

## Abstract

**Background:** The incidence of stress urinary incontinence (SUI) within the first 3 months after HoLEP has been reported to be anywhere from 4-43%<sup>1-3</sup>. Pelvic floor physical therapy and duloxetine have been shown to be beneficial for patients with SUI after radical prostatectomy but there is limited data on these interventions for SUI after HoLEP<sup>4-5</sup>.

**Methods:** A retrospective chart review was performed on patients who underwent HoLEP and were referred to PFPT between 1/1/2014 and 6/30/2022. The primary outcome of this study was the achievement of functional continence, defined as using 0-1 pads per day. Patients who failed PFPT alone and went on to receive duloxetine were identified.

**Results:** 107 patient were referred to PFPT after HoLEP for SUI. Of those 84 patients attended at least one PFPT session. 61 (72.6 %) of patients who attended PFPT were able to achieve functional continence. In patients unable to achieve continence with PFPT alone, 42.1% were able to achieve continence with the use of duloxetine.

**Conclusion:** PFPT represents a low risk intervention that may provide some benefit for patients with SUI after HoLEP. Duloxetine appears to assist with achieving continence for patients unable to achieve continence after HoLEP with PFPT alone. Further studies are needed to determine which patients with SUI after HoLEP would most benefit from PFPT and duloxetine.

## Background

- Clinically significant SUI is a known complication of HoLEP and has been shown to affect up to 43% of patients within the first 3 months after surgery<sup>1-3</sup>
- Pelvic floor physical therapy (PFPT) has been shown in randomized control trials to be beneficial for patients with SUI following radical prostatectomy<sup>4</sup>
- Evidence supports the use of duloxetine to treat SUI after prostatectomy in patients who failed to achieve continence with Kegels/PFPT alone<sup>5</sup>
  - Duloxetine is an SNRI that has a specific affinity for 5HT receptors in Onuf's nucleus
  - Stimulation of these receptors lead to increased external urethral sphincter tone
- Little data exists on PFPT use for SUI after HoLEP or for the use of duloxetine in patients that fail to improve with PFPT
- The aim this study was to characterize the use of PFPT and duloxetine for patients with post-HoLEP SUI at a high volume center
  - Primary outcome: Ability to achieve continence with PFPT
  - Secondary outcome: Effectiveness of duloxetine for men with persistent SUI despite PFPT

## Methods and Materials

- Retrospective chart review was performed on patients that underwent HoLEP and were referred to PFPT for SUI between 1/1/2014 and 6/30/2022
- At PFPT patients were taught how to perform Kegels using biofeedback, given an at home exercise regimen and taught to be conscious of bearing down during activities of daily living
- The ability to achieve functional continence was defined as 0 pads per day or 1 pad per day for safety
- Time to achieve continence from date of procedure was estimated using follow up notes
- Patients who failed to achieve continence with PFPT alone and went on to receive duloxetine were identified

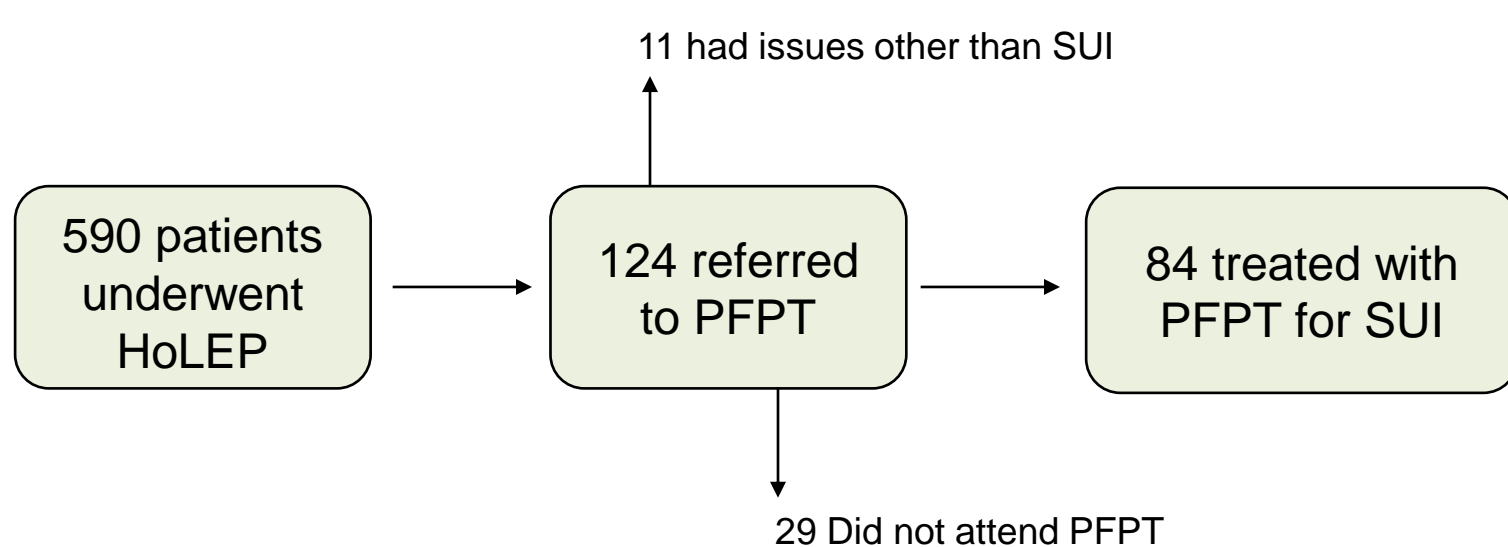


Figure 1: Identification of patient population

## Results

Table 1: Patient Demographics

	PFPT Attendees (n = 84)	PFPT non-attendees (n = 23)	p
Age	72.94	72	0.61
Prostate specimen weight (g)	54.4	67.9	0.43
Pre PFPT referral pads per day	3.2	2.0	<u>0.01</u>
Catheter required pre-op	36 (42.9%)	8 (34.8%)	0.49
Mixed urinary incontinence	43 (51.2%)	13 (56.5%)	0.80
Hypocontractile detrusor	21 (25.0%)	4 (17.4%)	0.45

Table 2: Results

	PFPT Attendees (n = 84)	PFPT non-attendees (n = 23)	p
Patients achieving continence	61 (72.6%)	16 (84.2%)	0.29
Time to continence (days)	80.5	119	0.11
Median PFPT sessions attended	2	0	

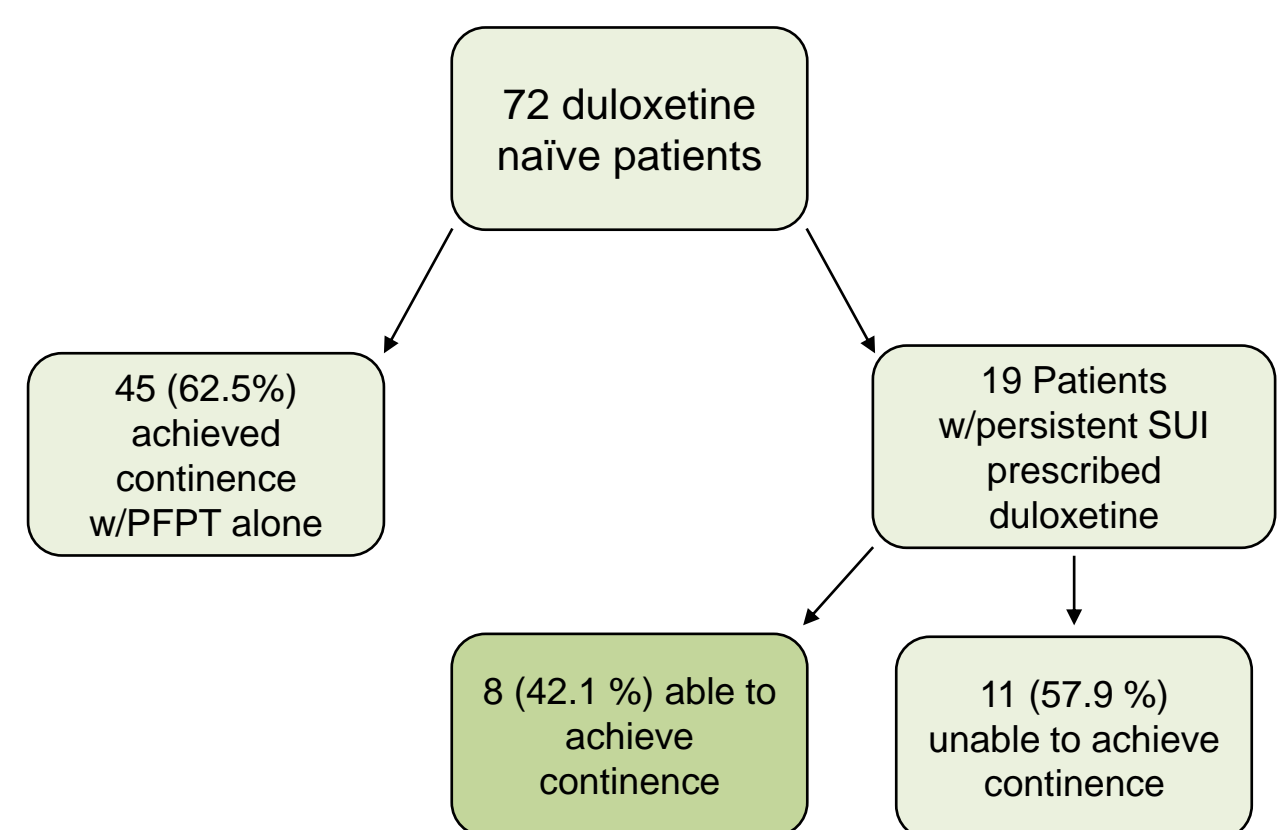


Figure 2: Effectiveness of duloxetine for persistent SUI after PFPT

## Discussion

- There was no significant difference in ability to achieve continence when comparing patients who attended PFPT to those that were referred but did not attend
- However, patients who attended PFPT used significantly more pads per day prior to referral. Given that these patients were still able to achieve continence at a similar rate it is reasonable to infer that PFPT provided some benefit
- There is evidence that incontinence within the first 3 months after HoLEP is often transient<sup>3</sup>. Furthermore, there was no specific cutoff for referral to PFPT; patients were referred based on clinical judgement that they were experiencing significant SUI. The lack of a control group with a similar degree of pre-referral incontinence makes it difficult to determine the degree of improvement that PFPT provided
- Time to continence was similar between patients that attended PFPT and those that did not. However, the time to continence for the group that did not attend PFPT may be affected by being followed less often and consequently having less opportunities to report achieving continence
- Of patients that were not able to achieve continence with PFPT alone, 42.1% were able to achieve continence with the addition of duloxetine. In these patients with refractory incontinence duloxetine likely provided some benefit

## Conclusions

- PFPT represents a low risk intervention that likely provides some benefit to patients with post HoLEP SUI
- Duloxetine appears to assist in achieving continence for some patient with SUI after HoLEP who are unable to achieve continence with PFPT alone
- Further studies are needed to determine which patient with SUI after HoLEP would benefit most from PFPT and duloxetine

## References

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