The SUIOS has been used previously to evaluate the outcome of pubovaginal sling surgery<sup>7,8,17</sup> and collagen injection.<sup>9</sup> However, this is the first time the SUIOS has been compared with the more commonly used chart review. The patients undergoing a repeated pubovaginal sling procedure after an initial failed operation did as well as the ones with a primary sling procedure. Therefore, a repeated sling procedure should be considered a reasonable treatment option in select women with recurrent stress urinary incontinence, as previously reported.<sup>8,17</sup>

The major obstacles to obtaining a fair assessment of the surgical outcomes include variations in outcome reporting by different methods, physician bias in reporting, and perhaps a patient's tendency to underreport in an office setting. We tried to eliminate all sources of bias in this study. The SUIOS was collected in an objective manner, and a research nurse performed the retrospective chart review.

# **CONCLUSIONS**

The outcome results using the SUIOS are significantly different from those after a retrospective chart review. Although performing studies using SUIOS can be demanding for both the researchers and the patients, the results tend to be much more believable than those reported by other methods.

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#### EDITORIAL COMMENT 1

We have gone through three "phases" with regard to results reporting and follow-up after surgery for female stress urinary incontinence.

Phase 1 (early 1980s) was the phase of "great results" and marginal data. This period was exemplified by many needle suspension articles in the 1980s with "95% success," short follow-up, and no description of how the results were obtained.

Phase 2 (mid-1990s) was the period of "more realistic" results. This period was characterized by the realization that the method of obtaining the results of surgery for female stress incontinence was critical. In 1995, Sirls *et al.*<sup>1</sup> was one of the first to demonstrate that the results of a confidential patient questionnaire were significantly "less optimistic" than data based on chart review. The current article demonstrates this same concept, with much more realistic outcomes obtained by the SUIOS method compared with chart review information.

In 1997, the American Urological Association guidelines on the surgical treatment of female stress incontinence were published.<sup>2</sup> This detailed meta-analysis demonstrated the results obtained with various anti-incontinence procedures were very similar up to 48 months of follow-up. Only after 48 months, did the results of these procedures differentiate the slings and retropubic suspensions as significantly more effective than the needle suspensions and anterior repairs. These key articles emphasized: (a) the importance of longer term follow-up, (b) the need to know the exact details as to how the follow-up data were collected, and (c) the importance of not relying solely on chart review information to determine outcomes.

We are currently in phase 3 (2000+), the phase of "improved" data collection with the incorporation of the patient's subjective evaluation of the degree of satisfaction, an objective component to evaluate the patient's continence status (ie, pad test or other evaluation), and some assessment of the impact of the treatment on the patient's quality of life. As suggested by Groutz *et al.* in 2000,<sup>3</sup> a simplified method of "factoring in" these various components leads to a much more realistic picture of outcome after anti-incontinence surgery.

Future studies should incorporate a validated tool to estimate quality-of-life improvement after intervention for conditions, such as incontinence, which can have a devastating ef-

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fect on patients' ability to carry on normal activities. As we have experienced with the development of a quality of life instrument for pelvic prolapse,<sup>4</sup> the steps to formulate such an instrument are a detailed and arduous process essential to gain a realistic understanding of how our treatment benefits our patients.

An awareness of the history of results reporting after incontinence surgery will, it is hoped, help prevent us from repeating the same mistakes in future outcomes evaluation. We must remain diligent as we continue to improve our surgical techniques, outcomes, and methods of data collection.

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#### EDITORIAL COMMENT 2

Quality of life notwithstanding, the efficacy of any treatment for incontinence should be assessed by its effects on incontinence. The Urodynamics Society, now known as The Society for Urodynamics and Female Urology, published a set of recommendations for assessing the outcome of therapies for incontinence.1 This document has been approved by the American Urological Association. It states that incontinence can (and should) be evaluated objectively, semiobjectively, and subjectively. Objective assessments include physical examination (observation of incontinence) and urodynamics. Semiobjective assessments include diaries and pad tests, and subjective ones include questionnaires and patient interviews. Retrospective chart reviews, which do not include these parameters, have been shown time and time again to grossly overestimate the cure/improve rate. The well-done study by Franco et al. is yet another example confirming this.

There is little doubt that surgery for stress incontinence improves the lot of most patients, but the actual cure rate is much less than most surgeons acknowledge.

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