CRITICAL APPRAISAL WORKSHOP
OCTOBER 26, 2024
WASHINGTON UNIVERSITY IN ST. LOUIS SCHOOL OF MEDICINE

08:00 to 08:10  Welcome (Jay Piccirillo and Ramaswamy Govindan)

08:10 to 08:50  Keynote Address (Vinay Prasad)
   - Title: “To be Determined”
   - Content:
     o Emphasize the significance of critical thinking and appraisal of published medical literature.
     o Highlight the role of medical literature in clinical decision-making.
     o Set the tone for the workshop.

09:00 to 09:50  Clinical Research Methodology Overview – “Is This Study Valid?” (Adam Cifu)
   - Content:
     o Introduction to study designs (observational, experimental, etc.).
     o Basics of research methodology (sampling, bias, confounding).
     o Validity and quality assessment (internal and external validity):
       ▪ Address bias and other issues related to baseline state description.
       ▪ Discuss bias and other issues with intervention and outcome descriptions.

10:00 to 10:15  Coffee Break

10:15 to 10:50  Problems with P-values and Inferential Statistics (Jay Piccirillo)
   - Content:
     o Common pitfalls related to p-values.
     o Limitations and misinterpretations of statistical significance.
     o Proper inference requires full reporting and transparency.

11:00 to 11:50  Reporting and Interpreting Study Results – “What Are The Results?” (Jay Piccirillo)
   - Content:
     o Effect size measures (e.g., odds ratio, relative risk).
     o Interpretation of confidence intervals (CI).
     o Consider clinically meaningful differences.

Noon to 13:00  Lunch - Panel Discussion on Critical Thinking (Govindan to moderate)
• **Format:**
  - Informal panel discussion with experts.
  - Audience participation encouraged.

• **Topics:**
  - Challenges in Critical Evaluation:
    - Common pitfalls when assessing medical literature.
    - Address biases, conflicts of interest, and study limitations.
  - Strategies for Improving Critical Thinking:
    - Share practical tips for effective appraisal.
    - Highlight relevant resources (e.g., guidelines, tools).

13:15 to 13:50  **Translating Study Results into Clinical Practice - “Are The Results Applicable to My Patient?”**  (John Mandrola)

• **Content:**
  - Criteria for determining study importance.
  - Balancing statistical significance with clinical relevance.
  - Assess relevance to the patient’s problem.
  - Consider potential impact on patient outcomes.
  - Use practical examples and case studies.

14:00 to 14:50  **Small Group Discussion - Critical Appraisal of the Literature**  (Faculty)

• **Format:**
  - Break participants into small groups (facilitated by faculty).
  - Provide key articles for critical appraisal.

• **Possible Formats:**
  - Structured Case Discussions:
    - Analyze study design, methodology, and results.
    - Discuss strengths, limitations, and implications.
  - Critical Appraisal Worksheets:
    - Use CAT for Diagnostic, Prognostic, Therapeutic, Harm, and Systematic Review articles.
    - Evaluate assigned articles and share insights.

14:50 to 15:10  **Afternoon Coffee Break**

15:10 to 15:50  **Plenary Session. Critical Appraisal of a Current Article**  (Live Podcast from the Workshop – Vinay Prasad, Adam Cifu, John Mandrola)

• **Format:**
  - Faculty-led discussion in a podcast style.

• **Article Selection:**
  - Choose a recent, relevant medical article.
• **Discussion Points:**
  o Apply workshop concepts.
  o Evaluate the article’s methodology, results, and implications.

15:50 to 16:00  Concluding Remarks (Vinay, Jay, Govinan)

• **Key Points:**
  o Keeping up with the literature independently.
  o Active participation in discussions.
  o Listening to relevant podcasts.