A Pragmatic Review of Patient Satisfaction and Testosterone Replacement Therapy (TRT)

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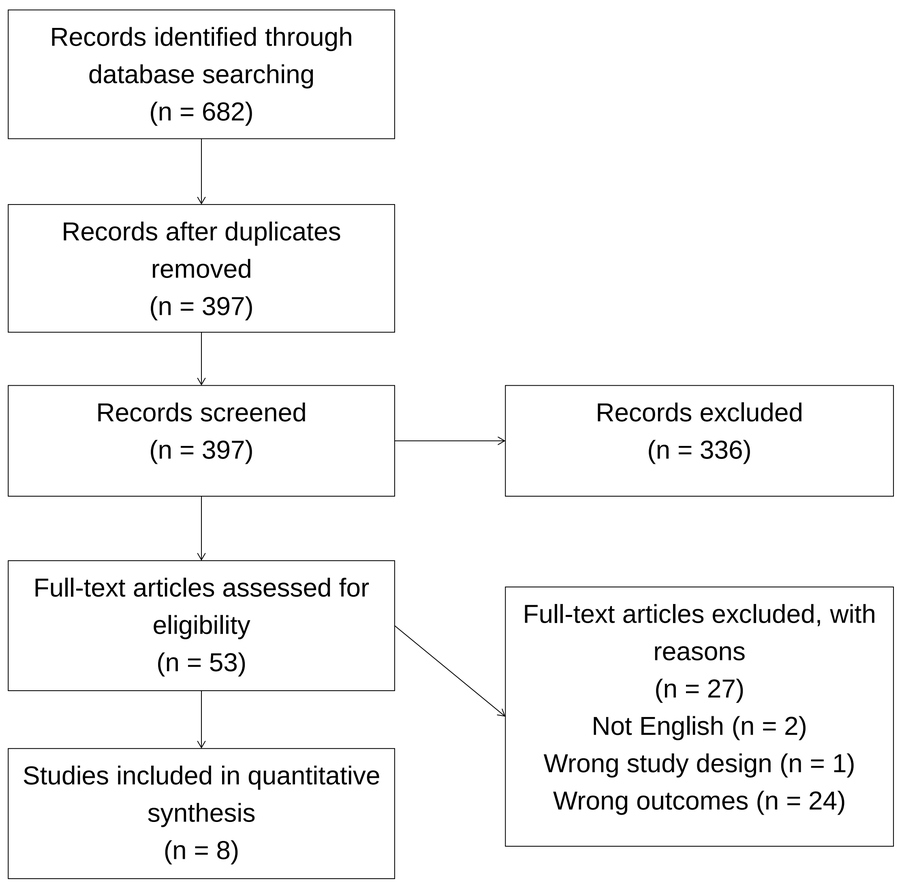
BACKGROUND AND OBJECTIVES

Testosterone is one of the most important and active androgenic hormones performing a key role in the growth and maintenance of the male reproductive system. Male hypogonadism, or testosterone deficiency syndrome, is a clinical and biochemical condition marked by low levels of testosterone and may negatively affect various organ functions and quality of life. Levels of testosterone naturally decrease slightly as a result of the aging process. The incidence of hypogonadism in men aged 40-79 is estimated at 2 to 6%. The condition is more prevalent in men with obesity and in men with a poor health status [1].

Testosterone replacement therapy (TRT) is commonly used to treat the symptoms associated with hypogonadism. However, there is a great variety of TRT products available on the market not differing by mode of administration (oral, injection, implant, patch and topical) [2], but also by other features as well (e.g. drying time, frequency of application, time before physical contact with others). These differing product characteristics may impact on patient satisfaction and adherence with a concomitant impact on well-being and health-related quality of life.

Figure 1: PRISMA flow diagram



RESULTS

The searches identified 682 records (Figure 1). Following deduplication, 397 records were assessed for relevance of which 53 were eligible for full review. A final total of 8 articles was included.

The modes of administration included subcutaneous implants/pellets (4/8 studies, 50%), injection (3/8, 38%), buccal (1/8, 13%), oral tablets (1/8, 13%), as well as gel (4/8, 50%). In terms of preference for treatment 4 studies showed that patients preferred their latest treatment to previous treatment (irrespective of the features of TRT) [3-6]. One study, however, reported patient preference for injectable over subcutaneous TRT [7].

Three studies focused on patient satisfaction with TRT [6-8]. These results were highly varied. Two studies noted no differences in patient satisfaction between injections and gels, or between those two modalities and implants. Patients were more satisfied with their current compared to previous (unspecified) TRT (2 studies), as well as newer gel formulations (2 studies). The factors underlying patient satisfaction included doctors' recommendation, ease of use, efficacy, symptom improvement and convenience.

METHODS

A pragmatic literature search was carried out to identify studies on testosterone replacement for men with testosterone deficiency which reported on the following outcomes:

- Patient preferences;
- Acceptability to patients;
- Adherence and/or compliance rates.

The search was structured to search for three concepts:

- Testosterone deficiency;
- Testosterone replacement therapy;
- Patient preferences, acceptability to patients, adherence and/or compliance rates.

The literature searches involved searching a selection of core biomedical bibliographic databases plus a core database of economic evaluations: MEDLINE. EMBASE, Cochrane Data of Systematic Reviews, Cochrane Central Register of Controlled Trials, Database of Abstracts of Reviews of Effects (DARE); Health Technology Assessment Database (HTA) and NHS Economic Evaluation Database (EED) (Figure 1).

CONCLUSIONS

The results demonstrated a great degree of heterogeneity in the studies that evaluated patient satisfaction, preferences and TRT. There were few direct comparisons of different TRT and no studies which directly compared alternative modes of administration in a prospective randomised trial. Those studies which did report on patient preference for TRT, where the mode of administration differed, indicated conflicting results with some patients preferring injections to either gel or pellets, others reporting preference for pellets, as well as those reporting similar levels of preference across the modalities.

In terms of the reasons for patient satisfaction and/or preference for treatment the principal set comprises of the following:

- Ease of use;
- Ability to raise testosterone levels;
- Improvement in symptoms;
- Convenience;
- Concern for transference;
- Doctor recommendation.

Future research is needed to compare the individual features of testosterone-placement therapies in order to determine patient preferences.

REFERENCES

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