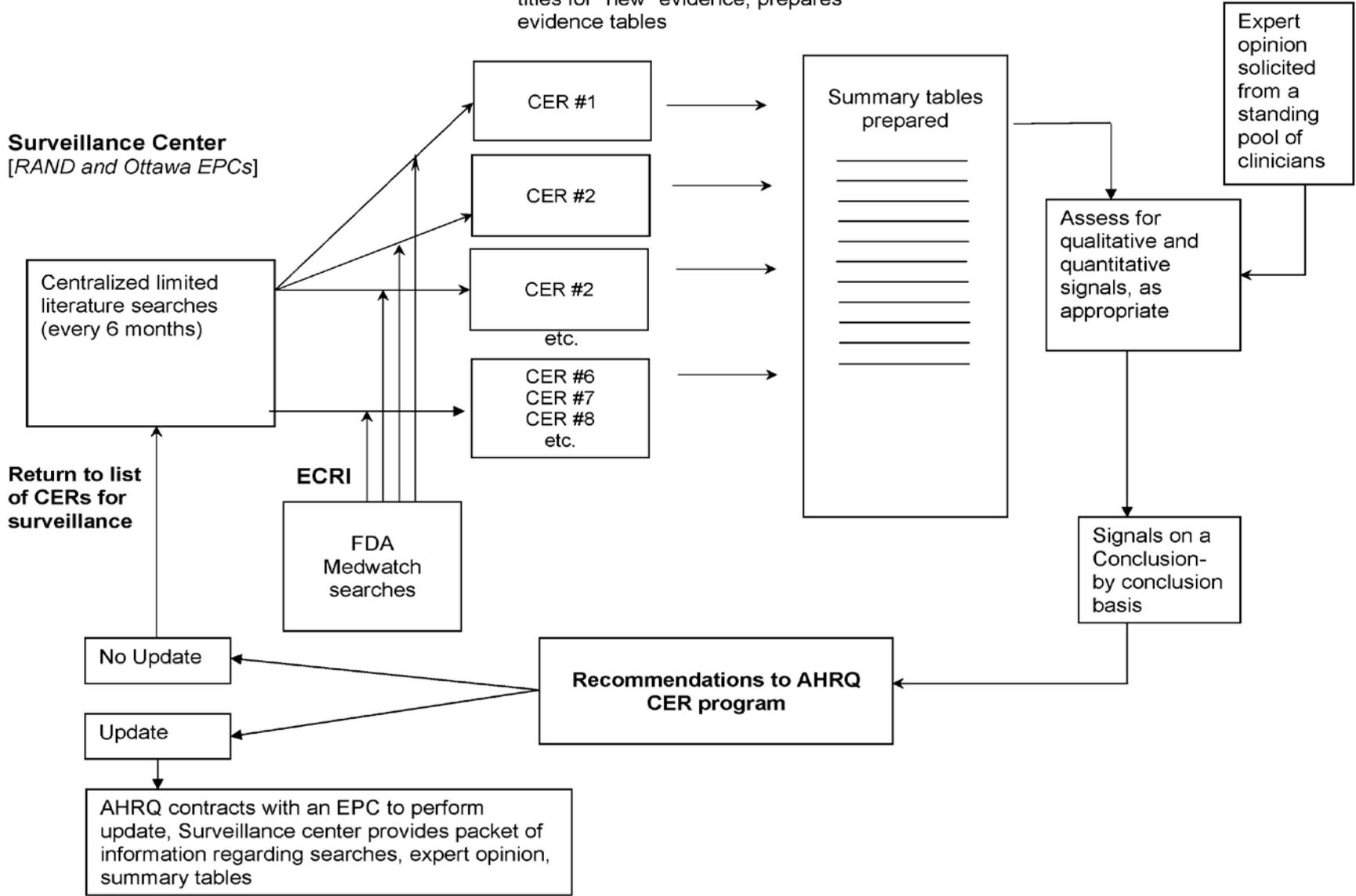


From: Shojania KG, Sampson M, Ansari MT, Ji J, Doucette S, Moher D. How quickly do systematic reviews go out of date? A survival analysis. *Ann Intern Med.* 2007;147(4):224-33.

The AHRQ Surveillance Program for Signals for Updating

CER Surveillance Program

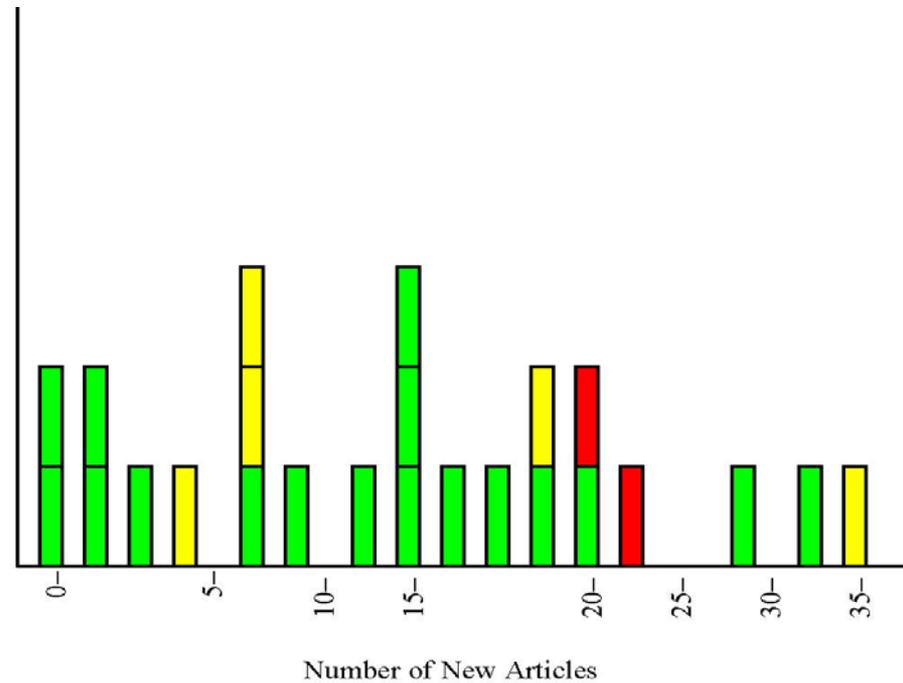
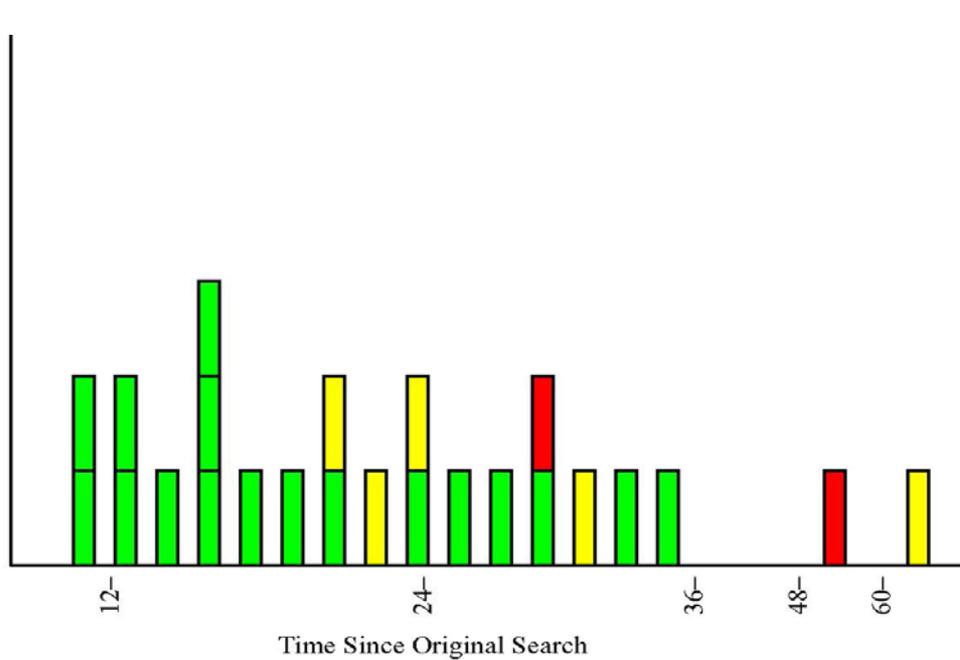
Surveillance Center EPC reviews titles for "new" evidence, prepares evidence tables



Some results from the Surveillance System

Time elapsed since the search date in the original review

Number of new relevant articles identified



Legend
Green=Low Priority; Yellow=Medium Priority; Red=High Priority

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Green=Low Priority; Yellow=Medium Priority; Red=High Priority

Predictive Validity

- **In 2009 AHRQ asked us to assess the original 11 Comparative Effectiveness Reviews and make recommendations regarding priority for updating**
- **We used the surveillance signals method**
- **We classified these as**
 - **4 high priority**
 - **4 medium priority**
 - **3 low priority**
- **AHRQ chose to update 9 of these 11**
- **We compared the actual updated results and the predictions made in 2009**

Predictive validity of individual conclusions in 9 systematic reviews

Summary of concordance of predicted and actual conclusions across 9 CERs			
	Good	Fair	Poor
Still valid	83	1	1
Possibly out of date	11	16	0
Probably out of date	7	0	0
Out of date	4	4	0

Not applicable / No matching conclusions / New conclusions = 21

Predictive validity of priority for updating a systematic review

Priority based on actual changes in conclusion				
	High	Medium	Low	Overall
2009 predicted priority				
High	3	1	0	4
Medium	1	2	0	3
Low	0	0	2	2
	4	3	2	9

K = 0.74

Evidence from Research

- **Guidelines and their evidence base go out-of-date for most topics between 3 and 6 years**
- **However, some go out of date sooner and some later**
- **This means a system of periodic surveillance is going to be better than a fixed period of time for updating guidelines**
- **There are good methods for detecting signals about when the evidence for guidelines or portions of guidelines go out-of-date**

Experience updating American College of Physicians Practice Guidelines

- **ACP is the largest specialty physician organization in America**
- **ACP has been developing clinical practice guidelines for more than 20 years**
- **ACP guidelines are generally given high marks for rigor of development**
- **ACP produces 2-4 guidelines each year, there are 14 active guidelines (Summer 2013)**
- **Stated policy is review or withdrawal at 5 years**

ACP Guideline Process

- **Topics are developed from within the Clinical Guidelines Committee or from ACP membership surveys**
- **Evidence review topics are nominated to the AHRQ Evidence Based Practice Center for consideration**
- **Topics selected by AHRQ go on to get state-of-the-art systematic reviews performed by EPC's**
- **Members of the Clinical Guidelines Committee work with the EPC during the systematic review process**
- **After the review is completed, the committee develops the guideline**
- **There is a very small budget to support the Guidelines Committee**

About 4 years ago ACP embarked on a process to regularly assess guidelines and re-affirm, update, or withdraw guidelines

Challenges

- Backlog of guidelines needing assessment**
- How to do the surveillance for signals?**
- What to do with guidelines after assessment for signals?**
- What is an update, and what is a re-affirmation of a guideline?**

Challenge # 1: Backlog of Guidelines

Guideline	Release Date	Expiration Date
Hormonal Testing and Pharmacologic Treatment of Erectile Dysfunction	2009	2014
Pharmacologic Treatment of Low Bone Density or Osteoporosis to Prevent Fractures	2008	2013
Screening for Osteoporosis in Men	2008	2013
Screening Mammography for Women 40 to 49 Years of Age	2007	2012
Current Diagnosis of Venous Thromboembolism in Primary Care	2007	2012
Management of Venous Thromboembolism	2007	2012
Pharmacologic and Surgical Management of Obesity in Primary Care	2005	2010
Screening for Hereditary Hemochromatosis	2005	2010

Challenge # 2: How to do the surveillance with no budget?

- **ACP was already contracting with McMaster for filtered literature searches on a number of clinical topics**
- **Clinical Guidelines Committee arranged for McMaster searches on guideline-relevant clinical topics be sent by e-mail to the Committee**
- **2-3 Guidelines Committee Members were tasked with reviewing these e-mails and reporting back whether the identified evidence constituted a signal that might require revision of the guideline**
- **E-mails come monthly**

Surveillance: How does it work?

- **The time commitment by committee members has not been enormous; most new evidence provides no signal**
- **Occasionally there is some new evidence that prompts an e-mail discussion**
- **At the regular face-to-face meetings of the Committee, these e-mails and signals are briefly discussed**
- **However, there have been instances where new evidence that is a signal was not identified by the McMaster process because the clinical question fell outside the scope of the McMaster review process**

Challenge # 3: What to do after surveillance?

- **No or modest signal – “re-affirmation” of the guideline**
- **When the committee tried to publish the first of these, we stated the evidence hadn’t changed but we refined the text of the first recommendation**
 - **Added that decisions to use anticholinesterase inhibitors in dementia should involve a discussion of “the limited benefits and substantial harms” of therapy**
- **Peer Reviewers stated that this amounted to changing a recommendation, and then it is not a re-affirmation, it is a guideline update**
- **And then they questioned the adequacy of reliance on the McMaster literature search process to support an update**

Challenge # 3: What to do after surveillance (continued)

- **Signal of need to update – ACP proposes topic to AHRQ for new evidence report**
 - **If not accepted, guideline must be withdrawn**
 - **If accepted, put out to bid:**
 - **Timeline to completion = 12-18 months**
 - **Timeline to guideline update 2 years or more**
- **This means the process may take 2-3 years for the surveillance / updating process. This may be too long to keep some topics up-to-date**

From Theory to Practice: Perspective after 4 years

- **This has been more challenging than initially envisioned**
- **The challenges are increased because:**
 - **There are no resources dedicated to this**
 - **The emphasis and reward is on development of new guidelines, not updating or reaffirming old ones**
 - **There is not community consensus on an option that is a middle ground between re-affirmation with no changes, and a complete update**
- **Over time, I expect most organizations are going to have to invert their priorities, and the majority of time and resources will go to keeping existing guidelines up to date rather than developing new guidelines**
- **This will be a paradigm shift for organizations, funders and journals**
- **I expect guidelines will be “component-ized” and that signals and updating will be acceptable on some components and not others**