

# Sling Reoperation Rates in the AUA Quality (AQUA) Registry

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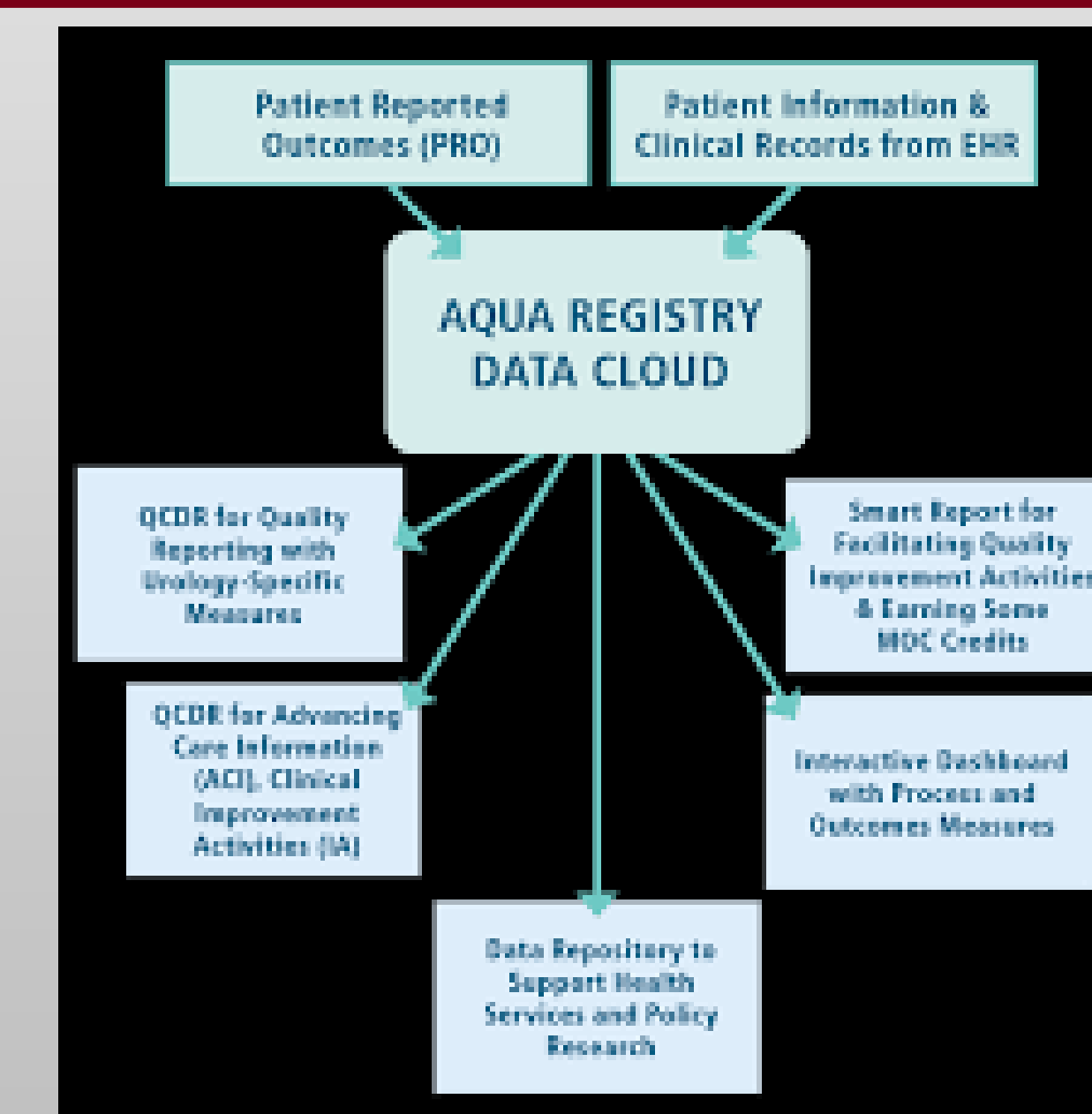
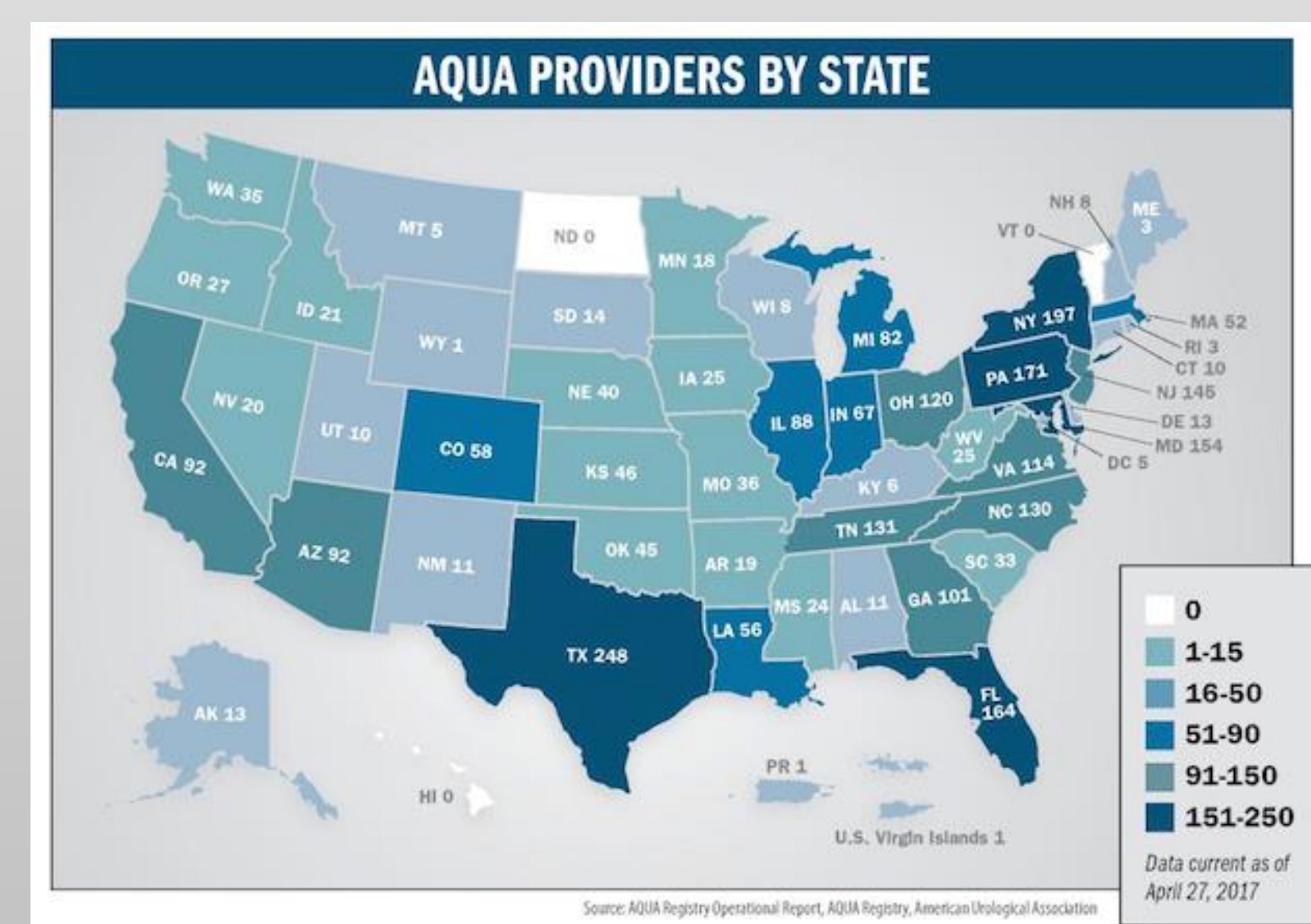
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## INTRODUCTION AND OBJECTIVES

The midurethral synthetic sling has been considered the gold standard in the surgical management of stress urinary incontinence, despite controversies surrounding the use of transvaginal mesh. Early (within one year) failure rates described in the literature range from less than 4% in clinical series to over 10% among older Medicare beneficiaries. We sought to use the AUA Quality (AQUA) registry, a national Qualified Clinical Data Registry (QCDR) designed to measure, report, and improve healthcare quality and patient outcomes, to study real-world reoperation rates after surgery for stress urinary incontinence, as well as provider volume and types of anti-incontinence procedures performed.

## METHODS

- The AQUA Registry provides physicians with the essential infrastructure and information they need to improve their clinical practices and patient outcomes.
- As of November 2017, the AQUA Registry covers more than 400 practices from 48 US States and territories
- Private practices, large health systems, and academic centers included
- We abstracted 2014-2016 AQUA registry data from the first 95 urology practices to join, to determine reoperation rates after surgery for SUI
- Volume-outcomes measured using descriptive statistics and Pearson's correlation.



## RESULTS

Frequencies of initial operations and repeat surgery, demonstrated the predominance of the sling for both initial (95.4%) and repeat (97.5%) surgery

Initial Surgery Code	Repeat Surgery Code							Total
	51840 Burch/MMK	51845 Peyrera	51990 Bl. Neck Suspension	51992 Bl. Neck Suspension	53500 Urethrolysis	57287 Removal/Revision Sling	57288 Sling	
51840 Burch/MMK	108 93.91 1.31	3 2.61 100.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	4 3.48 1.69	115 100.00 1.34
51845 Peyrera	4 66.67 0.05	0 0.00 100.00	2 33.33 100.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	6 100.00 0.07
51990 Bl. Neck Suspension	1,051 99.90 12.78	0 0.00 0.00	0 0.00 0.00	1 0.10 100.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	1,052 100.00 12.27
51992 Bl. Neck Suspension	44 93.62 0.54	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	1 2.13 33.33	0 0.00 0.00	0 0.00 0.00	47 100.00 0.55
57288 Sling	7,013 95.41 85.31	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	2 0.03 66.67	16 0.22 100.00	88 1.20 100.00	231 100.00 97.47
57289 Anterior Repair	1 100.00 0.01	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	1 100.00 0.01
<b>Total</b>	8,221 95.92 100.00	3 0.04 100.00	2 0.02 100.00	1 0.01 100.00	3 0.04 100.00	16 0.19 100.00	88 1.03 100.00	237 100.00 100.00

Key:  
Frequency  
Row percentage  
Column percentage

- There were 8,571 incontinence procedures performed by 61 AQUA practices in 2014-2016, (range 1 to 1,144 slings).
- Overall reoperation rate by CPT code was 4.1%. The vast majority of first operations (95.4%) were slings, with a much small number of bladder neck suspensions (MMK/Burch/Peyrera).
- When a repeat procedure was performed, it was usually the same procedure type performed a second time.
- Among those undergoing a sling for the first procedure, 0.22% underwent a urethrolysis, 1.2% underwent a sling revision or takedown, and 3.4% underwent a repeat sling operation.
- There was no correlation between provider volume and reoperation rates ( $r=0.0058$ ,  $p=0.96$ ), though there was a wide range of reoperation rates between practices (0-77%).

## CONCLUSIONS

The sling, even after the mesh controversy with its negative press, by far dominates as the most common anti-incontinence procedure. Overall, sling failure rates, revisions, and takedowns were acceptably low across various practice settings. These low reoperation rates suggest that both low and high volume providers can attain good outcomes with the sling.