

Differences in comorbidity between responders and non-responders in a national shoulder arthroplasty registry.

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Introduction

Patient-reported outcome measures are increasingly used by national joint replacement registries to evaluate results after acute and elective procedures. A common challenge is the group of non-responders as they can potentially bias the results. To our knowledge, there is no previous study that characterises non-responders according to comorbidities and whether these comorbidities can affect the patients' ability to respond.

Objectives

The aim of this study was to identify differences in comorbidity between responders and non-responders in the Danish Shoulder Arthroplasty Registry (DSR).

Methods

Data for 882 patients, who had a shoulder arthroplasty in 2009, were retrieved from the DSR. A medicine list was retrieved for each patient. We included only prescribed medicines used to treat a well-defined comorbidity; medicines used to treat multiple diseases were excluded. Moreover, we identified comorbidities from preoperative medical records. The Charlson Comorbidity Index (CCI) was calculated. Age, sex, diagnosis, type of operation and whether the patients had responded with regard to the Western Ontario Osteoarthritis of the Shoulder (WOOS) were registered

Results

From the responders 9% (n=31) had depression, where 15,6% (n=28) among non-responders had depression. From responders 4,7% (n=16) had osteoporosis and among non-responders it was 10,6% (n=19). Statistically significant differences between responders and non-responders were found for depression (p=0.027) and osteoporosis (p=0.016). We did not find any statistically significant difference between the two groups for CCI, diabetes, hypertension, cardiovascular diseases, cancer, psychotic disorder, COLD, asthma, metabolic disorder or rheumatoid arthritis.

Conclusion

The patients' ability to respond did not correlate to the Charlson Comorbidity Index; however, our study suggests that non-responders are more likely to have depression and osteoporosis than responders are. We cannot explain the relation between non-responders and osteoporosis but it seems plausible that patients with depression are more likely to be non-responders