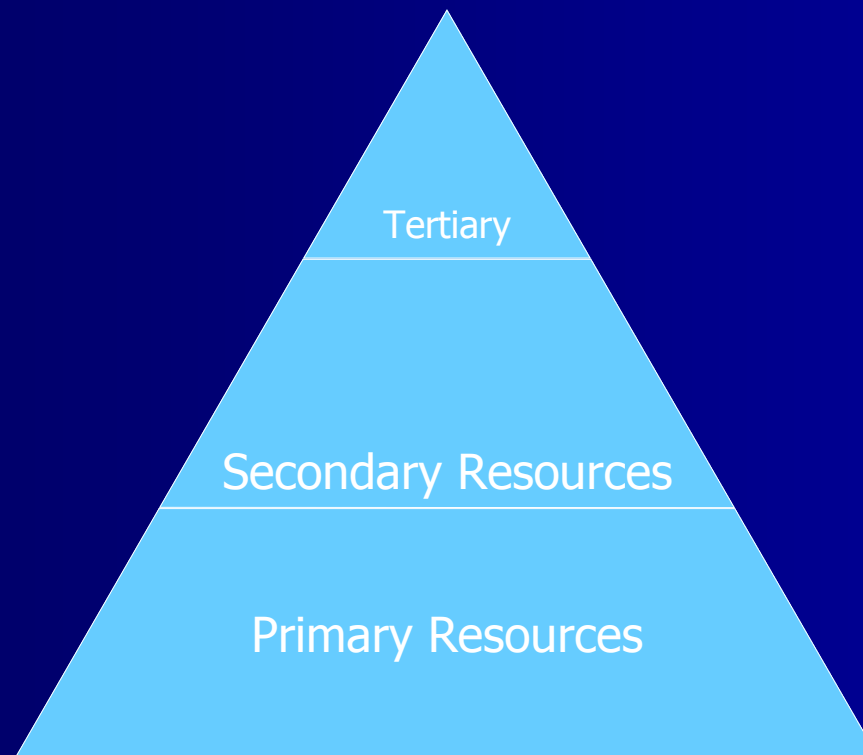


Literature Evaluation

Part III: Criteria for evaluation the literatures

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Sources of informations



Reading an article

- Type of the study
- Source

Hierarchy of research evidence for pharmacotherapeutic evaluation

- Systematic review of large randomized controlled trials (RCTs).
- Single large RCT.
- Systematic review of small RCTs.
- Single small RCT.
- Systematic review of several cohort studies

Continue

- Single cohort study.
- Systematic review of several case control studies.
- Single case control study.
- Systematic review of several cross-sectional studies.
- Single cross-sectional study.
- Case series

Sources of reliable drug information

- Specialized books
 - Applied therapeutics
 - Pharmacotherapy
 - PSAP
 - Handbook of non prescription drugs
- Medline
- ADIS

Continue

- Specialized societies
 - ASHP
 - ACCP
 - NCPA
 - CDC
 - FDA
- Journal
 - AJHP
 - Pharmacotherapy
 - Annals of pharmacotherapy

Journal

- Scope and coverage
- Peer review
- Reputation
- Years in publication
- Criteria for article submission
- Sources of revenue

Anatomy of the article

- Title
- Author
- Abstract
- Introduction
- Methodology
- Results
- Discussion
- Conclusion
- References
- Acknowledgment

Title

- Interest
- Descriptive
- Reflects the scope of publication
- Unbiased

Investigator

- Reputation
- Expertise
- Employers
- Conflict of interest

Abstract

- Structured summary
 - Objective
 - Method
 - Results
 - Conclusion
- Is the abstract is misleading?
- Any data presented not available in manuscript?
- Does abstract accurately reflects finding?
- Is biased language used?

Introduction

- Statement of Purpose
- Review of related literatures
- Theoretical framework
- Significance and the need of the study

Methodology

- Were observers identified?
- Were they qualified?
- Were they blinded?
- Was the study design appropriate to the hypothesis?
- Is it ethical?

Continue

- Was subject inclusion and exclusion criteria clearly detailed?
- Was subject selection adequate for extrapolation to the appropriate population?
- Was the sample size enough?
- Was a power analysis performed?

Continue

- Was the subjects sample described sufficient (age range, sex, severity of disease) to make sure groups were comparable?
- Were group differences subjected to statistical analysis?
- Were appropriate controls used?

Continue

- Did randomization occur?
- Was allocation to treatment groups truly random?
- Were doses, schedules, and duration of drug treatment adequate and comparable?
- Were washouts used?
- Were they of sufficient duration?

Continue

- Was concurrent therapy allowed? Is it controlled?
- Was the study blinded?
- Was the study appropriate for the measured outcome?
- Was an endpoint measured for each outcome?

Continue

- Did the test measurements used subjective or objective assessment?
- What is the test measurements sensitivity, specificity and reliability?
- Were the tests appropriate for the outcomes?
- Could a more reliable test measurement have been used?

Continue

- If there were multiple observers, how was variation among their observations minimized?
- How long were subjects followed?
- Was it long enough?
- Were the appropriate statistical method used? Why were they appropriate or not appropriate?

Continue

- Was patient adherence monitored and assured?
- Was the significance level chosen before the study was started?
- Did the period of study clearly described?

Results

- Were the results clearly, accurately and adequately presented?
- Were results presented for each endpoint identified?
- Are all subjects enrolled in the study accounted for, including attrition?
- Are any patient confounding variables present?

Continue

- Are results statistically significant?
Does the exact value(s) presented?
- Are results clinically significant?
- Were both p value and outcome results presented together?
- Are SD and CI show along with mean values?

Continue

- Were tables, graphs, or charts presented in an appropriate manner?
- Are there missing data or discrepancies between presentations and evaluation of data?

Discussion

- Does the discussion place the results of this study into the perspective of appropriate previous studies comparing and contrasting results?
- Does the discussion honestly outline the study limitation?
- Did the author use biased language?

Continue

- Did the author focus the discussion upon non-primary endpoints, other endpoints, non statistically or non clinical significance?
- Did the analysis of subgroups made?
- Did the author extrapolate the results to patients not included in the trial?

Continue

- Did the discussion includes the implication of the study into practice?
- Can the study be duplicated in real practice?
- Did the discussion promote further researches?

Conclusion

- Were valid conclusions based upon the results presented?
- Were valid conclusions based upon the hypothesis of the study?
- Any biased language?

References

- What is the number of articles used?
- Are the article referenced with key and up to date articles?
- Did the author conduct a comprehensive literature search to locate literature to support comparisons within manuscript?
- Are references from quality journals?
- Did the author avoid citing himself numerous times?

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