



# TURP the Gold or the Old standard?

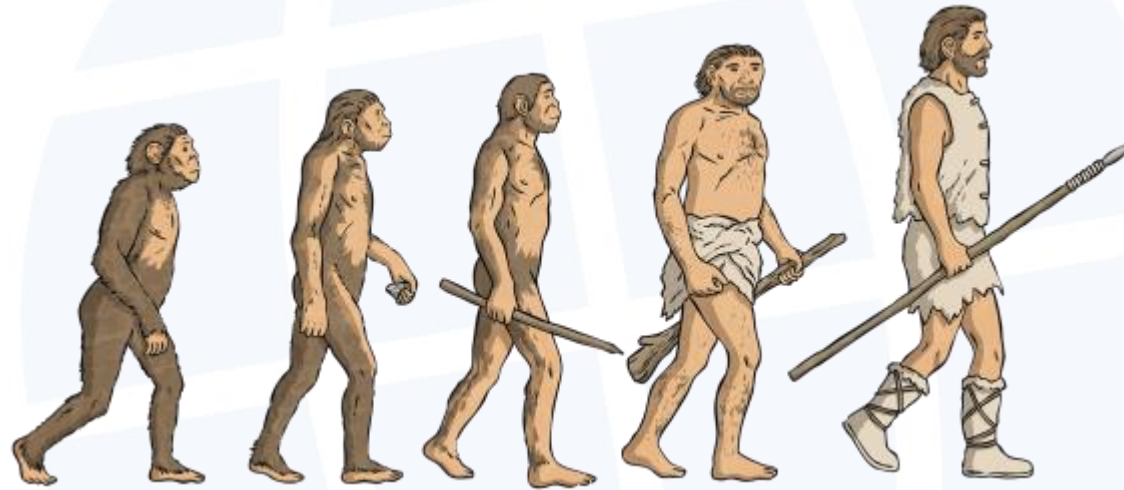
Jean de la Rosette

Istanbul Medipol University, Istanbul, Turkiye

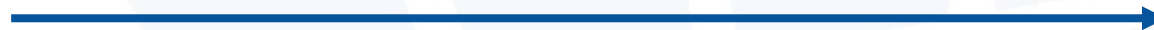
President Société Internationale d'Urologie



# Historical Perspective on Prostate Surgery



the past



the present

TURP

MIST

Uroflowmetry

Quality of Life – Sexual Health

## TURP, the original gold standard

TURP, which involves inserting a scope into the urethra and cutting out prostate tissue with an electrified wire loop, is an alternative to more invasive robotic or open BPH surgeries.<sup>7</sup> While there have been improvements over the years in BPH surgical options, such as the introduction of bipolar electricity, or low-temperature plasma energy, TURP remains prevalent because it has a long legacy of safety and efficacy data, and is taught in academic and residency settings. It is often viewed as a “traditional” approach.



### Editorial Commentary

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Lewis S. Kritekman, MD, FACS

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# GreenLight™ and TURP: An Evolving Gold Standard in BPH Treatment



# The golden standard

- Definition Golden standard
- What makes a therapy a golden standard
  - Efficacy
  - Durability
  - Complications
  - Availability
- TURP considered the Golden standard!
- MIST versus TURP
- What do real life data tell us.



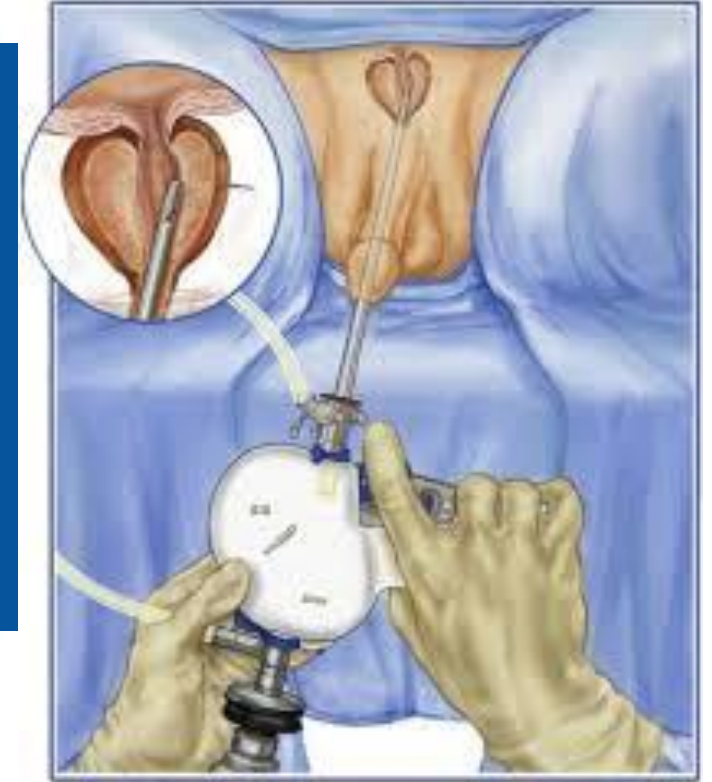
# The golden standard

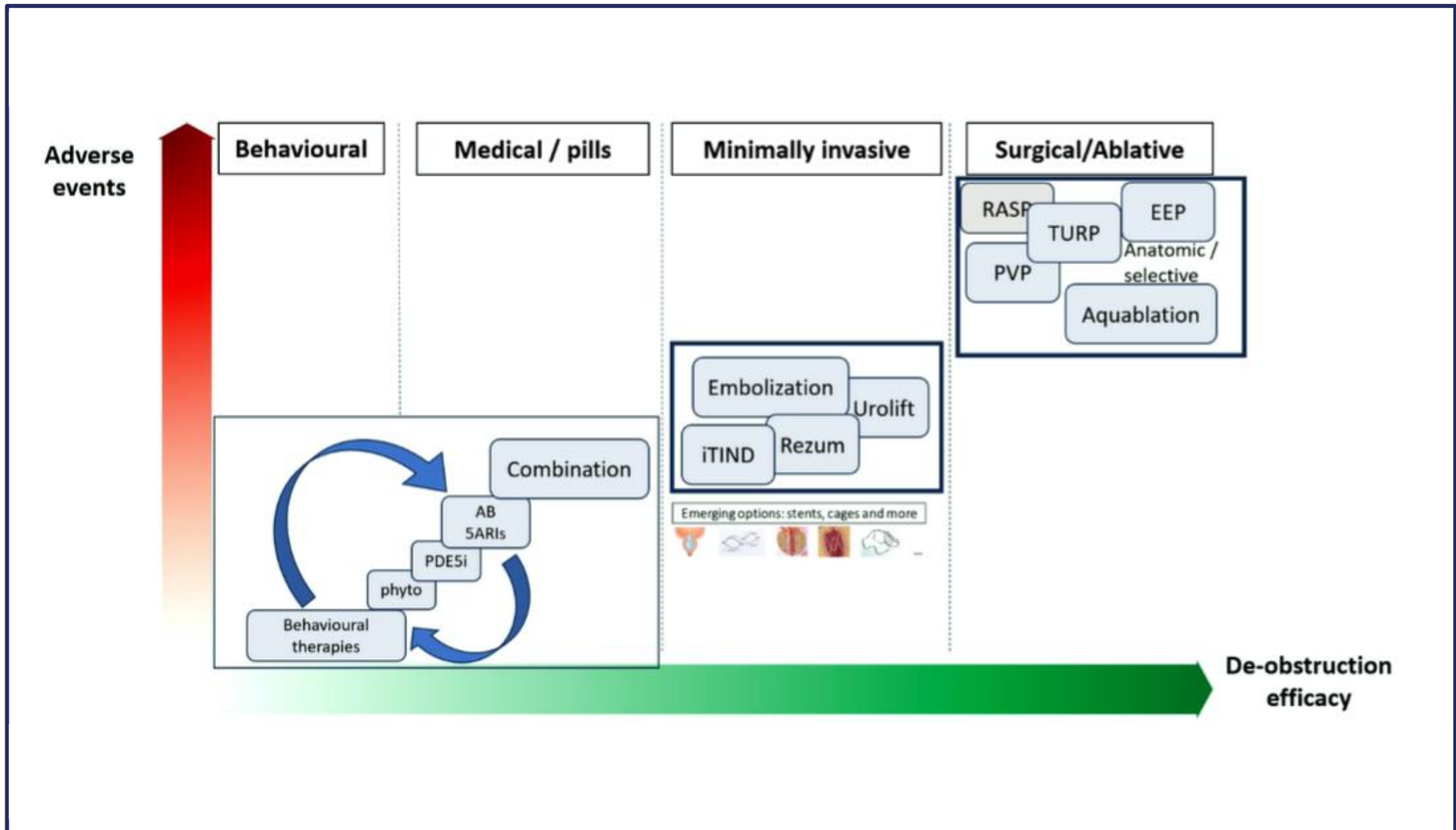
- The system, abandoned in the Depression of the 1930s, by which the value of currency was defined in terms of gold, for which the currency could be exchanged
- A thing of superior quality which serves as a point of reference against which other things of its type may be compared
- 'breast milk provides the gold standard by which infant feeds are measured'



# The golden standard

- In medicine and medical statistics, the gold standard, criterion standard, or reference standard is the diagnostic test or benchmark that is the best available under reasonable conditions.
- It is the test against which new tests are compared to gauge their validity, and it is used to evaluate the efficacy of treatments.







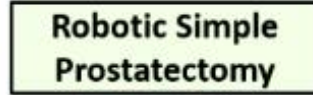
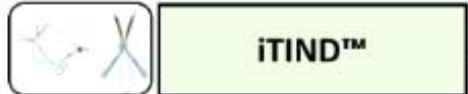




# Interventional treatment overview

Type of energy used	Ablative surgical options for BPO		
	Resection	Vaporisation	Enucleation
Mechanic			OSP*
Monopolar	M-TURP		
Bipolar	B-TURP	TUVP	TUBE
Greenlight	PVPLRP	PVP	GreenLEP
Tm:YAG	ThuVaRP	ThuVAP	ThuLEP/ThuVEP
Diode(s)	DiLRP	DiLAP	DiLEP
Ho:YAG	HoLRP	HoLAP	HoLEP

\*if no other option available

- Level 1 evidence available: **Strong FOR**
- Level 1 evidence available: **Weak FOR**
- Limited evidence, **no recommendation/under investigation**
- Not available / abandoned

Alternatives	
Ablatives	Non-ablative (MiST)
	
	
	
	

Emerging options: stents, cages and more ←



**What Is the Required Certainty of Evidence for the Implementation of Novel Techniques for the Treatment of Benign Prostatic Obstruction?** Speakman et al. Eur Urol Focus 2019

## Optilume BPH – 2 Years follow Up

### PINNACLE Study

- 148 subjects
- 2:1 randomization (100 Optilume BPH, 48 sham)
- 18 centers in the US and Canada.
- Subjects and evaluating personnel were blinded to the treatment through 12-months.
- Subjects randomized to Optilume BPH followed through 2 years.

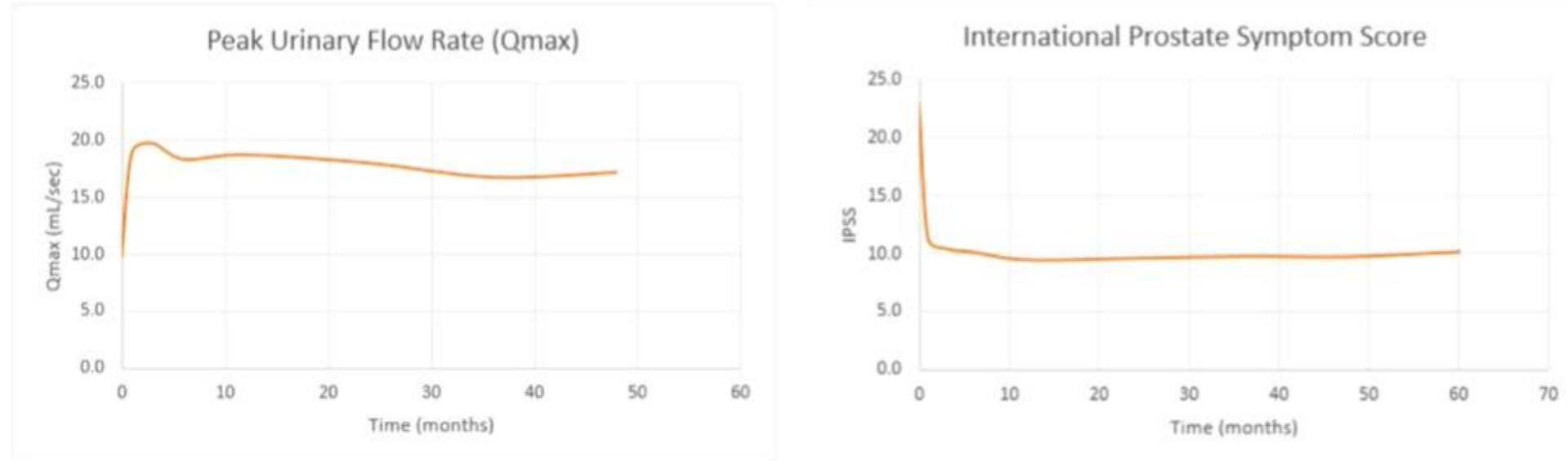
### EVEREST Study

- Single-arm feasibility study
- 80 subjects at 6 sites in Latin America
- Following subjects for 5 years after treatment with Optilume BPH.

- Symptom improvement was measured utilizing the International Prostate Symptom Score (IPSS), functional improvement measured by peak urinary flow rate (Qmax). Erectile and ejaculatory function were evaluated utilizing validated questionnaires.

*Kaplan et al*

## Optilume BPH – 2 Years follow Up



- Improvement in IPSS was maintained through 2 years (22.9 vs 9.7,  $\Delta$  -13.1).
- Qmax improved from 9.8 mL/sec at baseline to 18.7 at 12 months and was maintained at 18.0 mL/sec through 2-year follow-up.

*Kaplan et al*

## Water Vapor Thermal Therapy vs. TURP

Explore the association of TURP and Water Vapor Thermal Therapy with Tetrafecta outcomes:

🎯 IPSS <8

🎯 IIEF-5 >20

🎯 Peak flow  $\geq$  12 ml/s

🎯 Antegrade ejaculation.

☀ Total patients: 110 (55 Water Vapor Thermal Therapy and 55 TURP)

☀ Median age 64 y.o. (IQR: 59.0 - 68.0)

☀ Medium peak flow 9 ml/s (IQR: 6.9 - 11.6 ml/s)

☀ Median IPSS 23.0 (IQR: 18.0 - 28.0)

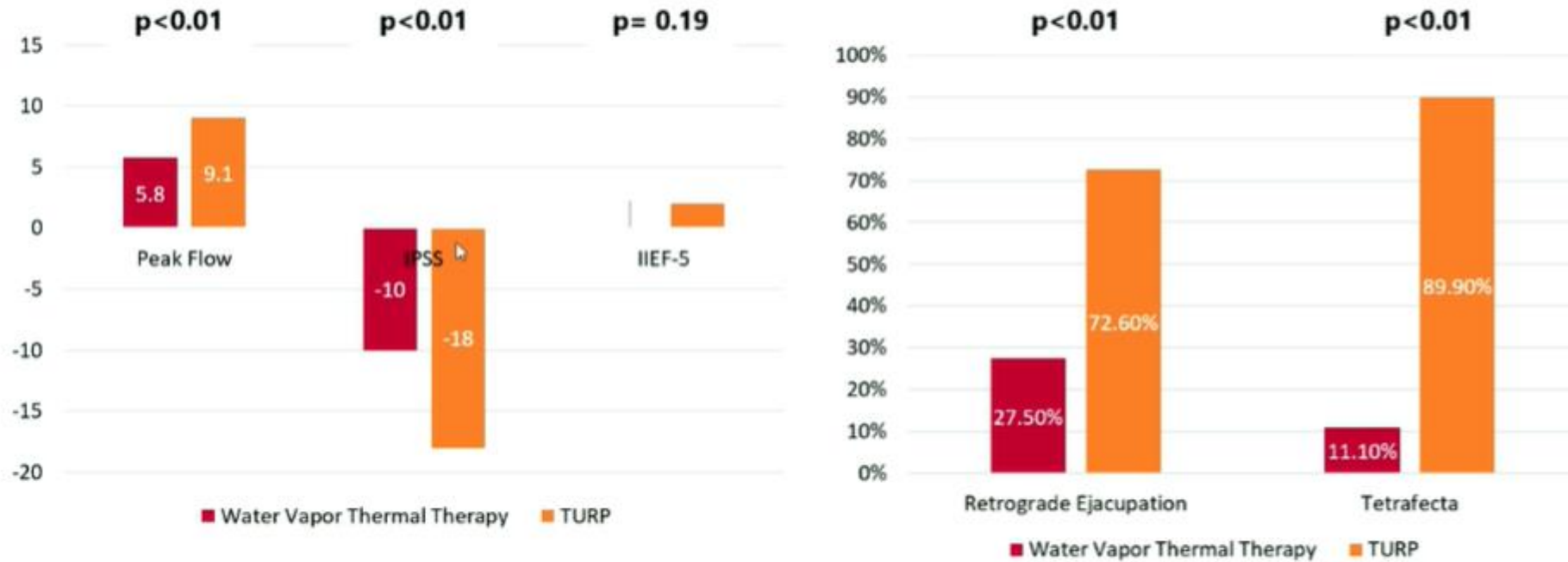
☀ Median PSA tot 1.75 ng/ml (IQR: 0.9 - 2.65 ng/ml)

☀ Median prostate volume 54.5 g (IQR: 40.0 - 68.0 g)

Asmundo et al

# Water Vapor Thermal Therapy vs. TURP

## Data at 12-months follow up



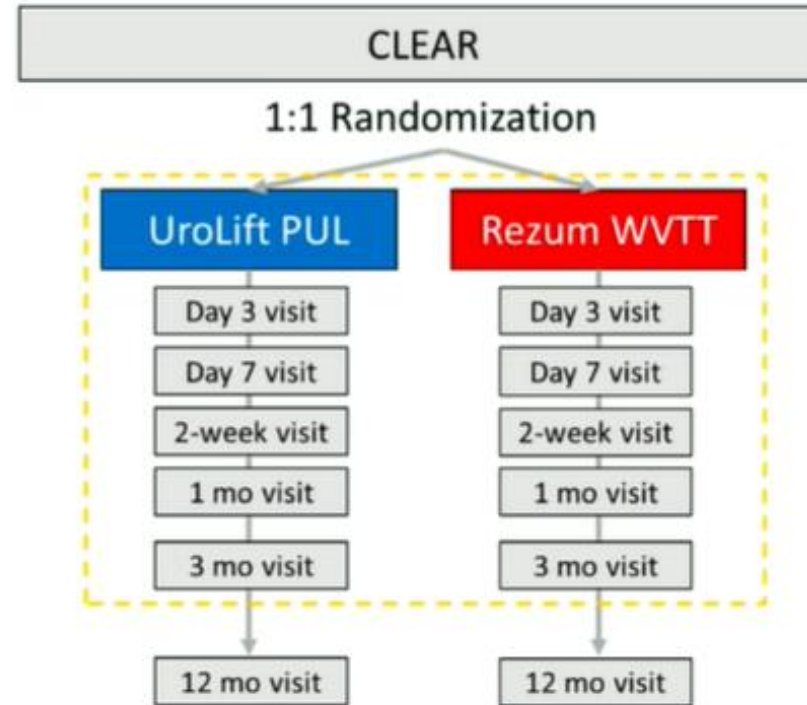
Asmundo et al

# Urolift vs. REZUM

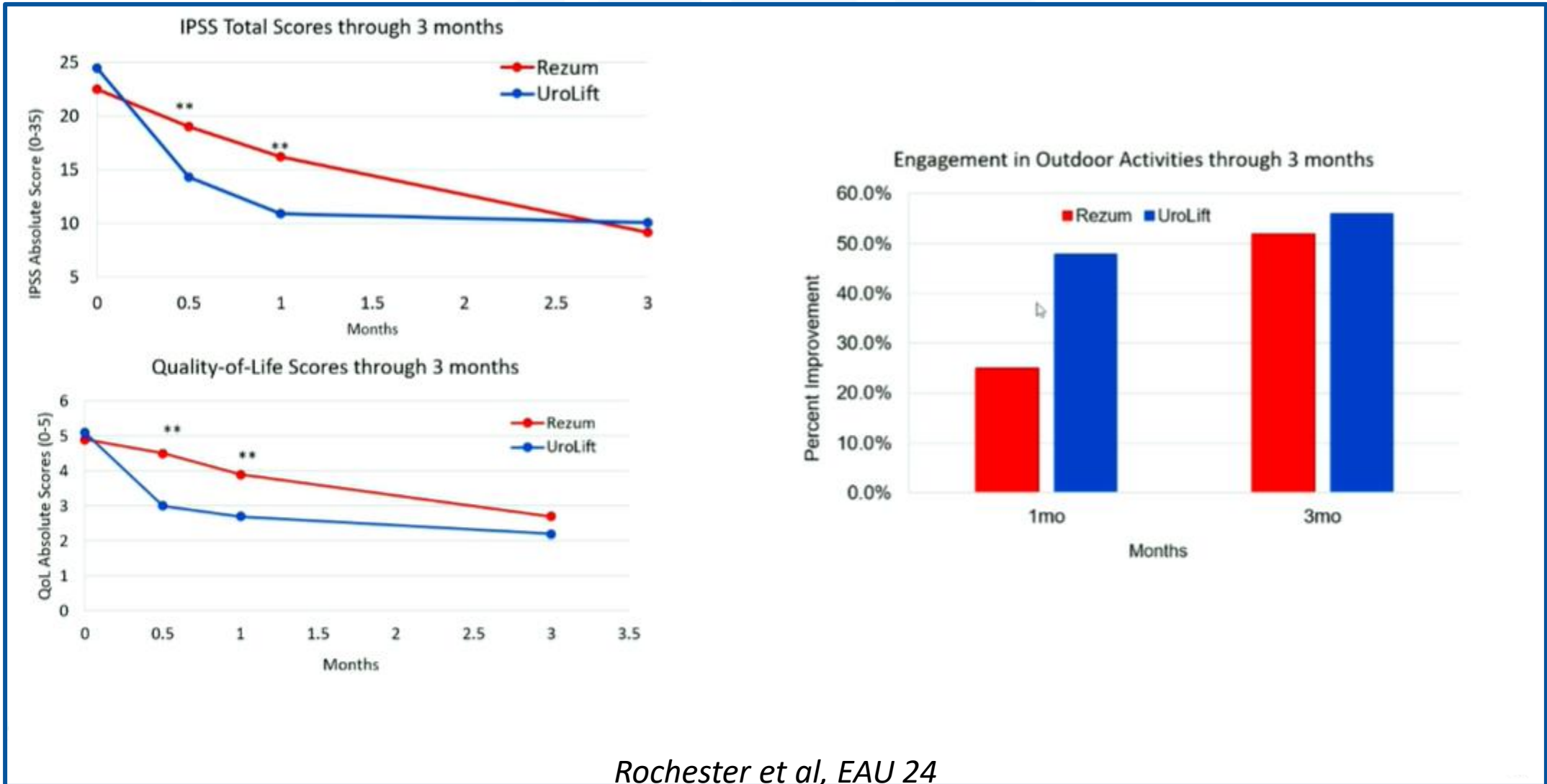
## Comparing UroLift Experience Against Rezum

### (CLEAR) Study:

- Randomized controlled trial (1:1)
- Prospective, multinational
- **Primary endpoint:** proportion of subjects catheter-independent at post-operative day 3 and remain catheter-independent through day 7
- **Additional analyses** include symptom and QoL improvement, patient experience (post-operative activity interference and satisfaction) and surgical retreatment
- Preliminary analysis is through 3 months post-treatment



# Water Vapor Thermal Therapy vs. Urolift



Rochester et al, EAU 24

## Aquablation – 4 years Follow up

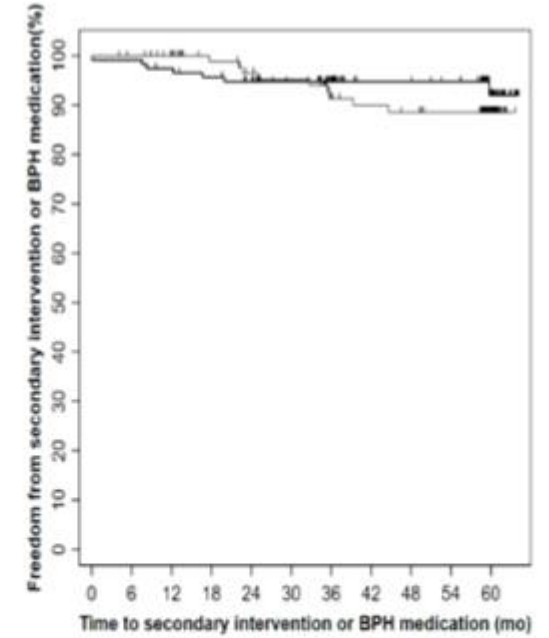
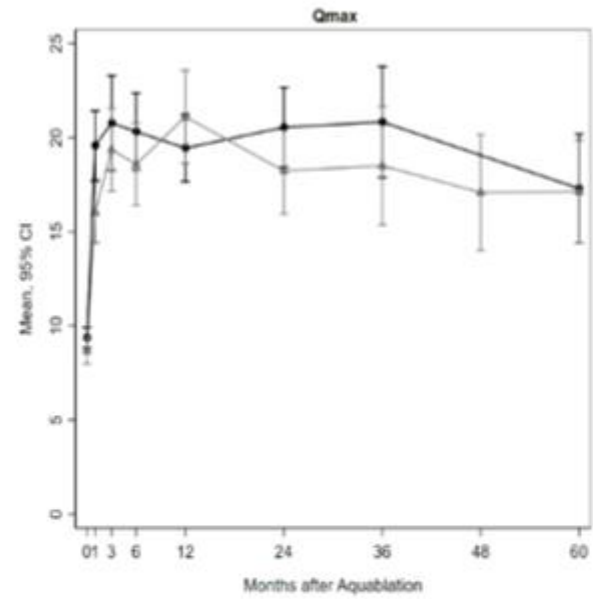
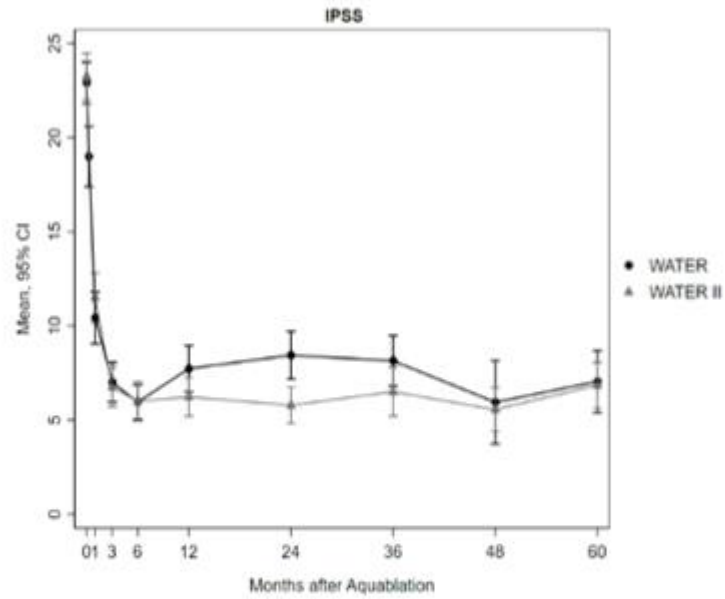
**Table 1. Real World Experience with Aquablation Water-Jet Ablation for BPH**

Variable	Time				
	Baseline (N=275)	12 Months (N = 197)	24 Months (N=145)	36 months (N=101)	48 Months (N =72)
<b>Age</b>	67.3	68.4	68.1	68.5	68.1
<b>Race</b>					
Asian	6 (2.2%)				
Black	19 (6.9%)				
White	241 (87.6%)				
Other/Unknown	9 (3.3%)				
<b>Prostate Specific Antigen Mean</b>	7.3 (SD 4.1)	5.2 (SD 2.6)	4.5 (SD 3.6)	4.8 (SD 3.1)	5.1 (SD 3.3)
<b>Urinary Retention</b>	131 (47.6%)				
<b>Mean Prostate Volume (TRUS)</b>	108.3 (SD 29.7)	66.2 (SD 17.3)			
<b>Middle Lobe (IPP &gt; 1 cm)</b>	192 (69.8%)				
<b>IPSS</b>	24.2 (SD 7.1)	8.1 (SD 3.1)	7.9 (SD 3.2)	7.5 (SD 2.6)	7.1 (SD 3.2)
<b>Peak Flow Rate (Qmax)</b>	6.1 (SD 4.1)	17.9 (SD 6.3)	19.3 (SD 5.4)	18.3 (SD 6.4)	17.1 (SD 5.1)
<b>Post Void Residual (mL)</b>	101 (SD 32.3)	51 (SD 17.9)	39 (SD 19.4)	42 (SD 16.9)	46 (SD 18.7)

IPP - Intraprostatic Protrusion

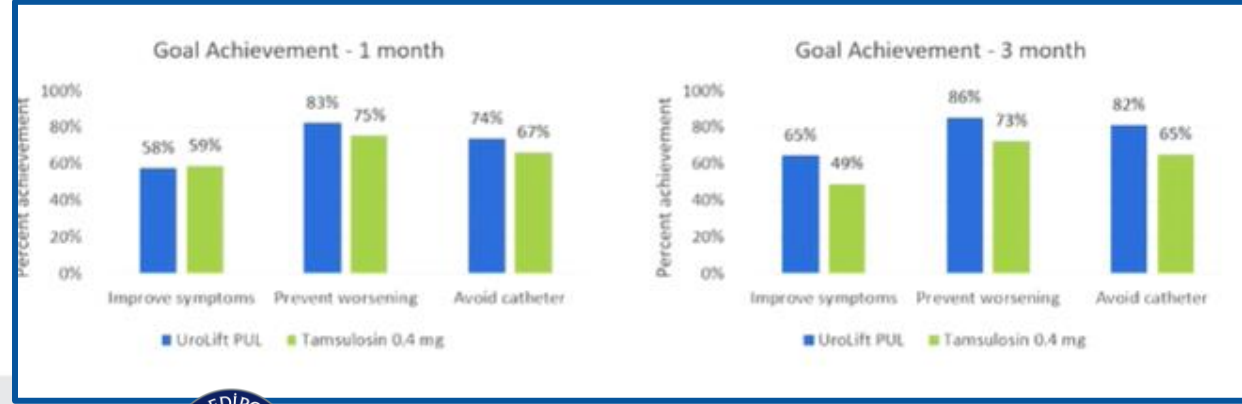
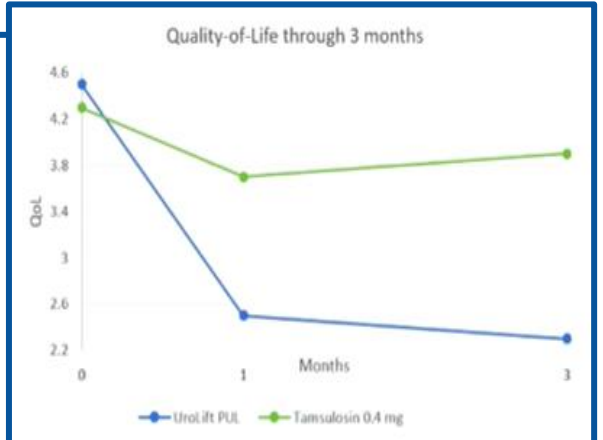
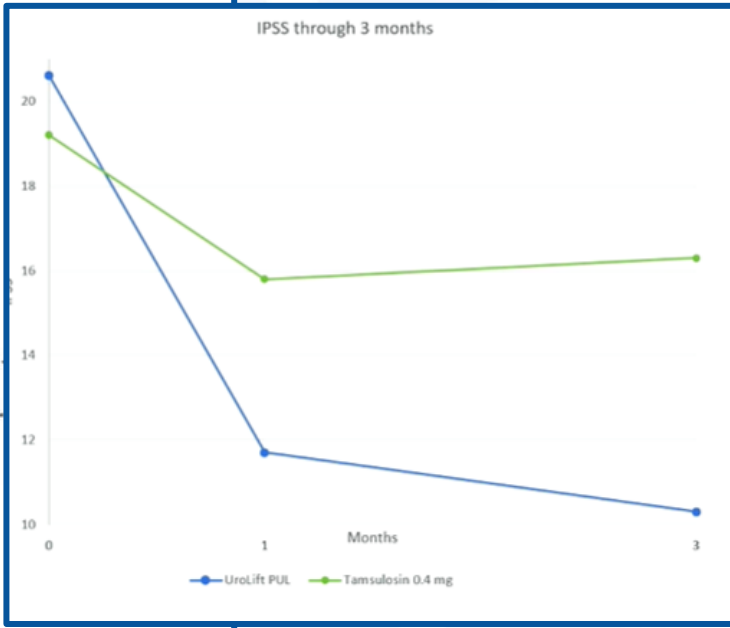
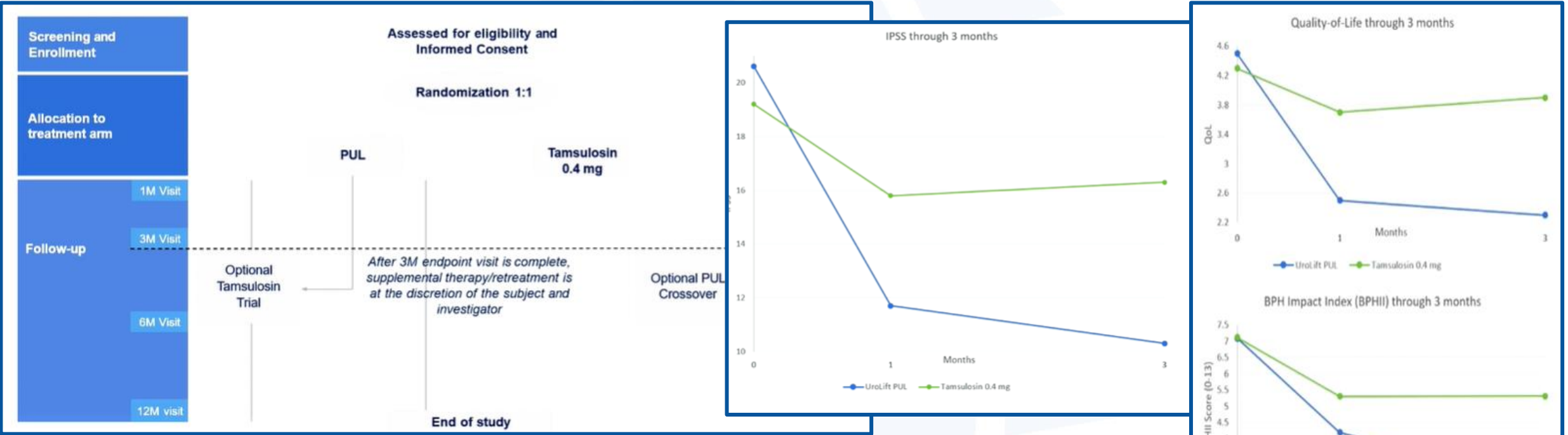
Omidele et al #EAU24

# Water vs Water II – 5 Years Update



Berjaoui et al #EAU24

# IMPACT study – MIST vs Medical therapy – preliminary data



Roehrborn et al, EAU 24



## RASP vs. HoLEP in prostates > 100 cc

	Overall (n = 422)	RASP (n = 160)	HoLEP (n = 262)	P value
Age (years), Median (IQR)	71 (66 – 77)	70 (66 – 76)	72 (66 – 77)	0.08
BMI (kg/m <sup>2</sup> ), Median (IQR)	26 (24 – 30)	27 (24 – 30)	26 (24 – 29)	0.4
Charlson Comorbidity Index, n (%)				
0	52 (12.3)	38 (23.8)	14 (5.3)	≤0.001
1	74 (17.5)	26 (16.2)	48 (18.3)	
>2	296 (70.2)	96 (60)	200 (76.4)	
Prostate volume (mL), Median (IQR)	127 (110 -161)	164 (115 – 200)	120 (110 – 140)	≤0.001
Pre-op IPSS (n), Median (IQR)	20 (13 - 20)	21 (17 – 28)	19 (12 – 24)	0.3
Pre-op Qmax (mL/sec), Median (IQR)	9 (6 – 12)	9 (5.8 – 12)	9 (6 – 12)	0.9
Pre-op PVR (mL), Median (IQR)	80 (30 -150)	93 (50 – 150)	70 (11 – 142)	0.4
Operative time (min), Median (IQR)	110 (90 -135)	120 (92 – 150)	100 (85 – 125)	≤0.001
CV time (day), Median (IQR)	2 (2 – 2)	2 (2 – 3)	2 (2 – 2)	≤0.001
LOS (day), Median (IQR)	3 (2 – 4)	4 (3 – 5)	2 (2 – 3)	≤0.001

- Median pathologic prostate weight was similar between in both groups (104 gr vs. 105 gr; p=0.6).
- Overall complication rates were similar in both groups (22% vs. 21%; p=0.4).
- At 3 months follow up both groups showed:
  - improvement of maximum flow rate (+11 vs. +16 ml/s; p=0.06)
  - reduction of PVR (-88 vs. -70 ml; p=0.9)
  - reduction of IPSS score (-18 vs. -10; p=0.2)
- Transitory urge incontinence rates were higher in the HoLEP group (21% vs. 10%; p=0.03).

*Mottaran et al, EAU 24*

# BEPS

Benign Prostate Hyperplasia Ejaculation Preservation Study



# BEPS

## Benign Prostate Hyperplasia Ejaculation Preservation Study

A Prospective Longitudinal Multi-Center Study to study the Impact of Prostate Surgery for LUTS on Patients' QoL with emphasis on Sexual- and Ejaculatory Function

# TURC

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UROLOGICAL  
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COLLABORATION

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**Dr. Tuğ Ozan**


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 İstanbul Fatih Sultan Mehmet EA Hastanesi

 Fırat Üniversitesi

 İzmir Katip Çelebi Üniversitesi

## Primary Objective:

- To compare conventional and ejaculation preserving BPH surgical techniques in terms of ejaculatory function and related Quality of Life (QOL)

## Secondary Objectives:

- To evaluate objective outcomes of uroflowmetry parameters in relation to outcomes in preservation of ejaculation.
- To compare peri- and post-operative complications between different BPH surgical procedures
- To compare changes in erectile function between conventional and ejaculation preserving BPH surgical techniques.

- Bipolar TURP 697
- Monopolar TURP 473
- HOLEP 257
- Open Adenectomy 194
- Plasmakinetic 163
- TUIP 9
- Other (Robotic/ThuLEP/PVP) .....



Treatment in 1813 patients



## TURP, the original gold standard

TURP, which involves inserting a scope into the urethra and cutting out prostate tissue with an electrified wire loop, is an alternative to more invasive robotic or open BPH surgeries.<sup>7</sup> While there have been improvements over the years in BPH surgical options, such as the introduction of bipolar electricity, or low-temperature plasma energy, TURP remains prevalent because it has a long legacy of safety and efficacy data, and is taught in academic and residency settings. It is often viewed as a “traditional” approach.



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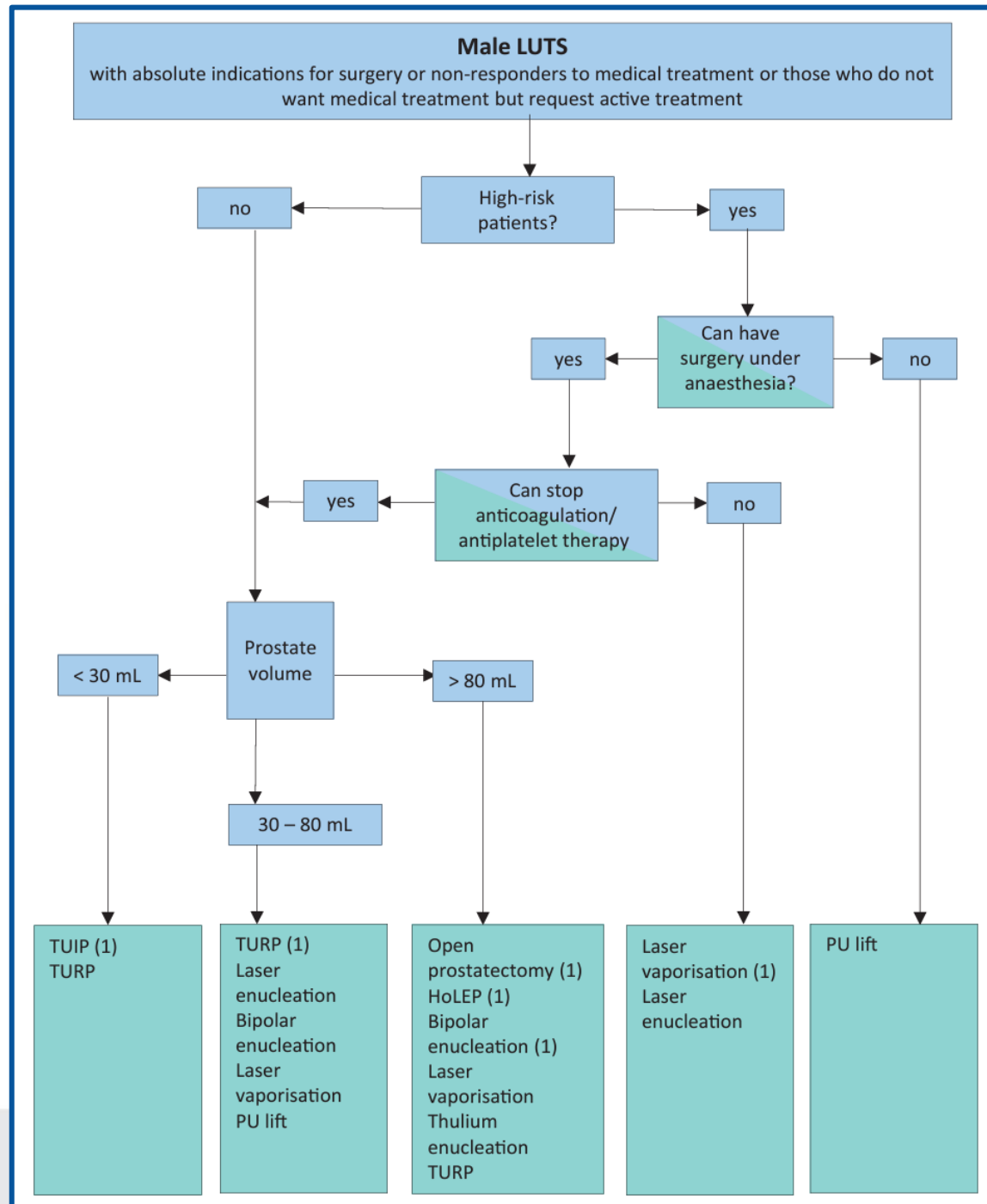
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# EAU guidelines 2024

Recommendation	Strength rating
Offer transurethral incision of the prostate to surgically treat moderate-to-severe LUTS in men with prostate size < 30 mL, without a middle lobe.	Strong

Recommendation	Strength rating
Offer laser resection of the prostate using Tm:YAG laser (ThuVAP) as an alternative to TURP.	Weak

Recommendation	Strength rating
Offer bipolar- or monopolar-transurethral resection of the prostate to surgically treat moderate-to-severe LUTS in men with prostate size of 30-80 mL.	Strong

Recommendation	Strength rating
Offer bipolar- or monopolar-transurethral resection of the prostate to surgically treat moderate-to-severe LUTS in men with prostate size of 30-80 mL.	Strong

Recommendation	Strength rating
Offer open prostatectomy in the absence of anatomical endoscopic enucleation of the prostate to treat moderate-to-severe LUTS in men with prostate size > 80 mL.	Strong

Recommendation	Strength rating
Offer bipolar transurethral (plasmakinetic) enucleation of the prostate to men with moderate-to-severe LUTS as an alternative to transurethral resection of the prostate.	Weak

Recommendations	Strength rating
Offer enucleation of the prostate using the Tm:YAG laser (ThuLEP, ThuVEP) to men with moderate-to-severe LUTS as an alternative to transurethral resection of the prostate, holmium laser enucleation or bipolar transurethral (plasmakinetic) enucleation.	Weak
Offer Tm:YAG laser enucleation of the prostate to patients receiving anticoagulant or antiplatelet therapy.	Weak

Recommendation	Strength rating
Offer 120-W 980 nm, 1,318 nm or 1,470 nm diode laser enucleation of the prostate to men with moderate-to-severe LUTS as a comparable alternative to bipolar transurethral (plasmakinetic) enucleation or bipolar transurethral resection of the prostate.	Weak

Recommendation	Strength rating
Offer bipolar transurethral vaporisation of the prostate as an alternative to transurethral resection of the prostate to surgically treat moderate-to-severe LUTS in men with a prostate volume of 30-80 mL.	Weak

Recommendations	Strength rating
Offer 80-W 532-nm Potassium-Titanyl-Phosphate (KTP) laser vaporisation of the prostate to men with moderate-to-severe LUTS with a prostate volume of 30-80 mL as an alternative to transurethral resection of the prostate (TURP).	Strong
Offer 120-W 532-nm Lithium Borat (LBO) laser vaporisation of the prostate to men with moderate-to-severe LUTS with a prostate volume of 30-80 mL as an alternative to TURP.	Strong
Offer 180-W 532-nm LBO laser vaporisation of the prostate to men with moderate-to-severe LUTS with a prostate volume of 30-80 mL as an alternative to TURP.	Strong
Offer laser vaporisation of the prostate using 80-W KTP, 120- or 180-W LBO lasers for the treatment of patients receiving antiplatelet or anticoagulant therapy with a prostate volume < 80 mL.	Weak

Recommendations	Strength rating
Offer Aquablation* to patients with moderate-to-severe LUTS and a prostate volume of 30-80 mL as an alternative to transurethral resection of the prostate.	Weak
Inform patients about the risk of bleeding and the lack of long-term follow-up data.	Strong

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Inform patients about the risk of bleeding and the lack of long-term follow-up data.	Strong

# TURP remains the gold standard



A circular logo with a white center and a blue and orange geometric patterned border. The text inside the circle reads: "SIU Around the WORLD EDINBURGH 2025 Oct. 29-Nov. 1". The word "WORLD" features a globe icon.

SIU  
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**WORLD**  
**EDINBURGH** 2025  
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# SAVE THE DATE

Edinburgh International Conference Centre (EICC)



# Thank you



