INTRODUCTION

Fibromyalgia (FM) is a chronic disease with a characteristic all over body pain. In 2005, it was estimated that 2-3% of the American population, 5 million adults were affected by FM, it is more prevalent in females (versus males) and between the age group of 60-79 years (versus younger patients). Currently, there is no cure for FM and various pharmacological and non-pharmacological treatments are used to manage symptoms of FM. There are three drugs approved by FDA for use in FM: Pregabalin, Duloxetine, and Milnacipran.

METHODS

Embase® and MEDLINE® databases were searched between January 2011 and December 2015. Registries and observational studies in fibromyalgia population published as full text journal articles in English were included by two independent reviewers with discrepancies reconciled by a third independent reviewer. Pharmacological treatment pattern was captured along with costs of disease management if reported across the included evidence.

RESULTS

- Out of 477 studies retrieved from biomedical databases, 11 studies were included in the literature review (Figure 2). The majority of patients with FM were women (women: men = 4:1) (Figure 3)
- The majority of patients used opioid for treating FM symptoms (68.7%) followed by non-opioid painkillers (43.3%), and Pregabalin (11.3%) (Johnston et al, 2014)
- In the US, Pregabalin (nine studies) and Duloxetine (eight studies) were commonly prescribed drugs for managing FM symptoms, with direct total treatment costs per patient ranging between $1231-$20809.9 and $1275-$25192 for the 12 month treatment period and follow-up period, respectively.
- No significant differences was reported with respect to total direct healthcare costs between Pregabalin and Duloxetine in three studies. On contrary, study by Sun et al reported that patients with Duloxetine had better medication adherence, less inpatient/outpatient visits and total medical cost when compared with Pregabalin (Figure 4 and Figure 5) (Sun et al, 2014).
- Dosing and polypharmacy (Harnett et al, 2011; Johnston et al, 2014, Sanchez et al, 2012, Sun et al, 2011) were reported as the most common reasons for non-adherence to FM therapies, which further lead to increased cost of the treatment among patients with FM. More severe disease as per Fibromyalgia Impact Questionnaire (FIQ) score was also associated with higher costs of symptom management of FM (Thompson et al, 2011).
- Additionally, Milnacipran was approved by US FDA in 2009 for FM; but due to limited information from conference abstract of a pregnancy registry evaluating its safety profile, the study has not been included in the literature review.

CONCLUSIONS

Although FDA has approved Pregabalin, Duloxetine, and Milnacipran for use in FM, real world evidence indicates that only Pregabalin and Milnacipran are widely used. There are no significant differences between the direct healthcare cost of Pregabalin and Duloxetine.

AIM

To review the real world evidence in fibromyalgia from last five years identifying prevalent pharmacological treatment options across US and costs associated for management of the disease.

Figure 1: Systematic Review of Databases

![Figure 1: Systematic Review of Databases](image)

Figure 2: Inclusion of Studies

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Figure 3: FM affected Population by Gender

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Figure 4: Total Medication Cost for Pregabalin vs Duloxetine users

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Figure 5: Total Healthcare Cost for Pregabalin vs Duloxetine users

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REFERENCES