Writing the Abstract and Manuscript for Acceptance

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Disclosures

• Rising: Assistant Editor, Annals of Emergency Medicine

• Hollander: No relevant disclosures
Authorship issues

• There are standard guidelines
  • Conception, design, conduct, analysis and preparation of paper
  • Does not include Chair, Residency Director, Fellowship Director, etc. per se
  • Be clear from initial IRB proposal onward
• Never leave out someone who did more work than someone who is included
The Twenty Minute Paper Concept

• Break into groups
• Introduction
  • 1 minute to pick a topic
  • 3 minutes to sketch the intro
• Results
  • 2 minutes to make Table 1
  • 1 minute for main results
  • 2 minutes to drill down
Before you write your paper...

- Define the problem
  - Literature review
  - Unmet need
- Design a study that can address the problem
  - Balance of rigorous epidemiology vs what you can do in real world
It’s About the Project Design

- Writing cannot rescue a poorly designed project
- But... bad writing can hurt an excellent project
Begins Even Before the IRB

- Introduction clarifies unmet need
- Methods must be thought out
- Define data & outcomes being collected
- Think about limitations now (while you can fix them)
- Game theory your results & how they inform discussion
- Write the whole paper NOW
Introduction

• 3 paragraph approach
  1. Why should anyone care about this?
  2. Current state of affairs
  3. The unmet need you are solving
Introduction

• Paragraph 1
• Why should anyone care about this?
  • Lots of people have this problem
  • Rare events but really bad things happen
Introduction

• Paragraph 2
• Current state of affairs
  • What we already know
  • Literature review
    • Summary of it rather than details of studies
    • Where are the holes in knowledge?
Introduction

• Paragraph 3
• The unmet need you are solving
  • Good succinct framing of study question
    • Types of study
    • Main outcome
• Discrete objective or hypothesis
Introduction

• 3 paragraph approach
  1. Why should anyone care about this?
  2. Current state of affairs
  3. The unmet need you are solving
Introduction

Healthcare is changing
Customers prioritize convenience and one stop shopping

Growth in urgent care and retail, decreased primary care visits
In response, we developed telemedicine program

Our main objective is to describe our initial experience creating a direct to consumer telemedicine program. We report this experience in alignment with the NQF domains that will be used to create the framework for measures related to telemedicine
Introduction - Working

Healthcare is changing
Customers prioritize convenience and one stop shopping

The last decade has seen an explosion in the use of telehealth and telemedicine in both the health and the healthcare sector. From wearable devices, smart phone apps, and home monitoring equipment to HIPAA compliant video chat capabilities and remote capable robotics, technology and healthcare have collided over the last decade to dramatically transform the way that we deliver healthcare. In truth, however, this is part of a much bigger societal shift in how we shop, communicate, travel, socialize, and eat. Technology is ever present in our lives and healthcare has actually been slower to adopt change than many other industries. Most (95%) Americans have SMS-capable cellphones and computers (84%), about half (45%) have smartphones, two thirds (67%) use social media, and 90% are interested in technology based platforms to improve health.\textsuperscript{1,2}

Growth in urgent care and retail, decreased primary care visits
Patients have demonstrated their priorities and preferences with their feet and their wallets. While primary care visits fall, there are over 130 million emergency department and 160 million urgent care visits annually; retail pharmacies have entered the health care space; and telemedicine is expected to grow to a 30 billion dollar industry by 2020. (3-5)
Methods

• Provide enough detail for reader to reproduce the study
• Don’t handicap reviewers
  • Tell the journal what they need to know to decide
    • They can always remove things
    • They cannot know things you do not tell them
    • Don’t make them guess
• You win or lose here
Methods

• Journals give you a structure for a reason
• If you don’t care, they don’t care
Methods

- Study Design
- Setting
- Participants/patients
  - Inclusion/exclusion criteria
- Data collection
- Interventions
- Outcomes with citations justifying use
- Primary data analysis
Results: Just The Facts

- Begin broad and drill down to study population (Figure 1)
  - Approached, excluded, enrolled
- Patient population description (Table 1)
  - Demographics and relevant features
    - Divided into study groups
    - Compare major features
- Overall main outcomes (& secondary outcomes)
- Deeper dive into data driven explanations of findings
  - Not interpretation of findings in results section
Discussion

• Get in & get out
  • Less is more (to some degree)
• Clearly state findings - one paragraph
• Frame results in context of prior knowledge and unmet need - give more depth than intro on relevant past studies
  • Assume reader generally knows topic - don’t define disease
  • How do you findings fit in context of what was known
• Highlight new knowledge and future directions
Limitations

- Share study design limitations
- Discuss how they may have biased study - positive or negative
Limitations

- Cannot address quality with formal metrics
  - Prescription rate
  - Treatment changes in subsequent visits
  - Adherence to guidelines
- Did not stratify by distance from hospital
- Cannot randomize to TH v ED v UC v retail clinic
- One program
- May not generalize to national provider networks that cannot coordinate care or programs that outsource some or all of their care or use of other specialties or APPs
- Various definitions of telemedicine prevent comparison across programs – we talk about video visits only
Limitations
We did not perform a randomized controlled trial to compare effectiveness of telehealth on quality metrics and patient outcomes. We cannot comment on adherence to clinical guidelines, or long term impact on patient care.

Our measure of access to information, whether or not there was prior information in the electronic medical records would underestimate our current access to information as it does not take into account information in the healthshare exchange or available through EPICare everywhere in the Philadelphia region.

Although patients reported saving a significant amount of time, we could not validate this information, nor did we assess distance from an in-person visit. Previous studies have shown that patient satisfaction is unrelated to distance. (Glassman)

Our results represent the results of only one program and it was first in the region. As thus we likely report results from a group of early adopters and cannot be sure the results will be same as the use of telemedicine grows.

We are unique in that we believe we are the only health system that exclusively uses their own board certified emergency physicians without outsourcing any of the care to national provider networks. We do not know if our results would generalize to national provider networks that cannot coordinate care or programs or use of other specialties or advanced practice providers.

Finally, we only assessed telemedicine in its synchronous audio video visit format and cannot comment on remote patient monitoring, store and forward technologies or other forms of telemedicine.
Conclusion

• 1-2 sentences
• Just what you conclude
• Has to be what you studied
• Might add “future studies should...”
References

• Cite primary sources
  • Usually not review articles, textbooks, white papers
• Format correctly
Abstracts are just little manuscripts

- Objectives
- Study Design
- Methods- Validity
- Methods- Reliability
- Statistics
- Results / Conclusion
- Impact
Dear Dr. Houry:

Thank you for submitting an abstract for consideration of presentation at the 2007 SAEM Annual Meeting in Chicago on May 16-19. I regret to inform you that the following abstract has not been accepted for presentation:

Abstract #1485
Title: Contralateralization to phenytoin in ED patients with seizures

The abstract review process has evolved in the past several years as a result of the growth in the number of abstracts submitted, the increasing number of reviewers, and the quest for a more objective and improved method of assessment. A 20-point scale that emphasizes methodology and the relevance and significance to emergency medicine was utilized. Abstracts were scored upon a variety of factors including hypothesis, study originality, material and methods delineated in the abstract, adequate number of cases in the study to support the data and conclusions, statistical and clinical significance of results, compliance with abstract submission guidelines, and relevance to emergency medicine. Due to the large number of submissions it is not feasible to provide individual feedback.

The Program Committee received 1172 abstracts. Abstracts were sent to six reviewers selected from the Program Committee and expert reviewers. Abstracts were blinded to all reviewers and the scores were compiled in a database. Abstracts were selected based on an average numerical score. Based on this data, 548 abstracts were accepted for presentation. A list of accepted abstracts will be posted on the SAEM web site at www.sаем.org.

The Program Committee attempts to improve the review process each year. However, we recognize that assessing studies based on a brief abstract is imperfect. We encourage authors of both accepted and declined abstracts to consider full-length manuscript preparation and fellowship research. Should you wish to submit a manuscript to Academic Emergency Medicine, the instructions for authors are posted on the SAEM web site at http://www.sаем.org/tor.com/academic/

Once again, thank you for your submission. I regret that we are unable to accept all submitted abstracts. The Annual Meeting schedule of events, including on-line registration form has been posted at www.sаем.org. Information on the Sheraton Chicago Hotel and Towers is also available on the web site. Early registration fees are in effect until April 15th and hotel reservations must be made by April 14th.

I hope you will plan to attend the Annual Meeting. If you are not a member of SAEM and would like to join you can access the membership application at https://app.sаем.org/

Sincerely,

Debra Houry, MD, MPH
Chair, Program Committee 2007 Annual Meeting
Encouraging Reviewers

Annals of Emergency Medicine

Comments for Author (Sheet B)

Manuscript No. 930180

Clearly, 5.7% of all patient who come to the ED with cocaine chest pain do not have AMI. You are manipulating data to overemphasize the incidence, create cocaine fobia, and a medical-legal nightmear.
GENERAL COMMENTS

1. The author raises the important question of when should thrombolytics be used in patients with EKG repolarization abnormalities associated with cocaine use. This question, however, has already been raised in two published investigations. (Gitter ML: Ann Intern Med 1991;115:277; Hollander JE: Chest 1995;107:1237) The case reports in this manuscript are not needed to bring this issue to the attention of the medical community.

2. The issue is not, as suggested by the author, whether thrombolytics be used in patients with EKG repolarization abnormalities associated with cocaine use, but in whom or when. The literature supports the formation of thrombus and the efficacy of the thrombolytic in these patients. (Smith HWW: Ann Intern Med 1987;107:13; Hollander JE: Chest 1995;107:1237)

3. The two complications reported in this article are of interest to the medical community. Adverse effects of thrombolytic therapy in patients with cocaine use are not reported often. (Bush HS: Chest 1988;94:875; Hollander JE: Chest 1995;107:1237)
RE: MS #OC5828, PROSPECTIVE COUNTY-WIDE...

Dear Dr Henry:

I have sent your manuscript to peer review and have discussed it with other members of our editorial staff. We do not believe it is suitable in its present form for publication in JAMA. However, we would consider a revised version that addresses the checked items on the following page.

If you decide to revise your paper along these lines, there is no guarantee that it will be accepted for publication. That decision will be based on our priorities at the time and on the quality of your revision.
Dear Dr. Henry:

I presented your extensively revised manuscript today to the other JAMA editors, along with the comments of two of the three original reviewers, whom I asked to comment on your revision. I asked that you be given another opportunity to revise, and my request was granted. There remains some concern about the accuracy of information about seat belt use, but most of the editors agreed that your method of determining this was the best that could ever be done.
RE: MS #OC5828, PROSPECTIVE COUNTY-WIDE...

Dear Dr Henry:

Thank you for submitting your manuscript to JAMA. Each manuscript submitted is thoroughly evaluated by JAMA’s in-house editorial staff, who assess the manuscript’s quality and its priority for publication. Those manuscripts judged unlikely to succeed through stringent external review or whose subject matter does not meet the current editorial priorities of The Journal are rejected at that point. This allows you to submit your manuscript to another journal without the delay entailed by the formal review process, serving your ultimate goal, rapid publication.

About half the manuscripts submitted to us are rejected after such in-house review; only about 10% of unsolicited manuscripts are eventually accepted for publication. Based on our in-house evaluation, we will not pursue the manuscript you have submitted.
Put his latest pathetic effort here...

Dear Dr Hollander,

Thank you for submitting your manuscript to JAMA. Each manuscript submitted is thoroughly evaluated by JAMA’s in-house editorial staff, who assess the manuscript’s quality and its priority for publication. Those manuscripts judged unlikely to succeed through stringent external review or whose subject matter does not meet the current editorial priorities of The Journal are rejected at that point. This allows you to submit your manuscript to another journal without the delay entailed by the formal review process, serving your ultimate goal, rapid publication.

Please stop sending us your crap and wasting our time. Enough is enough already.
Bottom Line

- Upfront preparation
  - Right question
  - Tight methods
- Crisp presentation
- Right journal selection
- It’s not about you
  - It’s about the project
Questions

@juddhollander (he uses it)
@RisingKristin (she doesn’t really)
Abstract Scoring

- HYPOTHESIS/OBJECTIVES: (0-2)
  - 0: No stated hypothesis OR objective
  - 1: Stated hypothesis difficult to test OR stated objective poorly developed
  - 2: Clearly stated testable hypothesis OR well thought-out study objective

Examples
- 0: “We examined characteristics of elderly patients using our EMS system”
- 1: “The goal of this study was to determine how frequently elderly patients use our EMS system”
- 2: “Our hypothesis is that patients over 65 are two times more likely to use 911 for medical transport to the Emergency Department than patients under 65”
Abstract Scoring

• STUDY DESIGN: (0-2)
  • 0: Chosen study design will not test the stated hypothesis OR study objective
  • 1: Chosen study design is sub-optimal, but does test the stated hypothesis OR study objective
  • 2: Chosen study design is the best feasible method to test the stated hypothesis OR study objective

Examples
• 0: Using a survey to determine how well ED goal directed ultrasound improved patient care
• 1: Doing a retrospective chart review
• 2: Randomized controlled trial of patients with and without ultrasound to determine impact on survival and length of stay in patients with RUQ pain
Abstract Scoring

**METHODS - VALIDITY: (0-2)**

- 0: Chosen study design poorly executed with critical flaws that definitely endanger the validity of the results
- 1: Chosen study design executed with one or more flaws that potentially endanger the validity of the results
- 2: Chosen study design executed in an acceptable manner in which results are expected to be valid

**Examples - for retrospective chart review study**

- 0: No descriptor of abstractor training or blinding
- 1: Defined inclusion/exclusion criteria and had single assistant review charts
- 2: Well described training, blinded abstractors, and reviewed charts with standardized data collection instrument
Abstract Scoring

**METHODS - SAMPLE SIZE AND RELIABILITY: (0-2)**

- **0**: Chosen study design poorly executed with critical flaws that definitely endanger the reliability of the results
- **1**: Chosen study design executed with one or more flaws that potentially endanger the reliability of the results
- **2**: Chosen study design executed in an acceptable manner in which results are expected to be reliable

**Examples**

- **0**: No inter-rater reliability (retro); small number of subjects
- **1**: Inappropriate survey instrument or method of survey delivery
- **2**: Well described endpoint and well-validated baseline measures (prospective): power calc
Abstract Scoring

• STATISTICS (0-2)
  • 0: Inappropriate AND poorly described statistical methods
  • 1: Inappropriate OR poorly described statistical methods
  • 2: Appropriate AND well described statistical methods

Examples
• Using parametric test to analyze non-parametric data
• Not reporting $p$-values or confidence intervals
Abstract Scoring

• RESULTS/CONCLUSION: (0-2)
  • 0: Data critical to interpretation of the study is absent AND conclusions not supported by results
  • 1: Data critical to interpretation of the study is not clearly presented or incomplete AND conclusions only partially supported
  • 2: Data critical to interpretation of the study is completely presented AND conclusions fully supported

Examples
• 0: Gives general drift of outcomes without adequate data (95% CI, p-values, etc); conclusion on non-significant data
• 1: Does not include information about study population (baseline data); overstates conclusions- clinical vs. stat significant relevance
Abstract Scoring

- **IMPACT: (0-2)**
  - “Change EM Practice” for clinical studies
  - “Contribution to the current fund of knowledge” for non-clinical studies
Abstract Success

- Better Studies
- Higher acceptance
- Nothing is perfect

*DV outcomes*
Sample Abstract

• Does a Brief Ultrasound Seminar Teach the Skills Required to Independently Perform Emergency Ultrasound
Sample Abstract

• Introduction
  • Controversy persists regarding the best methods for teaching emergency ultrasound. The goal of this study was to evaluate the ability of a three-hour ultrasound seminar to teach the skills required to independently perform emergency sonographic studies.

• Hypothesis and Objective
  • Is it clear and testable?
Sample Abstract

• **Introduction**
  • Controversy persists regarding the best methods for teaching emergency ultrasound. The goal of this study was to evaluate the ability of a three-hour ultrasound seminar to teach the skills required to independently perform emergency sonographic studies *WITH MORE THAN 90% ACCURACY AS ASSESSED BY AN INDEPENDENT OBSERVER.*
Sample Abstract

• Methods

• Participants at the US seminar at the ACEP 2000 Scientific Assembly were given a one-hour didactic lecture on the basics of abdominal or pelvic sonography. ... subsequently divided into groups of 3 and guided in the performance of limited, goal-oriented examinations. The participants practiced for two-hours under the direct supervision of ultrasound-credentialed EP’s who later evaluated each participant’s ability to independently perform sonographic studies. The instructors had predetermined criteria for grading the completeness of the monitored sonograms.
Results

57 participants were enrolled, 22 in the abdominal and 35 in the pelvic session. 2 participants had significant previous experience (>100 scans), but the majority (45/57) had performed less than 10 ultrasounds prior to the workshops; 46% of the participants had no experience. During the abdominal US 91% were able to fully scan the aorta, 67% the right kidney, 57% the left kidney, 71% the gallbladder, and 86% were able to perform a complete FAST evaluation. In the pelvic section, 94% and 77% of participants were able to independently identify the uterus and adnexa. Previous scanning experience did not relate to better performance at the conclusion of the workshop.
Sample Abstract

• Conclusion

  • A three-hour session, consisting of didactic teaching and a workshop, provides sufficient experience to develop 57-91% accuracy in emergency ultrasound performance as judged by predetermined criteria.
Sample Abstract

• Objectives
• Study Design
• Methods- Validity
• Methods- Reliability
• Statistics
• Results/ Conclusion
• Impact

• 0-1
• 1
• 1
• 1
• 0-1
• 2
• 1

6-8