

Follow-Up Definitions In Clinical Orthopaedic Research: A Systematic Review

General Topics / Methodology

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Background

The follow-up interval of a study represents an important aspect that is frequently mentioned in the title of the manuscript. Authors arbitrarily define whether the follow-up of their study is short- mid- or long-term. There is no clear consensus in that regard and definitions show a large range of variation.

Objectives

It was therefore the aim of this study to systematically identify clinical research published in high impact orthopaedic journals in the last five years and extract follow-up information in order to deduce corresponding evidence-based definitions of short-, mid-, and long-term follow-up.

Study Design & Methods

A systematic literature search was performed to identify papers published in the six highest ranked journals of the category orthopaedics during the years 2015 to 2019. Follow-up intervals were analysed. Each article was assigned to a corresponding subspecialty field: sports traumatology, knee arthroplasty & reconstruction, hip preserving surgery, hip arthroplasty, shoulder and elbow arthroplasty, hand & wrist, foot & ankle, paediatric orthopaedics, orthopaedic trauma, spine, and tumor. Mean follow-up data was tabulated for the corresponding subspecialty fields. Comparison between means was conducted using analysis of variance.

Results

Of 16,161 published articles, 590 met the inclusion criteria. Of these, 321 were of level IV evidence, 176 level III, 53 level II, and 40 level I. Considering all included articles, a long-term study published in the included high impact journals had a mean follow-up of 151.6 months, a mid-term study of 63.5 months, and a short-term study of 30.0 months.

Conclusions

The results of this study provide evidence-based definitions for orthopaedic follow-up intervals that should provide a citable standard for the planning of clinical studies. A minimum mean follow-up of a short-termed study should be 30 months (2.5 years), whilst a mid-term study should aim for a mean follow-up of 60 months (5 years), and a long-term study should aim for a mean of 150 months (12.5 years).