## Peri-operative pain in patients experiencing bariatric surgery

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Quality assessment of phase 2 studies (n=60) was performed using a combination of the assessment tools for health care interventions, randomized controlled trials involving pain management and observational studies of interventional pain management developed by Downs and Black, and Machikanti et al (Downs and Black, 1998, Machikanti et al,  $2014^{a}$  and  $2014^{b}$ ).

The checklists by Manchikanti et al, 2014<sup>a</sup> and 2014<sup>b</sup> were adapted as follows:

II. Design factors.

3.: adding "university or bariatric team" to "Specialty of anesthesia".

4.: Item 17 from Downs and Black instead of "Imaging".

III. Patient factors.

7a.: "Baseline/ pre-operative pain status described", instead of "Disorders specific trials".

7b.: delete.

8.: "Postoperative pain measurement" instead of "Duration of pain".

9.: "Postoperative analgesia" instead of "Previous treatment".

No information =0.

Management described=1.

Conversion into comparable units, group comparison=2.

10.: delete.

IV. Outcomes.

11. Instead of "Outcomes.....improvement": Items 2,7,10 and 20 from Downs and Black.

12. For RCT add "not mentioned or inconsistency in reporting" to "not performed". For observational study add "no drop out" to "Less than 40% withdrawal....group".

13. For RCT add "no drop out for pain assessment" to "Less than 30% withdrawal....group".

14. For RCT add "insufficient information" to "Groups dissimilar....allocation".

Conflicts of interest:

VIII. RCTs:

21.: add "no information" to "Trial included industry employees". Add "no disclosure" to "Industry....some involvement".

22.: add "no information" to "Hidden conflicts with poor disclosure".

VI. Observational studies:

16.: Add "no information" to "Trial...disclosure".

For RCTs a maximum of 43 points could be obtained, and for observational studies 42 points. If a study scored 28 or more, the study was included for further analysis (Table 1).

## References

- 1. Downs SH, Black N (1998) The feasibility of creating a checklist for the assessment of the methodological quality both of randomised and non-randomised studies of health care interventions. J Epidemiol Community Health52:377-384. [Crossref]
- 2. Manchikanti L, Hirsch JA, Cohen SP, Heavner JE, Falco FJ, et al. (2014) Assessment of methodologic quality of randomized trials of interventional techniques: development of an interventional pain management specific instrument. *Pain Physician*17:E263-90. [Crossref]
- 3. Manchikanti L, Hirsch JA, Heavner JE, Cohen SP, Benyamin RM, et al. (2014) Development of an interventional pain management specific instrument for methodologic quality assessment of nonrandomized studies of interventional techniques. *Pain Physician*17:E291-317.[Crossref]