The Role of Medical Journals

Sommer Memorial Lectures / May 2024

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Disclosures of Interest

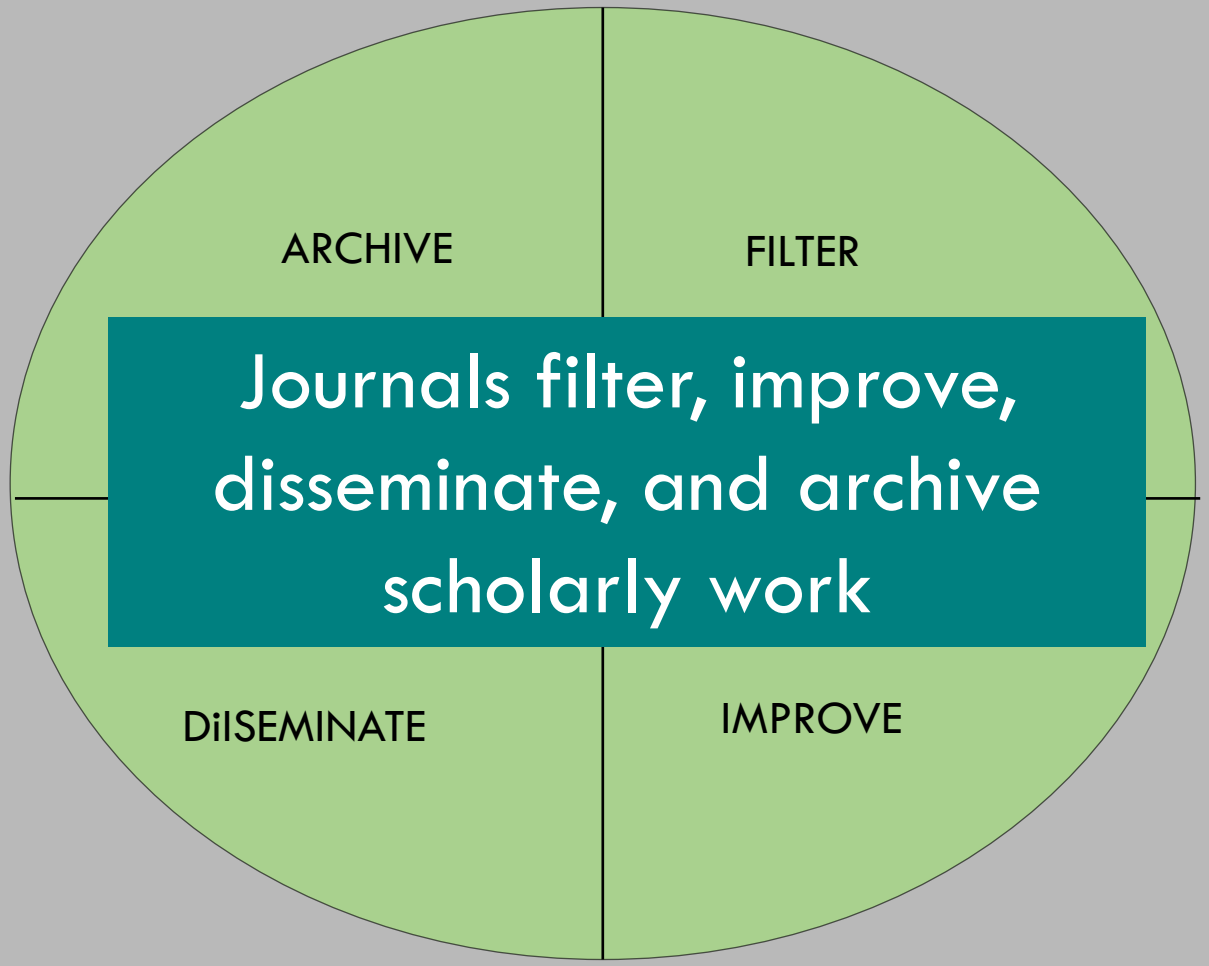
- Editor in Chief, *Annals of Internal Medicine**
- Full time employee of the American College of Physicians**, the owner and publisher of *Annals of Internal Medicine*

* *Annals of Internal Medicine* is a “reader pays” subscription-based journal

**The American College of Physicians is a not-for-profit professional organization for internal medicine physicians with ~165,000 members from US and around the globe.

What I'll be talking about..

- My view of the functions that journals serve
- Entities that currently finance publication of medical science
- "Reader pays" and "Author pays" medical journal publication models
- My predictions for the future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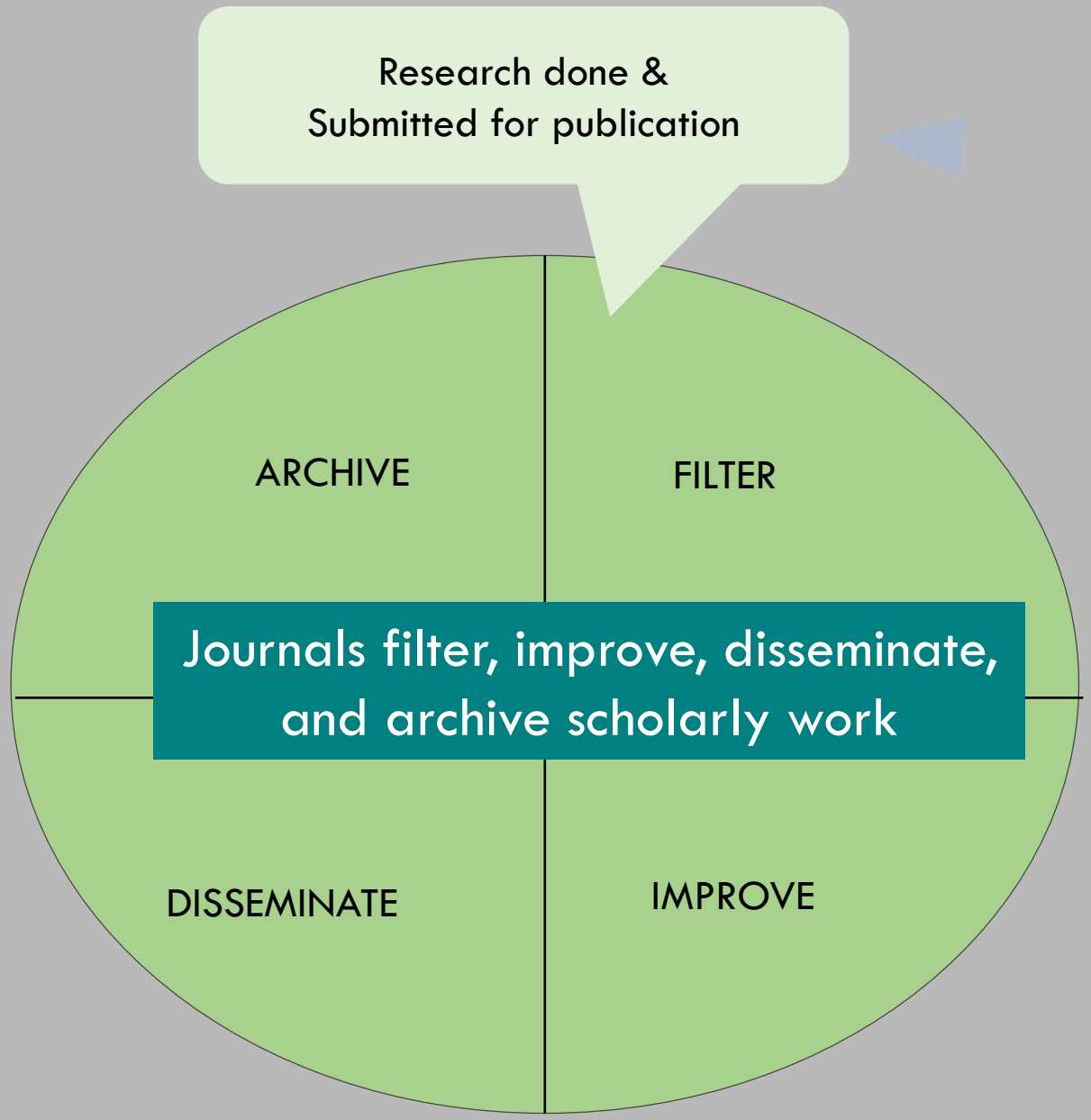
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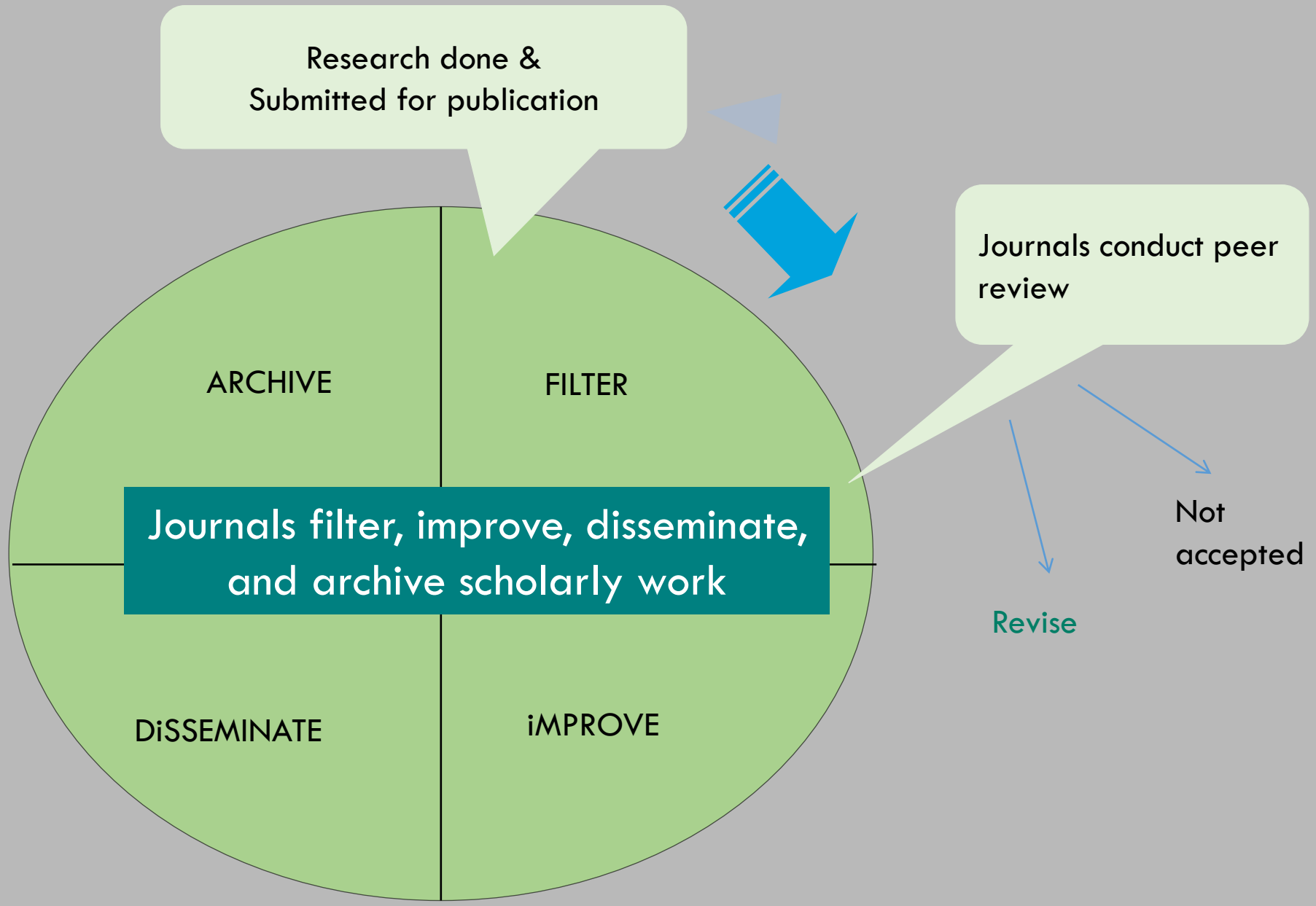
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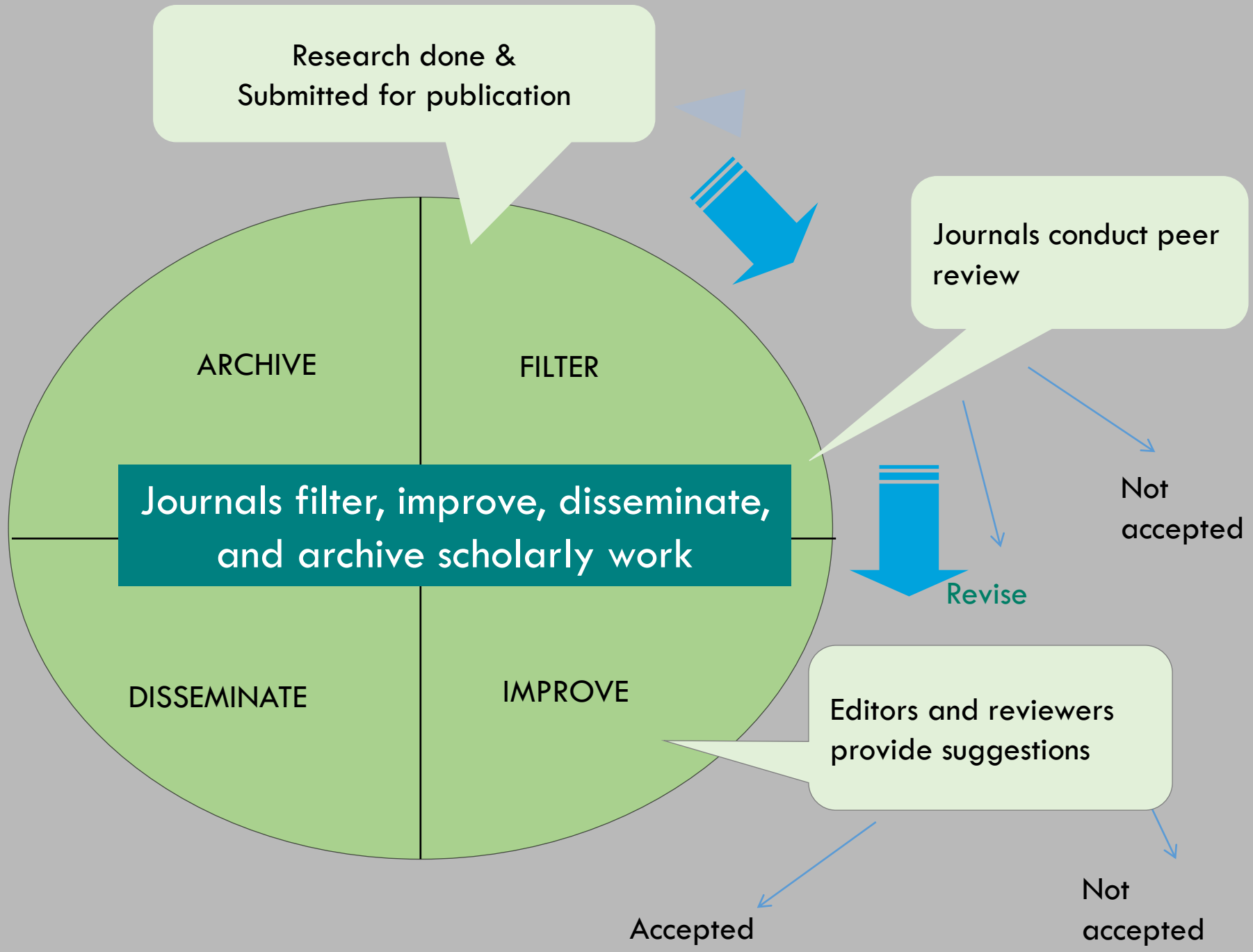
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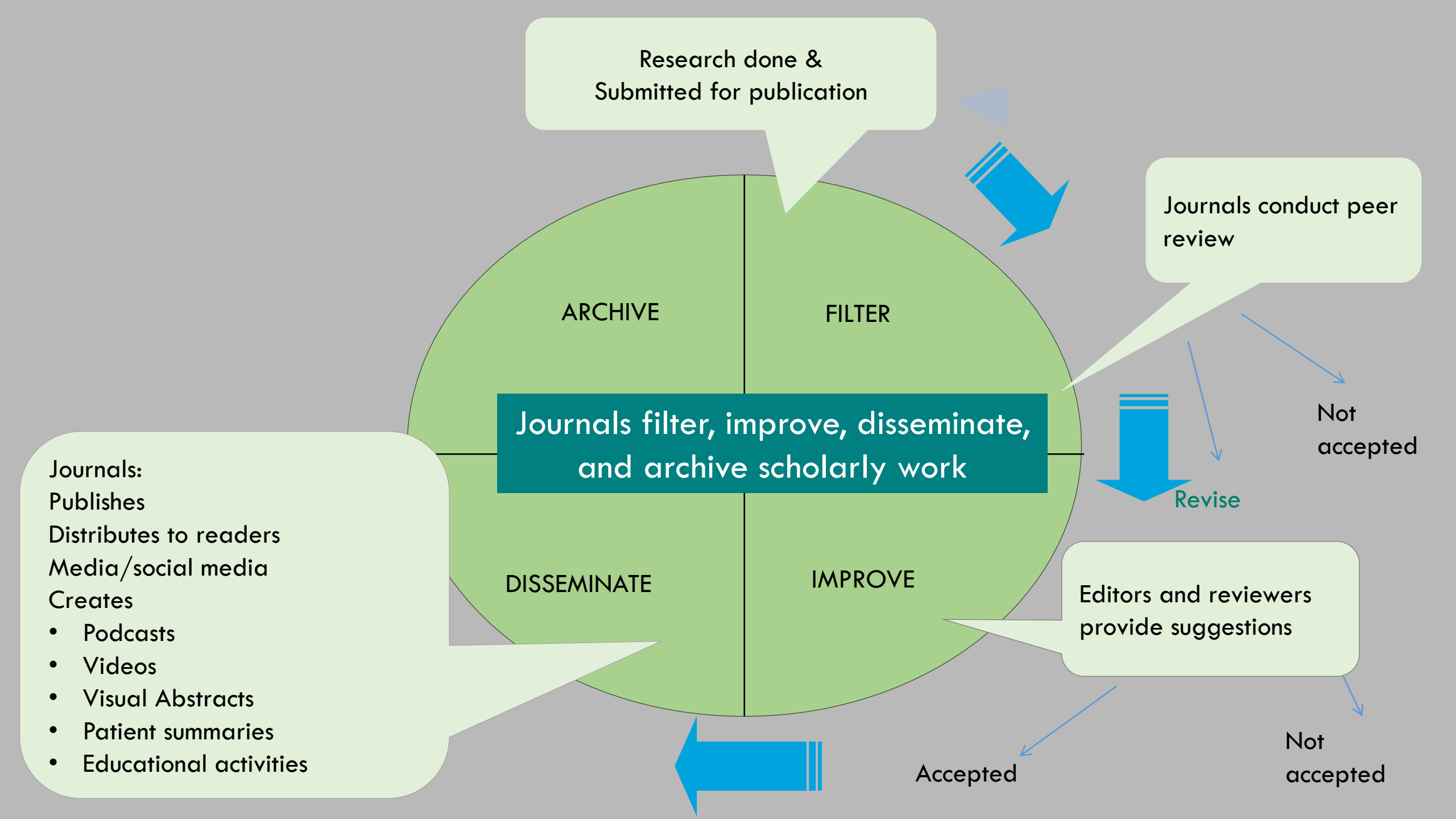
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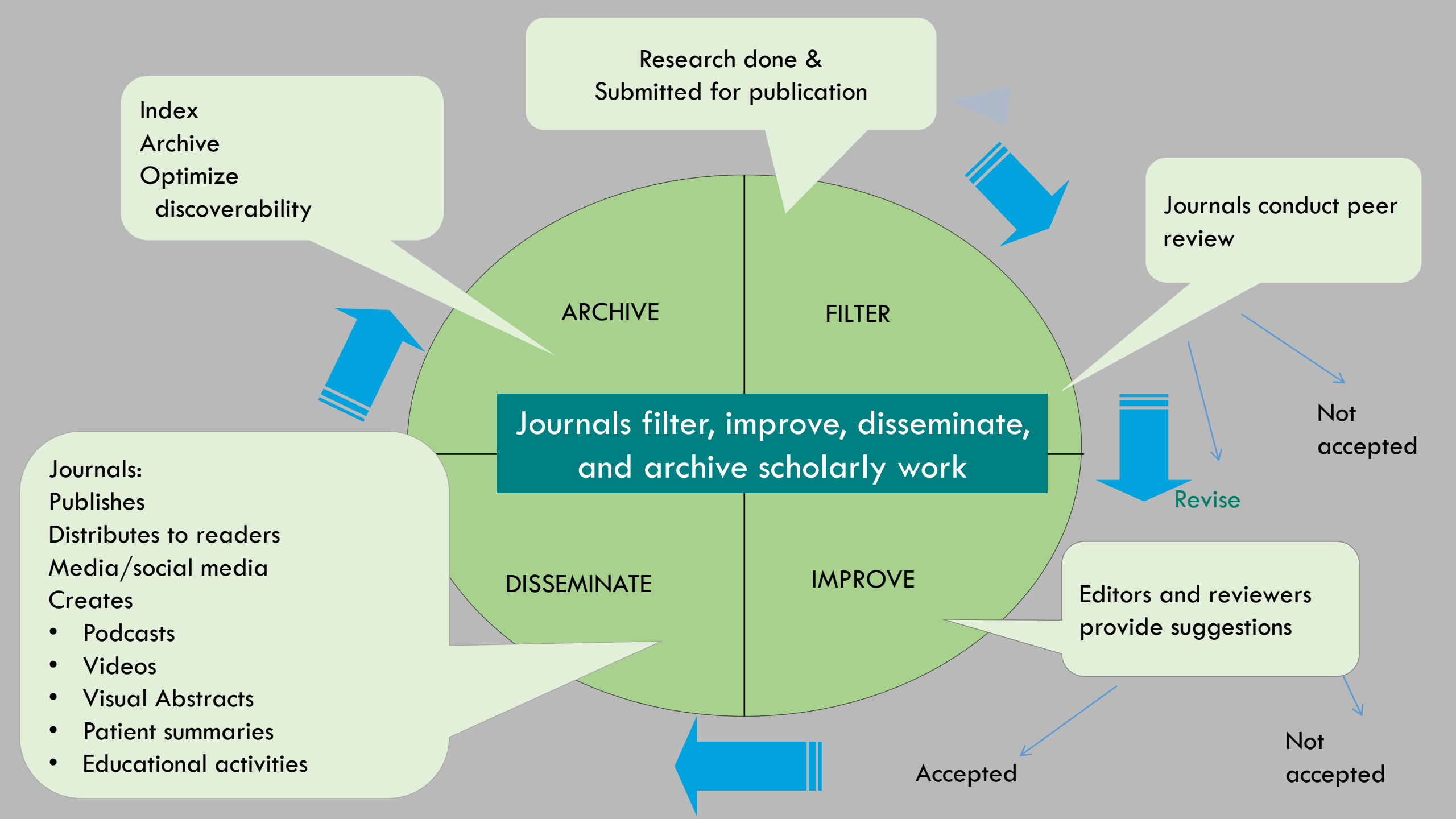
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Journals conduct peer review
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• Videos
• Visual Abstracts
• Patient summaries
• Educational activities
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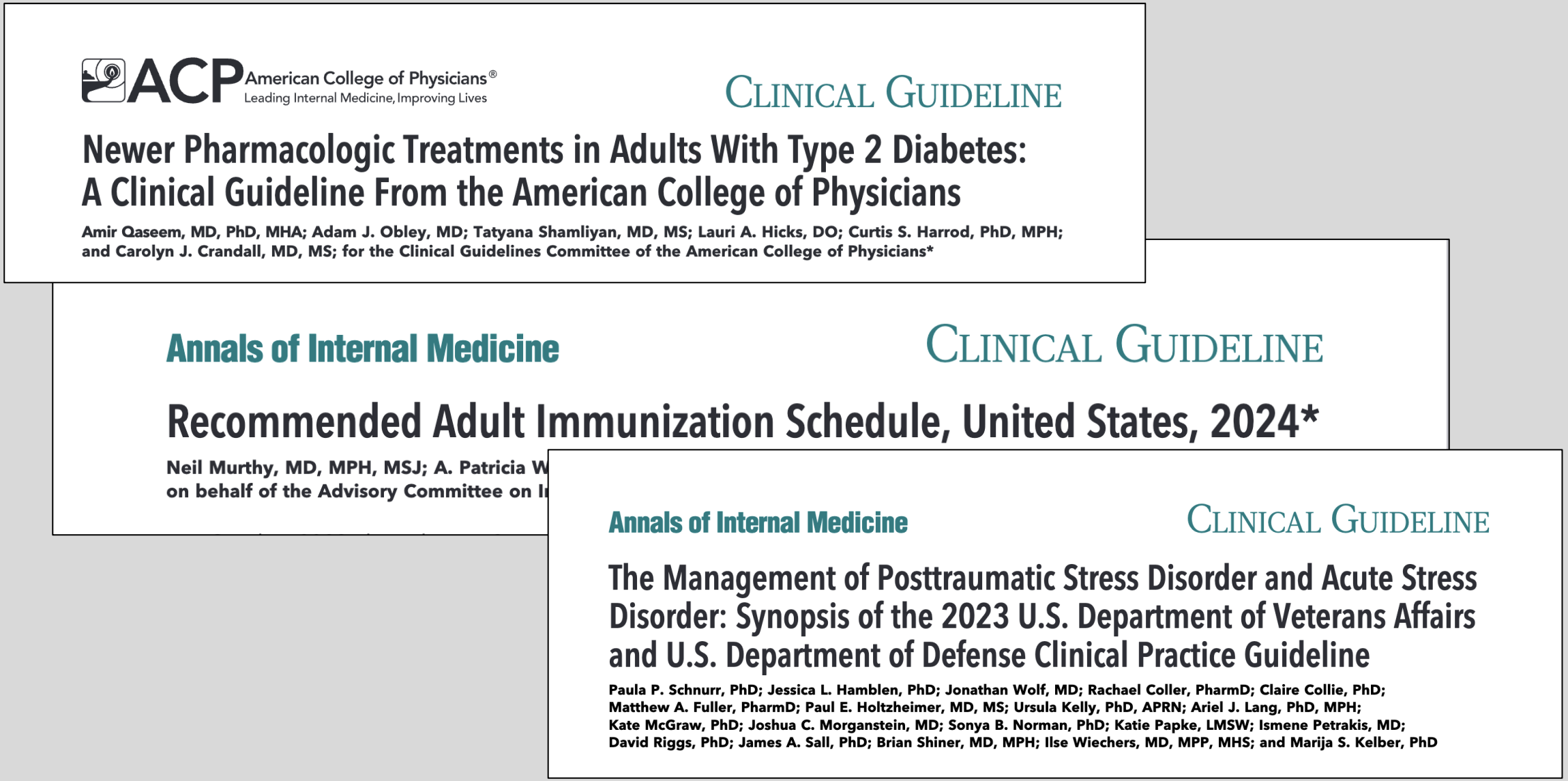
Medical Journals Influence Patient Care



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CLINICAL GUIDELINE

Newer Pharmacologic Treatments in Adults With Type 2 Diabetes: A Clinical Guideline From the American College of Physicians

Amir Qaseem, MD, PhD, MHA; Adam J. Obley, MD; Tatyana Shamliyan, MD, MS; Lauri A. Hicks, DO; Curtis S. Harrod, PhD, MPH; and Carolyn J. Crandall, MD, MS; for the Clinical Guidelines Committee of the American College of Physicians*

Annals of Internal Medicine

CLINICAL GUIDELINE

Recommended Adult Immunization Schedule, United States, 2024*

Neil Murthy, MD, MPH, MSJ; A. Patricia W
on behalf of the Advisory Committee on I

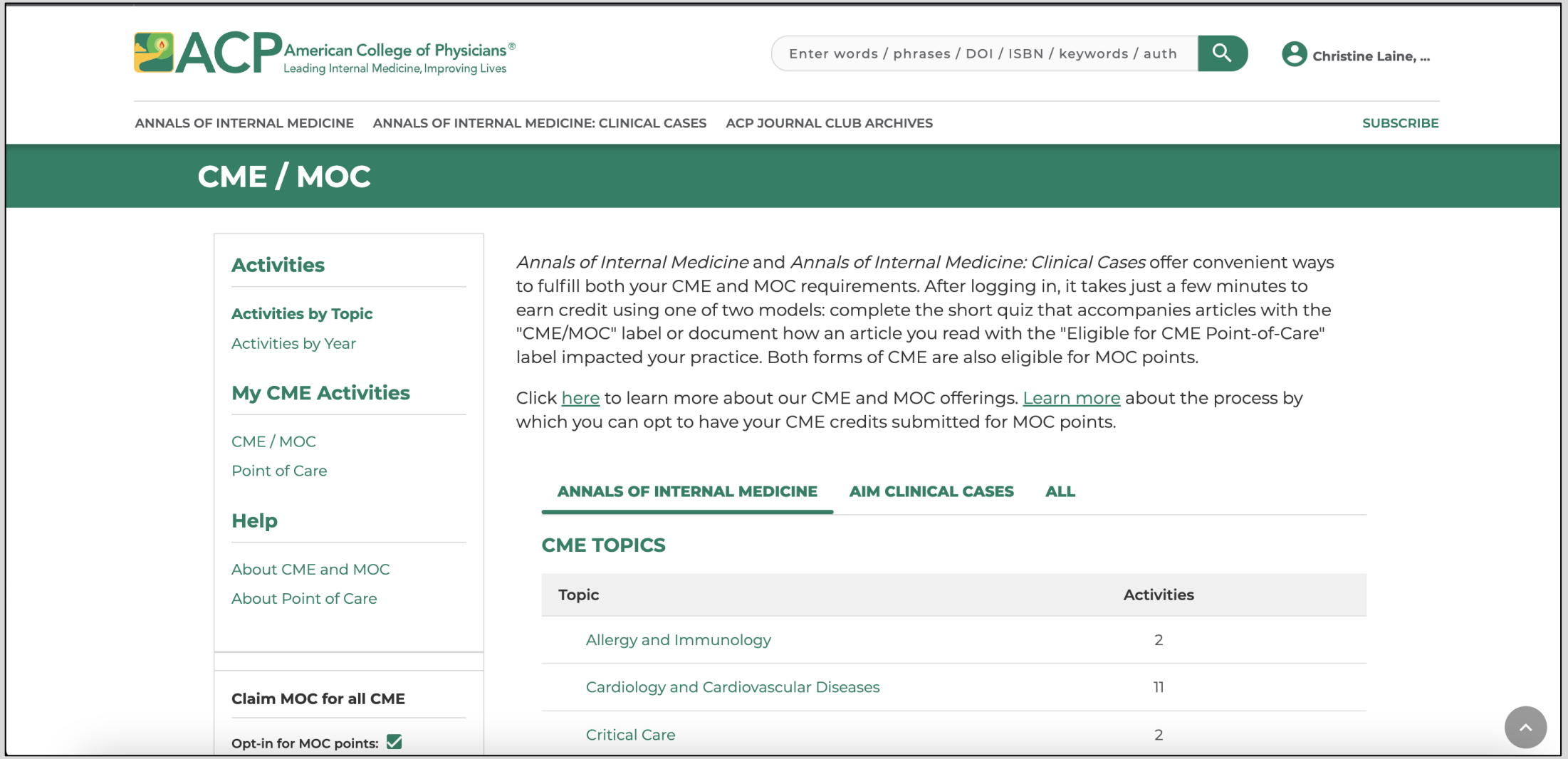
Annals of Internal Medicine

CLINICAL GUIDELINE

The Management of Posttraumatic Stress Disorder and Acute Stress Disorder: Synopsis of the 2023 U.S. Department of Veterans Affairs and U.S. Department of Defense Clinical Practice Guideline

Paula P. Schnurr, PhD; Jessica L. Hamblen, PhD; Jonathan Wolf, MD; Rachael Coller, PharmD; Claire Collie, PhD; Matthew A. Fuller, PharmD; Paul E. Holtzheimer, MD, MS; Ursula Kelly, PhD, APRN; Ariel J. Lang, PhD, MPH; Kate McGraw, PhD; Joshua C. Morganstein, MD; Sonya B. Norman, PhD; Katie Papke, LMSW; Ismene Petrakis, MD; David Riggs, PhD; James A. Sall, PhD; Brian Shiner, MD, MPH; Ilse Wiechers, MD, MPP, MHS; and Marija S. Kelber, PhD

Medical Journals Educate



Medical Journals Advance Research Methods

Annals of Internal Medicine RESEARCH AND REPORTING METHODS

The PRISMA Extension Statement for Reporting of Systematic Reviews Incorporating Network Meta-analyses of Health Care Interventions: Checklist and Explanations

Brian Hutton, PhD, MSc; Georgia Salanti, PhD; Deborah M. Caldwell, PhD, MA, BA; Anna Chaimani, PhD; Christopher H. Schmid, PhD; Chris Cameron, MS; Jeroen P. Jansen, PhD; Cynthia Mulrow, MD, MS; Kay Dickersin, PhD, MA; Isabelle Boutron, MD, F

The PRISMA statement is a reporting guideline d prove the completeness of reporting of systemat meta-analyses. Authors have used this guideline prepare their reviews for publication. In the past typically compared 2 treatment alternatives. With of systematic reviews that compare multiple treatr them only indirectly, authors face novel challenge ing and reporting their reviews. This extension (Preferred Reporting Items for Systematic Revie analyses) statement was developed specificall the reporting of systematic reviews incorpor meta-analyses.

A group of experts participated in a systematic survey, and face-to-face discussion and consens establish new checklist items for this extension s

Annals of Internal Medicine RESEARCH AND REPORTING METHODS

Transparent Reporting of a multivariable prediction model for Individual Prognosis Or Diagnosis (TRIPOD): The TRIPOD Statement

Gary S. Collins, PhD; Johannes B. Reitsma, MD, PhD; Douglas G. Altman, DSc; and Karel G.M. Moons, PhD

Prediction models are developed to aid health care providers in estimating the probability or risk that a specific disease or co dition is present (diagnostic models) or that a specific event w occur in the future (prognostic models), to inform their decisi making. However, the overwhelming evidence shows that t quality of reporting of prediction model studies is poor. O with full and clear reporting of information on all aspects o prediction model can risk of bias and potential usefulness of p diction models be adequately assessed. The Transparent R porting of a multivariable prediction model for Individual Pro nosis Or Diagnosis (TRIPOD) Initiative developed a set recommendations for the reporting of studies developing, va dating, or updating a prediction model, whether for diagnos or prognostic purposes. This article describes how the TRIPO Statement was developed. An extensive list of items based o review of the literature was created, which was reduced afte Web-based survey and revised during a 3-day meeting in Ju

Annals of Internal Medicine

Research and Reporting Considerations for Observational Studies Using Electronic Health Record Data

Alison Callahan, MISt, PhD; Nigam H. Shah, MBBS, PhD; and Jonathan H. Chen, MD, PhD

Electronic health records (EHRs) are an increasingly important source of real-world health care data for observational research. Analyses of data collected for purposes other than research require careful consideration of data quality as well as the general research and reporting principles relevant to observational studies. The core principles for observational research in general also apply to observational research using EHR data, and these are well addressed in prior literature and guidelines. This article provides additional recommendations for EHR-based research. Considerations unique to EHR-based studies include assessment of the accuracy of computer-executable cohort definitions that can incorporate unstructured data from clinical notes and management of data challenges, such as irregular sampling, missingness, and variation across time and place. Principled application of existing research and reporting guidelines alongside these additional considerations will improve the quality of EHR-based observational studies.

Ann Intern Med. 2020;172:S79-S84. doi:10.7326/M19-0873 **Annals.org**

For author affiliations, see end of text.

Medical Journals Influence Policy

POSITION PAPER

Annals of Internal Medicine

Reducing Firearm Injuries and Deaths in the United States: A Position Paper From the American College of Physicians

Renee Butkus, BA; Robert Doherty, BA; and Sue S. Bornstein, MD; for the Health and Public Policy Committee of the American College of Physicians*

For more than 20 years, the American College of Physicians (ACP) has advocated for the need to address firearm-related injuries and deaths in the United States. Yet, firearm violence continues to be a public health crisis that requires the nation's immediate attention. The policy recommendations in this paper build on, strengthen, and expand current ACP policies approved

proaches that the evidence suggests will be effective in reducing deaths and injuries from firearm-related violence.

Ann Intern Med. 2018;169:704-707. doi:10.7326/M18-1530 Annals.org
For author affiliations, see end of text.

30 October 2018.

POSITION PAPER

Annals of Internal Medicine

Meeting the Health and Social Needs of America's Unhoused and Housing-Unstable Populations: A Position Paper From the American College of Physicians

Josh Serchen, BA; David R. Hilden, MD, MPH; and Micah W. Beachy, DO; for the Health and Public Policy Committee of the American College of Physicians*

Access to safe and stable housing has both a direct and indirect effect on health. Experiencing homelessness and housing instability can induce stress and trauma, worsening behavioral health and substance use. The absence of safe and stable living conditions can make it challenging to rest, recuperate, and recover from health ailments and can pose barriers to treatment adherence. Homelessness and housing instability is associated with high rates of numerous diseases and chronic conditions. Its cyclical relation-

support health professionals in these efforts by supporting the data infrastructure needed to facilitate these referrals to resources, supporting research into best practices for caring for these populations, and investing in community-based organization capacity. Policy action is needed to address the underlying drivers of homelessness, including a dearth of affordable housing, while also addressing the short-term need for safe shelter now. In this position paper, the American College of Physicians (ACP) recog-

Annals of Internal Medicine

POSITION PAPER

Principles for the Physician-Led Patient-Centered Medical Home and Other Approaches to Team-Based Care: A Position Paper From the American College of Physicians

Ryan Crowley, BSJ; David Pugach, JD; Margo Williams, MHA; Jason Goldman, MD; David Hilden, MD, MPH; Anne Furey Schultz, MD; and Micah Beachy, DO; for the Health and Public Policy Committee and the Medical Practice and Quality Committee of the American College of Physicians*

Team-based care models such as the Patient-Centered Medical Home are associated with improved patient health outcomes, better team coordination and collaboration, and increased well-being among health care professionals. Despite these attributes, hindrances to wider adoption remain. In addition, some health care professionals have sought to practice independent of the physician-led health care team, potentially undermining patient access to physicians who have the skills and training to deliver whole-person, comprehensive, and longitudinal care. In this paper, the American College of Physicians reaffirms the importance of the physician-led health care team and offers policy recommendations on professionalism, payment models, training, licensure, and research to support the expansion of dynamic clinical care teams.

Ann Intern Med. 2024;177:65-67. doi:10.7326/M23-2260 Annals.org
For author, article, and disclosure information, see end of text.
This article was published at Annals.org on 26 December 2023.

Medical Journals Entertain

BMJ

BMJ 2012;345:e8311 doi: 10.1136/bmj.e8311 (Published 17 December 2012) Page 1 of 6

RESEARCH

CHRISTMAS 2012: RESEARCH

Why Rudolph's nose is red: observational study

OPEN ACCESS

Can Ince *professor*[1], Anne-Marije van Kuijen *PhD candidate*[2], Dan M J Milstein *postdoctoral research fellow*[3], Koray Yürük *PhD candidate*[3], Lars P Folkow *professor*[4], Wytske J Fokkens *professor*[2], Arnoldus S Blix *professor*[4]

[1]Department of Intensive Ca
Rotterdam, Netherlands; [2]D
Translational Physiology, Ac
Norway

Abstract

Objective To characterise th
microcirculation in humans i
testing the hypothesis that th
most well known reindeer pu
presence of a highly dense a

Design Observational study

Setting Tromsø, Norway (ne
Netherlands.

Participants Five healthy hu
patient with grade 3 nasal po

Main outcome measures A
nasal septal mucosa and he
blood cells, and real time rea
medicines.

Correspondence to: C Ince c

Annals Story Slam - Eeyore and Tigger
"Eeyore and Tigger," by Dr. Benjamin Khazan

Video. Annals Story Slam - Eeyore and Tigger "Eeyore and Tigger," by Dr. Benjamin Khazan (Duration 6:55)

Annals of Internal Medicine

ON BEING A DOCTOR

Laura and the Terrible, Horrible, No Good, Very Bad Day

It's my birthday, and my spouse is traveling. I forgot where because I am doing the working mom thing alone quite often, and who can keep track?

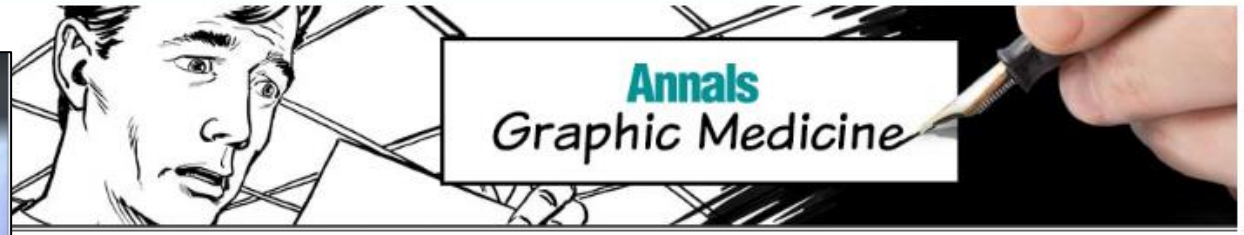
I'm tired because I stayed up late finishing my son's papier-mâché ski mountain school project and getting into a yelling match with my other son about Snapchat and being on his phone for more than 6 hours in 1 day.

I check my e-mail and find that my most recent manuscript submission was rejected with no review.

options, and was married from her hospital bed yesterday with her 120-pound dog in attendance.

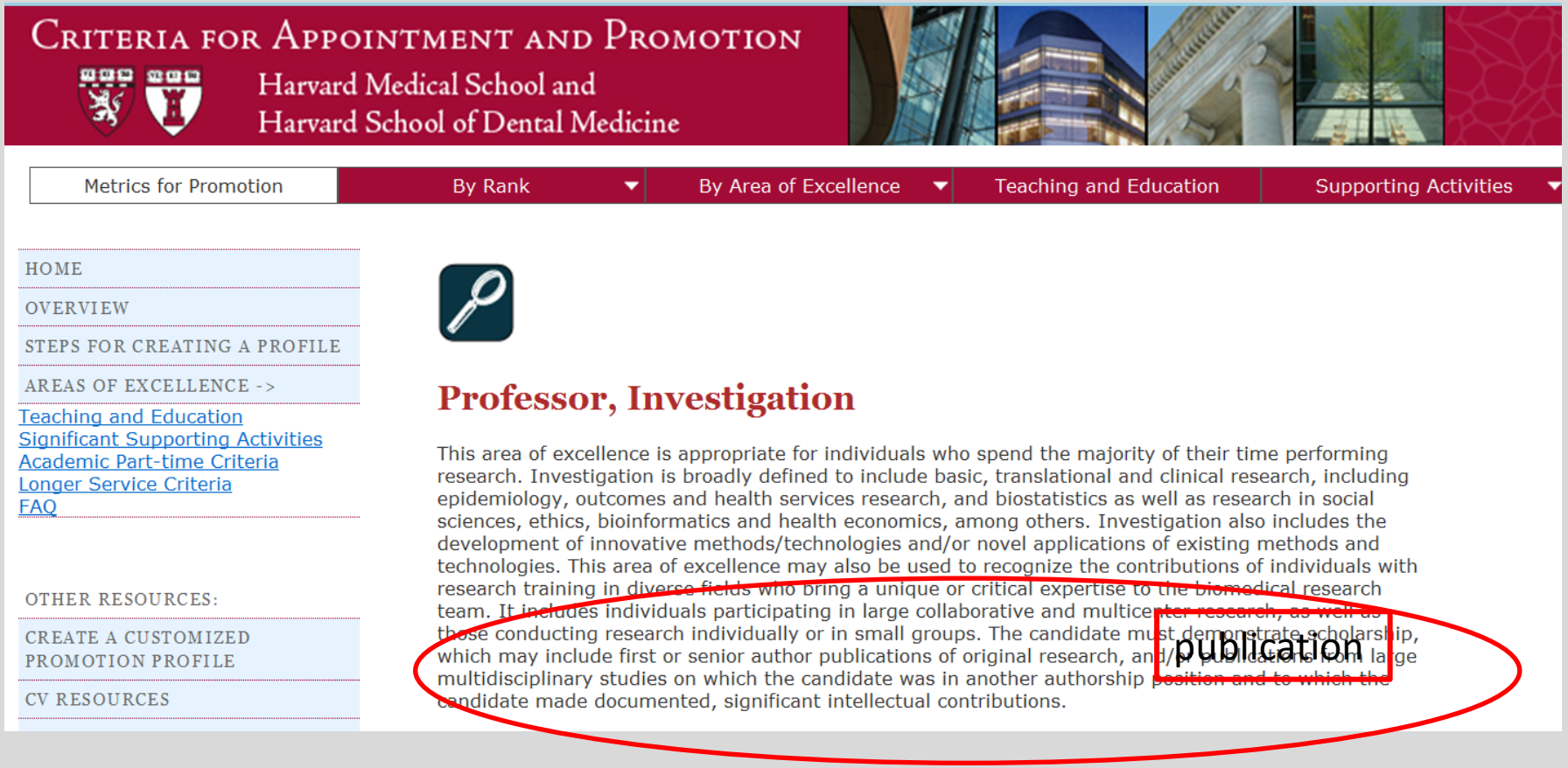
Living on Benefits: How Cancer Screening Is Portrayed in the U.K. National Press

Jack W. Bedeman, BM, BSc, MSc; Susanne F. Meisel, PhD; and Nora Pashayan, MD, PhD



Annals Consult Guys videos bring a new perspective to the art and science of medicine with lively discussion, a touch of healthy humor and in-depth analysis of real-world cases and situations.

Medical Journals Provide Evidence of Academic Achievement



Research done &
Submitted for publication

Index
Archive
Optimize
discoverability

ARCHIVE

FILTER

Journals conduct peer
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Not
accepted

Revise

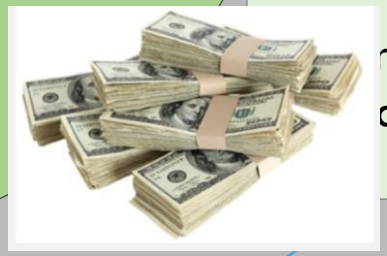
Journals filter, improve, disseminate,
and archive scholarly work

Journals:
Publishes
Distributes to readers
Media/social media
Creates

- Podcasts
- Videos
- Visual Abstracts
- Patient summaries
- Educational activities

DISSEMINATE

IMPROVE



rs and reviewers
de suggestions

Accepted

Not
accepted

High Quality Journals: Expenses (an incomplete list)

Staff
- Decision-making editors
- Publisher
- Managing editor
- Administrative support staff
- Copy editors
- Production editors
- Technology and data analytics staff
- Graphics/design staff
- Marketing and communications staff

Manuscript processing system (purchase/development, maintenance, costs/submission)

Electronic journal platform (creation, maintenance, continuous improvements)

Payment to other external vendors
- Taxonomy/tagging
- FundRef, Cross Ref, ORCID, CHORUS, CONVEY
- Composition/ PDF creation
- Billing system for “Article Processing” and page charges
- Portico
- Clarivate/Web of Science
- Altmetrics

Computers and other hardware (eg, video equipment)

Software programs (word processing, virtual meetings, audi/video editing, etc…)

Shipping/mailing

Marketing/communications
- Labor costs for the team to create and deliver marketing/communications materials
- Expenses related to having a journal exhibit/presence at conferences
- E-mail alert systems (development/purchase, updating)
- Fees for advertising the journal in various venues (Google, Facebook, other publications, etc…)

Legal Fees
- Vendor Agreements (
- Staff and independent contractor contracts
- Intellectual [property protection

Images- creation and purchase/licensing

XML creation

DOI creation

Delivery of content to indexers, archives, search engines, databases, etc…

Expenses related to development/management of continuing medical education features

Membership fees for journal staff to participate in relevant professional organizations-

Who "Owns" Medical Journals? Traditional Models

- Professional Organizations
  - Annals of Internal Medicine (American College of Physicians)
  - NEJM (Massachusetts Medical Society)
- Academic Institutions
  - Ethiopian Journal of Health Sciences (Jimma University)
- Commercial Publishers and other commercial entities
  - Lancet (Elsevier)
  - Nature (Springer Nature)
  - Australasian Journal of Bone & Joint Medicine (Merck)
- Governmental Organizations
  - Proceedings of the National Academy of the Sciences (US National Academy of the Sciences)

Who "Owns" Medical Journals? Non-traditional Models

"eLife is a non-profit organisation that receives financial support and strategic guidance from the Howard Hughes Medical Institute, the Knut and Alice Wallenberg Foundation, the Max Planck Society and Wellcome. eLife Sciences Publications Ltd is publisher of the open-access eLife journal (ISSN 2050-084X)."

"PLOS is a nonprofit 501(c)(3) corporation, #C2354500, and is based in San Francisco, California, US"

Sources of Revenue to Support Medical Journals

- Membership dues, individual subscriptions
- Institutional subscriptions and site licenses
- Advertising
- Reprints, licensing of journal content for use by others
- Philanthropy
- Submission fees
- Article processing charges

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"Reader pays"

"Author pays"

“Reader Pays” Subscription Model

- Curated content, analogous to a museum gallery
- Attention to displayand dissemination
- In addition to research reports…review articles, commentaries, and other educational material
- Editorial decisions/processes focus on the readers

“Author/Funder Pays” Model

- Archive analogous to the storage room of a museum
- Content stored, minimal attention to display, dissemination, content other than research reports
- Editorial decisions/processes focus on the authors

The NEW ENGLAND JOURNAL of MEDICINE

Our mission is to publish the best research and information at the intersection of biomedical science and clinical practice and to present this information in understandable, clinically useful formats that inform health care practice and improve patient outcomes.

Annals of Internal Medicine®

Annals' mission is to promote excellence in medicine, enable physicians and other health care professionals to be well informed members of the medical community and society, advance standards in the conduct and reporting of medical research, and contribute to improving the health of people worldwide."

PLOS

We empower researchers to discuss, evaluate, and improve science within their community, and beyond.

Criticism of "Reader Pays" Journal Models

- Information that informs health should not be behind a pay wall
- Reports of research funded with public resources should be available to the public
- It is wrong for journals to own copyright on authors' work

But there are advantages…

- Researchers in less advantaged settings do not have to be concerned that they cannot afford publication fees
- While public funds support the conduct of research, they do not support peer review, publication, dissemination, and archiving
- Copyright protects researchers from misuse of their intellectual property
- Subscription fees sustain not only the journals but other important organization activities of the many not-for-profit professional organizations that own them (education, training, advocacy, etc …)

Making research reports 

sounds great, but ….

- “Author pays” models create financial incentives for journals to publish more, be less selective, quality of content may suffer, predatory practices flourish
- APCs charges do not cover intensive peer review processes that filter out reports that do not meet journal standards, creation of ancillary content, innovative dissemination strategies, archiving
- If payment comes from grants, leaves fewer resources for doing the research
- CCBY “copyright” models required in most open access models, publishers no longer have legal authority to protect researchers from misuse of their work
- Many not-for-profit professional society journals and the organizations that own them could cease to exist

Publishing options

Authors submitting primary research articles to *Nature* have the option of publishing their research using either:

1 – Traditional subscription publishing model – an article is submitted and is assessed by our editors. If suitable it will be put through Peer Review, and if successful (subject to amendments), will be eligible for publication. Published articles are made available to institutions and individuals who subscribe to *Nature* or who pay to read specific articles.

2 – Gold Open Access – same publishing process as above. The difference is that when an article is accepted for publication, the author/s or funder/s pay an Article Processing Charge (APC). The final version of the published article is then free to read for everyone. The APC to publish Gold Open Access in *Nature* is £8890.00/$12290.00/€10290.00.

Find out more about Open Access.

Article processing charges: $12,290.00

My Predictions for the Future

- A few high-quality reader pays/subscription-based journals will survive (and hopefully thrive)
- Proliferation of author pays/open access will continue, quality will vary, increased numbers of predatory journals
- Innovation in the types of content we provide readers and the way we deliver it
- Print formats will continue to disappear
- Electronic features will expand
- Discussion of “who should pay” will never end

Questions? Comments ?