

Updated February 27, 2019

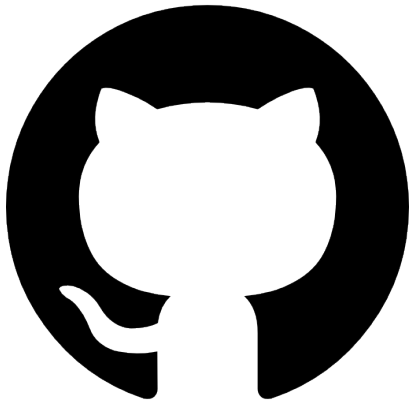
# Using **for Science Communication**

Bailey DeBarmore, MHS RD  
PhD Student, Epidemiology



@BaileyDeBarmore

# Notes



Go to **[github.com/baileydebarmore/sci-comm.git](https://github.com/baileydebarmore/sci-comm.git)** for  
links and articles mentioned in this presentation  
and to download my Getting Started on Twitter guide

# **Science Communication**



“Scientists pass the buck when it comes to communicating science. We write papers and then **we expect journalists to explain it to everyone else.**”

- Christie Wilcox



“Social Media for Scientists” series, 2011 in Scientific American

# Don't pass the buck

Health professionals have an **opportunity** and a **responsibility** to adopt and harness these new [social media] formats as they engage a global audience.

- Esther K Choo et al.



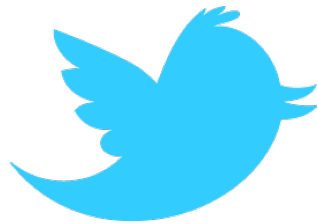
Choo et al. Twitter as a tool for communication and knowledge exchange in academic medicine: A guide for skeptics and novices. *Medical Teacher*. 2015. [www.bit.ly/2MNgHwE](http://www.bit.ly/2MNgHwE)

# Lay Media Presence

Journalists use online search functions  
to find experts

# Lay Media Presence

Twitter posts rank high  
in search results



# **Gain recognition as an expert**

1. Advance your public image
2. Provide credible information to the public
3. Improve perception of scientists by the public



**“If scientists could communicate...in a familiar tone with a less specialized vocabulary, would a wide range of people understand them better?”**

Would their work be better understood by the general public, policy-makers, funders, and even in some cases, other scientists?”

– Alan Alda



“Putting your head in the ground and ignoring [social media] adds to the ivory tower attitude that people have towards scientists.”



**Atif Kukaswadia, PhD**

@DrEpid Follows you

PhD (Epidemiology), writer @PLoS Blogs, @Senators fan and photographer, but \*not\* a skin doctor :) Tweets my own.

More: [goo.gl/nFgbUr](http://goo.gl/nFgbUr)

# **Twitter Lingo**

# Hashtags

Word or phrase prefixed with #

- Denote topic:
  - #CausalInference
- Identify community:
  - #EpiTwitter #Rstats #StatsTwitter #AcademicTwitter #PhDChat
- Group with a conference:
  - #AHA18 #EpiLifestyle19

# Hashtags are searchable

Search



Home

Moments

Notifications

Messages

#EpiLifestyle18



## #EpiLifestyle18

Top

Latest

People

Photos

Videos

News



**David Goff, MD, PhD** @NHLBI\_HEARTDir · 23 Mar 2018

Emelia Benjamin: HTN control may help prevent atrial fibrillation [#EpiLifestyle18](#)



2

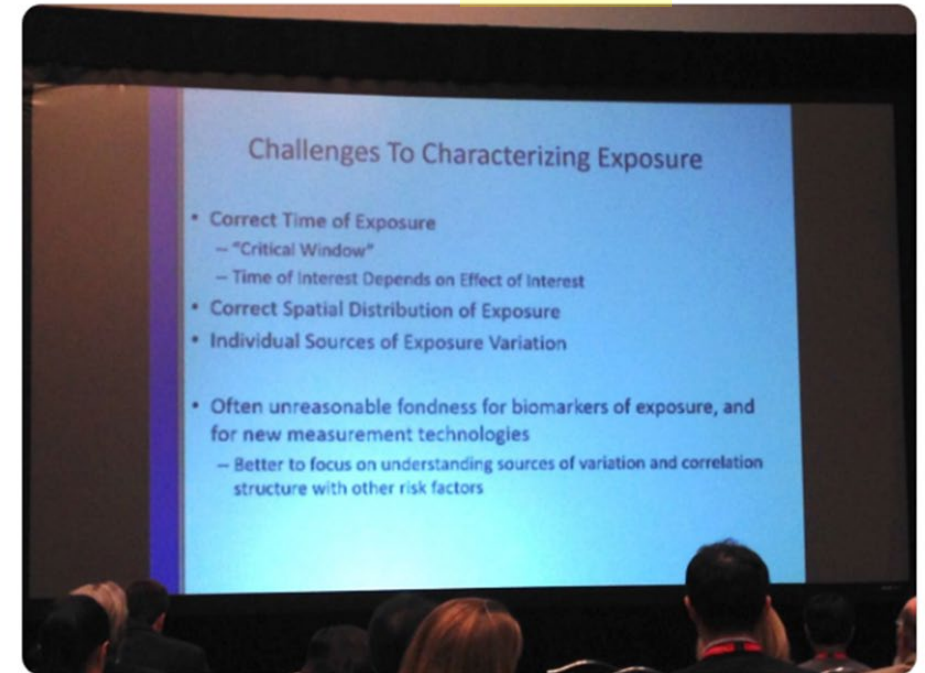


3



**Alvaro Alonso** @alonso\_epi · 23 Mar 2018

Fantastic presentation from Joel Kaufman on methodological issues in studying the impact of air pollution on CVD health [#EpiLifestyle18](#)



3



8



# Retweet

- Repost a message from another user and share with your own followers

## Retweet with comment



**R-Ladies Rdam** @RLadiesRdam · 30m

If you are in Netherlands and interested in causal inference and machine learning, you don't want to miss this talk!

### SERtalks – Netherlands

March 21, 2019  
5:00pm – Netherlands

"Inference After Machine Learning  
for Causal Effects"

Dr. James M. Robins  
Professor of Epidemiology  
Harvard T.H. Chan  
School of Public Health

This event will be held onsite:

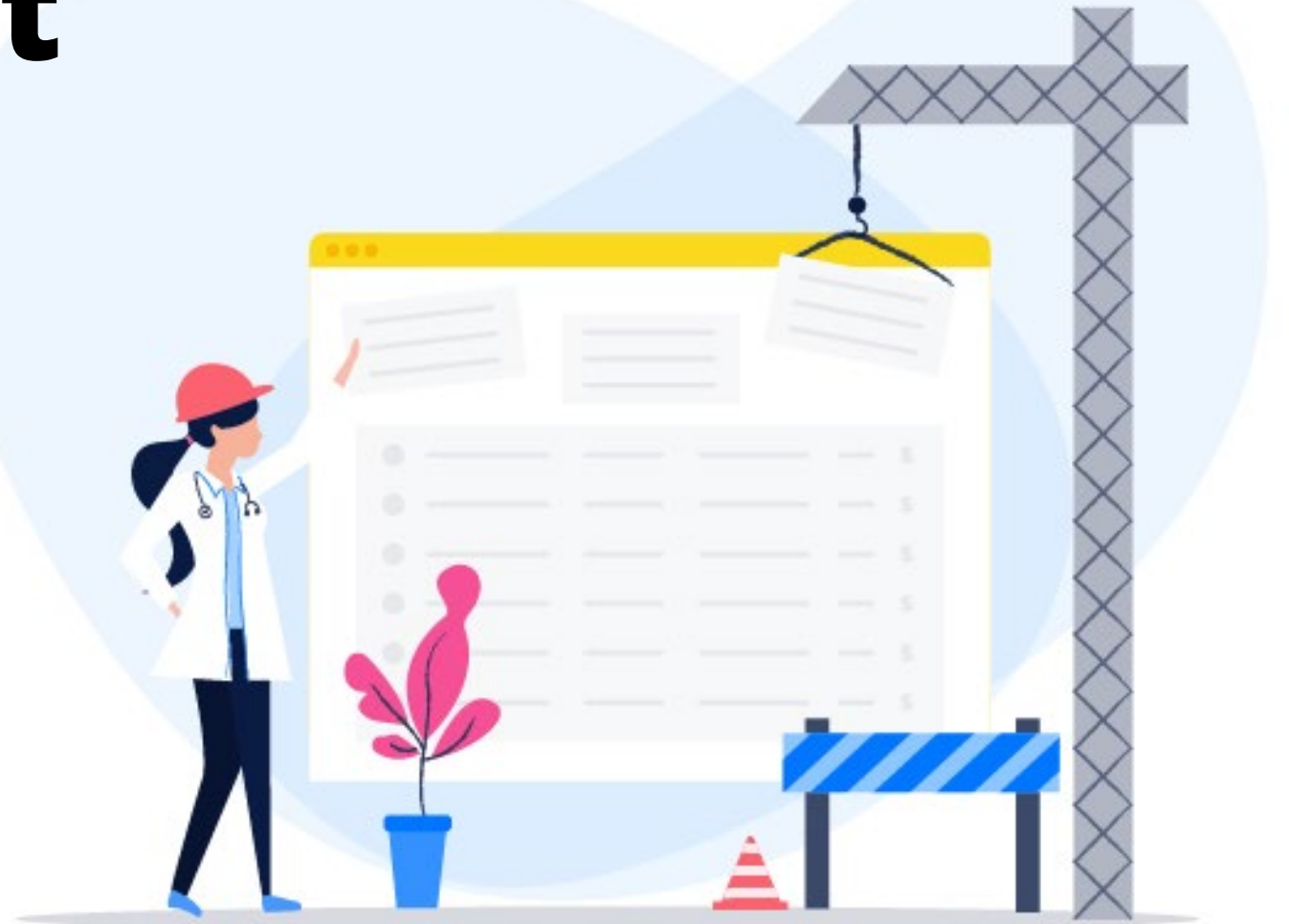
**Jeremy Labrecque** @ja\_labrecque\_

Excited for the @ErasmusMC Epidemiology department to host our first SER event with none other than Dr. James Robins himself. Epidemiologists based in the Netherlands shouldn't miss this!...

## Original tweet

# **Tips for Science Communication**

# Constructing a Great Science Tweet





# Sharing science <sup>papers</sup> on twitter

Ideally include 3 things

- ✓ “So what?” punchline
- ✓ Link
- ✓ Visual

# Great example



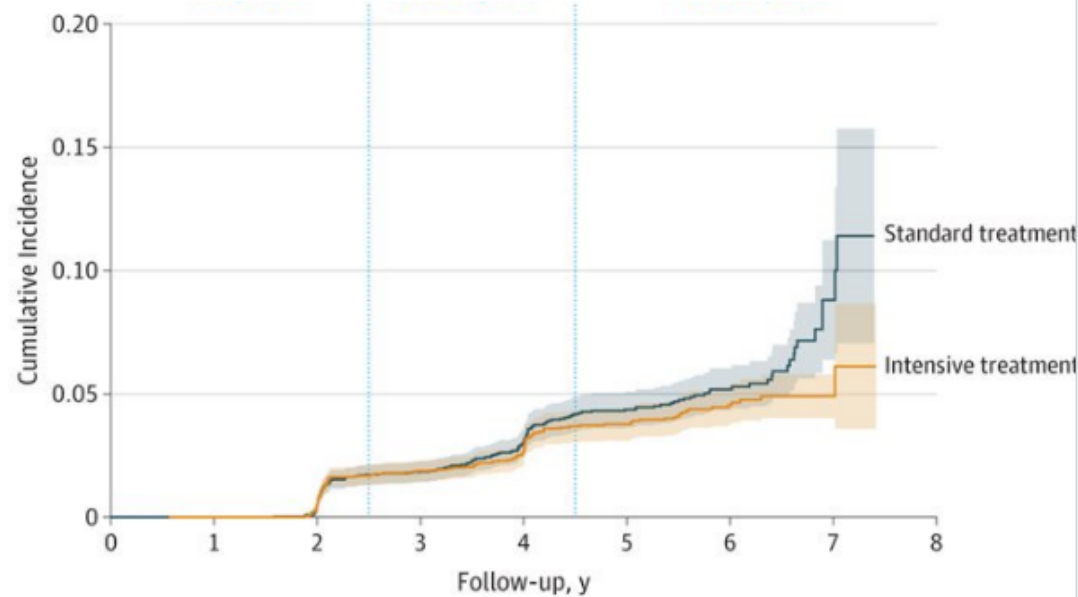
**Clyde Yancy, MD** @NMHheartdoc · Jan 28

Too important to overlook; SPRINT MIND: goal blood pressure reduction does not exacerbate demented but rather reduces risk of mild cognitive decline. No reason not to treat to goal in the correct patient. [#preventheartfailure](#). The time is here to treat HTN [@JAMA\\_current](#)

Hook  
+  
Punchline  
+  
Link  
+  
Visual

**JAMA** @JAMA\_current

Among ambulatory adults with hypertension, treatment to an SBP goal < 120 mm Hg did not reduce risk of #dementia compared with a goal < 140, but did reduce risk of mild cognitive impairment and risk of ...



# Great example



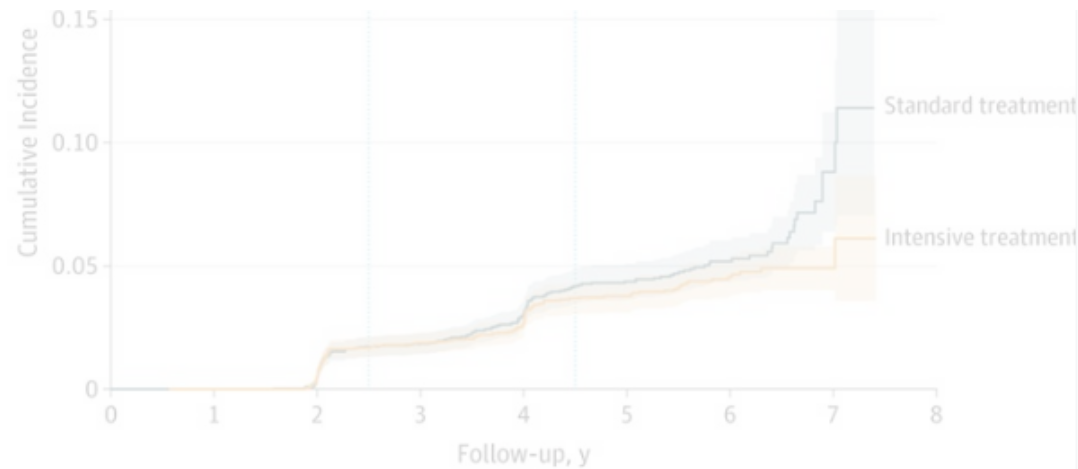
Clyde Yancy, MD @NMHheartdoc · Jan 28

Too important to overlook; SPRINT MIND: goal blood pressure reduction does not exacerbate demented but rather reduces risk of mild cognitive decline. No reason not to treat to goal in the correct patient. [#preventheartfailure](#). The



Clyde Yancy, MD @NMHheartdoc · Jan 28

Too important to overlook; SPRINT MIND: goal blood pressure reduction does not exacerbate demented but rather reduces risk of mild cognitive decline. No reason not to treat to goal in the correct patient. [#preventheartfailure](#). The time is here to treat HTN [@JAMA\\_current](#)



# Another great example

David Grabowski @DavidCGrabowski · Jan 7

New in @Health\_Affairs on the Hospital Readmissions Reduction Program

**Hook**

Prior research has found program to be effective but we conclude reductions are illusory or overstated

**"So what?"**

[healthaffairs.org/doi/abs/10.1377/hlthaff.2018.05178](https://healthaffairs.org/doi/abs/10.1377/hlthaff.2018.05178)

**Link**

Paper with Chris Ody (@KelloggSchool) @LucilleMsall @LeemoreDafny @cutler\_econ

**Tags authors  
down here**

## HOSPITALS

By Christopher Ody, Lucy Msall, Leemore S. Dafny, David C. Grabowski, and David M. Cutler

DOI: 10.1377/hlthaff.2018.05178  
HEALTH AFFAIRS 38,  
NO. 1 (2019): 36-43  
©2019 Project HOPE—  
The People-to-People Health  
Foundation, Inc.

## Decreases In Readmissions Credited To Medicare's Program To Reduce Hospital Readmissions

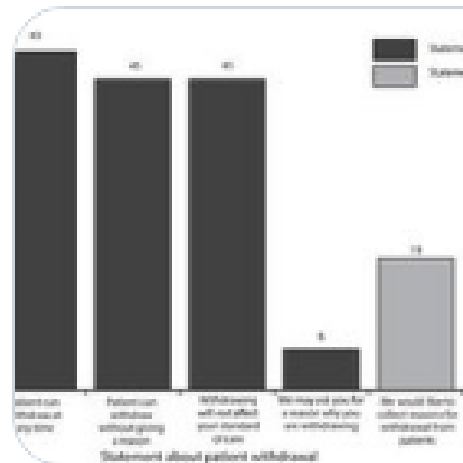
**Visual**

# And another great example



**Anna Kearney** @msakearney · Nov 1

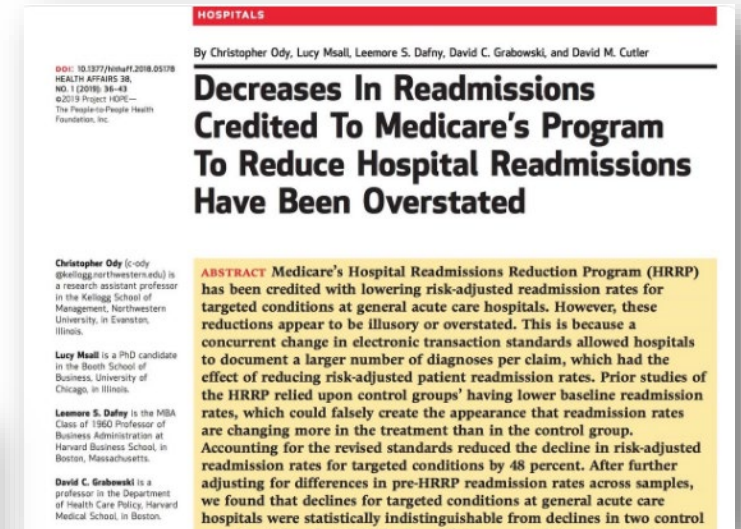
Patient information leaflets in research often fail to include info that might help retain patients



Reducing attrition within clinical trials: The communica...  
Background The recruitment and retention of patients are significant methodological challenges for trials. ...  
[journals.plos.org](https://journals.plos.org)

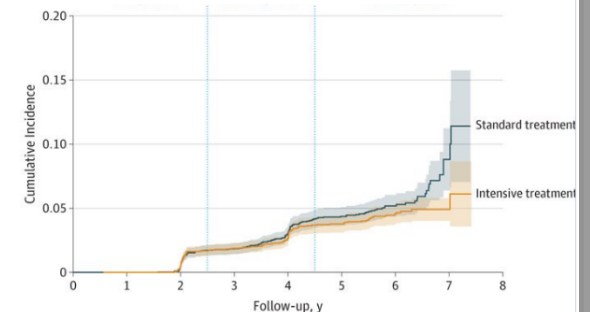
# Using visuals

- Screenshot the formatted paper or PubMed Abstract
- Use compelling figure from the paper
- Find related free stock photo
  - Rawpixel.com
  - Pexels.com
  - Unsplash.com
- Retweet journal tweet that includes image



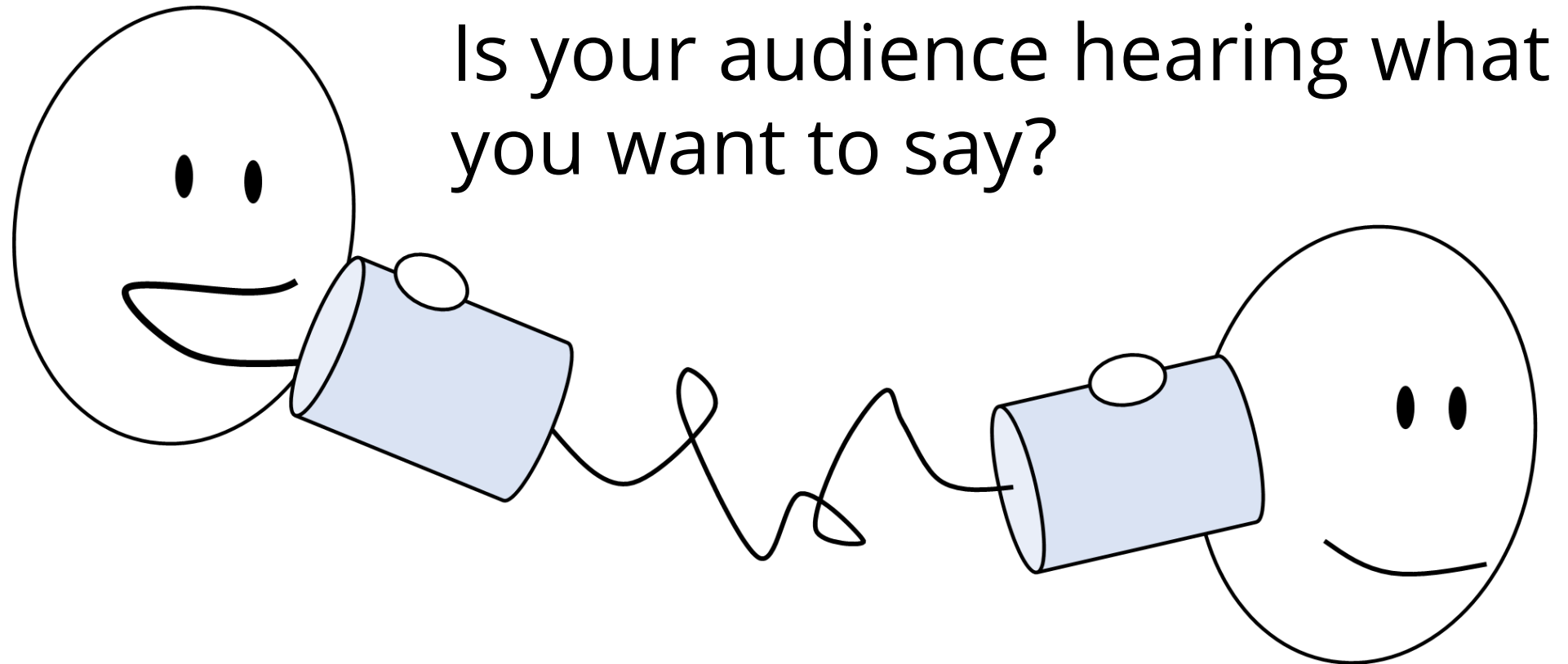
JAMA @JAMA\_current

Among ambulatory adults with hypertension, treatment to an SBP goal < 120 mm Hg did not reduce risk of #dementia compared with a goal < 140, but did reduce risk of mild cognitive impairment and risk of ...



No. at risk									
Standard treatment	4285	4282	4168	3886	2829	2107	989	87	0
Intensive treatment	4278	4277	4171	3917	2893	2189	1027	93	0

# Writing Effective Science Tweets

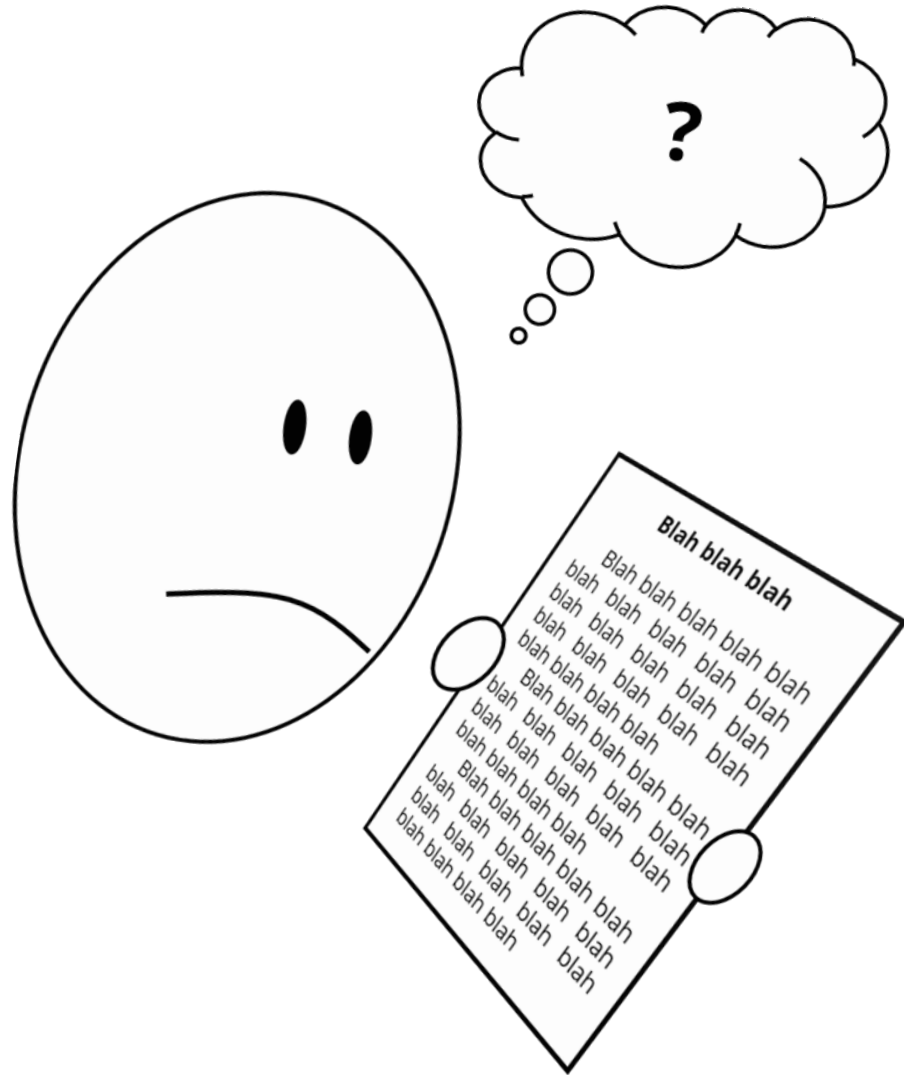


# Overall approach

- Write like you're having a conversation.  
Then engage in the discussion that follows.
  - Ellie Murray [@EpiEllie](#)
- Stay away from acronyms and unique science terms. Instead, include concepts and ideas everyone knows and build on their understanding from there.
  - Val Klavans [@astroguitarist](#)



# Write like you're having a conversation

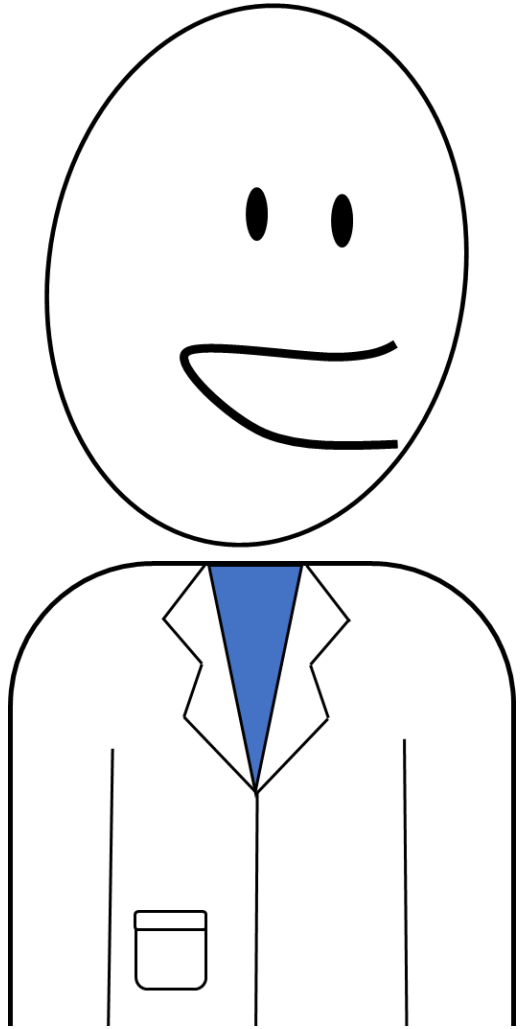


Ever have someone read a draft of your writing and then ask for clarification?

# Write like you're having a conversation

- Use active voice, contractions, and short sentences
- Replace complex language with simple vocabulary
- Engage the reader with questions and use “you”

# Writerly and science-y



Previously called atypical myocardial infarction, myocardial infarctions presenting without classic chest pain are more common in certain patient groups, including those with more comorbidities.

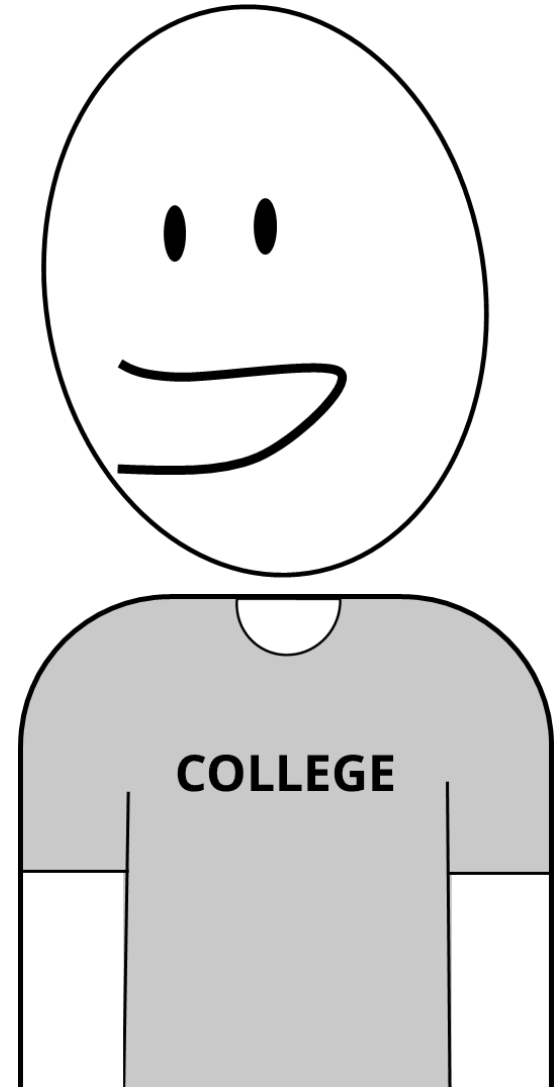
These myocardial infarctions without classic pain are associated with delayed hospital arrival time, delayed coronary revascularization, and poorer outcomes following the event.

# Casual and approachable

Do you know someone who's had a heart attack?

We often think of someone having chest pain but you might have different symptoms or no symptoms at all.

I study these different heart attack presentations to see if they are more common in certain groups.



# **Engage your audience with a question or statement that connects people with the science**

Imagine if you couldn't afford your medications.

New study shows concerns over medication costs negatively affect BP med adherence and BP control, especially in low income areas.



# Tips for finding the point

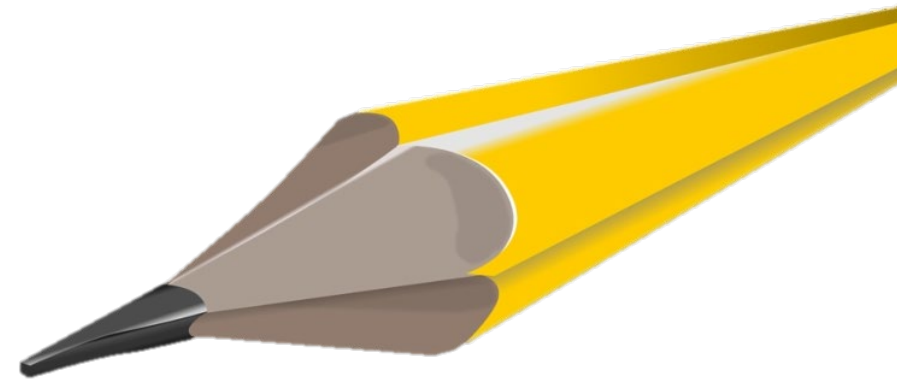
- Ask yourself
  - What did I take away from this article?
  - Why am I sharing this post?
  - What questions do I still have?

You've probably read through several articles.  
Why did you stop on this one?  
Did you think of another discussion you had?



# Tips for getting to the point

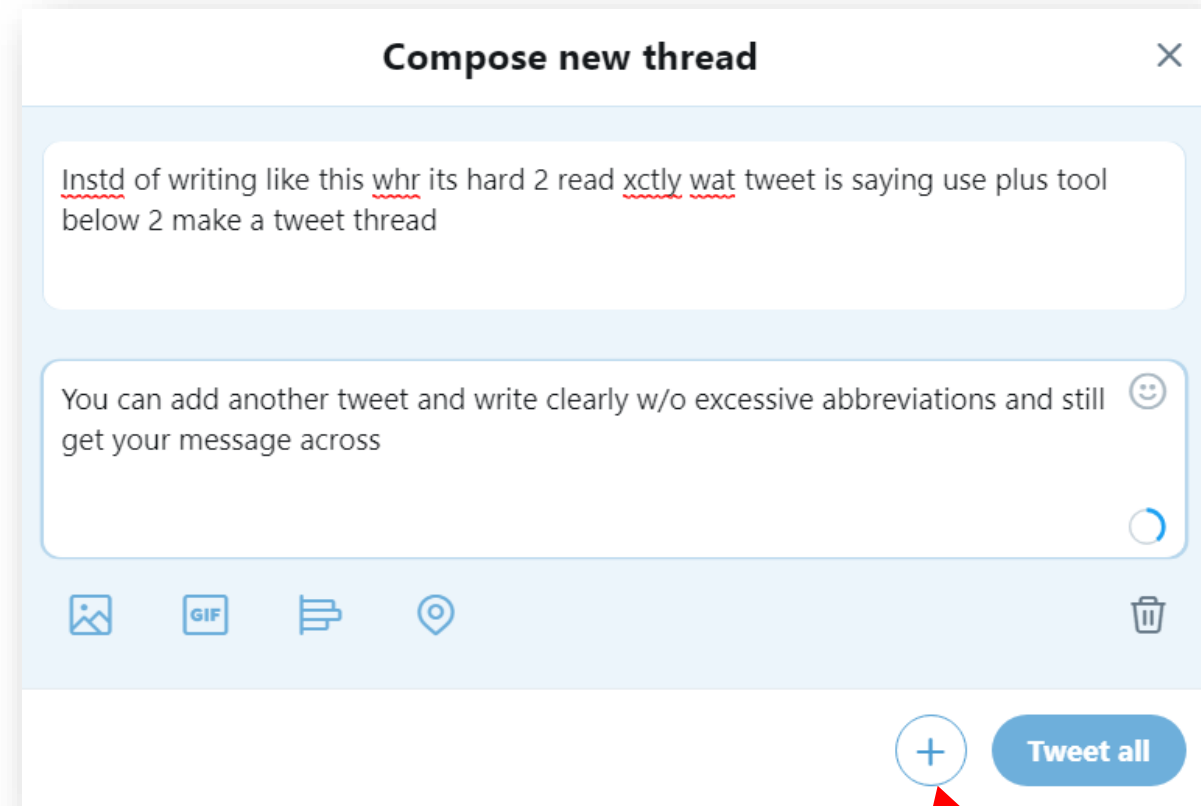
- Think about a friend asking, “What was the study about?”
  - Answer in 1-2 sentences
- Too many ideas and details confuse the reader
  - Start with your first thoughts
  - Drill down to the main point



# Improving readability

- Not enough characters?
  - Use multi-thread tool instead of “txt msg”-style abbreviations
- Shy away from using ALL CAPS or too many #hashtags
- Avoid replacing words with emojis

100,234 🧑 +84,002 🧑 without ❤️ dz given 💊 or 🚰

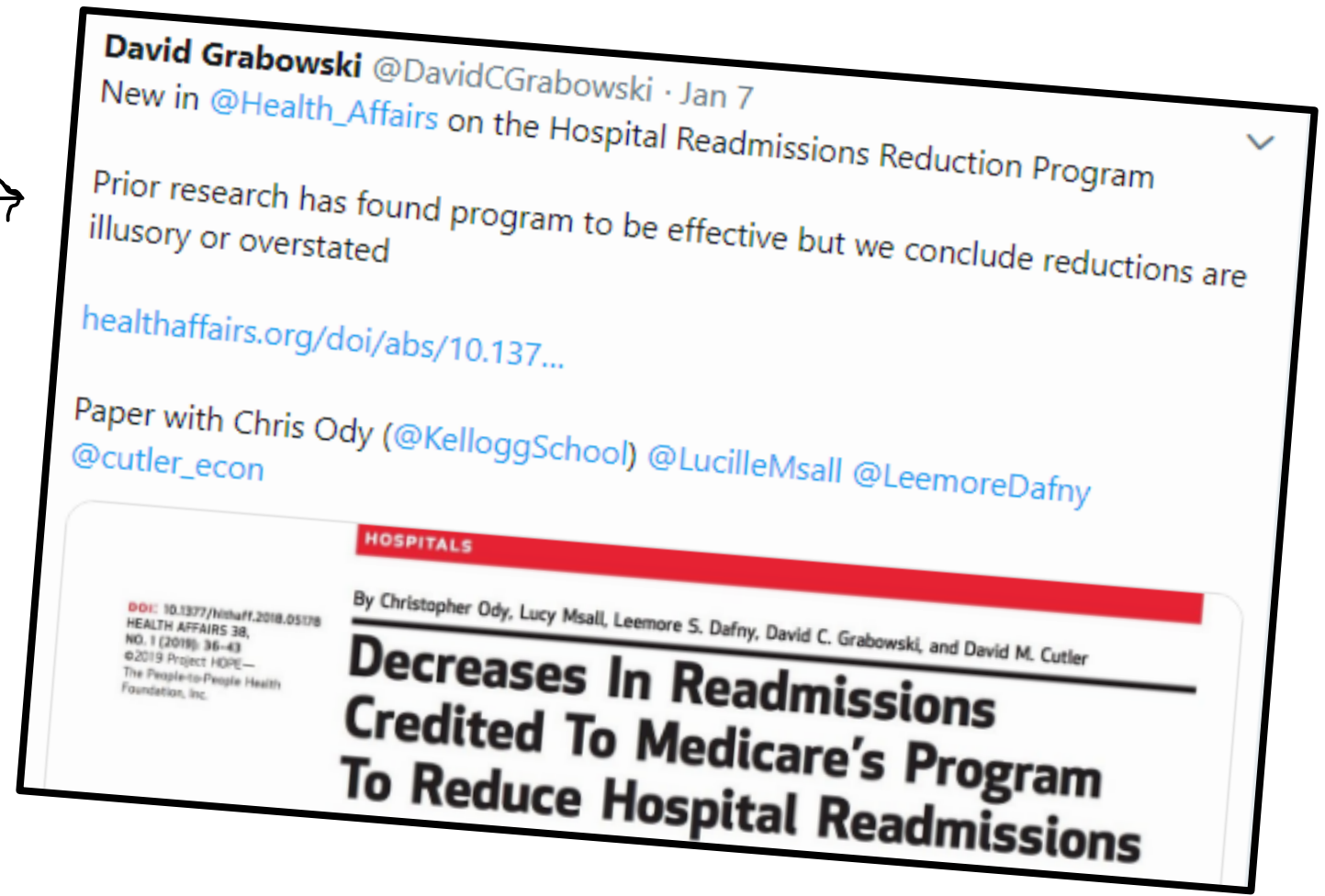


multi-thread tool



# Other tips

- Tag authors and journal if on Twitter, but at the end of your tweet
- Use white space
- Shorten links with bit.ly or other services



# Using **for Science Communication**

Bailey DeBarmore, MHS RD  
PhD Student, Epidemiology  
[bdebarmo@live.unc.edu](mailto:bdebarmo@live.unc.edu)

**[github.com/baileydebarmore/sci-comm.git](https://github.com/baileydebarmore/sci-comm.git)**