Writing for Impact

Justin B. Dimick, MD, MPH
Frederick A. Coller Distinguished Professor of Surgery
Chair, Department of Surgery, University of Michigan
Past President, Association for Academic Surgery
• None relevant to this topic.
Why work on your writing?

• IMPACT
• DISSEMINATION
• Change practice or policy
• A good paper is a good paper, no matter where it is published
• Good writing isn’t just good writing. Good writing is clear thinking
Why right brainers will rule the future
Recipe for a high impact publication:

Challenge: Finding surgical topics that appeal to a broad audience
National Cluster-Randomized Trial of Duty-Hour Flexibility in Surgical Training


ABSTRACT

CONCERNS Concerns persist regarding the effect of current surgical resident duty-hour policies on patient outcomes, resident education, and resident well-being.

METHODS We conducted a national, cluster-randomized, pragmatic, noninferiority trial involving 117 general surgery residency programs in the United States (2014-2015 academic year). Programs were randomly assigned to current Accreditation Council for Graduate Medical Education (ACGME) duty-hour policies (standard-policy group) or more flexible policies that waived rules on maximum shift lengths and time off between shifts (flexible-policy group). Outcomes included the 30-day rate of postoperative death or serious complications (primary outcome), other postoperative complications, and resident perceptions and satisfaction regarding their well-being, education, and patient care.

RESULTS In an analysis of data from 138,091 patients, flexible, less-restrictive duty-hour policies were not associated with an increased rate of death or serious complications (5.7% in the flexible-policy group and 5.9% in the standard-policy group; P = 0.20; unadjusted odds ratio for the flexible-policy group, 0.96; 95% confidence interval, 0.87 to 1.06). P = 0.44; noninferiority criteria satisfied) or any secondary postoperative outcomes studied. Among 4980 residents, those in programs assigned to flexible policies did not report significantly greater dissatisfaction with overall education quality (11.0% in the flexible-policy group and 10.7% in the standard-policy group; P = 0.60) or well-being (4.9% and 12.3%, respectively; P < 0.001). Residents under flexible policies were less likely than those under standard policies to perceive negative effects of duty-hour policies on multiple aspects of patient safety, continuity of care, professionalism, and resident education but were more likely to perceive negative effects on personal activities. There were no significant differences between study groups in resident-reported perception of the effect of fatigue on personal safety. Residents in the flexible-policy group were less likely than those in the standard-policy group to report having during an operation (7.0% vs. 13.2%, P < 0.01) or handing off active patient issues (12.9% vs. 16.7%, P < 0.01).

CONCLUSIONS As compared with standard-duty hour policies, flexible, less-restrictive duty-hour policies for surgical residents were associated with noninferior patient outcomes and no significant difference in residents’ satisfaction with overall well-being and education quality. (ClinicalTrials.gov number, NCT02007965.)

• Karl Bilimoria, MD, MS

• Impacting work hour policy for surgical residents
Kidney Paired Donation and Optimizing the Use of Live Donor Organs

Dorry L. Segev, MD
Sommer E. Gentry, MS
Daniel S. Warren, PhD
Brittige Reeh, MFA
Robert A. Montgomery, MD, DPhil

Context: Blood type and crossmatch incompatibility will exclude at least one third of patients in need of receiving a live donor kidney transplant. Kidney paired donation (KPD) offers incompatible donor/recipient pairs the opportunity to match for compatible transplants. Despite its increasing popularity, very few transplants have resulted from KPD.

Objective: To determine the potential impact of improved matching schemes on the number and quality of transplants achievable with KPD.

Design, Setting, and Population: We developed a model that simulates pools of incompatible donor/recipient pairs. We designed a mathematically verifiable optimized matching algorithm and compared it with the scheme currently used in some centers and regions. Simulated patients from the general community with characteristics drawn from distributions describing end-stage renal disease patients eligible for transplantation and their willing and eligible live donors.

Main Outcome Measures: Number of kidneys matched, HLA mismatch of matched kidneys, and number of grafts surviving 5 years after transplantation.

Results: A national optimized matching algorithm would result in more transplants (67.7% vs 42.0%, P < .001), better HLA concordance (3.0 vs 4.5 mismatched antigens, P < .001), more grafts surviving at 5 years (34.9% vs 28.7%, P < .001), and a reduction in the number of pairs required to travel (2.9% vs 18.4%, P < .001) when compared with an extension of the currently used first-accept scheme to a national level. Furthermore, highly sensitized patients would benefit 6-fold from a national optimized scheme (23.3% vs 14.1% successfully matched, P < .001). Even if only 7% of patients awaiting kidney transplantation participated in an optimized national KPD program, the health care system could save as much as $790 million.

Conclusions: The combination of a national KPD program and a mathematically optimized matching algorithm yields more matches with lower HLA disparity. Optimized matching affords patients the flexibility of customizing their matching priorities and the security of knowing that the greatest number of high-quality matches will be found and distributed equitably.

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- Dorry Segev & Sommer Gentry
- Created math and methods for large-scale paired kidney donation
High impact academic writing

Invest like Warren Buffet
Train like Simon Biles
Strike out like Babe Ruth
Diversify your research portfolio:

1. Overcoming bibliopenia
   - Promotion
   - National reputation
   - Mentoring residents & fellows

2. Changing the world
   - Truly ground-breaking
   - Long time horizon
   - Often externally funded work

Invest like Warren Buffet
Complications, Failure to Rescue, and Mortality With Major Inpatient Surgery in Medicare Patients

Amir A. Ghaferi, MD, John D. Birkmeyer, MD, and Justin B. Dimick, MD, MPH

Hospital Characteristics Associated with Failure to Rescue from Complications after Pancreatectomy

Amir A Ghaferi, MD, MS, Nicholas H Osborne, MD, MS, John D Birkmeyer, MD, FACS, Justin B Dimick, MD, MPH, FACS

Original Investigation | SURGICAL CARE OF THE AGING POPULATION
Socioeconomic Disparities in Mortality After Cancer Surgery Failure to Rescue

Bradley N. Ransom, MD, MS, Nancy J. D. Birkmeyer, PhD, Justin B. Dimick, MD, MPH, Amir A. Ghaferi, MD, MS

Hospital Volume and Failure to Rescue With High-risk Surgery

Amir A. Ghaferi, MD, MS, John D. Birkmeyer, MD, and Justin B. Dimick, MD, MPH

Understanding Failure to Rescue and Improving Safety Culture

Amir A. Ghaferi, MD, MS,† and Justin B. Dimick, MD, MPH

Importance of teamwork, communication and culture on failure-to-rescue in the elderly

A. A. Ghaferi1,2,3 and J. B. Dimick2,3

Original Investigation
Understanding the Volume-Outcome Effect in Cardiovascular Surgery
The Role of Failure to Rescue

Andrew A. Gonzalez, MD, JD, MPH; Justin B. Dimick, MD, MPH; John D. Birkmeyer, MD; Amir A. Ghaferi, MD, MS

Improving Mortality Following Emergent Surgery in Older Patients Requires Focus on Complication Rescue

Kyle H. Sheetz, BS, Seth A. Waits, MD, Robert W. Krell, MD, Darrell A. Campbell, Jr, MD, Michael J. Englesbe, MD, and Amir A. Ghaferi, MD, MS

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Variation in Hospital Mortality Associated with Inpatient Surgery

Amir A. Ghaferi, M.D., John D. Birkmeyer, M.D., and Justin B. Dimick, M.D., M.P.H.

ABSTRACT

Hospital mortality that is associated with inpatient surgery varies widely. Reducing rates of postoperative complications, the current focus of payers and regulators, may be one approach to reducing mortality. However, effective management of complications once they have occurred may be equally important.

METHODS

We studied 84,730 patients who had undergone inpatient general and vascular surgery from 2005 through 2007, using data from the American College of Surgeons National Surgical Quality Improvement Program. We first ranked hospitals according to their risk-adjusted overall rate of death and divided them into five groups. For hospitals in each overall mortality quintile, we then assessed the incidence of overall and major complications and the rate of death among patients with major complications.

RESULTS

Rates of death varied widely across hospital quintiles, from 3.9% in very-low-mortality hospitals to 6.9% in very-high-mortality hospitals. Hospitals with either very high mortality or very low mortality had similar rates of overall complications (24.6% and 26.9%, respectively) and of major complications (18.2% and 16.2%, respectively). Rates of individual complications did not vary significantly across hospital mortality quintiles. In contrast, mortality in patients with major complications was almost twice as high in hospitals with very high overall mortality as in those with very low overall mortality (21.4% vs. 12.9%, P<0.001). Differences in rates of death among patients with major complications were also the primary determinant of variation in overall mortality with individual operations.

CONCLUSIONS

In addition to efforts aimed at avoiding complications in the first place, reducing mortality associated with inpatient surgery will require greater attention to the timely recognition and management of complications once they occur.
“If they ask me to do 5 pull ups, I want to do 10.”

How much time each week do you [really] spend becoming a better writer?

Train like Simon Biles

- Block time
- Learn templates
- Study papers
- Writing groups
GOLDEN TICKET
“Opportunity is missed by most people because it is dressed in overalls and looks like hard work.” ~Thomas Edison
Seek out the right coach: Someone who writes better than you
Preparing Manuscripts for Submission to Medical Journals: The Paper Trail

CONTEXT. Preparing a manuscript for publication in a medical journal is hard work.

OBJECTIVE. To make it easier to prepare a readable manuscript.

APPROACH.
Start early—A substantial portion of the manuscript can be written before the project is completed. Even though you will revise it later, starting early will help document the methods and guide the analysis.

Focus on high-visibility components—Pay attention to what readers are most likely to look at: the title, abstract, tables, and figures. Strive to develop a set of tables and figures that convey not only the major results but also the basic methods.

Develop a systematic approach to the body of the paper—A standard framework can make it easier to write the introduction, methods, results, and discussion. An obvious organization with frequent subheadings and consistent labels makes the paper easier to read.

Finish strong—Improve the paper by sharing it with others and by learning how to elicit and receive their feedback. Take the time to incorporate useful feedback by revising frequently.
Chapter 9

Writing for Impact: How to Prepare a Journal Article

Andrew M. Ibrahim, Justin B. Dimick
University of Michigan, Ann Arbor, MI, United States

I would not give a fig for the simplicity this side of complexity, but I would give my life for the simplicity on the other side of complexity.

Oliver Wendell Holmes, Jr., United State Supreme Court Justice, 1902–1932.
When Writing
Improving your Research Question

Write the abstract first to troubleshoot the research question before moving on.

Once Submitted
Convincing Editors It’s Worthy of Peer-Review

Half of manuscripts at high-impact journals are rejected based on the abstract.

After Publication
Getting the Rest of the Article Read

Readers will start here to decide if the rest of the article is worth reading.

The Three Paragraphs of an Effective Introduction

**Give Context**
Get the reader to care about the topic.

*Bring the reader up to speed on the why the topic is important.*

**Create a Knowledge Gap**
Get the reader curious about what is missing.

*Make clear what is known and what is unknown to date.*

**Preview Your Plan**
Connect the knowledge gaps to your study plan.

*State how your study will fill the knowledge gap.*

C

ritical access hospital designation was created to help ensure access to the more than 59 million people living in rural populations. Established in 1997 under the Medicare Rural Hospital Flexibility Program when policy makers were worried these hospitals would close due to financial hardship, the critical access hospital provision entitled hospitals to increased reimbursements if they had fewer than 25 inpatient beds and were located more than 35 miles away from another hospital. More than 1300 hospitals enrolled in this program, but concern about the resultant Medicare budget growing to more than $9 billion annually led government agencies and advisory groups to call for modifications and even elimination of the critical access designation. Advocates for critical access hospitals argue that changes would be disruptive to communities that heavily rely on them for their health care.

Debates about the value of critical access hospitals continue with limited evidence about the clinical outcomes and costs to Medicare in these settings. Increased mortality rates and worse process of care measures have been reported for common medical admissions at critical access hospitals, however, far less is known about patients undergoing surgical procedures. To date the largest study of surgical outcomes captures only approximately one-third of critical access hospitals and lacks postdischarge follow-up and payment information. Nevertheless, this single study found no difference in postoperative mortality rates suggesting that critical access hospitals may provide comparable surgical care with their acute care counterparts. Whether these findings are representative of surgical care across all critical access hospitals and what the costs are to Medicare remain unknown.

The purpose of this study was to evaluate outcomes and costs among Medicare beneficiaries undergoing surgical procedures at critical access and non-critical access hospitals.
Components of a Compelling Discussion

Summarize the Findings
- Summarize plainly the study and key findings

Put Your Findings Into Context
- Review other major studies on same topic

Recognize Limitations
- Explain limitations & how you tried to mitigate them

Implications Moving Forward
- Outline implications & recommendations moving forward

You strike out more often than you hit a home run

“Every strikeout brings me closer to my next home run.”

“I swing with everything I’ve got. I hit big or miss big. I like to live as big as I can.”
Developing a “growth” mindset:

New England Journal of Medicine 16-11870

- Ibrahim, Andrew
- To: Devnak, Justin (Justin)

Thoughtful reviewers
I’ll bring to our next meeting to plan revisions before sending elsewhere

@andrewmibrahim

Begin forwarded message:

From: New England Journal of Medicine <onbehalfof+editorial+nejm.org@manuscriptcentral.com>
Date: September 28, 2016 at 10:28:43 AM EDT
To: <andrew@umich.edu>, <andrew.m.ibrahim@gmail.com>
Subject: New England Journal of Medicine 16-11870
Reply-To: <editorial@nejm.org>

Dear Dr. Ibrahim:

I am sorry to inform you that your submission, “Realizing the Benefits of Hospital Consolidations by Decentralizing Specialty Care,” has not been accepted for publication in the Journal. It was evaluated by members of our editorial staff and by two outside experts. After considering its focus, content, and interest, as well as the concerns expressed by the reviewers (see below), we made the editorial decision not to consider your submission further. We are informing you of this decision promptly so that you can submit it elsewhere.

Thank you for the opportunity to consider your submission.

Sincerely,

Debra Malina, Ph.D.
Perspective Editor

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Good writing is a *process*, not an *event*.

**Success**

*Is peace of mind attained only through self-satisfaction and knowing you’ve made the effort, do the best of what you’re capable.*

*John Wooden*
High impact academic writing

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Train like Simon Biles
Strike out like Babe Ruth