



# Retrospective Observational Study on Duloxetine Use for the Treatment of Urinary Incontinence

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## BACKGROUND

**Urinary incontinence** (UI) affects many, especially older adults, with limited success from conventional treatments. **Duloxetine**, an antidepressant, has shown potential in treating **stress urinary incontinence** by improving urethral sphincter control. However, its **off-label** use is controversial due to side effects, making further evaluation of its safety and effectiveness necessary.

## OBJECTIVES

To **evaluate** the use of **duloxetine** for **urinary incontinence** (UI) as well as its safety, and adverse effects

## MATERIALS AND METHODS

A review was conducted of duloxetine prescriptions from the urology department for UI treatment after the failure of other conventional therapies (mirabegron, solifenacin, fesoterodine, oxybutynin, tamsulosin, propiverine).

Data from January 2022 to December 2023 were analyzed, focusing on effectiveness and safety up until February 2024.

Variables recorded included: age, sex, prescription date, treatment duration, adherence, previous treatments, adverse effects, use of incontinence pads, and prescribing physician.

## RESULTS

The study included 51 patients (44 men, 7 women), with an average age of 68.15 years. Twenty-four patients had a general diagnosis of UI, while 27 had specific diagnoses (21 with stress UI and 6 with mixed UI) (Figure 1).

At the time of analysis, 39.2% (20 patients) were still on duloxetine. However, 31 patients had discontinued the treatment. In 22/31 (70.97%) of these cases, no specific reason for discontinuation was recorded, while 4 (12.90%) cases stopped due to toxicity (dizziness, nausea, mental foginess), 3 (9.68%) cases due to sexual dysfunction, and 2 (6.45%) patients due to hypertension (Figure 2).

Figure 1. Type of UI

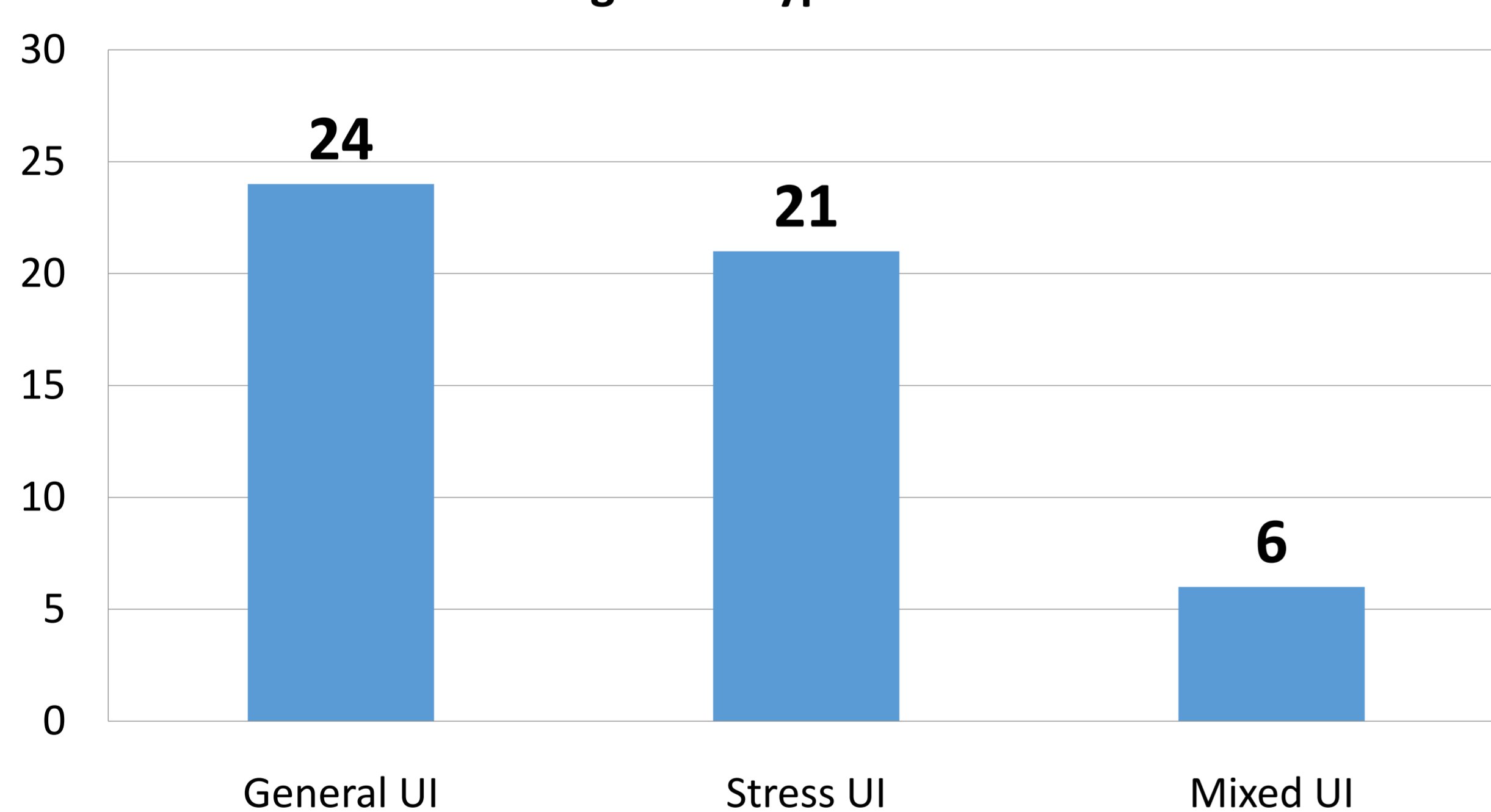
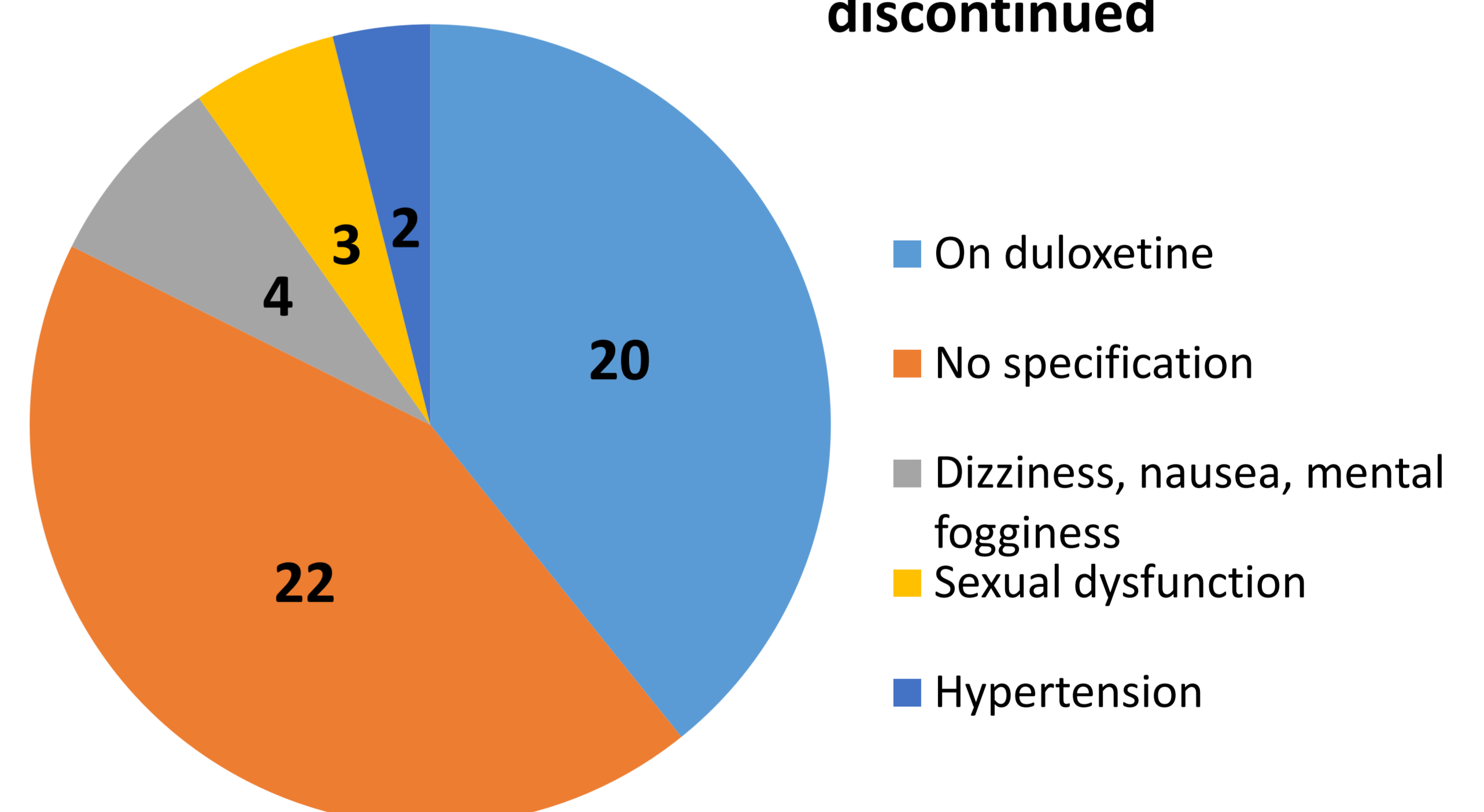


Figure 2. Patients on duloxetine and discontinued



The duration of treatment ranged from 3 months to 2 years, with a mean of 617 days for the 20 active patients. Of the 51 patients, 21 (41.18%) had previously tried other treatments for UI, while no prior treatments were recorded for the remaining 30 (58.82%). Additionally, 19 of the patients (37.25%) were prescribed incontinence pads, and among those, 7 were actively using duloxetine.

## CONCLUSIONS

The **data do not support** the **off-label use of duloxetine for UI** without restrictions. Nearly a quarter of the patients on active treatment still required incontinence pads. Over half of the patients discontinued the treatment, with some citing adverse effects such as toxicity, sexual dysfunction, and hypertension.