

1. the overall quality of the evidence which exists for the recommendation [3];
2. the magnitude of the effect (individual or combined effects);
3. the certainty of the results (precision, consistency, heterogeneity and other statistical or study related factors);
4. the balance between desirable and undesirable outcomes;
5. the impact of patient values and preferences on the intervention.

Strong recommendations typically indicate a high degree of evidence quality and/or a favourable balance of benefit to harm and patient preference. Weak recommendations typically indicate availability of lower quality evidence, and/or equivocal balance between benefit and harm, and uncertainty or variability of patient preference [4].

The Panel wants to highlight that “success” in urethral stricture treatment is poorly defined and subjective. “Success” is usually defined as urethral patency, either subjective by the absence of voiding symptoms or objective by imaging or urethral calibration. Despite urethral patency, the patient themselves might not consider the treatment as successful because of functional consequences (e.g., post-void dribbling, erectile/ejaculatory dysfunction, altered genital appearance). In this Guideline, the Panel agreed to avoid the term “success”. Instead, the term “patency rate” or “stricture recurrence rate” will be used to clarify that only stricture recurrence was taken into consideration (as assessed by the authors).

The Panel would like to stress that patency after urethral surgery is dependent on the general principles of wound healing. These principles have stood the test of time and need to be respected [5]. Some examples:

- An anastomosis should be made between healthy urethral ends and without any tension.
- A graft requires a well-vascularised graft bed with a close contact between the graft and graft bed to promote imbibition and inosculation.
- If the full circumference of the urethral mucosa is destroyed, spontaneous regeneration will not take place.
- Contraction and fibrosis in a wound only stops after it is covered by its epithelium.

The Panel conducted two systematic reviews (SR) to support guideline recommendations, which were published in 2021:

- What is the role of single-stage oral mucosa graft urethroplasty in the surgical management of Lichen Sclerosus-related stricture disease in men? A systematic review [6];
- Free Graft Augmentation Urethroplasty for Bulbar Urethral Strictures: Which Technique Is Best? A Systematic Review [7].

The results of these reviews are included in the 2023 Urethral Stricture Guidelines.

In addition, the panel drafted three summary papers of the guidelines which were published in European Urology and European Urology Focus:

- EAU guidelines on urethral stricture disease (part 1): management of male urethral stricture disease [8];
- EAU Guidelines on urethral stricture disease (part 2): diagnosis, perioperative management, and follow-up in males [9];
- EAU guidelines on urethral stricture disease (part 3): management of strictures in females and transgender patients [10].

2.2 Review

The Urethral Strictures Guidelines were peer reviewed prior to initial publication in 2021.

3. DEFINITION, EPIDEMIOLOGY, AETIOLOGY AND PREVENTION

3.1 Definitions

In males, a urethral stricture refers to a narrowed segment of the anterior urethra due to a process of fibrosis and cicatrization of the urethral mucosa and surrounding spongiosus tissue (“spongiofibrosis”) [11, 12]. In the male posterior urethra, there is no spongiosus tissue and at this location the term stenosis is preferred [11, 12]. The definition of meatal stenosis is generally accepted as a short distal narrowing at the meatus, without involvement of the fossa navicularis [12].