

OBSTETRICS & GYNECOLOGY



Obstetrics & Gynecology

Journal Club

Goals of a Journal Club

- TEACH CRITICAL APPRAISAL
- Keep current with the medical literature
- Provide a foundation for evidence-based practice
- Review landmark or controversial papers

Characteristics of Successful Journal Clubs

- Led by a faculty member who is a champion for journal clubs!
- Chaired by senior residents or fellows
- Attendance is mandatory
 - Residents and fellows
- Meeting lasts for less than 60 minutes
 - Protected time (pagers off!)
- Supported and endorsed by Program Director and departmental leaders

Problem-Based Learning

- Choose 2-3 relevant journal articles that:
 - Help guide patient care
 - Discuss a specific clinical dilemma
 - GYN example: Do prophylactic antibiotics reduce the risk of infection after IUD insertion?
 - OB example: What is the success rate of a VBAC attempt in this patient with a prior vaginal delivery and a subsequent cesarean delivery?

Background

- Keep it brief (10 minutes or less)
- Ask, “so what?”
 - Will it change my practice?
 - Is the question important?

Purpose

- Research question, study objective, and specific hypothesis:
 - Do the authors provide a clear and specific question and hypothesis?
 - Is the research objective clear and unambiguous?

Critically Reviewing Articles

- Methodology:
 - Is the study design appropriate for the research question?
 - Pros and cons of this design
 - Pros and cons of alternative methodologies
 - Advantages and disadvantages of chosen methodology:
 - Level of evidence
 - Confounding, bias, and validity

Study Population

- Characteristics of the study population:
 - Who are the participants?
 - Time and place
 - Is the study population appropriate?
 - Characteristics of the sample
 - Random versus convenience sampling
 - Is the population similar to my patients?
 - Specific inclusion and exclusion criteria
 - Are these appropriate?
 - Selection bias?

Measurement Issues and Bias

- How are variables measured?
 - Misinformation bias?
 - Detection bias?
 - Masking or blinding?

Statistical Analysis

- How were the data analyzed?
 - Appropriate tests
 - P values versus effect sizes and 95% confidence intervals (more informative)
 - NS versus actual P values
 - Multivariable methods
 - Regression analysis?

Sample Size and Power

- Sample size calculation done *a priori*?
- Did the investigators specify a clinically important difference they would like to detect?
- Type I (α or alpha) and Type II (β or beta) errors
 - Power = 1 – type II error

Results

- What are the results?
 - Are they clearly presented and understandable?
- How were the results interpreted?
 - Are the interpretations appropriate?
- Threats of validity
 - Loss to follow-up
 - Missing information
 - Control of confounding
 - Issues of bias

Discussion

- Are the conclusions supported by the data?
- Relate findings to other studies in the medical literature
- Do the authors “stretch” too far?
- What are the strengths of the study?
- What are the study weaknesses or flaws?
 - Do the authors recognize them?
- Come back to the key question: SO WHAT?
 - Will it change how we practice?
 - Will it change how we counsel patients?

Conclusions

- Where to from here?
- Do the findings contribute to our knowledge of the subject?
- How could we do better?
- What additional questions does the study raise?

Resources

- Eisi M. Journal clubs. BMJ Career Focus 2007;335:138-9. DOI: 10.1136/bmj.39337.722917.7D
- Schwartz MD, et al. Improving journal club presentations, or, I can present that paper in under 10 minutes. Evid Based Med 2007;12:66-8.
- DuRant RH. Checklist for the evaluation of research articles. J Adolesc Health 1994;15:4-8.