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# Tips and Tricks to Writing a Great Abstract

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# Generally, speaking...

## DO

- Prepare early and share with senior authors
- Review language
- Assess for coherence & continuity
- Obey word limit
- Consider the reviewer

## DON'T

- Write it up at the last minute
- Forget to proofread
- Introduce concepts "downstream" that haven't been introduced "upstream"
- Use "new" abbreviations or jargon
- Use footnotes



# Review, proofread, review, and review

## Abstract

**Background:** Heart failure with preserved systolic function is common, but whether this condition particularly affects women is not known.

**Objective:** To determine if women are more likely to have heart failure with preserved systolic function, independent of other potential confounders of this relationship, including age.

**Design:** Cross-sectional study using data from retrospective medical chart abstraction of a national sample of Medicare beneficiaries hospitalized with heart failure.

**Setting:** Acute care non-governmental hospitals in the United States.

**Patients:** A national cohort of 20,388 patients age 65 years or older with a principal discharge diagnosis of heart failure April 1998 and March 1999, inclusive, and documentation of left ventricular systolic function. The diagnosis of heart failure was confirmed either by medical history or radiographic evidence of heart failure at admission.

**Main Outcome Measures:** Preserved left ventricular systolic function defined as qualitatively normal systolic function or quantitatively reported left ventricular ejection fraction  $>0.50$ .

**Results:** Preserved left ventricular systolic function was present in 6,700 (35%) of the cohort, 79% of whom were women. In contrast, among those with left ventricular systolic function, 49% were female (unadjusted OR = 2.49, 95% CI 2.34, 2.65). After adjustment for age and comorbidity, this correlation persisted (OR = 2.10, 95% CI ). Meanwhile, the correlation with advancing age was only clinically significant in patients older than 85 years old.

**Conclusions:** Among hospitalized Medicare beneficiaries with heart failure, women are much more likely to have preserved left ventricular systolic function than

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Needs to be stronger.

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This is confusing – and do you mean dysfunction?

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Numbers missing.

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Not clear.

# Consider the Reviewer

- Reviewing dozens (sometimes 100+) of submissions in a short time period
- Need to catch their attention
- Little patience for typos, errors in methods, overstatement



# Abstract Title

## DO

- Catch the reviewer's eye
- Match to findings

## DON'T

- Over-promise
- Be too literal or too general



# Introduction

- Avoid “boilerplate” (generic) statements
  - “Heart failure is common and is associated with high morbidity and mortality”
- Two sentences (or so) that get to the point
- What is known and what will you add?
- It must match the conclusions
  - “Our objective was to assess adherence after MI” does not match with a conclusion “Women with MI have greater survival with beta blocker therapy”

# Methods

- You must condense
- Simple things (e.g. bivariate analysis) are implied--focus on the complex (e.g. multivariable models)
- IRB approval is assumed, so doesn't need mention (although you must have approval)
- Use statistical consultant to avoid common errors

$$Y_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{1i}^2 + \epsilon_i$$

# Results—not quite like a paper

- Tell the story—no more and no less
- Anything not critical to the “story” can go into presentation
- **Consider table or figure for complex results** avoid the “number blizzard”
- “Negative” results—what are the confidence intervals?
- Present both relative and absolute risks



# Consider Table or Figure for Complex Data

<i>Variable</i>	<i>Count (%)</i> <i>n=2953</i>	<i>Complications<sup>1</sup></i> <i>OR (95% CI)</i> <i>n=2882</i>	<i>Hospitalization<sup>2</sup></i> <i>Hazard Ratio</i> <i>(95%CI)</i> <i>n=2953</i>	<i>HF</i> <i>Hospitalization<sup>2</sup></i> <i>Hazard Ratio</i> <i>(95% CI)</i> <i>n=2953</i>	<i>Mortality<sup>3</sup></i> <i>Hazard Ratio</i> <i>(95% CI)</i> <i>n=2953</i>
Age >65 (vs 18-65)	1827 (61.9%)	1.157 (0.86, 1.56)	1.059 (0.96, 1.18)	1.193 (1.00, 1.42)	1.582 (1.33, 1.89)
Female (vs Male)	769 (26.0%)	1.344 (1.00, 1.81)	0.932 (0.83, 1.04)	0.841 (0.70, 1.00)	0.675 (0.57, 0.81)
NYHA III-IV (vs I-II)	1139 (38.6%)	1.368 (0.98, 1.91)	1.282 (1.17, 1.41)	1.544 (1.33, 1.80)	1.892 (1.60, 2.24)
LVEF ≤30 (vs 31-36)	1968 (66.6%)	1.032 (0.77, 1.38)	1.065 (0.97, 1.17)	1.185 (1.00, 1.39)	1.257 (1.08, 1.46)
Ischemic HD	1927 (65.3%)	0.981 (0.73, 1.32)	1.296 (1.17, 1.44)	1.095 (0.92, 1.30)	1.298 (1.10, 1.54)
Atrial Fibrillation	947 (32.1%)	0.818 (0.61, 1.10)	1.334 (1.21, 1.47)	1.543 (1.33, 1.80)	1.262 (1.10, 1.45)
EGFR 0-30 (vs >30)	231 (7.8%)	0.861 (0.52, 1.43)	1.074 (0.89, 1.30)	0.855 (0.65, 1.13)	1.040 (0.81, 1.33)

<sup>1</sup> Also adjusted for ICD Device Type

<sup>2</sup> Also adjusted for Race group, BUN, HGB

<sup>3</sup> Also adjusted for ICD Device Type, BUN, HGB

# Conclusions

- DO

- Summarize results conceptually
- Why are they interesting?
- Where do they lead?

- DO NOT

- simply restate your results
- conclude what your results do not support
- use causal language for observations
- overstate “negative” results







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**¡GRACIAS!**

