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Keywords

developing, decision, osteoarthritis, online, aid

Disciplines

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Developing an Online Decision Aid for Osteoarthritis

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Abstract

A decision aid for osteoarthritis was developed using the best available evidence on effect size, potential harms and self-rated performance for other attributes. The aid was developed using a multi-criteria decision analytic tool capable of combining evidence and an individual's preferences for the attributes related to treatment.

Keywords:

Decision aid; osteoarthritis; multi-criteria decision analysis.

Introduction

Decision making for osteoarthritis is complex because of marked variations between patients in weight, tolerance for physical activity, and risk for anti-inflammatory adverse events including both gastrointestinal and cardiovascular toxicity. There are also variations between patients in frequent concomitant comorbidities including depression, hypertension and/or diabetes. All of these variations can influence informed osteoarthritis management decisions. This led us to develop an online decision aid as a means of combining the best available evidence on the benefits and harms of osteoarthritis management with patient preferences. The aim of the aid is to provide an opinion on which treatment option may be best for them.

Methods

The decision aid uses a generic web-based decision-support template grounded in multi-criteria decision analysis (MCDA). The app, known as Annalisa© (AL), uses a simple expected value algorithm to calculate a score for each option. The score takes into account the individual's preferences for different criteria (stored as importance weights) and the evidence of the performance of each option on each criterion.

The aid allows for the dual personalisation of the decision in terms of both the clinical characteristics of the patient and their preferences in relation to the benefits and harms associated with the alternative treatment options. It incorporates evidence on both the benefits and the potential harms of a range of osteoarthritis management options (the 'attributes') from published evidence-based guidelines, tailoring these as closely to the specific patient as possible by information elicited about the patient. By combining this evidence with the

individual's importance weights for the various outcomes, which is elicited in a graphical way at the point of decision, the best course of action for each patient will be identified on the basis of quantified scores for each option. This poster will present a summary of the systematic review of the literature on both qualitative and quantitative studies reporting on treatment preferences of patients with osteoarthritis. It will also present graphically the design and content of the osteoarthritis decision aid as a work in progress.

Results

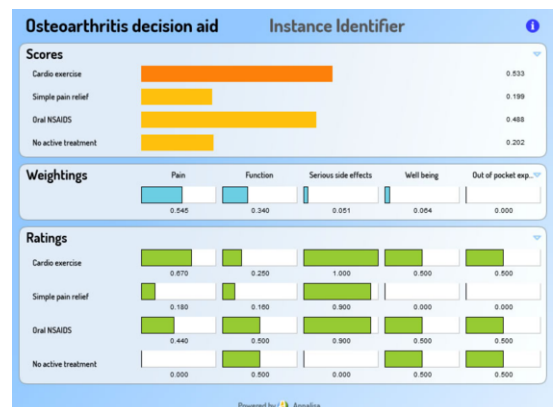


Figure 1 – Osteoarthritis decision aid

The aid will be launched in June 2015 and preliminary results will be available by July 2015. The results from the work in progress will be presented at the conference.

Conclusion

The proposed osteoarthritis decision aid uses the best available evidence to populate the aid based on the options and attributes that the user identifies as being important to them. It is feasible to combine evidence and individual's preferences in a way that provides a quantified score for determining which option is best.