Penn Medicine
Lancaster General Hospital

Penn Medicine/LGH Research Grand Rounds

How to Incorporate Research and Publication into a Clinical and Teaching Career

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December 5, 2024

Learning Objectives

- Articulate strategies for turning presentations and notable clinical or community health experiences into publishable work.
- Identify areas of professional interest that contain opportunities to make meaningful contributions to the medical literature.
- Prepare a personal plan for collaborating with mentors, colleagues, and trainees on performance improvement (PI) and other scholarly activity projects.

PSNA Educational Event

As an approved event, the following items need to be reviewed:

- There are no partial hours associated with this opportunity; you MUST attend the entire event in order to be awarded contact hours.
- There are no reported conflicts of interest with any of our speakers or with any of the planning committee members.
- This program is sponsored by: Penn Medicine
- In order to be awarded PSNA contact hours, you **MUST ALSO** complete the evaluation form.
- If you do not attend the entire course AND complete the evaluation, you will not be awarded the contact hours approved for this activity.
- A certificate will be awarded once an evaluation is submitted.

This activity has been awarded 1.0 contact hours. Penn Medicine Nursing is approved as a provider of nursing continuing professional development by Pennsylvania State Nurses Association, an accredited approver by the American Nurses Credentialing Center's Commission on Accreditation. Approval # 136-3-H-22.

Assessing proposals to update established screening strategies

Alison Huffstetler,[1] Kenneth W Lin ,[2] Russell P Harris[3,4]

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► Additional supplemental material is published online only. To view, please visit the journal online (https://doi.org/10.1136/bmjebm-2024-113025).

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The increasing use of statistical modelling and lower certainty evidence to expand screening and the aggressive marketing of multicancer early detection tests raises questions about evidence thresholds for updating existing screening recommendations.

Since 2018, five of the updated cancer screening recommendations of the US Preventive Services Task Force (USPSTF) have included statistical models (breast, colorectal, lung, cervical and prostate). All five have recommended more intensive screening than the earlier recommendation, either by recommending newer screening technologies or expanding the population eligible for screening. For example, the 2021 colorectal cancer screening recommendation lowered the starting age from 50 to 45 years based on a microsimulation model of hypothetical patient panels.[1 2] The models for updating recommendations for all of these cancers relied heavily on either intermediate outcomes or performance characteristics of the screening test. Several blood-based cancer screening tests for multiple cancers are being developed and promoted without randomised controlled trials with health outcomes.[3] Soon, evidence-based organisations will be faced with proposals for further intensification of screening using these new technologies.

Recommendations of new screening strategies from evidence-based organisations such as the USPSTF, the Canadian Task Force on Preventive Health Care (CTFPHC) and the International Agency for Research on Cancer (IARC) are based on several factors, but especially evaluation of complex bodies of research, using methods that specify a high threshold for evidence of

Premature adoption versus premature rejection

Proposals for updating often involve screening more intensively, such as screening a broader population, increasing the sensitivity of screening or using a newer screening technology. In deciding whether to recommend expanded screening, the evidence-based organisation must assess the incremental net benefit of expansion and then balance the twin errors of premature adoption and premature rejection. We use the term 'premature adoption' to refer to the adoption of an updated screening recommendation which is later found to have zero or negative net benefit. Premature adoption leads to overdiagnosis and overtreatment and may lead to less follow-up research. We use the term 'premature rejection' to refer to the rejection of a proposed updated screening strategy that later evidence shows has at least moderate net benefit. Premature rejection delays benefits to the individual and population until further evidence is produced.

The importance of the evidence threshold

A critical factor in assessing net benefit that can lead to these potential errors is where the evidence threshold is set. We use the term 'evidence threshold' to indicate the quality, directness and quantity of research evidence required to give the evidence-based panel the certainty needed to assess net benefit in such a way that they can make either a strong positive or negative recommendation. This would correspond to an 'A-D' recommendation rather than 'I' from the USPSTF, a 'strong' recommendation from the CTFPHC and other organisations that use the GRADE system, or

“But I’m a clinician, not a writer”

- People often think of science and writing as vastly different endeavors, but they’re very much the same. They’re both driven by curiosity, by noticing small moments – a single unexpected piece of data in an experiment, a sentence someone says in passing, a tiny crack in a rock face – and taking the time to see where those moments might lead, what larger stories they might uncover that can teach us. … This is one thing all stories in this collection have in common: they’re written by and about people who take the time, and often a substantial amount of risk, to follow curiosity wherever it might lead, so we can all learn from it.
  - Rebecca Skloot (“The Immortal Life of Henrietta Lacks”) from the Introduction to *The Best American Science and Nature Writing 2015*

Transforming your daily work into scholarship: tips for a busy clinician-scholar (Schrager et al., MedEdPublish, 2019)

- Conduct a survey of your daily work
- Keep all of your work close to home, related to one or two themes.
- Plan ahead.
  - "When you start a new project, volunteer for a new committee, or commit to giving a talk, think about how this activity can be turned into scholarship."
- Make everything count twice.
- Use social media wisely to extend the impact of your work.

My career thus far

- 2001 M.D., NYU School of Medicine
- 2004 Graduated from LGH Family Medicine Residency Program
  - Charles W. Bair Award for Scholarly Activity in Family Medicine
- 2004-05 Worked at two community health centers in Washington, DC while completing *AFP* editorial fellowship at Georgetown University SOM
- 2005-06 Private practice in Arlington, VA
- 2006-10 Medical officer at Agency for Healthcare Research and Quality (Rockville, MD)
- 2011-12 Urgent care physician in Pasadena, MD
- 2012-22 Faculty member and health policy fellowship director (2012-17) at GUSOM
- 2013 M.P.H., Johns Hopkins University Bloomberg School of Public Health
- 2022- Faculty member and scholarly activity coordinator at LGH FMRP

35 peer reviewed journal articles, 240+ non-refereed publications, 90+ conference/CME presentations

“What do you want to do after you graduate from residency?”

Residency scholarship experience

- As a 2nd year resident, gave a noon conference presentation ("protocol") on hepatitis B
- Encouraged by a faculty mentor (Jeff Kirchner, DO) to write up my presentation for publication as a review article in *American Family Physician*, where he was a former associate editor
- Also encouraged to get involved in a research project on structured antiviral treatment interruptions in patients with HIV in Comprehensive Care Clinic
- In 2002, we **did** have MEDLINE and word-processing software … but in a pre-electronic medical record era, office notes were dictated, hospital notes were handwritten, and patients had physical charts

AIDS PATIENT CARE and STDs
Volume 19, Number 3, 2005

Knowledge of Structured Treatment Interruption and Adherence to Antiretroviral Therapy

TRISHA ACRI, M.D.,[1] ANDREW COCO, M.D.,[2,3] KENNETH LIN, M.D.,[3]
RICHARD JOHNSON, R.N.,[3] and PATRICK ECKERT, B.A.[4]

ABSTRACT

We conducted a survey of 106 HIV-infected patients on antiretroviral therapy at a community hospital in Lancaster, Pennsylvania, to determine the extent of patient knowledge and attitudes about structured treatment interruption (STI) and whether these were factors in adherence to antiretroviral regimens. Thirty-six percent of patients possessed knowledge of STI as a treatment option and four patients reported that they had stopped taking antiretroviral therapy without specific recommendation from their physician based on information they had heard or read about STI. There was no difference in median adherence based on whether a patient was aware of STI, however, in the group who had heard of STI, attitude that STI is very beneficial was correlated with greater adherence to medication. More than one third of HIV-infected patients on antiretroviral therapy possessed knowledge of STI, and this knowledge affected adherence to antiretroviral regimens. Providers caring for HIV-infected patients should routinely inquire about patient knowledge of STI as another factor in assessing adherence to antiretroviral therapy.

INTRODUCTION

Use of highly active antiretroviral therapy (HAART) has greatly decreased the morbidity and mortality of HIV and AIDS.[1,2] The regimens are challenging, and adherence to clinically significant resistance.[6] Even with adherence above 90%, development of resistant virus is still possible,[7] and it may be true that resistance is less likely to develop if adherence is less than 70%.[6]

Some clinicians and researchers have inves-

MOVING YOUR WORK FROM PRESENTATION TO PUBLICATION

Octavia Amaechi, MD
Sarina Schrager, MD, MS

Family Medicine Focus

Peer-reviewed publication is a major component of a career in academic medicine. Publication allows for broad dissemination of knowledge and ideas, anchoring of important work in the medical literature, establishing a reputation in a particular field, and meeting expectations or requirements for promotion. Much of the rich work in scholarly presentations, particularly those on teaching innovations, faculty development, and clinical topics, do not make it to publication.[1,2] This Family Medicine Focus will help faculty recognize which presentations have publication potential and guide the process forward.

Does this presentation have publication potential?[2]

1. Is the topic important and relevant?
2. Has the topic been covered recently in the literature?
3. Does the presentation describe a new or innovative approach to a clinical, teaching, or research question?
4. Is this a novel approach to a topic for a specific scenario or group?

Identify a journal for your work

1. Match your topic and article type to intended journal.
   - Review literature cited in the presentation for ideas of journals.
2. Consider journal content, your intended audience, and impact factor.
   - Is your paper for a family medicine audience? Or an audience of more general, subspecialty medical or other professionals?
3. **J.A.N.E.** Journal, Author, Name, Estimator, *biosemantics.org* can help you find an appropriate journal!
4. If uncertain of journal fit, consider contacting the journal editor for their input.
5. If you truly cannot find a good fit for your topic, reconsider writing the paper.

How do I move from presentation to publication?

1. Plan ahead by writing your manuscript while preparing your presentation. Slides can serve as an outline. Use the note sections of presentation platforms, such as Google Slides or Microsoft PowerPoint, to add details that will later form the body of your paper.
2. Keep track of references and citations in the slide notes. This will make compilation far easier as references will already be held and saved.
3. Set aside dedicated time to work on the manuscript. Whether in scheduled large blocks or smaller increments, working solo or in a writing group–stick to what works for you.
4. Clarify article type, complete your literature search, solidify objectives and goals, and improve upon working drafts with target journal and audience in mind.
5. Consider recording yourself presenting your work. You can transcribe and incorporate important details from postpresentation discussions to create or improve your rough draft.
6. Leverage opportunities to further develop academic writing skills such as those offered by STFM.

(See Appendix)

Converting a presentation into a published product is a laudable goal. With preplanning and a blueprint to convert your work into a manuscript, it is acheivable and rewarding to do.

References:

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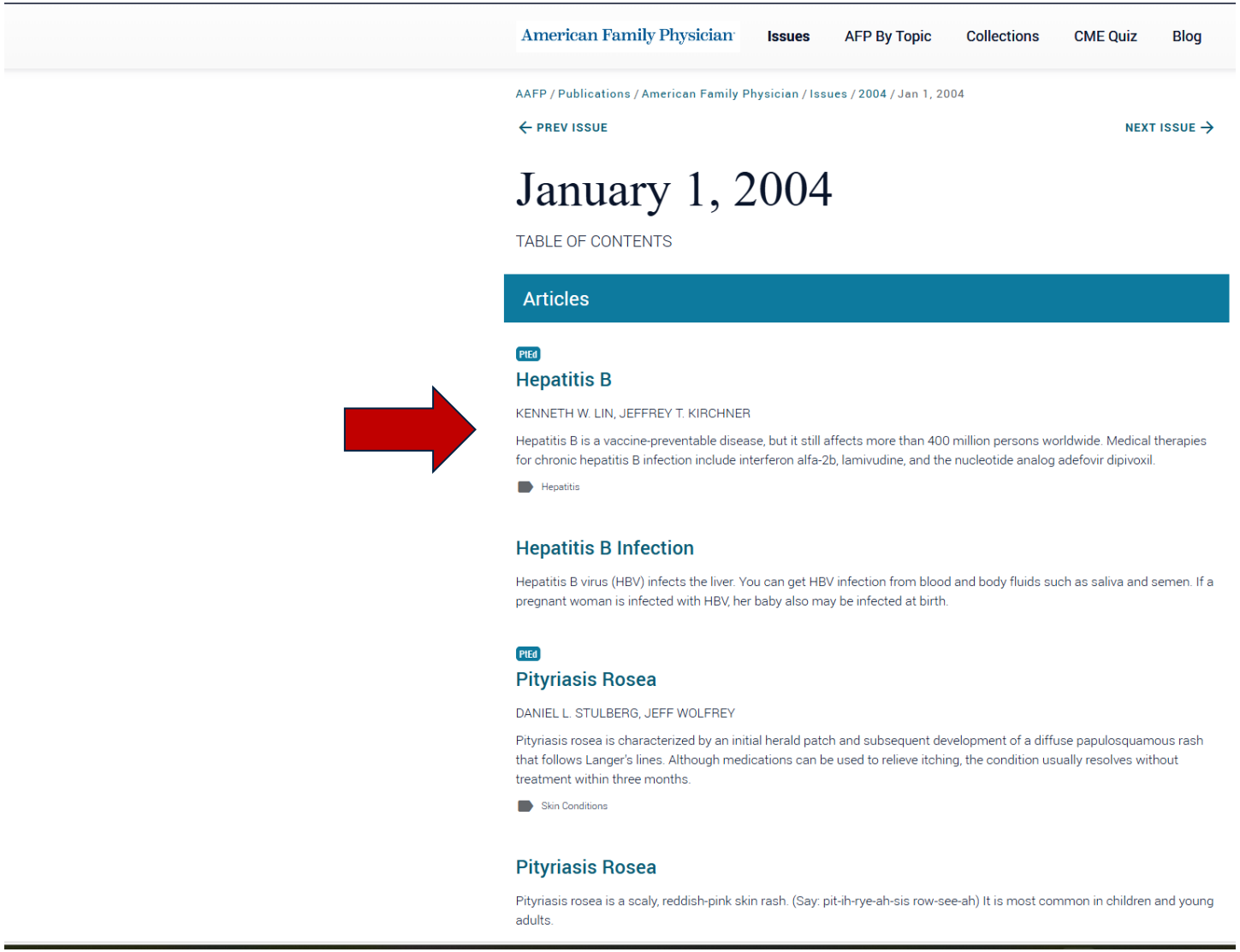
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PtEd
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DANIEL L. STULBERG, JEFF WOLFREY
Pityriasis rosea is characterized by an initial herald patch and subsequent development of a diffuse papulosquamous rash that follows Langer's lines. Although medications can be used to relieve itching, the condition usually resolves without treatment within three months.
Skin Conditions
Pityriasis Rosea
Pityriasis rosea is a scaly, reddish-pink skin rash. (Say: pit-ih-rye-ah-sis row-see-ah) It is most common in children and young adults.

COVER ARTICLE

Hepatitis B

KENNETH W. LIN, M.D., and JEFFREY T. KIRCHNER, D.O., Lancaster General Hospital, Lancaster, Pennsylvania

Hepatitis B causes significant morbidity and mortality worldwide. More than 400 million persons, including 1.25 million Americans, have chronic hepatitis B. In the United States, chronic hepatitis B virus infection is responsible for about 5,000 annual deaths from cirrhosis and hepatocellular carcinoma. Hepatitis B virus is found in body fluids and secretions; in developed countries, the virus is most commonly transmitted sexually or via intravenous drug use. Occupational exposure and perinatal transmission do occur but are rare in the United States. Effective vaccines for hepatitis B virus have been available since 1982; infant and childhood vaccination programs introduced in the 1990s have resulted in a marked decrease in new infections. Risk factors for progression to chronic infection include age at the time of infection and impaired immunity. From 15 to 30 percent of patients with acute hepatitis B infection progress to chronic infection. Medical therapies for chronic hepatitis B include interferon alfa-2b, lamivudine, and the nucleotide analog adefovir dipivoxil. (Am Fam Physician 2004;69: 75-82,86. Copyright 2004© American Academy of Family Physicians.)

A patient information handout on hepatitis B, written by the authors of this article, is provided on page 86.

Hepatitis B virus (HBV) is a common cause of liver disease throughout the world. An estimated one third of the world's population has serologic evidence of past infection, and the virus causes more than 1 million deaths annually.[1] In the United States, the incidence of HBV infection declined from about 14 cases per 100,000 population in the mid-1980s to about three cases per 100,000 population in 1998.[2] However, there are still 1.25 million adults and children in the United States with chronic HBV infection.

HBV is transmitted through blood and

much lower baseline prevalence (0.1 percent). In the United States, groups at increased risk for HBV infection have been identified (*Table 1*).[4]

Because newborns have an immature immune system, 90 percent of infants infected perinatally progress to chronic infection. Progression to chronic HBV infection occurs in 25 to 30 percent of persons infected before five years of age, and in 3 to 5 percent of those infected later in childhood or as adults. Immunosuppressed patients are at greater risk of becoming chronically infected.[1,5,6]

Virologic Characteristics

Make your work count twice (or thrice, or 4 times)

- 2002 residency protocol led to
- 2004 *American Family Physician* article, which led to
- 2006 & 2007 AAFP FMX (formerly Scientific Assembly) lectures on hepatitis, which led to
- 2007 chapter on Chronic Liver Disease in *Essentials of Family Medicine* textbook

- I also turned my 3rd year resident protocol on Autism into a chapter in another family medicine textbook

Evidence reviews on screening for COPD, prostate cancer, testicular cancer, ASB, and hepatitis B (of course)

Lin K, Croswell JM, Koenig H, Lam C, Maltz A. Prostate-specific antigen-based screening for prostate cancer: an evidence update for the U.S. Preventive Services Task Force. Evidence Synthesis No. 90. AHRQ Publication No. 12-05160-EF-1. Rockville, MD: Agency for Healthcare Research and Quality, October 2011.

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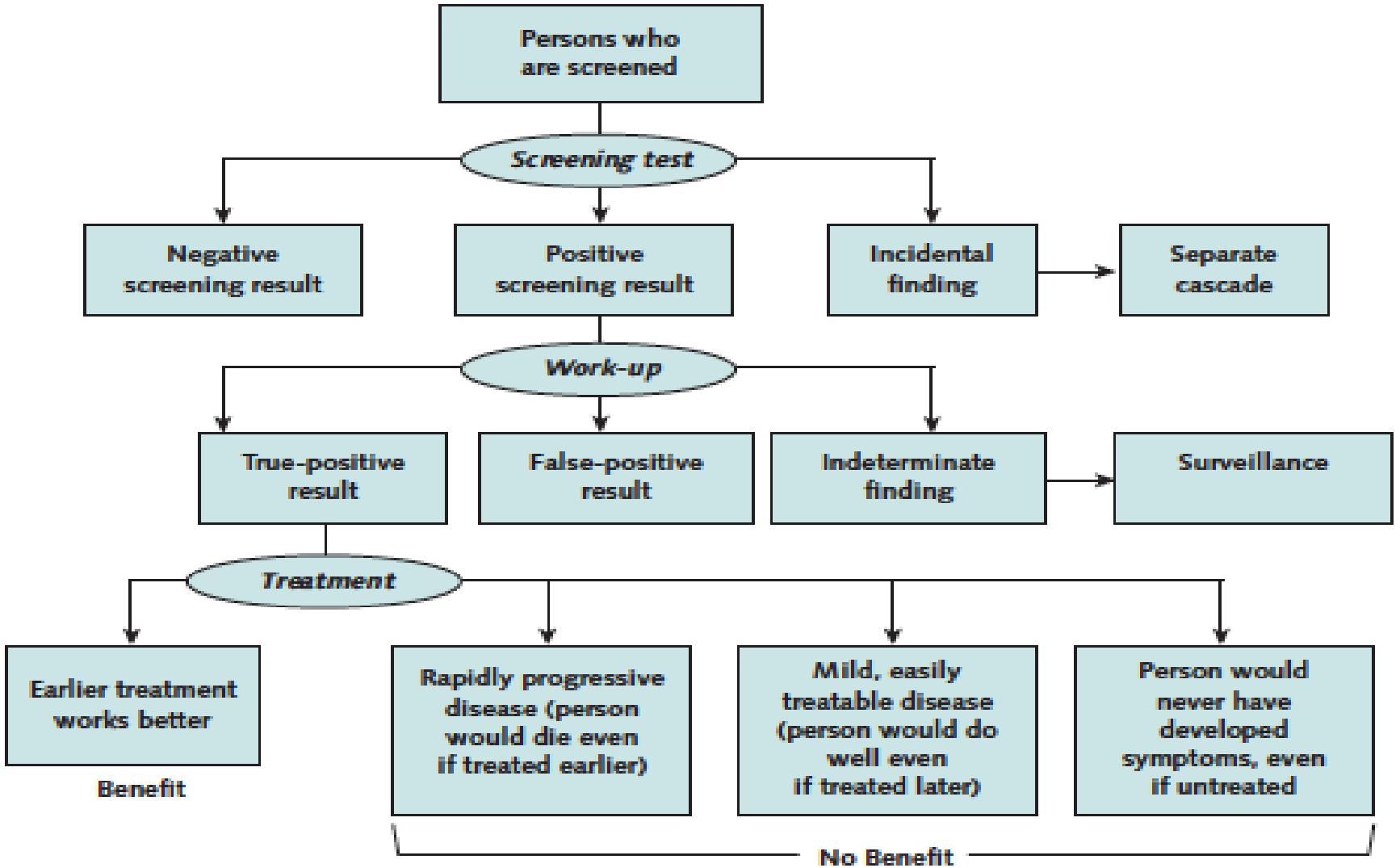
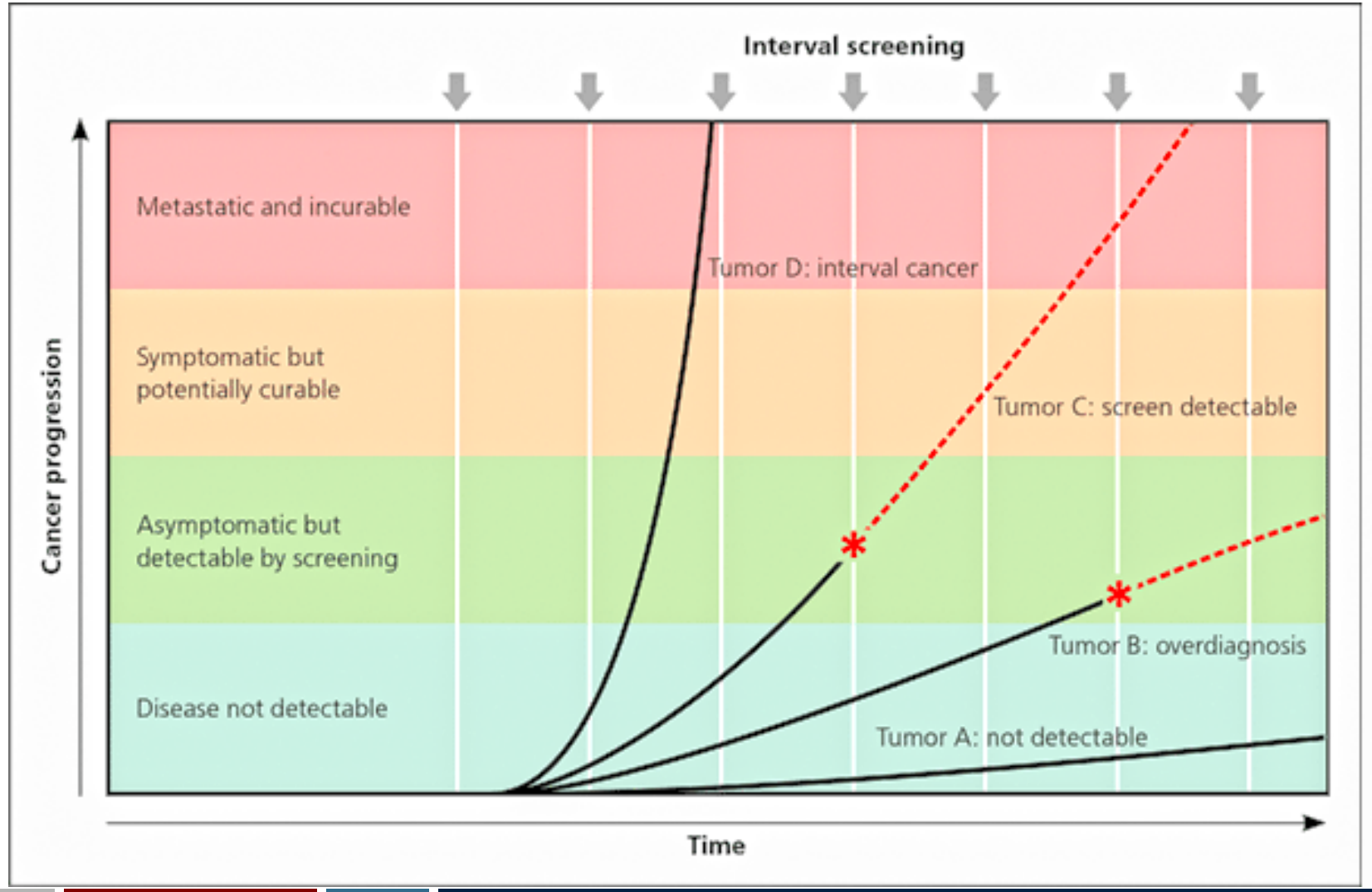
Screening test cascade



Overdiagnosis



Lin KW, Yancey JR. Evaluating the evidence for Choosing Wisely in primary care using the Strength of Recommendation Taxonomy (SORT). J Am Board Fam Med 2016;29:512-515.

Choosing Wisely®

An initiative of the ABIM Foundation

RIGHTCARE

Addressing Low-Value Care

ACP | High Value Care

Overuse is a big problem in primary care

- From 1999 to 2009, only 2 of 11 ambulatory overuse quality indicators improved
  - Cervical cancer screening for women age >65
  - Antibiotics for asthma exacerbations
- 1 became worse
  - Prostate cancer screening in men age >74
- 8 did not change
  - Mammography in women age >75
  - Screening ECG, UA, CBC, chest x-ray
  - Imaging for acute back pain
  - Antibiotics for URI and acute bronchitis

Choosing Wisely®

An initiative of the ABIM Foundation

American Academy of Family Physicians

AMERICAN ACADEMY OF FAMILY PHYSICIANS

Fifteen Things Physicians and Patients Should Question

1 Don't do imaging for low back pain within the first six weeks, unless red flags are present.

Red flags include, but are not limited to, severe or progressive neurological deficits or when serious underlying conditions such as osteomyelitis are suspected. Imaging of the lower spine before six weeks does not improve outcomes, but does increase costs. Low back pain is the fifth most common reason for all physician visits.

2 Don't routinely prescribe antibiotics for acute mild-to-moderate sinusitis unless symptoms last for seven or more days, or symptoms worsen after initial clinical improvement.

Symptoms must include discolored nasal secretions and facial or dental tenderness when touched. Most sinusitis in the ambulatory setting is due to a viral infection that will resolve on its own. Despite consistent recommendations to the contrary, antibiotics are prescribed in more than 80 percent of outpatient visits for acute sinusitis. Sinusitis accounts for 16 million office visits and $5.8 billion in annual health care costs.

3 Don't use dual-energy x-ray absorptiometry (DEXA) screening for osteoporosis in women younger than 65 or men younger than 70 with no risk factors.

DEXA is not cost effective in younger, low-risk patients, but is cost effective in older patients.

Clinician Lists

Complete lists of recommendations by society can be found by clicking the society name or via individual recommendation pages.

Society	Recommendation
American Urological Association	Don't remove synthetic vaginal mesh in asymptomatic patients.
American Urological Association	Don't prescribe antimicrobials to patients using indwelling or intermittent catheterization of the bladder unless there are signs and symptoms of urinary tract infection.
American Urological Association	Offer PSA screening for detecting prostate cancer only after engaging in shared decision making.
American Urological Association	Don't obtain computed tomography scan of the pelvis for asymptomatic men with low-risk clinically localized prostate cancer.
American Urological Association	Don't diagnose microhematuria solely on the results of a urine dipstick (macroscopic urinalysis).
American Urogynecologic Society	Avoid using synthetic or biologic grafts in primary rectocele repairs.

Search Recommendations

KEYWORD

SOCIETY
- filter by -

TOPIC AREA
- filter by -

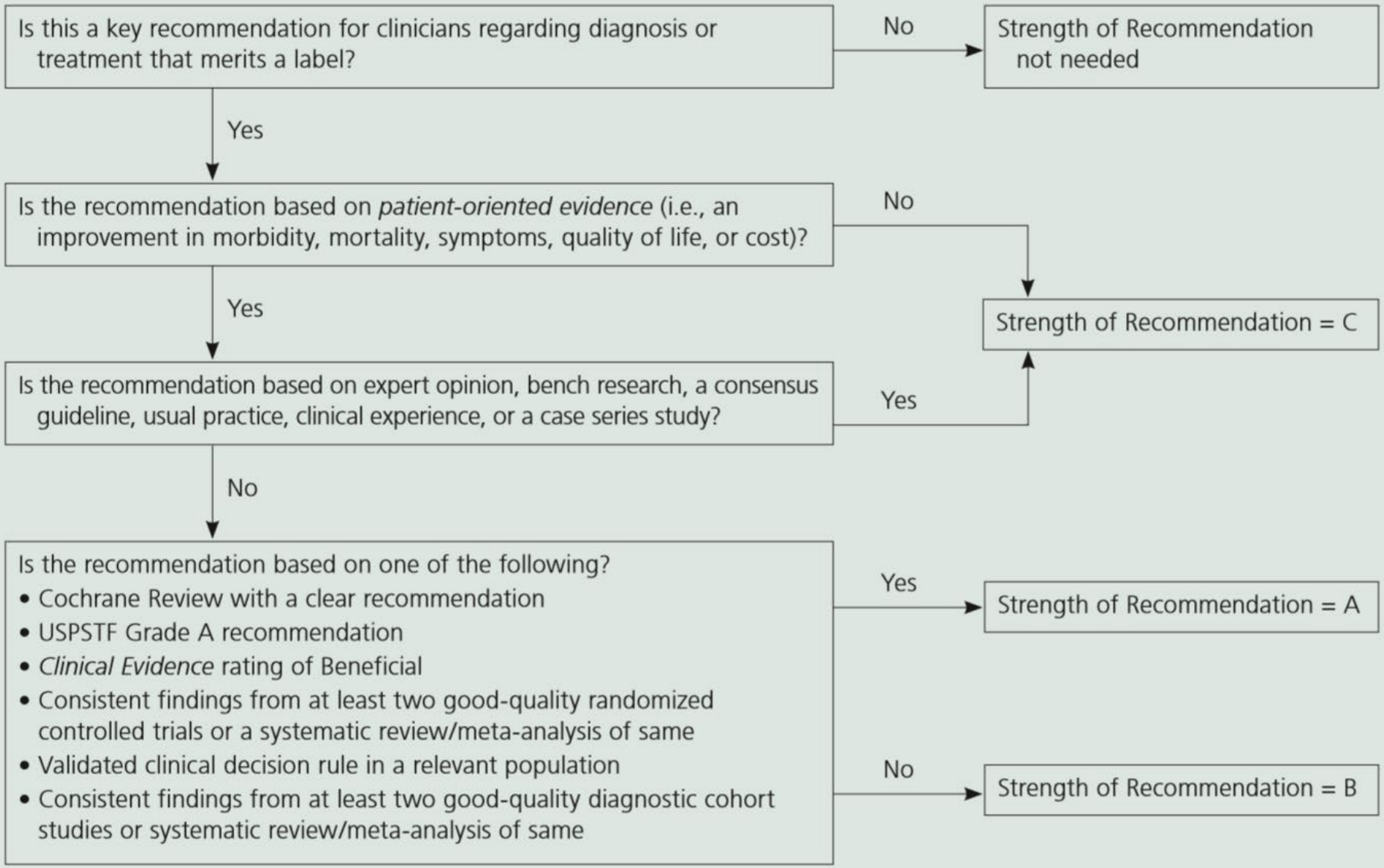
AGE
- filter by -

SETTING
- filter by -

SERVICE
- filter by -

SEARCH | Clear Filters

Strength of Recommendation Based on a Body of Evidence



Study Objective

- To systematically rate the quality of evidence supporting primary care-relevant recommendations from the American Board of Internal Medicine Foundation's Choosing Wisely campaign using a strength of recommendation taxonomy developed specifically for family medicine.

Methods

- KL and JY independently applied the SORT taxonomy to each of the 224 primary care-relevant CW recommendations, using the citations supplied by the nominating organization
- Differences in assigned letter grades were resolved by consensus
- After evidence ratings were complete, recommendations were categorized by relevant body system and proportions of ratings analyzed overall and within categories

Category	Total # of recs	SORT A	SORT B	SORT C
Allergy/Immunology	6	2	1	3
Pediatrics	26	7	11	8
Cardiovascular	27	0	5	22
Geriatric	20	9	5	6
Endocrinologic	6	2	0	4
Gastrointestinal	6	0	3	3
Women's Health	20	1	8	11
Hematology/Oncology	21	5	6	10
Infectious Disease	14	2	6	6
Neurologic	19	2	4	13
Orthopedic	11	6	1	4
Other	10	0	2	8
Urologic	9	0	3	6
Psychiatric	3	0	0	3
Pulmonologic	6	0	2	4
Rheumatologic	3	0	0	3
Surgical	17	7	0	10
OVERALL	**224**	**43 (19%)**	**57 (25%)**	**124 (55%)**

Conclusions

- Most Choosing Wisely recommendations are intended to reduce overdiagnosis and/or overtreatment
- Many primary care-relevant recommendations are based on expert consensus or disease-oriented evidence
- Further research is warranted to strengthen the evidence base supporting these recommendations to improve their acceptance and implementation into primary care practices

Lin KW, Kraemer JD, Piltch-Loeb R, Stoto MA. The complex interpretation and management of Zika virus test results. J Am Board Fam Med 2018;31:924-930.

Piltch-Loeb R, Kraemer J, Lin KW, Stoto MA. Public health surveillance for Zika virus: data interpretation and report validity. Am J Public Health 2018;108:1358-1362.

Piltch-Loeb R, Jeong KY, Lin KW, Kraemer JD, Stoto MA. Interpreting COVID-19 test results in clinical settings: it depends! J Am Board Fam Med 2021;34:S233-S243.

Make connections outside of your department or specialty. You never know where your next collaboration will come from!

- My department chair suggested that as a new faculty member at GUSOM in 2012, I meet with a professor of Health Management and Policy in the nursing school.
- We had a nice lunch at the Faculty Club, but appeared to have no research interests in common.
- A few years later, I invited him to give a guest lecture to my first year medical student course, “Patients, Populations, and Policy.”
- In 2017, he and some colleagues wanted to write an article on interpretation of test results for Zika virus infection and asked me to be their clinician collaborator.
- We ended up publishing two separate articles in a medical and a public health journal.
- In 2020, we teamed up again to write a clinical article on interpretation of COVID-19 test results.

RESPONDING TO PEER REVIEWS: GENERAL ADVICE

Copy the editor's revision letter into a Microsoft Word document and respond to each comment individually with what you did to address

BAD: "Change made"
GOOD: "We rewrote this sentence to read: X, Y, Z"

If you're working with a team, determine who should take the lead on addressing each comment. In some cases, a synchronous discussion may be more efficient to address difficult comments

Do not ignore any comments; if you disagree with a suggested change, explain why you declined to revise per the reviewer comment

Be unfailingly polite, even if you find some reviewer comments unhelpful or just plain irritating

SAMPLE REVIEWS RESPONSE LETTER (1)

Dear Dr. Bowman,

Thank you for these helpful comments. We have underlined sections of the manuscript that were revised in the corresponding resubmission. Additionally, edits we made are listed here.

Reviewer #1:

- Scenario 3 - I think using the example of a White House staffer is gratuitous. It's unnecessarily provocative and introduces politics into discussion that we need to strive to remain apolitical. In addition, the presumably zero tolerance for allowing exposure of the President changes the calculus that would be made for other citizens in less high-profile situations, making this scenario arguably not generalizable.
- *Thank you for this feedback. We have revised this scenario to make it about another individual with a high pretest probability (a college student with fever and cough with a recent COVID-19 positive exposure), which should be more generalizable now that many students have returned to college campuses.*

SAMPLE REVIEWS RESPONSE LETTER (2)

I would prefer that the average reader, who is already familiar with the concepts of PPV and NPV, not get bogged down by too much material that they already understand. The concepts of timing of the tests are also important.

- *Thank you for these comments. We respectfully disagree, however, that most readers will be familiar with the relationship of PPV and NPV to prevalence. And even for those readers who have learned the concept, the explanation here may prove helpful in speaking with patients.*

The two tables are important enough that their use suggests that cutting the identical materials from the text could be done without damage to the concepts presented in the article.

- *We agree that there is some overlap in concepts, but we feel that leaving the text out entirely will make it harder for the reader to understand where the concepts illustrated in the tables fits in to the argument.*

Research Article | EVIDENCE-BASED CLINICAL MEDICINE

Interpreting COVID-19 Test Results in Clinical Settings: It Depends!

Rachael Piltch-Loeb, Kyeong Yun Jeong, Kenneth W. Lin, John Kraemer and Michael A. Stoto

The Journal of the American Board of Family Medicine February 2021, 34 (Supplement) S233-S243; DOI: https://doi.org/10.3122/jabfm.2021.S1.200413

Abstract

Tests for Coronavirus disease 2019 (COVID-19) are intended for a disparate and shifting range of purposes: (1) diagnosing patients who present with symptoms to inform individual treatment decisions; (2) organizational uses such as “cohorting” potentially infected patients and staff to protect others; and (3) contact tracing, surveillance, and other public health purposes. Often lost when testing is encouraged is that testing does not by itself confer health benefits. Rather, testing is useful to the extent it forms a critical link to subsequent medical or public health interventions. Such interventions might be individual level, like better diagnosis, treatment, isolation, or quarantine of contacts. They might aid surveillance to understand levels and trends of disease within a defined population that enables informed decisions to implement or relax social distancing measures. In this article, we describe the range of available COVID-19 tests; their accuracy and timing considerations; and the specific clinical, organizational, and public health considerations that warrant different testing strategies. Three representative clinical scenarios illustrate the importance of appropriate test use and interpretation. The reason a patient seeks testing is often a strong indicator of the pretest probability of infection, and thus how to interpret test results. In addition, the level of population spread of the virus and the timing of testing play critical roles in the positive or

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The Journal of the American Board of Family Medicine

Vol. 34, Issue Supplement
February 2021

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Coutinho AJ, Nguyen B, Kelly C, Lin KW, Gits A, Crichlow R, Moreno G. Formal advocacy curricula in family medicine residencies: a CERA survey of program directors. Fam Med 2020;52(4):255-261.

VIEWPOINT

A Public Health Framework for Screening Mammography

Evidence-Based vs Politically Mandated Care

Kenneth W. Lin, MD, MPH
Department of Family Medicine, Georgetown University Medical Center, Washington, DC.

Lawrence O. Gostin, JD
O'Neill Institute for National and Global Health Law, Georgetown University Law Center, Washington, DC.

Corresponding

In November 2009, in the midst of acrimonious congressional debates over the Affordable Care Act (ACA), the US Preventive Services Task Force (USPSTF) updated its breast cancer screening guidelines. The Task Force recommended biennial mammography screening for women of average risk aged 50 to 74 years, sparking a torrent of criticism. Although the ACA mandated insurance coverage for USPSTF-recommended preventive services, it went further for mammography screening. Instead of relying on the most recent USPSTF guidelines, Congress amended the ACA to require the Department of Health and Human Services (DHHS) to use its 2002 guidelines, which recommended screening every 1 to 2 years starting at age 40 years.

Last year, in draft form the USPSTF again provisionally recommended biannual screening for women beginning at age 50.[1] Yet, on December 18, included within a $1.15 trillion fiscal year (FY) 2016 Consolidated Appropriations Act (HR 2029), Congress again required the use of USPSTF's 2002 guidelines. In other words, a political body required the DHHS to follow outdated scientific guidance. Although many women's health advocates applauded the congressional mandate, it actually undermines women's rights to make informed decisions based on the best scientific evidence. This Viewpoint highlights the societal risks of politically motivated mandates relating to public health guidelines.

> Essentially, Congress is requiring health insurers to ignore modern scientific assessments and instead use 14-year-old guidance.

The ACA's Preventive Services Mandate

To remove financial barriers, the ACA requires nongrandfathered private insurance plans to provide first-dollar coverage (no co-payments, coinsurance, or deductibles) for evidence-based preventive services. The ACA requires coverage for any preventive service receiving in 2016 when it released its final recommendation.[1] A C grade is commonly misunderstood. It does not advise against screening, but rather it indicates moderate certainty that there is small population-level benefit. Clinicians should discuss C-rated services with patients using an individualized assessment of the patients' risk factors and preferences. Importantly, irrespective of USPSTF recommendations, most insurers have offered mammography coverage for women aged 40 through 49 years.

Political controversy, however, continues to swirl. The FY 2016 Consolidated Appropriations Act instructs DHHS to interpret any reference to "current" USPSTF breast cancer screening recommendations to mean those issued "before 2009"—in other words, its 2002 recommendations. Essentially, Congress is requiring health insurers to ignore modern scientific assessments and instead use 14-year-old guidance.

The Cumulative Weight of Evidence

Why have the Task Force's recommendations on screening mammography been so controversial? Often USPSTF guidelines are framed as government rationing of beneficial health services as a cost-saving measure. Yet the Task Force uses a rigorous scientific methodology focusing on net health benefits and does not take economic cost into account. In the case of breast cancer screening, the USPSTF relied on 4 systematic evidence reviews of randomized controlled trials[2] and other studies and data from 6 independent models.[3] Women in their 40s who undergo screening mammography experience a high frequency and magnitude of avoidable harms (eg, false-positive results, biopsies, and excessive treatment) relative to the benefits.[3]

Highly respected scientific panels have drawn the same conclusions. As early as 1997, a National Cancer Institute (NCI) consensus panel arrived at similar results, later overturned by NCI's politically appointed advisory board. In 2015, the American Cancer Society recommended raising the starting age for routine mammography from 40 to 45 years, with biennial testing begin-

HHS Nominee Doesn’t Understand the Basics of Cancer Screens

HHS nominee and physician, Tom Price, signed a letter sent to prior HHS Secretary Kathleen Sebelius, making it clear he doesn't understand the basics of cancer epidemiology.

By **Kenny Lin, MD, MPH** - February 5, 2017

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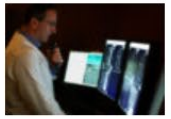

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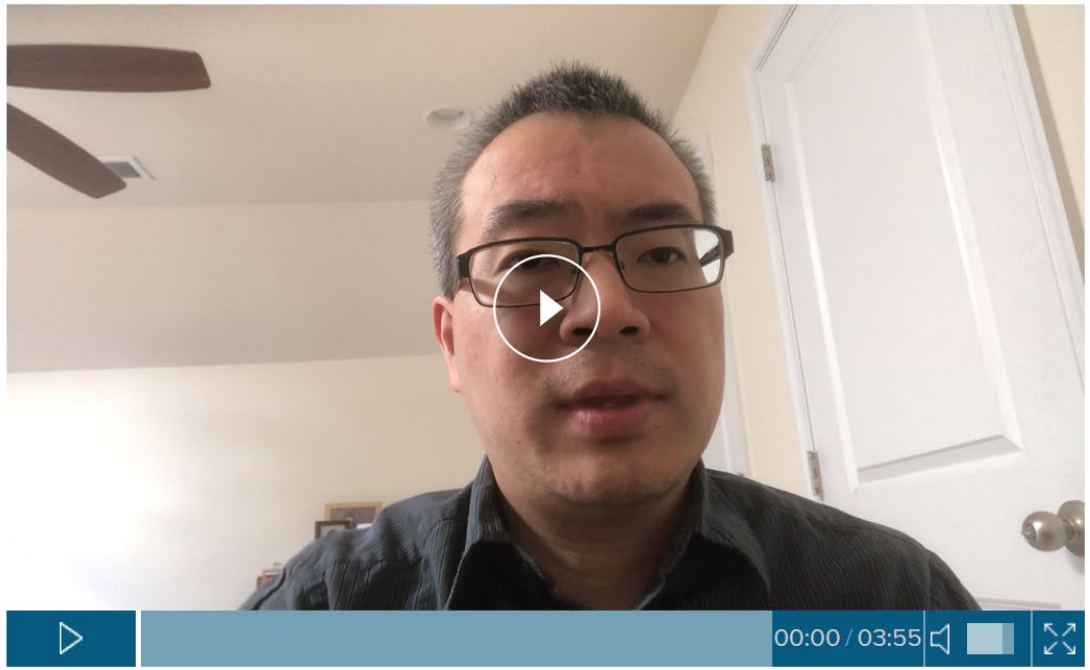

Blogs > Kevin, M.D.

AHRQ Is in Trouble

— And why you should care

+ SAVE

by Kenneth Lin MD

March 20, 2018

For the past 30 years, a little-known U.S. health agency has supported and produced volumes of groundbreaking research on how to make healthcare safer, less wasteful, and more effective. Dubbed "the little federal agency that could," the Agency for Healthcare Research and Quality (AHRQ) has accomplished this feat with a small fraction of the budgets of its higher-profile cousins, the CDC and National Institutes of Health (NIH).

Nonetheless, its work has often been politically unpopular and unheralded outside of a small community of health services researchers and patient advocates. Sadly, when all medical waste is somebody's income, there is little enthusiasm in the medical-industrial complex or on Capitol Hill in allocating the $3 trillion the U.S. spends on healthcare more wisely or efficiently. In fact, our legislative and executive branches have periodically proposed that AHRQ's budget be slashed or eliminated entirely.

S06: How to Write an Op-Ed

Bich-May Nguyen, MD, MPH, FAAFP @bicmay
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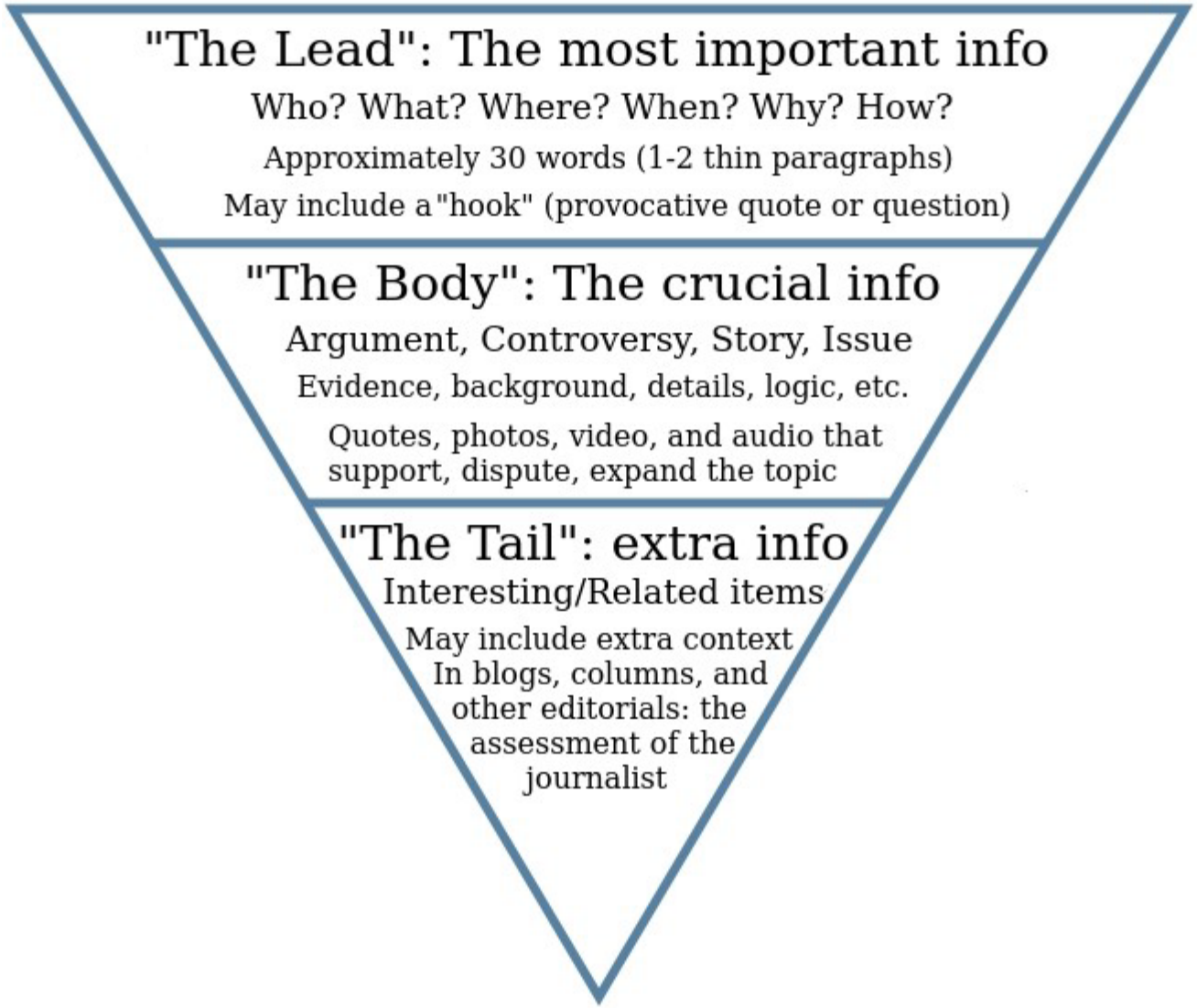

"The Lead": The most important info
Who? What? Where? When? Why? How?
Approximately 30 words (1-2 thin paragraphs)
May include a "hook" (provocative quote or question)
"The Body": The crucial info
Argument, Controversy, Story, Issue
Evidence, background, details, logic, etc.
Quotes, photos, video, and audio that support, dispute, expand the topic
"The Tail": extra info
Interesting/Related items
May include extra context
In blogs, columns, and other editorials: the assessment of the journalist

SURVEY DESIGN FOR FAMILY MEDICINE RESIDENTS AND FACULTY

Katherine M. Wright, PhD, MPH
John L. Gatta, PhD
Deborah S. Clements, MD
Northwestern Feinberg School of Medicine - Family & Community Medicine, Chicago, IL

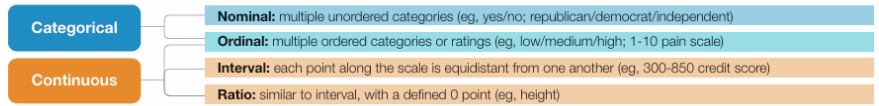
Family Medicine Focus

Family medicine residents and faculty need to fulfill Accreditation Council for Graduate Medical Education (ACGME) requirements for scholarly activity, and many implement surveys as a low-cost option to generate data. Here are some best practices for de novo survey development with a decision framework for analysis.

Instrument Development

1. Determine what respondent characteristics are needed to describe the sample and make inferences about representativeness and/or generalizability.
2. Consider the measurement properties of various response options:[1]
   a. Forced-choice (Figure 1)
   b. Open-ended (see qualitative frameworks, beyond the scope of this infographic)

Figure 1. Taxonomy of measurement



3. Follow best practices for survey design:
   - Be intentional about item order.[2] A common approach is to implement a funnel sequence starting with broad, overarching questions before narrowing to specific topics of interest.
   - List demographic items at the end.
   - When possible, use questions instead of statements.[4]
   - Avoid double-barreled item stems (eg, "rate your satisfaction with EHR updates *and* user support") and double negatives (eg, "…the system downtime was not unreasonable").[3,4]
   - Avoid mixing positively and negatively worded items in the same response set (eg, "the EHR is difficult to navigate" followed by "the EHR is easy to use").[5]
   - Ensure adequate variance and discrimination to avoid straight line scoring (eg, selecting the same response option for an entire matrix of responses) and fence sitters (those who answer neutral or no opinion despite having an opinion). When using Likert scales, include 5 or more response anchors.[4]
   - Avoid leading or unbalanced response anchors (eg, an uneven number of positive and negative response anchors).[3]
   - Make response options mutually exclusive outside of the check-all-that-apply format. A common mistake is overlapping age ranges (eg, 1-10, 10-20, 20-30).
   - Be mindful of social desirability bias, the tendency to distort responses to appear in a more positive light (eg, underreporting alcohol consumption or overestimating physical activity), when drafting questions.
   - Avoid acronyms and jargon.
   - Solicit expert feedback on survey length, readability, item clarity, operational definitions, and other aspects of the survey instrument.[6]

Sampling Design

4. Determine the appropriate sampling method:
   a. Probability sampling (eg, simple random sampling, cluster sampling)
   b. Nonprobability sampling (eg, convenience sampling, snowball sampling)

Analysis Plan

5. Calculate a response rate, if applicable.

Table 1. General framework for quantitative data analysis

Dependent Variable	Independent Variables	Statistical Tests
Continuous	1 categorical variable with 2 levels	*t* test
Continuous	1 categorical variable with more than 2 levels or multiple categorical variables	Analysis of variance
Continuous	Continuous	Linear regression

Wright KM, Gatta JL, Medicine Residents a 611. https://doi.org/1

RESEARCH

CAFM Educational Research Alliance (CERA)

About CERA

CERA, the CAFM Educational Research Alliance, is a framework to focus and support medical education research. CERA conducts approximately five surveys per year of:

- Family medicine residency directors (surveyed twice per year)
- Clerkship directors
- Department chairs
- General membership, including subsets of members as selected by applicants
- Family medicine residents
- Medical students

CERA Vision

Excellent family medicine educational research

CERA Mission

Provide a centralized infrastructure to:

- Produce rigorous and generalizable medical education research
- Facilitate collaboration among medical education researchers
- Provide training and mentorship in educational research methods
- Ensure that the work of CERA reflects and supports efforts to address equity, diversity, and antiracism

How CERA Works

- Investigators respond to calls for proposals to submit questions for surveys
- Each CERA survey includes questions submitted by investigators, as well as a set of recurring demographic and organizational questions to provide data for historical comparisons
- Once proposals have been approved, experienced researchers/mentors join each project team to help refine questions, facilitate analysis, and prepare and submit manuscripts.
- Researchers receive their individual survey results, plus the recurring question responses. Researchers are given 3 months to analyze the data from the survey prior to release of the data to the general membership. The expectation is that investigators will write and submit a paper within those 3 months.
- Members of STFM, NAPCRG, AFMRD, and ADFM use CERA data for secondary analysis.

SURVEY SCHEDULE

2024 Survey Dates

Program Directors
Call for Proposals: 12/11/23–1/9/24
Survey Dates: 4/23/24–5/24/24

Clerkship Directors
Call for Proposals: 1/22/24–2/20/24
Survey Dates: 6/3/24–7/5/24

Department Chairs
Call for Proposals: 4/1/24–4/30/24
Survey Dates: 8/12/24–9/13/24

General Membership
Call for Proposals: 5/27/24–6/25/24
Survey Dates: 10/1/24–11/1/24

Program Directors
Call for Proposals: 6/24/24–7/23/24
Survey Dates: 10/29/24–11/29/24

2025 Survey Dates

Program Directors
Call for Proposals: 12/9/24–1/7/25
Survey Dates: 4/22/25–5/23/25

Clerkship Directors
Call for Proposals: 1/27/25–2/25/25
Survey Dates: 6/10/25–7/11/25

Department Chairs
Call for Proposals: 3/24/25–4/22/25
Survey Dates: 8/5/25–9/5/25

General Membership
Call for Proposals: 5/19/25–6/17/25
Survey Dates: 9/30/25–10/31/25

Program Directors
Call for Proposals: 6/23/25–7/22/25
Survey Dates: 11/4/25–12/5/25

Findings from 2017 CERA survey

- 37.7% (89/236) of responding FM residency programs reported the presence of a mandatory formal advocacy curriculum
- 86.7% of these (78/89) focused on community (as opposed to state or federal) advocacy
- The most common barrier to implementing an advocacy curriculum was curricular flexibility (43.5%) followed by faculty expertise (21.7%)
- Having an advocacy curriculum was positively associated with faculty experience and optimistic program director attitudes toward advocacy

Brownlee S, Fraiman J, Huffstetler AN, Lin KW. An estimate of preventable harms associated with screening colonoscopy overuse in the United States. AJPM Focus (*accepted 11/10/24, publication pending*)

Huffstetler AN, Fraiman J, Brownlee S, Stoto MA, Lin KW. An estimate of severe harms due to screening colonoscopy: a systematic review. J Am Board Fam Med 2023;36(3):493-500.

Fraiman J, Brownlee S, Stoto MA, Lin KW, Huffstetler AN. An estimate of the US rate of overuse of screening colonoscopy: a systematic review. J Gen Intern Med 2022;37(7):1754-1762.

Clinical / policy question

- How many serious harms (perforations or severe bleeds) occur each year in the U.S. as a result of overuse of screening colonoscopy?

Data sources

- Number of screening colonoscopies performed annually in US
  - 2018 supplement to National Health Interview Survey (NHIS)
- Rates of serious harms associated with screening colonoscopy
  - Systematic review of multi-center studies with 30 days of follow-up in US and other high-income countries published 1 January 2002 – 1 April 2022
- Rates of overuse of screening colonoscopy
  - Systematic review of studies performed in US settings published 1 January 2002 – 23 January 2019

Serious harms

- **Severe bleeding** = bleeding that required RBC transfusion, hospital admission, or repeat endoscopic evaluation
- **Perforation** = free air or perforation visualized on radiograph requiring hospitalization or surgery

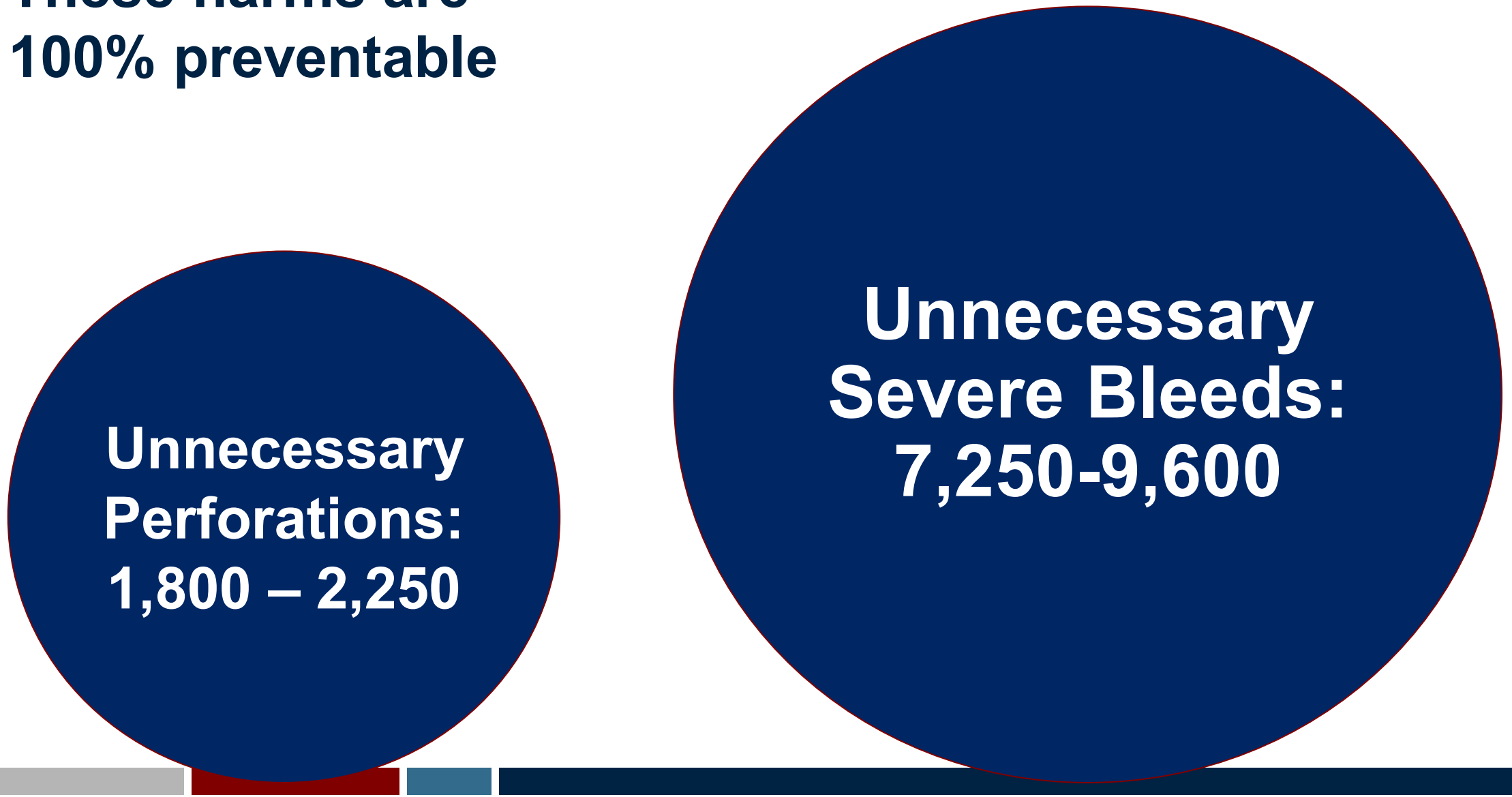
- Required studies to have a minimum 30 days of follow-up to capture immediate and delayed procedural harms (shorter follow-up would yield underestimates)

Study Author	Year	Study Type	Geography	Screening Overuse Criteria	Overuse Rate Screening Colonoscopy	Overuse Rate Surveillance Colonoscopy
Goodwin	2011	Retrospective	National (Medicare)	Repeat colonoscopy within 7 years without indication	19.6%	NA
Kruse	2014	Retrospective	Regional (Massachusetts)	Repeat colonoscopy within 9 years without indication	**26%**	49.1%
Mittal	2014	Retrospective	National (Medicare)	Colonoscopy in patients with less than 10 years life expectancy using a sex-specific model combining age and Elixhauser comorbidity index.	24.8%	NA
Murphy	2016	Retrospective	National (Veterans Affairs)	Repeat colonoscopy within 9 years and 10 months without indication	**17%**	Low risk adenoma: 26.4%, High risk adenoma: 28.7%
Saini	2016	Retrospective	National (Veterans Affairs)	Repeat colonoscopy within 9 years without indication, within 6 months of negative FOBT, or in patients with less than 6 month life expectancy	17%	NA
Sheffield	2013	Retrospective	Regional (Texas)	Repeat colonoscopy without clear indication in patient over 70-75 years old or if greater than 76 years old without diagnostic indication	23.4%	NA

Annual harms of screening colonoscopy overuse

- Best estimates of harms: **7.6-8.5 perforations** and **16-36 severe bleeding events** per 10,000 colonoscopies
- Using the NHIS estimate of 12.4 million screening colonoscopies performed annually and range of study overuse rates of **17-26%**, the # of unnecessary screening colonoscopies performed annually falls between **2.1-3.2 million (**at a cost of **$3 billion)**
- Therefore, non-indicated colonoscopies result in **1,800-2,250 perforations** and **7,250-9,600 bleeds** in the U.S. every year

These harms are 100% preventable



Implications for practice and policy

- Counsel your patients about avoidable harms of repeating screening or surveillance colonoscopy sooner than guidelines recommend
- More research needed to examine motivations for endoscopists performing inappropriate screening colonoscopy
  - Unaware of current guidelines?
  - Don’t believe that guideline recommendations apply to their patients?
- Studies are needed to estimate avoidable harms of overuse of other commonly performed procedures (e.g., arthroscopic surgery, coronary artery stenting) on a national level

Award Recipient

Kenny Lin, MD
received the STFM Research Paper of the Year award for 2024

for "An Estimate of Severe Harms Due to Screening Colonoscopy: A Systematic Review" published in *The Journal of the American Board of Family Medicine* in May 2023

https://www.jabfm.org/content/early/2023/05/11/jabfm.2022.220320R2

Take home points / recommendations

- Scholarship comes in diverse forms
- Write regularly: in a journal, on a blog, or as part of multiple ongoing projects
- Pay attention to and read about your unanswered clinical or educational questions; often they will suggest feasible research projects
- Collaborate with others, particularly outside of your department or specialty, to divide up the work and make it more enjoyable
- Don’t be too discouraged by rejections from journals – it just means your study/article hasn’t found its best home yet
- LGH has an outstanding support system for clinician-led scholarly projects in the Research Institute, Performance Improvement, and Business Intelligence. Take advantage of it!

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