Writing a Case Report

Gloria Kuhn, D.O., PH.D
2015
Question
Which of the following is a reason to write a case report?

A. It is an efficient way to communicate cutting edge information
B. It is a warning about an unusual illness, presentation, or error
C. It is one way doctors communicate with each other
D. B and C

13%  3%  3%  80%
Overview

- Why
- What
- How
- Examples
- Where: Getting it published
Why
Self-Interest

- Scholarly project
- May lead to research
- Practice writing
- CV
- Personal satisfaction
- Wonderful way to learn
Interesting case

Presentation / poster / publication

Research project

Literature review

Learn more about disease

Presentation / poster / publication
Why

“Case reports, by virtue of their simplicity are ideal for the novice writer.”

Chelvarajah, R Writing and publishing case reports: the road to success Acta Neurochir 2004 146:313-16
Why

“Always note and record the unusual... Publish it. Place it on permanent record as a short, concise note. Such communications are always of value.”

Sir William Osler
“Scientific observations…that are carefully documented [are important] so that they may be a valuable education and research resource.”

Sir William Osler
Is that True?

- AIDS
  - American Journal of Dermatopathology 1981

- SARS
  - 2002 Case reports

- West Nile Virus
  - Case reports

- H1N1
  - CDC Case report MMWR 2009
Is That True?

- 1996-2000: 140,000
- 2008-2010: 229,828
- 1966-present: 1,092,943
- 2013: 1,644,463

- Case reports
  - Core journals
    - Letter to the editor
    - Research letter
One of the ways in which we as doctors communicate information to each other
Which of the following is correct?

A. All submissions must contain autopsy findings
B. All laboratory values must be submitted
C. The final diagnosis must be certain
D. All diagnostic images must be submitted
Watch for / Watch out

- Unique case
  - New disease or syndrome
  - Unexpected association
    - Two diseases (states)

Wright, SM  Capturing Zebras CMAJ 2000;163(4):429
Unusual case

- Presentation: Rhabdomyolysis

- Consequence: SARS and pulmonary fibrosis

- Consequence: 3 Men and a Paint Brush
Watch for / Watch out

Diagnostic or therapeutic misadventure

Wright, SM CMAJ 2000;163(4):429

The Case of Dr. Ring
Which of the following is a reason to write a case report?

A. It is an efficient way to communicate cutting edge information
B. It is a warning about an unusual illness, presentation, or error
C. It is one way doctors communicate with each other
D. B and C

98% of the responses selected D. B and C.
Question
Which of the following is a reason to write a case report?

A. Gives practice writing
B. As a prelude to doing actual research
C. Can add to your CV
D. Add to your knowledge
E. All of the above
What

- Cases appealing to emotions

- New disease

- Uncommon or unique presentation / location
  - Lengthy dx
  - Undocumented symptoms

- Lessons learned
Recipe for Writing
Wright, S CMAJ 2000:163(4) 429

- Literature search (best friend)
  - Topic area
  - Disease plus “case report” 1966 to present
  - Prior description
  - Frequency
  - Learn from reading
  - Redundant
Recipe for Writing

Make the diagnosis

– Order appropriate tests

Finances

Consent

Save some blood

Involve consultants
Recipe for Writing

Request autopsy

Contact intended journal

Medical records / diary / imaging
Neurosarcoidosis

- Generalized pain
- Urinary retention
- MRI
- Brain biopsy
Consent is Crucial
Question
Which of the following is needed for a case report?

A. Consent from the hospital
B. Consent from all doctors involved in the case
C. Consent from a competent Patient
D. Consent from the family
Question
How should you protect the identity of the patient?

A. Alter the facts of the case
B. Change the outcome of the case
C. Remove all identifying information
D. Only use x-ray images from archived radiology images of teaching cases
Consent is Crucial

- Omit identifying details
- Get consent from patient / family!!

- HIPPA
  - Fine, prison term
Consent Form

Hospital

Chair / medical director
“All patients have the right to decline, and therefore must have the opportunity to give, informed consent for medical photography.

Blain, C Br J Perioper Nursing 2002
HIPPA
Caldicott

“This must be documented in order to comply with the Caldicott recommendations on data protection and patient confidentiality, and in doing so meet clinical standards of care.”
HIPPA
Caldicott

“If confidentiality is breached, or consent is not obtained, the legal charge would be trespass to the person.”
Content

- Abstract / introduction
- Case presentation
- Discussion
- Literature review
- Summary / conclusions
Literature Review

- Index terms
- MeSH headings (best friend)
- Librarian
Abstract / Summary

- Clinical question / problem
- Analysis of literature
- Why case is noteworthy / lesson
- Brevity is key!!
  - 100 words?
Case History

- Only pertinent material
- Physical exam and test results
  - This is not a CPC!!
- Initial dx, tx, follow up plan
- Tables, flow charts, images, photos, figures
Abstract

• **Background** Patients with cystic fibrosis classically present with evidence of pulmonary disease, exocrine pancreatic insufficiency, and high sweat chloride concentrations. Dermatitis as an initial manifestation of the disease is uncommon and has been attributed to multiple nutritional deficiencies.
• **Observation**  We describe the case of a 3-month-old female infant with cystic fibrosis presenting with dermatitis in the setting of protein-energy malnutrition.
Conclusions  Given the frequent delay in diagnosis, as well as the increased morbidity and mortality associated with protein-energy malnutrition in these patients, it is important to consider cystic fibrosis as a possible diagnosis in any infant presenting with a rash and other signs of malnutrition.

Wenk, K Cystic Fibrosis Presenting With Dermatitis, *Arch Dermatol.* 2010
A review of the laboratory study results in this case and others showed that a deficiency in zinc, essential fatty acids, and protein likely contributes to the development of the rash seen in cystic fibrosis.

Wenk, K Cystic Fibrosis Presenting With Dermatitis, Arch Dermatol. 2010
The relative contribution of specific nutritional deficiencies and the degree to which they influence and interact with each other in producing the dermatitis remain unclear, although they may all affect a common underlying metabolic pathway.
Three men, a paint brush and a coronavirus

Coronaviruses cause respiratory tract infection and a coryzal syndrome. Although described as a cause of gastroenteritis in HIV patients, with the exception of the severe acute respiratory syndrome (SARS), there is little in the literature about respiratory infection in HIV patients.

This is the first description of respiratory tract infection with coronavirus in HIV patients. Both patients with coronavirus required prolonged admission to hospital and extensive investigations because they were HIV infected. Coronavirus is often associated with less severe upper respiratory tract infection but can cause more severe disease and should be considered in patients with HIV and respiratory tract infection.

We describe two patients with HIV, exacerbations of chronic obstructive pulmonary disease and proven coronavirus infection. A third patient presented with an upper respiratory tract infection but coronavirus was not isolated. All three men had spent a day decorating the first patient's flat four days prior to presentation.

We report a laboratory-confirmed case of severe acute respiratory syndrome (SARS) in a pregnant woman. Although the patient had respiratory failure, a healthy infant was subsequently delivered, and the mother is now well. There was no evidence of viral shedding at delivery. Antibodies to SARS virus were detected in cord blood and breast milk.

Robertson, CA SARS and pregnancy: a case report Emerg Infect Disease 2004
Physical Examination

62 yr old pt.

Vital signs were normal except for mild resting tachycardia with pulse 100 per min. Abdomen was soft, nontender, with hepatosplenomegaly present. Chest had fine inspiratory crackles, no wheezes. Cardiac had a grade 2/6 systolic murmur with the rest of the examination being unremarkable.

Bajwa, AA A 62-Year-Old Woman With Dyspnea, Leukocytosis, and Diffuse Ground Glass Opacities, Chest 2010
Question
What must be submitted?

A. All submissions must contain autopsy findings
B. All laboratory values must be submitted
C. A certain final diagnosis must be submitted
D. All diagnostic images must be submitted
Discussion

- Significance of reporting the case
- What should colleagues learn – take home message
- Outcome of case
Summary / Conclusion

- Take home message
- What was learned
- Don’t use “high index of suspicion”
Example

Conclusion

• Novel influenza A (H1N1) is associated with different degrees of neurological complications from mild to severe, and reversible to irreversible. Additional case reports are needed to establish an intact spectrum of clinical manifestations…

Ying-Chu, C, Novel influenza-associated encephalopathy /encephalitis with severe neuro sequelae and unique image features, J of the Neuro Sciences 2010
Take Home Message

I hope that none of you ever have to go through what my patient and I went through.

I no longer see these protocols as a burden. That is the lesson.

Ring, DC, A 65-Year-Old Woman with an Incorrect Operation on the Left Hand NEJM 2010
Question
What portion of the case report ensures that a reader has ease of finding it?

A. The abstract
B. The introduction
C. Body of report
D. Summary
Success?

1996-2000
- 140,000 citations
- 170,000

Possible Journals

- Amer Fam Phy
- Arch of Fam Med
- Arch of Int Med
- J of Fam Pract
- Lancet
- JAMA
- NEJM
Possible Journals

- Pediatrics
- Sub-specialty journals
- J of EM
- Annals of EM
- Chest
- BMJ
A Word of Caution
Hierarchy of Prestige

- RCT
- Original Research
- Case Series
- Single Case
http://jama.ama-assn.org/misc/authors.dtl

http://jama.ama-assn.org/misc/ifora.dtl

– JAMA instructions for authors
Summary: An Editor’s Advice

Introduction

– Statement of why it’s worth publishing with proof from literature
– Very rare
– First time in Canada

Squires, BP CMAJ 1989
An Editor’s Advice

Case description

- Brief and clear with only important items
- Values for unusual tests
- Few images / tables

Squires, BP CMAJ 1989
An Editor’s Advice

Discussion

– Support for your argument
– Literature supporting
– What should other doctors do?

Squires, BP Case Reports: What Editors Want from Authors and Peer Reviewers CMAJ 1989;141:379
Thoughts
Summary

Why

What

How

Where

Advice