Obstetrics & Gynecology Journal Club

www.greenjournal.org
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

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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

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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?
Journal Clubs on Green Journal Web Site

• Visit www.greenjournal.org

• Journal Club questionnaires are available under “Educational Resources” on the home page

• An OB and a GYN article are selected each month and questions are provided to facilitate your journal club
1. Select an article you are interested in.
2. Click here to download the questions.
From “Download the Journal Club Questionnaire”

- Each set of questions is tailored to the article

**“Decreased Preterm Births in an Inner-City Public Hospital”**

(Leveno KJ, McIntire DO, Bloom SL, Sibley MR, Anderson RJ)
March 2009 – Volume 113 – Issue 3 – 578-84

1. What type of study design did the authors use in this study? Why did they choose this study design? What are the benefits and disadvantages of this design to achieve their objectives?

2. In the Methods section, the authors state, “research nurses assess the data for consistency and completeness before they are stored electronically”—is this important? Why did they mention this in their research study? Does this have implications for the generalizability of the findings?

3. How was prenatal care defined in this study? How does that definition impact the results?

4. What are the implications of these findings for clinical care? Should the results of this trial change clinical practice? Will you alter your clinical care based on the findings?

5. The authors only included women with prenatal care. What do you think would happen to the results if this were not an inclusion criterion?
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 (\(\alpha\) or alpha) and Type II (\(\beta\) 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

• Esisi M. Journal clubs. BMJ Career Focus 2007;335:138-9. DOI: 10.1136/bmj.39337.722917.7D


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