



Introduction:

Diabetes is a well established risk factor for **erectile dysfunction** (ED). **NICE** guidelines recommend that men with diabetes mellitus (DM) should be reviewed **annually** regarding symptoms of ED in view of possible **phosphodiesterase-5** (PDE-5) inhibitor treatment⁽¹⁾.

Previous studies have shown that **70%** of men with **ED have concurrent lower urinary tract symptoms** (LUTS)⁽²⁾. An RCT has shown that monotherapy with a **PDE-5 inhibitor** (tadalafil) **improved LUTS** in men with benign prostatic hyperplasia with similar efficacy to tamsulosin, as well as improving erectile function scores⁽³⁾.

It has been suggested that there may be some common pathophysiology which may account for the improvement in LUTS seen in men with ED and benign prostatic hyperplasia treated with PDE-5 inhibitors⁽⁴⁾.

Aims:

Our objectives were to assess the **prevalence** of ED and concomitant LUTS in a diabetic cohort and assess whether their symptoms were being managed according to current guidelines.

Methods:

Male patients attending a diabetic outpatient clinic in SWBH, Birmingham were asked questions regarding their **erectile function**, via the International Index of Erectile Function (IIEF) tool and **urinary storage** and **voiding problems** using the International Prostate Symptom Score (IPSS).

On the **IPSS**, patients' scores were categorised into mild, moderate or severe LUTS. On the **IIEF** tool, a score of 0 indicated they had no opportunity for sexual activity, otherwise an overall score of ≤ 25 is suggestive of some erectile dysfunction.

Results:

Overall 60 men consented to answering the questions. The mean age of men who answered was 64 years. **53%** (n=32) suffered with moderate or severe **LUT symptoms**. The most commonly reported symptoms were **urgency, frequency** and **weak stream** (see Figure 1). **75%** (n=45) had at least one episode of nocturia.

9 men said they had no opportunity for sexual activity, hence these were excluded from the subsequent analysis. Of those that did have a partner (n=51), **78%** (n=40) reported **symptoms of ED** (IIEF score <25).

One third of patients reported they had **very low confidence** that they could get and keep an erection (see Figure 2). Only 6 of the patients questioned had been prescribed phosphodiesterase-5 inhibitors by their doctor, namely sildenafil (n=4) and tadalafil (n=2). Hence **70%** (n=36) had symptoms of ED and **aren't on medication** for this.

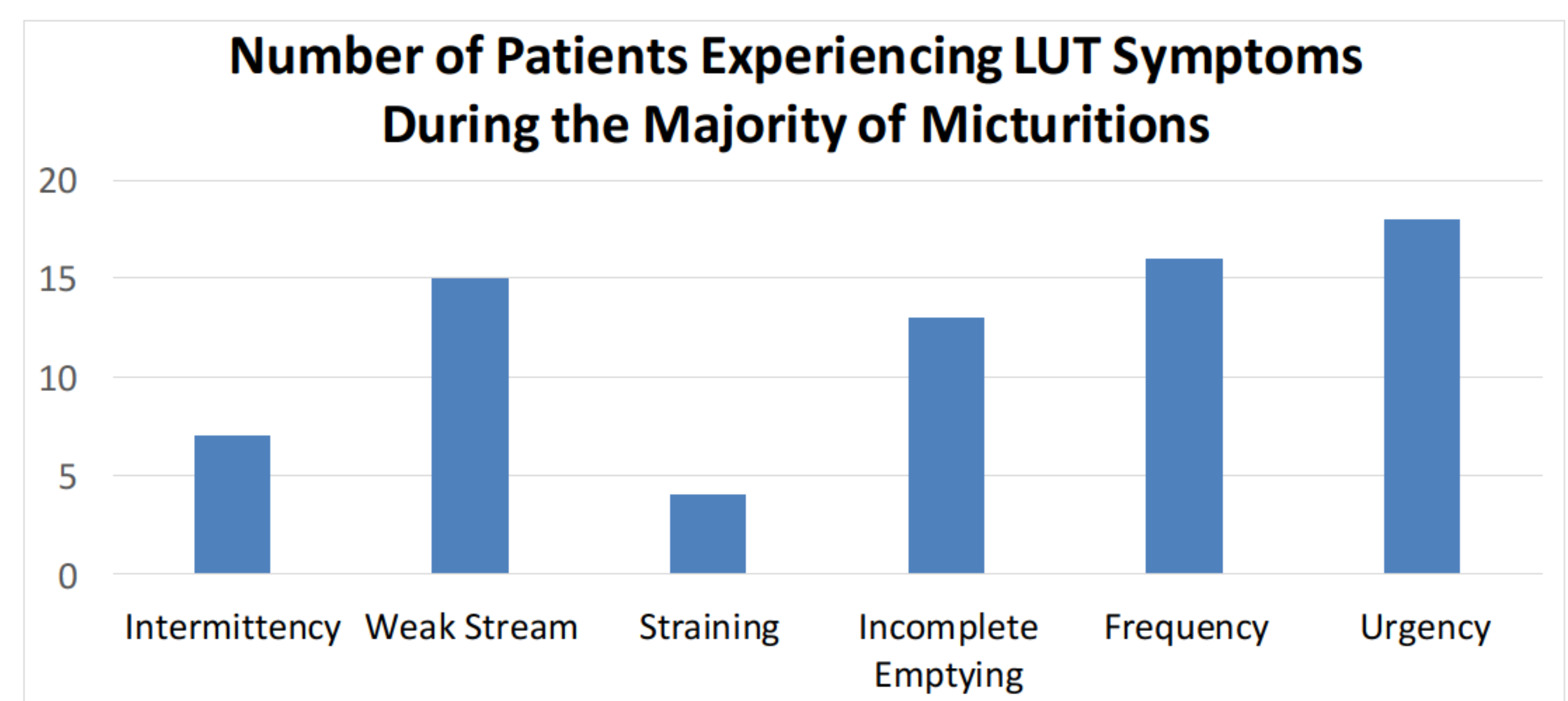


Figure 1

Of patients **suffering from ED**, **58%** (n=23) also had moderate/severe **LUTS**, in comparison to **27%** (n=3) in those with **normal erections**. (see Figure 3)

Discussion:

This cohort of patients, who's diabetes is managed in secondary care, are likely to be at a **high risk** of microvascular complications of DM. Of sexually active men, **78%** reported symptoms of erectile dysfunction of which **58%** reported concomitant lower urinary tract symptoms.

Despite this, only 6 of the patients that were questioned had been given a PDE-5 inhibitor by their doctor. There is some evidence to show that PDE-inhibitor treatment in men with known BPH **improves** their **LUTS** as well as the giving the expected improvement in erectile dysfunction⁽³⁾.

Considering the evidence that phosphodiesterase-5 inhibitors may improve both urinary symptoms and ED; would these diabetic patients benefit from **consideration of PDE-5 inhibitor therapy**?

How did you rate your confidence that you could get and keep an erection?

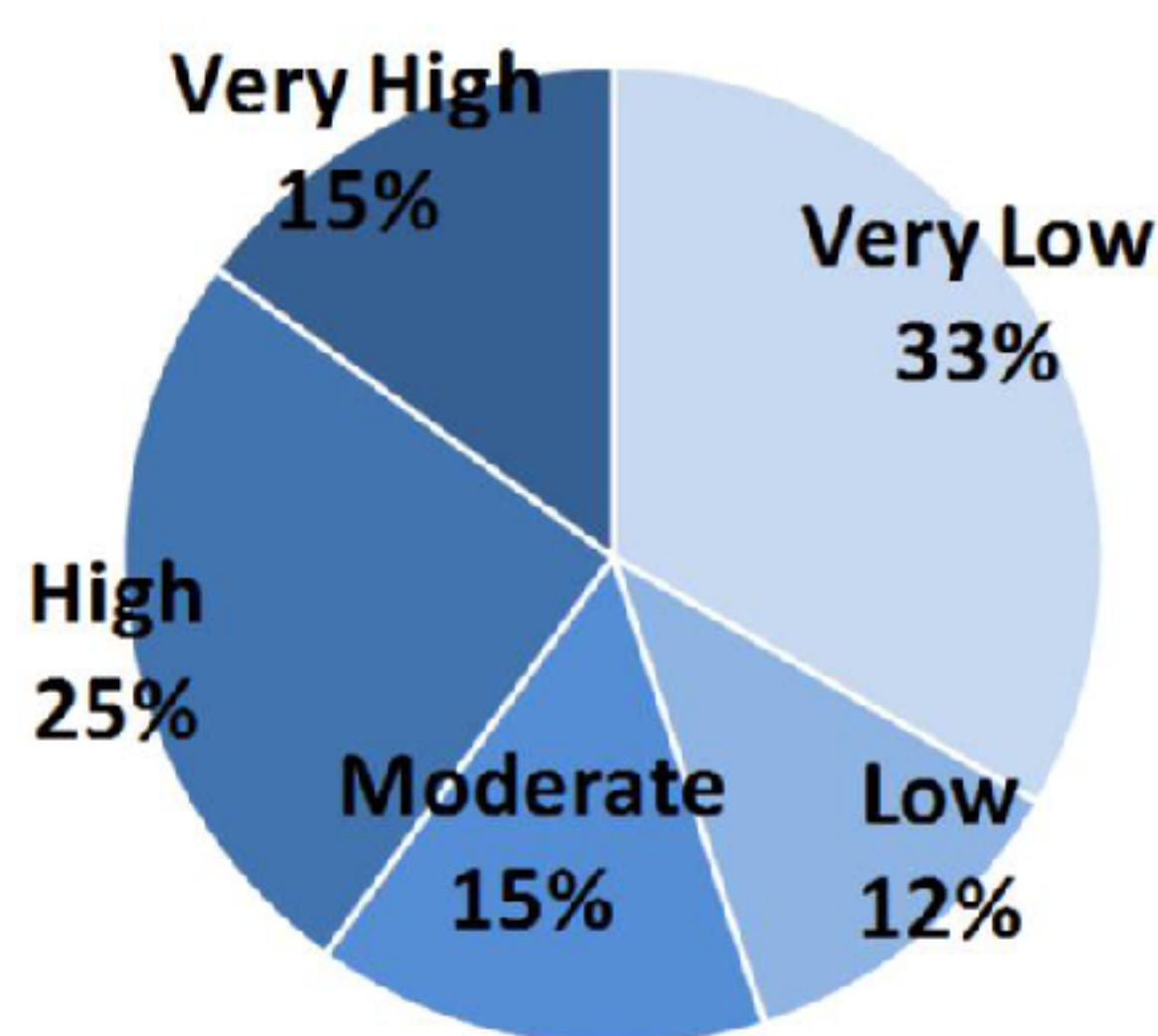


Figure 2

Prevalence of LUTS and ED Symptoms

	No ED	ED	Total
Mild LUTS	8	17	25
Moderate LUTS	3	19	26
Severe LUTS	0	4	
Total	11	40	51

Figure 3

Recommendations:

- Diabetic patients reviewed in secondary care should be screened **annually** for symptoms of erectile dysfunction as per **NICE guidelines**.
- Would patients with ED and LUTS **benefit** from consideration of PDE-5 inhibitor therapy?

References

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2. Braun MH et al. Lower urinary tract symptoms and erectile dysfunction: co-morbidity or typical 'Aging male' symptoms? Results of the 'Cologne Male Survey'. *European Urology*. 2003; 44: 588-94
3. Andersson KE et al. Tadalafil for the treatment of lower urinary tract symptoms secondary to benign prostatic hyperplasia: pathophysiology and mechanism(s) of action. *Neurology and Urodynamics* 2011; 30; 292-301
4. Oekle M et al. Monotherapy with tadalafil or tamsulosin similarly improved lower urinary tract symptoms suggestive of benign prostatic hyperplasia. *Uropean Urology*. 2012; 61; 917-925

