

Writing and publishing peer-reviewed manuscripts

Anna Wald, MD, MPH
University of Washington
annawald@uw.edu

Goals of the talk

- Purpose of writing
- Anatomy of a manuscript
- Mechanics of writing
 - ◆ style, language, tone
- Process of manuscript submission
- Difficult situations

Why write manuscripts?

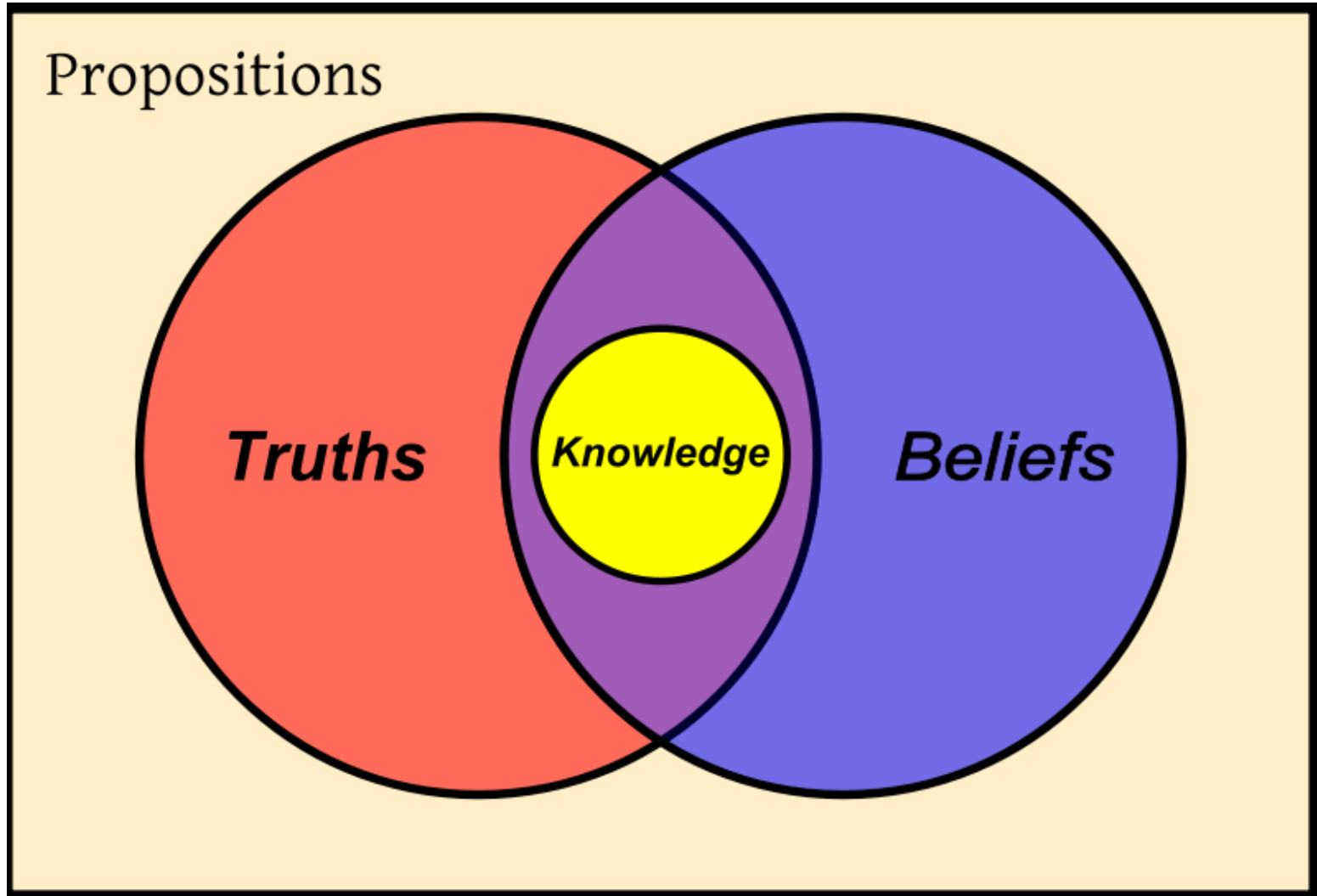
- Why do we do science?
- Why do we ask questions?

Why write manuscripts?

- Why do we do science?
- Why do we ask questions?
- We form **epistemic communities** ...”a global network of knowledge-based professionals in scientific and technological areas that often have an impact on policy decisions” ...

Adapted from Wikipedia

Knowledge as a subset of that which is both true and believed



Why write manuscripts?

- the result of your effort - the fruit of your labor
- your product

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- part of your job
- required for promotion

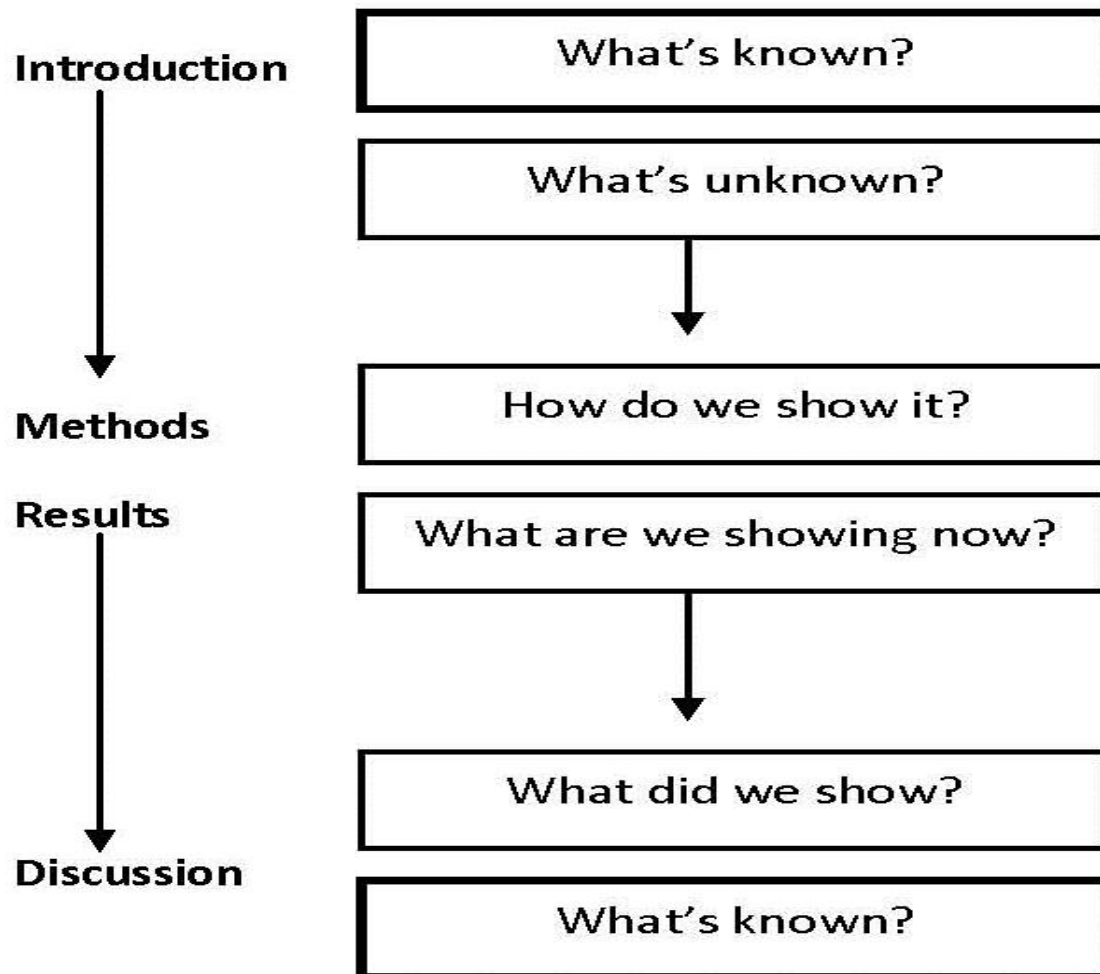
Why write manuscripts?

- the result of your effort - the fruit of your labor
- your product

- part of your job
- required for promotion

- Ethical obligation to the study participants
- IRB's can be your friend

Anatomy of a scientific manuscript



Cetin S, Hackam D.
Journal of Surgical
Research. 2005.

-
- A scrupulous writer, in every sentence that she writes, will ask herself at least four questions:
 - ◆ What am I trying to say?
 - ◆ What words will express it?
 - ◆ What image or idiom will it make it clearer?
 - ◆ Is this image fresh enough to have an effect?

George Orwell *"Politics and the English Language"*,
1946

Introduction

1. Background/Statement of the issue
 2. Gaps in current knowledge/Why your paper is needed
 3. How you will provide the answer/test hypothesis
- Journals advice 2-3 paragraphs, not more

Methods

1. Subjects and Setting
2. Procedures/ Intervention
3. Laboratory Methods
4. Statistical methods: definitions, tests, modeling
5. Committee approval

Results

1. Demographic and clinical summary of study population
 2. Results—simple first, then more sophisticated modeling
 3. Table 1. Characteristics of study participants.
 4. Table 2. Comparison between groups
 5. Figures: Illustrate main results; for clinical trials, show the schema of the trial first, then survival curves.
- *Remember tables and figures will be used for slides; Some people will look at tables and figures to decide if to read.*

Discussion

1. Re-cap your novel and important findings but do not repeat the numbers
2. Your interpretation of your findings
3. Comparison with others' findings—how does your paper fit in the literature?
4. Strengths and Limitations – and why the latter are not that important
5. Clinical and/or public health implications
6. Summary and future directions

Be pithy! (def. Having substance and point: tersely cogent)

- “I have made this letter longer than usual, because I lack the time to make it short” *Pascal*

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- Publisher’s telegram to Mark Twain:
NEED 2-PAGE SHORT STORY TWO
DAYS

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- “I have made this letter longer than usual, because I lack the time to make it short” *Pascal*
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- Twain’s response: NO CAN DO 2 PAGES TWO DAYS. CAN DO 30 PAGES 2 DAYS. NEED 30 DAYS TO DO 2 PAGES.

This is not journalism

- Fifteen years ago, medicine had little to offer HIV-infected women who desired to become pregnant. Since the widespread availability of Highly-Active Antiretroviral Therapy (HAART) in the US and the subsequent marked decrease in perinatal transmission of HIV, the emphasis of antenatal care for HIV-positive pregnant women has shifted. HAART has made it possible for pregnant women to have undetectable HIV viral loads at delivery making perinatal transmission of HIV a rare occurrence. Additional protection is afforded to the infant by administration of prophylactic zidovudine. These public health advances enabled healthcare practitioners to focus antenatal care for HIV-infected pregnant women on prevention of other comorbid infections in their infants.
- The rate of infant HIV infection in the U.S. has plummeted with the advent of routine HIV testing during pregnancy and the availability of potent antiretroviral therapy. These public health advances shift focus to prevention of other comorbid infections in HIV-infected women and their infants.

Examples

- Causally related to –

Examples

- Causally related to – caused by
- The presence of visceral KS involvement was not different among children of various ages

Examples

- Causally related to – caused by
- The presence of visceral KS involvement- was not different among children of various ages – did not differ with age.

Clarity and brevity

- Causally related to – caused by
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- Treatment was not started less than 48 hours

Clarity and brevity

- Causally related to – caused by
- The presence of visceral KS involvement- was not different among children of various ages – did not differ with age.
- Treatment was not started less than 48 hours- was started more than 48 hrs

Maximize information conveyed

- HIV seropositive women were 50% White, 21% Black and 29% other races.
- Differences existed between subjects who developed clinical herpes zoster and those who did not.
- HHV-8 detection frequency decreased by 18% (IRR 0.82; $p=0.012$) on valacyclovir and 31% (IRR 0.694; $p<0.001$) on famciclovir.

Hidden errors and dangling modifiers

- Severe sepsis, defined as an individual with a documented infection, and resultant end organ dysfunction, persists as a common and concerning diagnosis.
- Transmission of TB can have fatal consequences for patients and health workers, especially with MDR-TB strains.

Other errors

- All 3 trials collected oropharyngeal swabs daily.
- The age of onset of colorectal carcinoma was statistically higher in older than younger patients (Lancet)
- Could you please right me a letter of reference?

A better beginning?

- “*As expected...*” vs.
- “*This is the first study...*”

ICMJE (International committee of Medical Journal Editors) Uniform Requirements for Manuscripts Submitted to Biomedical Journals: Ethical Considerations in the Conduct and Reporting of Research

- Authorship credit should be based on
 - ◆ 1) substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data;
 - ◆ 2) drafting the article or revising it critically for important intellectual content; and
 - ◆ 3) final approval of the version to be published.
 - ◆ Authors should meet conditions 1, 2, and 3.

-
- Acquisition of funding, collection of data, or general supervision of the research group alone does not constitute authorship. All persons designated as authors should qualify for authorship, and all those who qualify should be listed. Each author should have participated sufficiently in the work to take public responsibility for appropriate portions of the content.

Other tips ...

- Who writes—authorship and authors' order
 - ◆ Policy vs. politics
- When you write
- Where you write
- Order that you write in (methods, results [tables and figures first], introduction, discussion, abstract)—from most concrete to most cognitive
- Options:
 - ◆ Outline
 - ◆ Writing Stream
 - ◆ Writing from slides
 - ◆ Dictating papers

After the initial draft

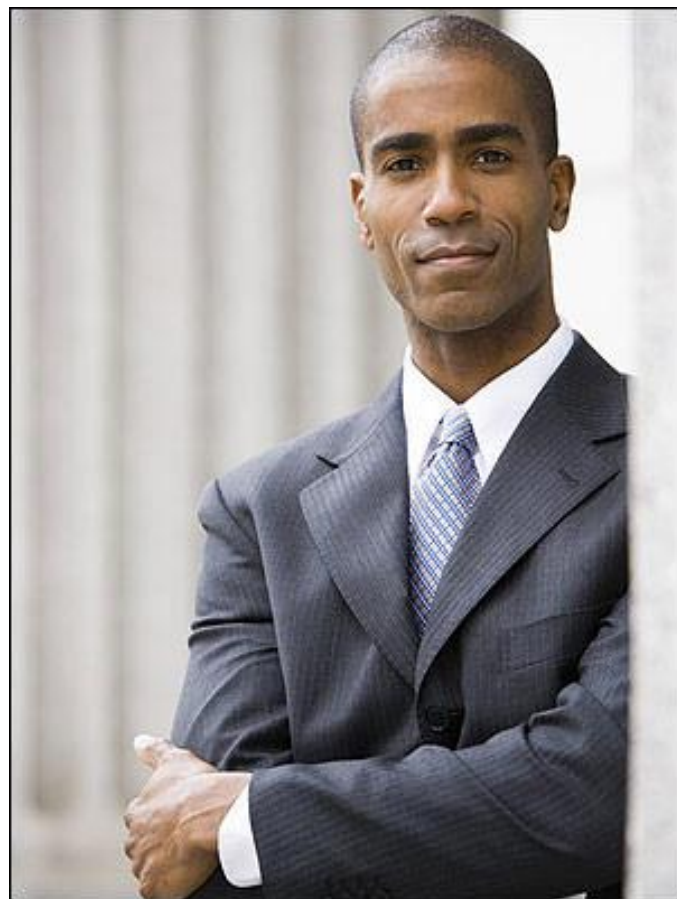
- Read it aloud
- Depending on the paper, often best for 2 (at most 3) people edit sequentially, then send to other authors at once. This makes incorporating the changes often easier and less confusing to you.
- Appreciate comments from other co-authors, but feel free to argue
- Date drafts instead of numbering—latter can be depressing.
- Have others in your field but not co-investigators read it—read it as if you would if you were reviewing it ...
- After you are happy with content, edit for style

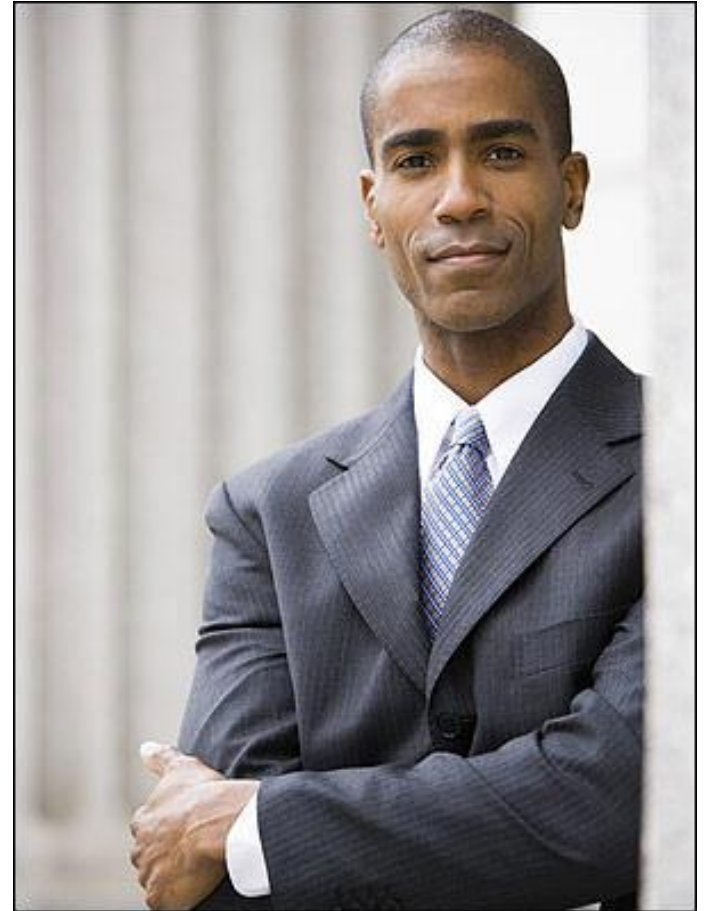
How many errors?

- Dr. Wald Anna Consultant Physician, and UCI Fellow
- Professor Warren Phipps, Associate professor, Department of Obstetrics and Gynaecology, University of Nairobi, Kenya









Writing Issues

- Typos
- Inappropriate spaces or lack of spaces.
 - ◆ For, example , I think this is a good sentence.Is it not?
- Capitalization errors
 - ◆ I want to improve Childs health.
- Solution: pay attention to the red line under your words. Figure out why it is there – fix it or know that it should be there.

Editing for Style

- Use Spell check but also read for spelling errors (eg, from – form; then –than)
- Read again for sentence structure
- Read again for flow and paragraph transition
- The end product should be an elegantly packaged message... you are selling your product ...

specificity and low copy number cutoff maximized sensitivity. The threshold of virus that may result in transmission is unknown. *however, we have reported transmission of culture ⊕ PCR ⊕ cases*
 The probability of isolating HSV in tissue culture rises linearly with the log copy number. However, even with low copy number, such as 10^2 , a culture will be positive in small proportion, and the relevance of isolation of HSV to transmission is speculative. *at between 500-1000 copies of HSV in swab or in own standard T40 mm assay*
 Moreover, we have documented transmission of HSV from maternal secretions to the neonate during birth at a time that culture was negative and PCR positive.

I do think
 A rapid test for HSV detection in labor *should* ^R ~~will need to~~ be combine with a serologic test for HSV-2 antibodies. Those women who lack HSV-2 antibodies but are shedding HSV at the time of labor are a very high risk – 30-50% - of transmitting the infection to their neonate. In this situation, caesarean delivery is appropriate, and some experts would also administer acyclovir to the neonate, especially if the membranes were ruptured. On

the other hand, the risk of HSV transmission is ~~low~~ *to be accurate* ^{much lower} if the woman has antibodies to HSV-2, and *the infant is exposed to HSV at the time of delivery + Most neonates would* a more conservative approach is warranted. *??*
 In such women, perhaps a course of

intrapartum acyclovir may reduce further the already low risk of neonatal infection, ~~this~~ *on* ^{an} approach would parallel the successful strategies for Group B strep prevention and HIV *Why wouldn't you have a C-section??*

There is no consensus in management of such women. Some would advocate C-section others would consider
 Rapid HSV PCR

For ~~Both~~ both bivalent and quadrivalent human papillomavirus (HPV) vaccines, ~~come in a series of 3 injection three-dose regimens, impeding~~ ease of administration and ~~increasing~~ cost. The ~~i~~investigators ~~from~~ for an ongoing ~~manufacturer-supported~~ study of bivalent (HPV 16/18) ~~vaccine-vaccination~~ in Costa Rican women ~~asked~~ evaluated whether ~~1-one~~ or ~~2-two~~ immunizations provide adequate protection against persistent HPV 16 or ~~or~~ 18 infection (defined as infection that persisted for ≥ 10 months after the last vaccine dose), the precursor to cervical cancer and the endpoint of the trial.

Of ~~7466~~ 7153 evaluable women who were randomized to receive HPV or control vaccine, ~~5967~~ received 3 doses, ~~929~~ 802 received only 2 doses, of vaccine and ~~551~~ 384 only received 1 dose. Vaccine efficacy was 80.9%. The most common reasons for missing doses were pregnancy and colposcopy referral. Among women who received the ~~standard~~ 3 doses, (4.4% vs. 0.8% persistent HPV16 or 18 infection in the control and vaccine arms, respectively), 84.1% among women who received 2 doses (4.5% vs 0.7%), and 100.0% among women who received 1 dose (5.3% vs 0.0%). ~~had persistent HPV16/18 infection compared with 0.9% in the vaccine arm, for 81% efficacy of the vaccine. Among women who received 2 doses, 4.4% vs 0.7% had HPV 16/18 (vaccine efficacy 84%); among women who received 1 dose, 5.3% vs 0 (vaccine efficacy 100%).~~

Comment: HPV ~~vaccine-vaccination~~ is ~~likely~~ has the capacity to prevent most cervical cancers worldwide; ~~High~~ however, coverage has been limited by low uptake in some countries (including ~~the~~ United U.S. States), ~~low~~ failure to ~~completion~~ complete of the ~~vaccination~~ 3-dose series, and high cost (~~resource-poor~~ countries). Evidence that the ~~vaccine~~ immunization is ~~effective~~ efficacious when administered in ~~only~~ 1 or 2 doses ~~may~~ ease ~~could~~ facilitate implementation of HPV vaccine programs both logistically and economically, especially in regions where such need is greatest. Clinicians in developed countries can be reassured that even girls and women who do not complete the ~~standard~~ series of HPV 16/18 ~~vaccine-vaccination~~ regimen ~~have~~ receive considerable protection. Further data from countries that are experimenting with fewer than 3 doses will be forthcoming.

Anna Wald, MD, MPH

Getting published

- Aim for the right journal in novelty and in audience
- Follow directions for format and length – use a published piece as a guide
- Letter to the editor: convince her that this is important, how does it change what we know, why would readers of her journal want to read it.

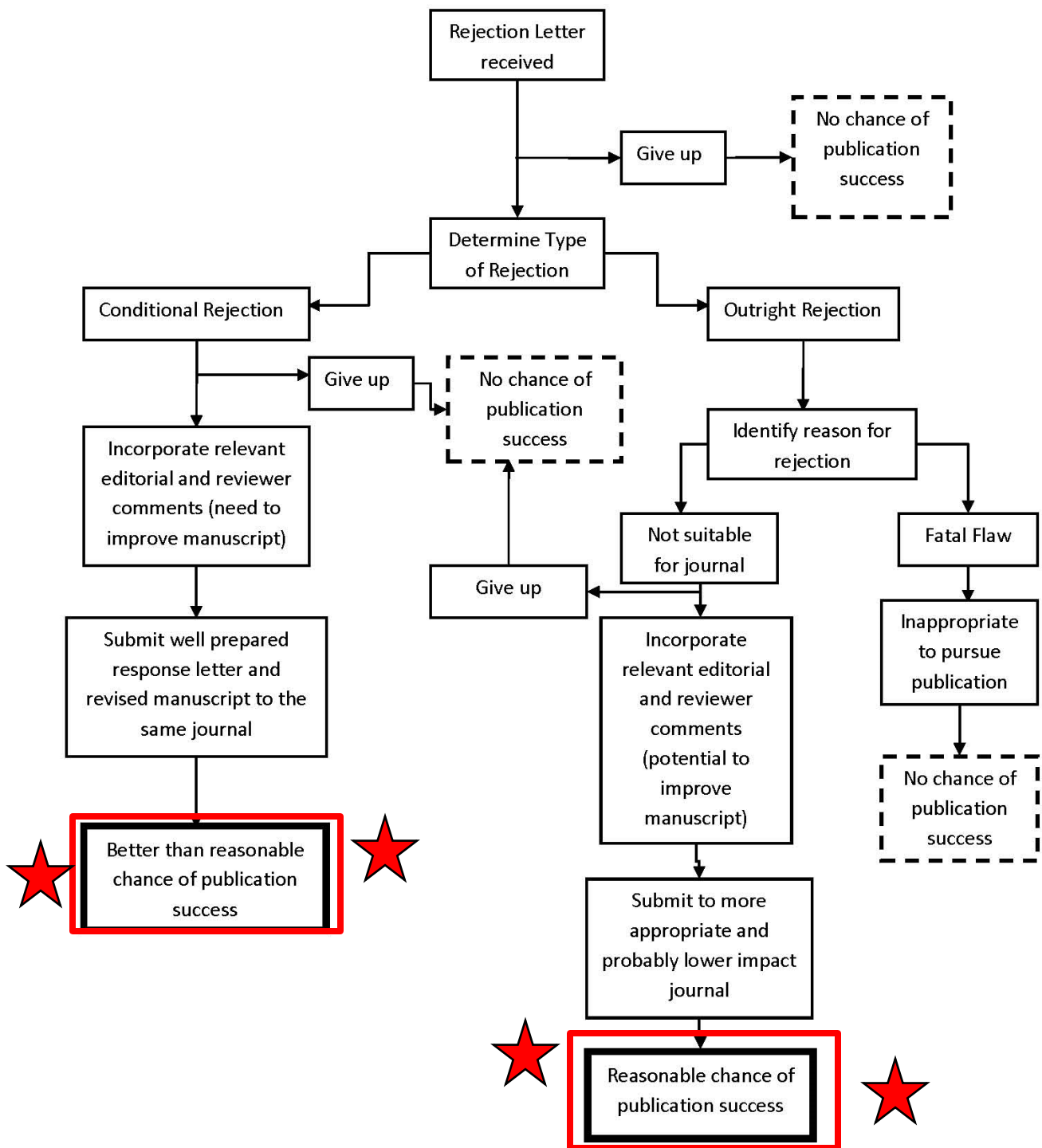
*Adapted from Dr. Seuss

What happens to a submitted manuscript?

- Editor “reads” and decides to reject or send it for review
- Reviewers provide detailed critiques
- Editor makes a decision and mails you the response letter and critiques
- Whole process – 3 weeks to 3 months

If your paper is rejected . . .

- Wrong audience
- Bad paper
 - ◆ bad science
 - ◆ poorly prepared
 - ◆ (not novel)
- Too radical – paradigm shifts are difficult to publish, even when impeccable



Wooley K, Barron JP. Chest. 2009.

So close....

- Read the response from the journal carefully, slowly and at least twice
- Respond to every query politely, appreciatively, fully and show how you changed the paper
- Choose carefully what you refuse to do, explain why. Sometimes the response is longer than the paper, and may involve additional analyses that are not included in the final paper.
- In general, the papers are better after peer review
- Proofs: read to make sure content was unaltered; compare with your version; re-read for fluency; have the editorial assistants explain their changes but you can stand your ground.
- Give the published paper to your family!

Careful proofreading...

Although association preferences documented in our study theoretically could be a consequence of either mating or shoaling preferences in the different female groups investigated (should we cite the crappy Gabor paper here?), shoaling preferences are unlikely drivers of the documented patterns both because of evidence from previous research and inconsistencies with *a priori* predictions. Our methods closely followed those of published mate choice experiments in this system (Tobler et al. 2009a,b; Plath et al. 2013),



Dave Harris

@davidjayharris



Not sure how this made it through proofreading, peer review, and copyediting. Via onlinelibrary.wiley.com/doi/10.1111/et...

#addedvalue

1:54 PM - 10 Nov 2014

How to review a paper – Ask your mentor to let you review manuscripts

- What is the manuscript about? Is it important?
- Does it add to existing literature on the subject? May need to do a literature review...
- Does the paper tell a story?
- How often does your mind wonder when you are reading it?
- Did the authors achieve what they did using the methods they provide?
- Could you replicate what they did using the methods they provide?
- Are there contradictions between the methods and the results?
- Do the results support the conclusions? Are the tables and figures helpful?
- Did the authors identify the flaws of their approach?
- Are they able to put it in context of prior data? How do these results change clinical practice/public policy or lead to further studies?

Remember the Golden Rule...

- What we wrote: Phase 1 dose-escalation study...”A heat shock protein vaccine with an HSV-2 peptide appears to be safe at the doses studied in healthy adults with or without HSV infection. Modifications of the dose, adjuvant, route, schedule, or HSV antigen may be required to improve responses.”
- What the reviewers saw: “There are no positive results from this study...We think this study reflects a waste of money, time, and volunteers”.

Promoting civil and constructive peer review...

**Any jackass can trash a
manuscript, but it takes good
scholarship to create one**

David R. Drubin, BMC
journals

Plagiarism

From the submitted article: Management of Psycho social aspects of HSV

A diagnosis of genital herpes evokes many emotions including anger, disbelief, low self esteem, fear of rejection by present and future sexual partners and depression^{36,37}. Typing of the virus also helps some couples to resolve issues about transmission, for example HSV-1 genital infection is frequently acquired by receiving oral sex in a monogamous relationship. Disbelief is effectively handled by doing accurate laboratory tests supporting the clinical diagnosis of genital herpes. Patients can benefit from receiving a copy of test report to facilitate acceptance of their infection. The diagnosis of incurable infection can induce a feeling of being labelled, resulting in low self esteem. This can be tackled by reassurance. Fear of rejection commonly accompanies fear of transmission. These patients should be encouraged to disclose their diagnosis to their sexual partners. Depression though uncommon might occur, and needs referral to professional counsellor. Many studies show that these reactions are short lived and are amenable to improvement with timely interventions. Many herpes support groups are active and online services for these patients are available³.

From Gupta et al, Lancet 2007;370:2127. Psychosocial aspects

A diagnosis of genital herpes evokes many emotions including anger, disbelief, low self-esteem, fear of rejection by present and future sexual partners, and depression.³⁰ Anger is usually directed at a present sexual partner, but often, the first diagnosed outbreak does not mean new acquisition.³¹ Typing of the virus also helps some couples to resolve issues about transmission—HSV-1 genital infection is frequently acquired by receiving oral sex in a monogamous relationship.^{32, 33 and 34} Disbelief is effectively handled by doing accurate laboratory tests, thus removing doubt as to the clinician's skill in accurately diagnosing genital herpes by examination. Patients can benefit from receiving a copy of test results confirming HSV infection to facilitate acceptance of their infection. The diagnosis of an incurable STI can induce a feeling of being labelled, resulting in low self esteem.³⁴ This reaction signifies the persistent social stigma associated with HSV infection, and the accompanying shame often felt by patients.³⁵ Clinicians should reassure patients that this infection does not change who they are, that they are not lesser for having a skin infection in the genital area. Fear of rejection commonly accompanies fear of transmission, however, patients should be encouraged to disclose their diagnosis to their sexual partners. Studies addressing the psychosocial responses to unexpectedly testing positive for HSV-2 show that these reactions are short-lived and are amenable to improvement with timely interventions.^{36 and 38}

Plagiarism

- Cite appropriately
- Re-word, including your own work
- Ask permission
- Ask opinion


Salami publication

SCIENTIFIC DATA



Advancing scientific knowledge
one thin slice at a time

Safety of pertussis vaccination in pregnant women in UK: observational study

 OPEN ACCESS

Katherine Donegan *pharmacoepidemiologist*, Bridget King *scientific assessor*, Phil Bryan *scientific assessor*

Effectiveness of maternal pertussis vaccination in England: an observational study



Gayatri Amirthalingam, Nick Andrews, Helen Campbell, Sonia Ribeiro, Edna Kara, Katherine Donegan, Norman K Fry, Elizabeth Miller, Mary Ramsay

Summary

Background In October, 2012, a pertussis vaccination programme for pregnant women was introduced in response to an outbreak across England. We aimed to assess the vaccine effectiveness and the overall effect of the vaccine programme in preventing pertussis in infants.

Published Online
July 16, 2014
[http://dx.doi.org/10.1016/S0140-6736\(14\)60686-3](http://dx.doi.org/10.1016/S0140-6736(14)60686-3)

Congenital Disseminated HSV-1 Infection in Preterm Twins after Primary Gingivostomatitis of the Mother: Case Report and Review of the Literature

Kongenitale disseminierte HSV-1 Infektion in Frühgeborenen Zwillingen nach primärer Gingivostomatitis der Mutter. Fallbericht und Literaturübersicht

Authors

F. Mercolini¹, F. Verdi², K. Eisendle³, H. Messner¹, A. Staffler¹

Affiliations

¹Department of Neonatology, Regional Hospital, Bolzano, Italy

²Department of Obstetrics and Gynecology, Regional Hospital, Bolzano, Italy

³Department of Dermatology, Regional Hospital, Bolzano, Italy

Z Geburtshilfe Neonatol. 2014
Dec;218(6):261-4. doi:
10.1055/s-0034-1385854

SHORT REPORT

Premature newborns with fatal intrauterine herpes simplex virus-1 infection: first report of twins and review of the literature

M. Pichler,¹ A. Staffler,² N. Bonometti,¹ H. Messner,² J. Deluca,¹ T. Thuile,¹ R. Kluge,³ M. Schmuth,⁴
K. Eisendle^{1,*}

J Eur Acad Dermatol Venereal 2015
Jun;29(6):1216-20. doi:
10.1111/jdv.12583.

Predatory Journal Trading on Former Name

Experimental & Clinical Cardiology, a once well-respected journal, now is publishing anything that comes with a payment of \$1,200.

By Bob Grant | August 26, 2014

1 Comment



Like

76

Pinit

+1

1



Link this



Stumble



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WIKIMEDIA, BRYAN BRANDENBURG

The Canadian scientific journal *Experimental & Clinical Cardiology* used to publish well-founded studies in the field and was widely read within the cardiology community. But since being sold and moved offshore in 2013, the journal is now publishing anything submitted along with a fee of \$1,200, packaging spurious studies as serious scientific papers.

A reporter from the *Ottawa Citizen* provided evidence that *Experimental & Clinical Cardiology* has gone down the tubes by submitting a manuscript under the nonsensical title, "VEGF Proliferation in

Cardiac cells Contributes to Vascular Declension." The manuscript plagiarized the main text from a published article on HIV, replacing each mention of "HIV" with the word "cardiac," and included blank graphs. The supposedly "peer-reviewed" journal published the paper.

The journal's previous owner, Pulsus Publishing Group, sold *Experimental & Clinical Cardiology* last year. Former publisher Robert Kalina told the *Ottawa Citizen* that he sold the journal to some "strangers from New York," who subsequently resold it to an unknown party. The new owners claim to be in Switzerland, but according to the *Ottawa Citizen*, the \$1,200 publishing fees are routed to a bank in Turks and Caicos "We don't have a clue who these people are," Kalina told the paper. "It is very sad."

- Beall's List: Scholarlyoa.com/publishers

English as a second language

- Use it to your advantage
- Why is English used as the language of science?
- Compare the length of translation from English to other languages...
- Find the aesthetic in the brevity and precision of your phrases...

-
- Everything is vague to a degree you do not realize till you have tried to make it precise

Bertrand Russell

- I was working on the proof of one of my poems all the morning, and I took out a comma. In the afternoon I put it back again.

Oscar Wilde

-
- Reading maketh a full man, conference a ready man, and writing an exact man


Sir Francis Bacon

- A writer is a person for whom writing is more difficult than it is for other people

Thomas Mann

-
- The pages are still blank but there is a miraculous feeling of the words being there, written in invisible ink and clamoring to become visible.

Vladimir Nabokov

A young woman with long, dark, curly hair is smiling slightly. She is wearing a black t-shirt with white text. The background is a plain, light-colored wall with a light switch visible on the right side.

THE PAST,
THE PRESENT,
AND THE FUTURE
WALKED INTO A BAR.
IT WAS TENSE.