

Introduction

- The Urethral Stricture Symptoms and Impact Measure (USSIM) is a urethral stricture-specific questionnaire for men
- USSIM content was developed via concept elicitation, cognitive, and item prioritization interviews of patients
- We describe outcomes following field testing of the USSIM instrument and subsequent analysis of measurement properties
- Item reduction was performed to create an efficient outcome measure reproducible and able to detect change following urethroplasty

Methods

- Patient data was obtained from the Trauma and Urologic Reconstructive Network of Surgeons (TURNS) collaborative database from 2016-18
- 238 men were administered the USSIM preoperatively and 3-9 month following surgery
- Cystoscopy was performed >3 months post-surgery to assess objective success
- Psychometric testing included exploratory factor and item response theory analysis

Methods

- Internal consistency, validity, and test-retest reliability (2 weeks apart preoperatively) were each analyzed
- Validity was measured by comparing to the only other urethral stricture-specific outcome measure¹

Results

- The 31 Item USSIM was item reduced to an 8-item voiding scale, 3-item sexual scale, 1 quality of life item, and 1 surgical outcome item
- The voiding- and sexual-related items were highly sensitive to change (both $p < 0.0001$, Figure 1,2)

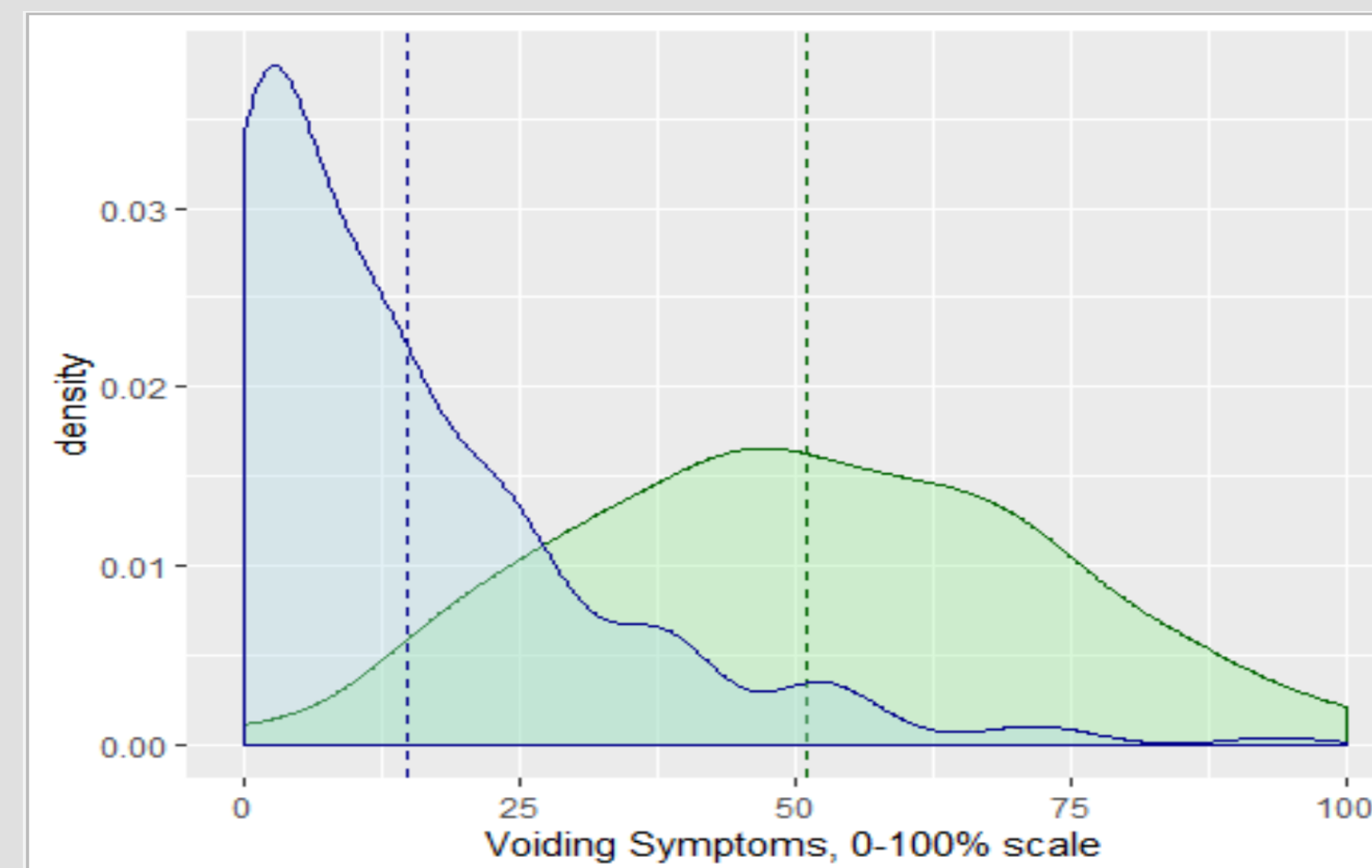


Figure 1: Change in USSIM voiding scale from pre-(green) to post-surgery (blue). Mean reduction 36.6 (0-100 scale).

Results

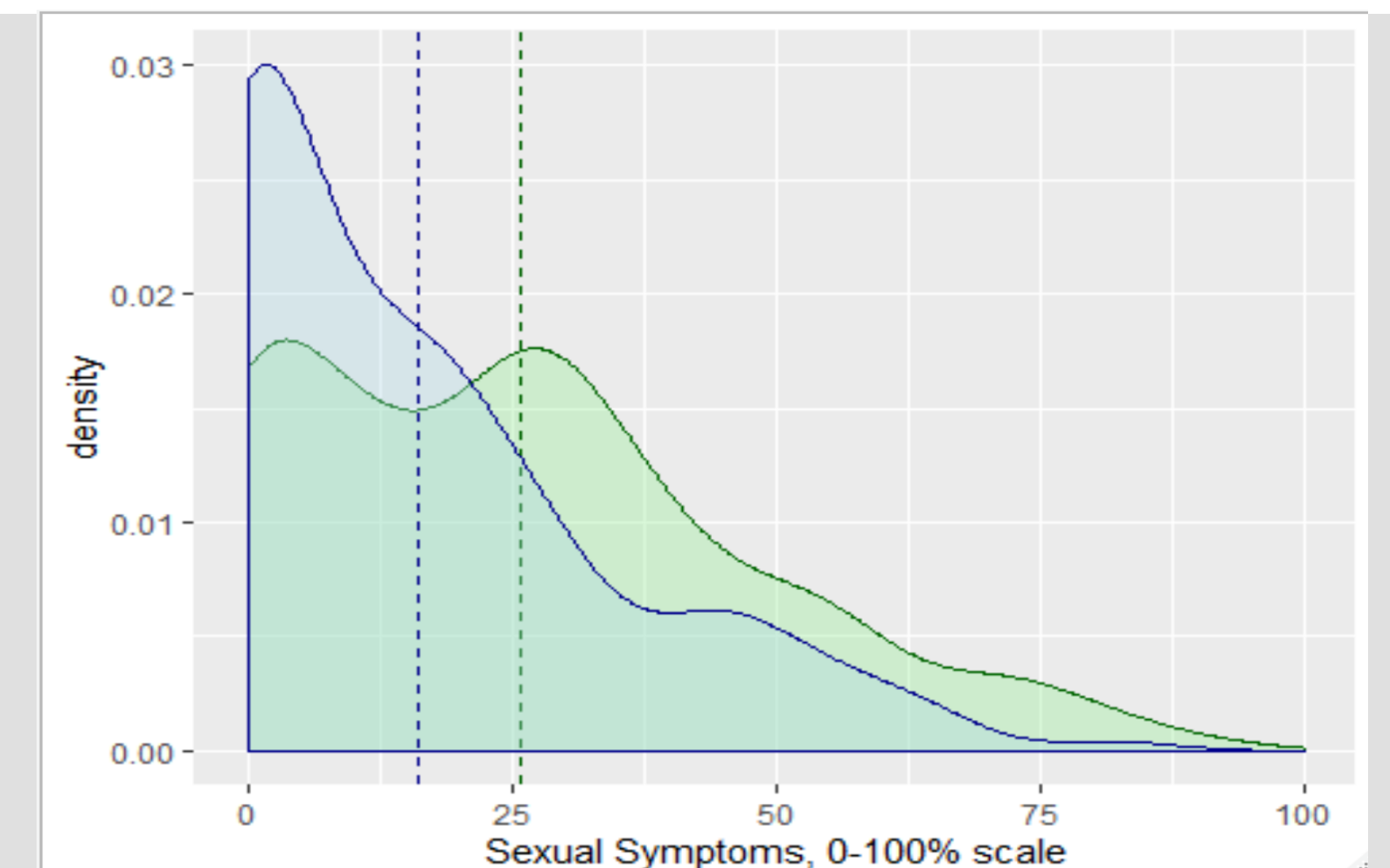


Figure 2: Change in USSIM sexual scale from pre- (green) to post-surgery (blue). Mean reduction 9.9 (0-100 scale)

- Reliability was 0.82 and 0.70 for voiding and sexual scales, respectively
- Validity coefficients for the voiding scale were $r_s \geq 0.37$ ($p < 0.0001$)
- Test-retest reliability was 0.30 for voiding and 0.56 for sexual items

Conclusions

- The USSIM was psychometrically strong with adequate measurement properties
- The reduced 11-item is now being tested for clinical use