

Scientific Writing For the Surgical Trainee

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Outline

- Why
- How
- Tell the World





WHY?





Me, Myself and I

- MMed
- Before graduation
- Job
- Promotion/Tenure
- Grants
- Recognition
- Network with others







For Humanity



- Global or Local question
- Inform the world
- Validate a new technique/aspect
- Document your experience
- Stimulate Interest





How?





Start Early.....Now

- Join Existing Study
- Simple solo projects
- Practice makes Perfect
- Manage Expectations







Form Teams



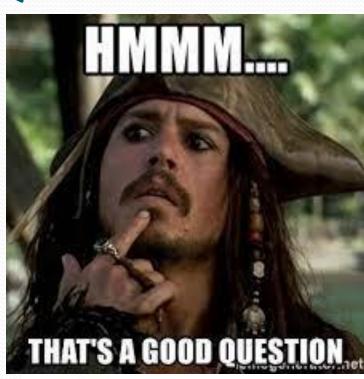
- Learning
- Collaboration
- Impact
- Funding





Formulate Good Questions

- New
 - Treatment
 - Population
 - Knowledge
 - Disease distribution
- Interesting
- Practice Changing
- Based on Sound Science







Where Do I Start?



- Common Conditions
- Presenting as expected
- Managing them like others
- Outcomes any different





Starting Point...

- What is topical
 - Specialty
 - Global
- Aligning to Funders/Policy
 - COVID
 - NCDs
 - Maternal Health







Should be

- Clear Easily Understood
- Focused Narrows on a specific issue
- Concise Needs few words
- Objective Measurable
- Complex Not Yes/No
- Arguable Not Accepted
 Fact
- Relevant To situation/times/specialty







Should be



- Original Novel, New Aspect
- Interesting Appeals to target audience
- Researchable Using means available to you
- Ethical Human/Animal , Special Groups
- Analytical Better than Descriptive





Steps

- Choose a general topic
- Research on the topic –
 Better than Armchair
 Speculation
- Consider Target Audience
- List Preliminary Questions
- Evaluate the questions







Consider the Following

- Resources
 - Human
 - Facilities
 - Financial
- Expertise
 - HR
 - Clinical
 - Statistical
- Time
- Your Passion







Steps...



- Consider HOW they could be answered
- Find a niche/gap
- Answer 'So What?'
- Hypothesize For, Against
- PICO/PEO
- Begin your research!!!





TELL THE WORLD







- The dissertation is >50 pages long
- The dataset has >50 variables
- Journals will only accept about 3000 words or 4 pages
- You believe every single page of the dissertation/dataset is very important
- Not many people share that view





Solution

- 1 dissertation 1 manuscript?
- Not Really
- What are the messages in your dissertation?
- Break them down into simple distinct messages
- Write a paper for each of the messages







Example - Dissertation

- Treatment and outcome of Ankle injuries
- •Included data on closed fractures, open fractures and ligament injuries

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Example.... Messages

- Open Fractures should be managed early Compare outcome of Early vs Late Mx
- Unstable injuries should be operated on – Compare outcome of ORIF vs POP
- Ligament injuries have poor outcome – Outcomes of ligament injuires







SURGERYCondense the Material

- Introduction 1st 2 lines of the Introduction
- Literature Review Body of Introduction
- Justification, Hypothesis, Objectives –
 Last line of Introduction

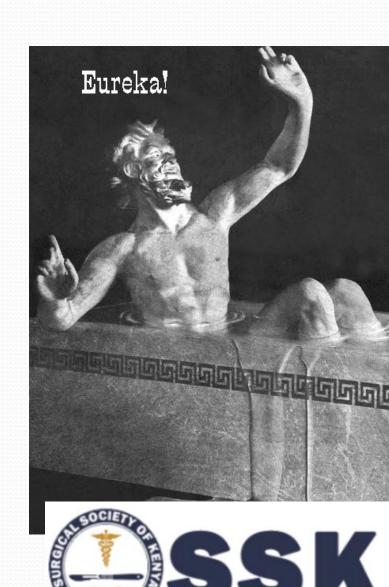






Condense.....

- Methodology Just the important steps – 2 paragraphs
- Results
 - Summarise the raw data first
 - Be candid (dropouts, missing data etc)
 - Only include the variables that tell the story you want to state
 - Figures and Tables should summarise results not require detailed explanations





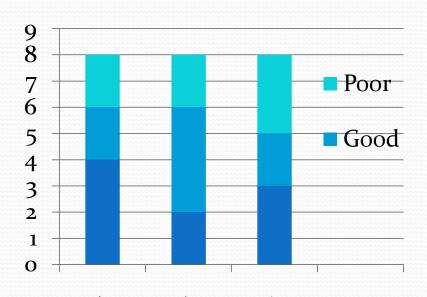
Examples.....

Forty percent of patients who had fractures reported excellent outcomes when compared with 20% of those who had dislocations and 30% of those who suffered fracture dislocations...

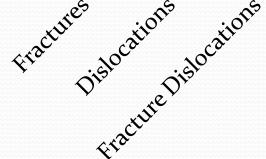




Examples.....



Fracture dislocations
 were associated with a
 higher incidence of poor
 outcomes (Figure X)







Discussion

- Paragraph 1 Summarise important results
- Paragraph 2 How does your data compare to other studies
- Paragraph 3 Postulate as to why your results are as they are
- Conclusion What is the implication of the results in science





Summary

- Altruistic Research
- Collaboration
- Ask Good Questions
- Distil Dissertation
- Publish or Perish







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