

## Critical Appraisal of Subgroup Analysis

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Rec Date: 08 January, 2016; Acc Date: 15 January, 2016; Pub Date: 22 January, 2016

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### Introduction

In the subgroup analysis is performed by separating the data for patient subgroups, such as those in different stages, with different comorbidities and ages. The Table 1 shows the checklist needed to make a critical analysis of subgroup analysis [1-8].

Appraisal questions
The hypothesis was before or after the analysis?
The difference between subgroups was one of a small number of hypotheses tested effects?
The difference between the subgroups is suggested by comparison intra studies?
What is the magnitude of the difference between subgroups?
The difference between subgroups is consistent among the analysed studies?
The difference between subgroups is statistically significant? The appropriate statistical test was used?
There is external evidence that supports the hypothesis of difference between subgroups?
There is constant interaction between the results found and previous studies?
Conflicts of interest are declared.
<b>Rate the overall methodological quality of the study, using the following as a guide:</b>
<b>High quality (++):</b> Majority of criteria met. Little or no risk of bias.
<b>Acceptable (+):</b> Most criteria met. Some flaws in the study with an associated risk of bias.
<b>Low quality (-):</b> Either most criteria not met, or significant flaws relating to key aspects of study design.

**Reject (0):** Poor quality study with significant flaws. Wrong study type. Not relevant to guideline.

**Table 1:** Critical appraisal of subgroup analysis.

Use this checklist can improve the evaluation of subgroup analysis.

### References

- Guyatt G, Meade MO, Cook DJ, Rennie D (2014) Users' Guides to the Medical Literature: A Manual for Evidence-based Clinical Practice, Third edition. New York.
- Sackett DL, Richardson WS, Rosenberg WS, Rosenberg W, Haynes BR (2010) Evidence-Based Medicine: how to practice and teach EBM. Churchill Livingstone.
- Whiting P, Savović J, Higgins JP, Caldwell DM, Reeves BC, et al. (2016) ROBIS: A new tool to assess risk of bias in systematic reviews was developed. J Clin Epidemiol 69: 225-234.
- Higgins JPT, Altman DG, Gøtzsche PC, Moher D, Oxman AD, et al. The Cochrane Collaboration's tool for assessing risk of bias in randomized trials. BMJ 343: d5928.
- Whiting PF, Rutjes AW, Westwood ME, Mallett S, Deeks JJ, et al. QUADAS-2: a revised tool for the quality assessment of diagnostic accuracy studies. Ann Intern Med 155: 529e36.
- Sterne JAC, Higgins JPT, Reeves BC (2014) on behalf of the development group for ACROBAT- NRSI, A Cochrane Risk of Bias Assessment Tool: for Non-Randomized Studies of Interventions (ACROBATNRSI).
- www.systematic-reviews.com/probast
- Lawrentschuk N, McCall J, Güller U (2009) Critical appraisal of meta-analyses: an introductory guide for the practicing surgeon. Patient Saf Surg 3: 16.