Template Journal Article Presentation Form

I. Background/overview:
   A. Article title/citation
   B. Study objective/hypothesis
   C. Introduction/background
   D. Funding sources/sponsorship/role

II. Methods:
   A. Study design/demographics
      1. Study design
      2. Intervention
      3. Institution setting
      4. Study population
   B. Methodology
      1. Inclusion criteria
      2. Exclusion criteria
      3. Study methods
   C. Outcome Measures
      1. Primary endpoint
      2. Secondary endpoint(s)
      3. Statistical analysis
         a. Sample size
         b. Power
         c. Statistical significance
         d. Statistical methods/tests
III. Results:
   A. Baseline characteristics
   B. Outcomes
      1. Primary results
      2. Secondary results
      3. Miscellaneous results
      4. Adverse effects/side effects

IV. Author’s discussion/conclusions:
   A. Brief summary of author’s main discussion points
   B. Author’s acknowledged limitations
   C. Author’s conclusions

V. Student’s discussion/conclusions:
   A. Positive attributes
   B. Negative attributes/bias
   C. Student’s conclusions
   D. Clinical applicability/impact on healthcare providers

VI. References:
Template Journal Article Critique

The following questions should be considered when critiquing a journal article. The student should discuss the answers to any questions that apply to their journal article in their presentation.

I. Background/overview:

A. Article title/citation
   What is the professional reputation of the journal? Are manuscripts peer-reviewed?

   What is the professional background of the investigators? Do they have the appropriate qualifications to conduct the study?

B. Study objective/hypothesis
   Are the objectives clear, unbiased, specific, and obtainable?

C. Introduction/background
   Does the study’s introduction provide adequate and current background information?

   Have the investigators described the results of previous related research and do they explain why the current study is necessary (why is it important)?

D. Funding sources/sponsorship/role
   Who funded the investigation? Could this lead to bias?

   What role (if any) did the drug manufacturer have in the study (such as authorship, investigator, collection/analysis of study data)? Could this lead to bias?

   Do the investigators have any relevant disclosures?

II. Methods:

A. Study design/demographics
   1. Study design
      What types of control groups (parallel, cross-over, historical) were used to compare the effectiveness of the studied treatment?

      Were patients randomized to treatment groups?
Was everyone (patients, physicians, study personnel, etc.) blinded to treatments? Does the type of blinding, or lack thereof, introduce any potential bias?

2. **Intervention**
   Is the study intervention (and control group) feasible and relevant in today’s practice? Were appropriate doses and regimens used for the disease state under study?

3. **Institution setting**
   Was the study conducted at a single institution or multicenter? If there were multiple observers, how was variation among their observations minimized?

4. **Study population**

B. **Methodology**

1. **Inclusion criteria**
2. **Exclusion criteria**
   Are the inclusion and exclusion criteria specific enough and is there a logical rationale for these criteria? Are additional criteria needed?

   Are sample subjects representative of the target population (patient’s commonly treated)? Does selection bias exist (consider the severity of illness, type of population, etc.)?

3. **Study methods**
   Is enough detail provided so that a different investigator could repeat the study?

   Were patient groups treated similarly during the study, except for the study treatment?

   Are other interventions (such as medications on non-pharmacologic treatments) that were used/allowed in the trial feasible and relevant in today’s practice? Were appropriate doses and regimens used for the disease state under study?

   Was patient adherence monitored and assured?
C. Outcome Measures

1. Primary endpoint
2. Secondary endpoint(s)

Is the primary outcome a DOE (Disease-Oriented Evidence) or POEM (Patient Oriented Evidence that Matters)? Does this study look at outcomes my patients care about?

Was the test period large enough for the treatment effect to be measured adequately?

How were the measurements made (observer report, self-report, interview, lab tests)? Do they appear to be appropriate, reliable/accurate, and standardized? Were they made at the appropriate times and frequency? If a lab or diagnostic test is used to measure the outcome(s), is it feasible and relevant in today’s practice?

3. Statistical analysis
   e. Sample size
      Did the authors explain how they determined the number of patients to study?
   
f. Power
      Was the power stated?

      Was the β (Type II error) stated?

   g. Statistical significance
      Was the α level to determine significance stated?

   h. Statistical methods/tests
      Were descriptive statistics used properly to describe the results?

      Were inferential statistical tests used to examine the results? Were significance levels set a priori? Are the statistical tests used appropriate for the data (consider whether the data is nominal, ordinal, or continuous)?

      Are potential confounding variables explained and statistical measures taken to adjust for these variables?

      Was data analyzed based on the groups the patients were initially randomized to (intent-to-treat analysis) or was data analyzed based on the treatment the patients received (per protocol analysis)?
III. Results:

A. Baseline characteristics
Were treatment and control patient groups similar at the beginning of the study?

B. Outcomes

1. Primary results
2. Secondary results
   Are the results of the study statistically significant? How is statistical significance
determined/reported (p values, ratios and confidence intervals, etc.)?

   How clinically important are the reported differences between the experimental
and control groups?

   What is the ARR, RRR and NNT (or NNH) for the outcomes of the study?

   What is the null hypothesis of the study? Was it accepted or rejected? Was there
a chance a type I or a type II error was made?

3. Miscellaneous results
   Were all patients accounted for at the end of the study? If not, were the missing
patients addressed or adjusted for? Was the sample size of patients analyzed
adequate to achieve power for the primary outcome?

   Were confounding variables present that could have affected the study results?

   Were any post-hoc or subgroup analyses conducted (if so, were they determined
prior to starting the study)?

4. Adverse effects/side effects
   Were adverse effects monitored prospectively?

   Are adverse effects presented in sufficient detail along with the rates of
occurrence?
IV. **Author’s discussion/conclusions:**

A. **Brief summary of author’s main discussion points**

Were the study results interpreted appropriately?

Were all deviations from the described methods reported and managed appropriately?

B. **Author’s acknowledged limitations**

Did the investigators explain study limitations?

Did the investigators compare their study results to the results of similar studies?

C. **Author’s conclusions**

Do the conclusions follow logically from the data?

V. **Student’s discussion/conclusions:**

A. **Positive attributes**

B. **Negative attributes/bias**

C. **Student’s conclusions**

D. **Clinical applicability/impact on healthcare providers**

To assess applicability of the results, compare your population (or patients commonly treated) to the study population.

Do the benefits of the treatment outweigh the risks (and costs)?

Will the study affect recommendations that you will make as a pharmacist?

Should/can practice be changed based on these results? If so, how can practice be changed based on these results?

What additional questions does the study raise?

VI. **References:**