GUIDELINES FOR CONDUCTING JOURNAL CLUB FOR AP RESIDENTS
Goals of a Journal Club
Anatomical Pathology

- 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

- Presented by residents or fellows and actively supervised by a Staff
- Attendance is mandatory
  - Residents and Fellows
- Meeting lasts for less than 60 minutes
  - Protected time (pager off!)
- Supported and endorsed by Program Director and departmental leaders

Problem-Based Learning

- Choose 2 relevant journal articles that:
  - related to the specialty
  - 20 minutes for presentation followed 10 minutes of critiques for each paper
  - topics for discussion may be:
    - 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 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?

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