W16: Clinical Application of the AUA/SUFU Guideline for Incontinence After Prostate Treatment

Workshop Chair: Daniel Kirages, United States

Time	Topic	Speakers
10	Introduction to the IPT Guideline	Jaspreet Sandhu
15	Case 1 - Conservative care	Daniel Kirages
20	Case 2 - Conservative care followed by surgical care	Daniel Kirages Ouida Westney
15	Case 3 - Surgical care after recent salvage radiation	Jaspreet Sandhu
15	Case 4 - Surgical care after AUS failure	Kurt McCammon
5	Discussion	Daniel Kirages Jaspreet Sandhu Kurt McCammon Ouida Westney
10	Questions	All

Aims of Workshop

Urinary incontinence after prostate treatment (IPT) is a clinically significant condition that causes a high degree of patient distress. It is one of the few urologic diseases that is iatrogenic, and, therefore, predictable and perhaps preventable. This workshop will utilize the AUA/SUFU Guideline for Incontinence After Prostate Treatment to guide the clinician using problem based learning through the thought process of evaluation of the patient; risk factors for IPT, which should be discussed with all patients prior to treatment; assessment of the patient prior to intervention; and a stepwise approach to management including pelvic floor muscle training/exercise, medications, and surgery.

Learning Objectives

Summarize the key elements of the AUA/SUFU Guideline for Incontinence After Prostate Treatment

Target Audience

Urology, Conservative Management

Advanced/Basic

Basic

Suggested Learning before Workshop Attendance

Sandhu, J. S., Breyer, B., Comiter, C., Eastham, J. A., Gomez, C., Kirages, D. J.... & Westney, O. L. (2019). Incontinence after Prostate Treatment: AUA/SUFU Guideline. The Journal of Urology, 10-1097.

Clinical Application of the AUA/SUFU Guideline for Incontinence After Prostate Treatment

Workshop Chair: Daniel J. Kirages, PT, DPT
Faculty: Jaspreet S. Sandhu, MD
O. Lenaine Westney, MD
Kurt A. McCammon, MD

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Daniel J. Kirages, PT, DPT

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Affiliations to disclose†:

None

† All financial ties (over the last year) that you may have with any business organisation with respect to the subjects mentioned during your presentation

Funding for speaker to attend:

- [X] Self-funded
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Presentation Outline

- Introduction to IPT Guideline
- Conservative Care
- Surgical Care after Conservative Care Plateau
- Surgical Care after Adjuvant or Salvage Radiation
- Surgical Care after Initial Anti-incontinence Surgery Failure
- Closing

Conservative Care

Carl - 68 year old male

- Recent diagnosis of prostate cancer
- Opted in for robotic assisted laparoscopic prostatectomy (RALP) in 4 weeks
- In good health overall
- Full continence currently

What should happen within those 4 weeks?

Guideline Statement 4

Prior to radical prostatectomy, patients ***may be*** offered pelvic floor muscle exercises or pelvic floor muscle training.

(Conditional Recommendation; Evidence Level: Grade C)

- Includes proper patient education regarding pelvic floor muscle anatomy, physiology, awareness, and motor control
- Begin 3 to 4 weeks prior to surgery to allow for neuromuscular adaptation
- Group seminar / one on one meeting / self-guided booklet

Conservative Care

Now 2 weeks post-op:

- RALP
- Bilateral nerve sparing
- Catheter removed after 10 days
- Wearing 4-5 diapers per 24 hours
- 4 weeks of pre-op pelvic floor muscle exercise
- Will start post-op pelvic floor muscle training today

Conservative Care

"I leak with certain activities."

- Sneeze, laugh, lifting object, blowing nose, transfers out of car, walking
- Able to maintain dryness when sleeping the last 2 nights
- Worse after 6:00pm and after alcohol consumption

Guideline Statement 6

In patients who have undergone radical prostatectomy, clinicians ***should*** offer pelvic floor muscle exercises or pelvic floor muscle training in the immediate post-operative period.

(Moderate Recommendation; Evidence Level: Grade B)

Guideline Statement 6

"***PFME*** after catheter removal has been shown to improve time-to-achieving continence compared to control groups in RCTs and ***should be offered to all patients after RP upon removal of the urethral catheter***. *Those patients who are committed to a progressive PFMT or PFME program can expect an earlier return to continence than those who are not."*

Guideline Statement 6

•If performed in the early post-operative period, PFME or PFMT improve time to continence, but not overall continence at 12 months.

•Overall continence rates at one year are similar between men who underwent PFME or PFMT and those who did not.

Recommended Pathways

- Post-operative
  - Early after catheter removal (Statement 6)
  - Several months or years (Statement 16)

Guideline Statement 16

In patients seeking treatment for incontinence after radical prostatectomy, pelvic floor muscle exercises or pelvic floor muscle training ***should*** be offered.

(Moderate Recommendation; Evidence Level: Grade B)

PFMT / PFME

Safe treatment with minimal side-effects

Provides patients with an opportunity to participate in, and have some control over, their health outcomes.

Downsides include time and effort of the patient and health care team; cost of repeated visits

Exercise Physiology

Effective conditioning requires proper:

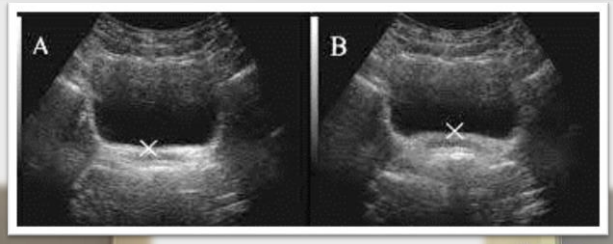
- isolated muscle group
- sufficient load intensity
- duration of exercise
- training within specific activity
- adherence to maintenance program

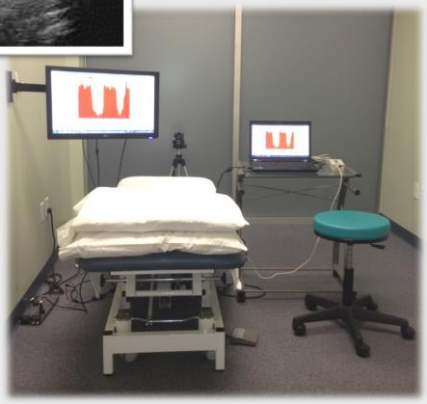
Pelvic Floor Muscle Awareness Training

Awareness Training

- Methods include:
  - Verbal cues
  - Visualization of penile movement/anal closure
  - Tactile cues – external and internal
  - Surface electromyography biofeedback
  - Transabdominal/transperineal ultrasound imaging

Awareness Training





Awareness Training

- Common errors
  - holding breath
  - bearing down (Valsalva Maneuver)
  - active abdominals
  - active gluteals

Pelvic Floor Muscle Exercises

Exercise Dosage

Be aggressive with dosage if tolerable:

Focus is on neuromuscular re-education

- 2-10 second hold time (rest can be same or less)
- 15-30 reps of each exercise (ex: 120 total)
- 2-5 exercises per session based on phase
- Twice daily

Additional Education

Anticipatory Contractions:

- Any time of predicted urine loss
  - Generating motor plan
  - Must be consistent

Very important component of improvement

Conservative Care

Now 5 months post-op:

- Wearing 1 light pad during awake hours
- Just using it as precautionary, but ready to go without it
- Consistent with anticipatory contractions
- 16 total physical therapy visits
  - More frequent early on / less frequent later
- Discharged from PT today w/ maintenance program

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Thank You

We welcome your questions and comments

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Surgical Care after Conservative Management Plateau

O. Lenaine Westney, MD, FACS
Professor
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Affiliations to disclose†:

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Surgical Care after Conservative Management Plateau: Mild Incontinence

52 year old real estate agent with SUI 1-year after RALP

- 6 months PFME/PFMT with stabilization at 1-3 pads/day depending on activity level
- PSA Undetectable; NED
- No pertinent co-morbidities
- No XRT

4

Evaluation Statements

Statement Eleven: Prior to surgical intervention for stress urinary incontinence, stress urinary incontinence should be confirmed by history, physical exam, or ancillary testing. (Clinical Principle)

Statement Fourteen: Prior to surgical intervention for stress urinary incontinence, cystourethroscopy should be performed to assess for urethral and bladder pathology that may affect outcomes of surgery. (Expert Opinion)

5

History and Physical Examination

History

- Leakage related to stress maneuvers only - running, skiing, hiking
- Dry at night; Able to interrupt stream
- Patient wants whatever intervention will make him completely dry

Physical Examination

- No demonstrable leakage with Valsalva

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Objective Data

- Voiding diary
  - 6 voids/24 hours (avg. amount 350 cc/total 2100)
  - 24-hour pad weight
    - inactive day (1 pad/total 25 gms)
    - active day (3 pads/total 125 gms)
- Cysto/UDS
  - Patent anastomosis, no evidence of scarring
  - Sphincter appears normal
  - normal compliance, capacity 400 cc
  - VLPP 158 cm H20, PVR 0 ml
  - No uninhibited detrusor contractions

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Management Options

Statement Twelve: Patients with incontinence after prostate treatment should be informed of management options for their incontinence, including surgical and non-surgical options. (Clinical Principle)

Non-Surgical	Surgical
Pads	**Bulbourethral Sling**
Compressive Devices	**Artificial Urinary Sphincter**
Catheters – Condom, Indwelling	Adjustable Balloon Devices

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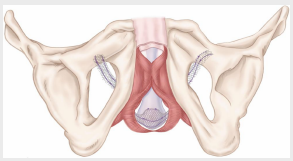
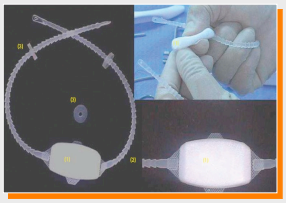
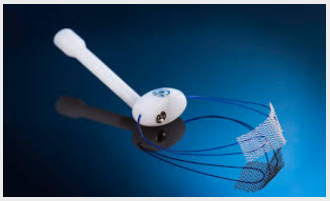
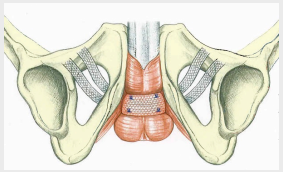
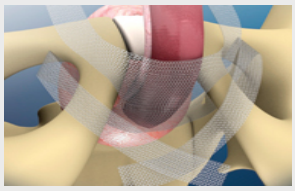
Male Sling

Statement Twenty: Male slings should be considered as treatment options for mild to moderate stress urinary incontinence after prostate treatment. (Moderate Recommendation; Evidence Level: Grade B)

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Artificial Urinary Sphincter

Statement Seventeen: Artificial urinary sphincter should be considered for patients with bothersome stress urinary incontinence after prostate treatment. (Strong Recommendation; Evidence Level: Grade B)

10

Adjustable Balloon Device

Statement Twenty-two: Adjustable balloon devices may be offered to patients with mild stress urinary incontinence after prostate treatment. (Moderate Recommendation; Evidence Grade B)

11

Urethal Bulking Agents

Statement Twenty-five: Patients with incontinence after prostate treatment should be counseled that efficacy is low and cure rate is rare with urethral bulking agents. (Strong Recommendation; Evidence Grade B)

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Surgical Recommendation

Statement Thirteen: In patients with incontinence after prostate treatment, physicians should discuss the risk, benefits, and expectations of different treatments using the shared decision-making model. (Clinical Principal)

- The patient did not improve satisfactorily after a sufficient program of PFME/PFMT
- Clinician should discuss other surgical and non-surgical options with the patient using the shared decision-making model.
- In this patient, the male sling or artificial urinary sphincter is a suitable choice based on severity of leakage and the absence of other contraindications (ie. radiation)
- Patient selected the male sling and was satisfied with the efficacy.

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Surgical Care after Conservative Management Plateau: Moderate to Severe Incontinence

67 year old banker with persistent SUI 3 years after RALP

- Post-operative course complicated by urine leak and prolonged catheterization
- Initial pad usage 5-7/day; Underwent PFME/PFMT with continued consistent exercises
- PSA Undetectable; NED
- Co-morbidities: Hypertension, Diabetes (diet controlled; Hgb A1C: 6.5)

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Current History and Physical Examination

- Still complains of utilizing an average of 6 pads/day
- In the interim, complained of urgency to his PCP which was successfully treated with Oxybutynin, no effect on pad usage
- Declined any surgical intervention at 1 year after surgery; now desirous of treatment after no improvement in leakage

- Physical Examination
  - Leakage demonstrated when changing from sitting to upright without additional Valsalva effort
  - Normal genitalia; No palpable inguinal hernias

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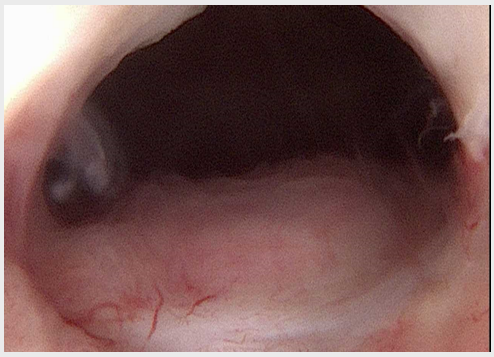
Objective Data: Pad Test, Cystoscopy and Urodynamic Evaluation

24 hour Pad Test: 540 grams/24 hours



Cystoscopy:

- Open, rigid bladder neck

Urodynamics:

- Reduced subjective capacity (200 ml)
- Early sensation (First sensation: 60 ml)
- No demonstrated detrusor overactivity
- Valsalva leak point pressure: 64 cm H_2O

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Surgical Recommendations: Artificial Urinary Sphincter

- Not suitable for male sling, adjustable balloons injectable therapy based on volume of leakage
- Per shared decision-making process, the patient opted to proceed with the artificial urinary sphincter

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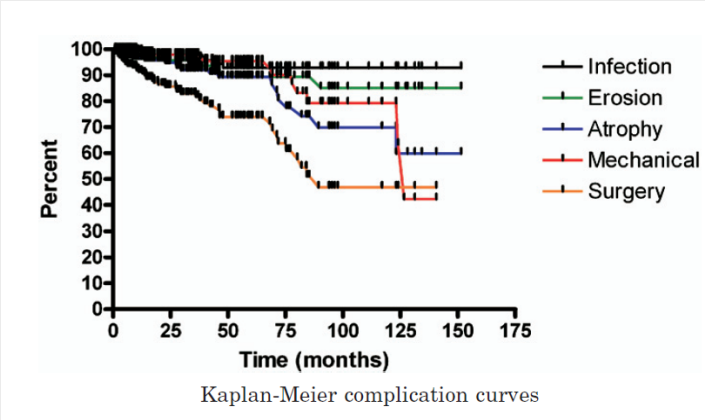
AUS Counseling

Statement Twenty-seven: Patients should be counseled that artificial urinary sphincter will likely lose effectiveness over time and reoperations are common. (Strong Recommendation; Evidence Level: Grade B)



Kaplan-Meier complication curves

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Technical Recommendation

Statement Nineteen: In the patient who selects artificial urinary sphincter, a single cuff perineal approach is preferred. (Moderate Recommendation; Evidence Level: Grade C)

Pt underwent successful single cuff AUS which is activated 6 weeks later and is now satisfied.

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Post-TURP Incontinence

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Case Presentation/History

- 65 yo man presents after TURP 8 months ago
- Wears 3 heavy pads/day (saturated); 250 gm/day
- Voiding Diary:12 voids/day, nocturia 3-4x/night
- Incontinence noted both day and night
- Difficult to determine if urge or stress
- PE: Positive stress test with slight Valsalva
- PVR: 10ml

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Evaluation Recommendations

Statement Nine: Clinicians should evaluate patients with incontinence after prostate treatment with history, physical exam *and appropriate diagnostic modalities* to categorize type and severity of incontinence and degree of bother. (Clinical Principle)

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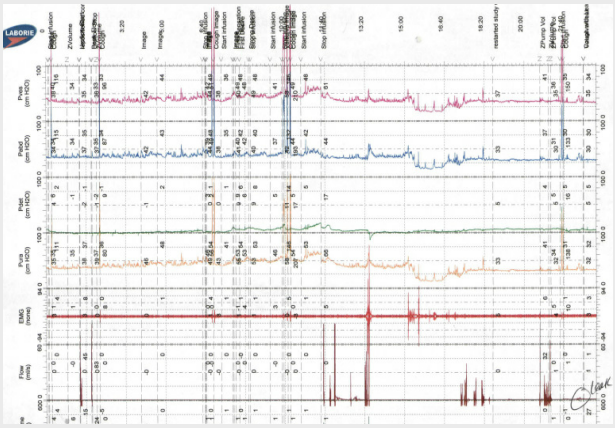
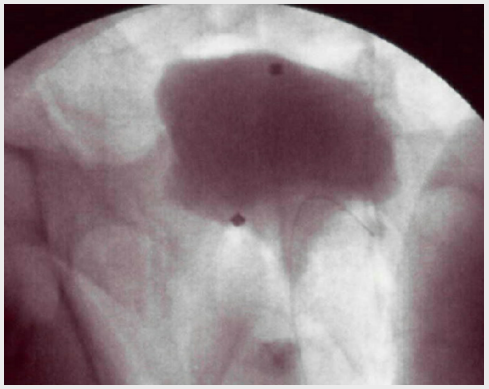
Fluoroscopic Urodynamic Study





Study and images courtesy of Anne Cameron, MD

- Low amplitude detrusor overactivity; Low leak point pressure demonstrated with Valsalva

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Initial Management and Follow-up

- Patient attempted Pelvic Floor Therapy x 6 months
- Cystoscopy negative for any development of stricture

- Wears 3-4 pads/day, saturated
- Returns to discuss surgical options

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Secondary recommendation

Statement Twenty-three: Surgical management of stress urinary incontinence after treatment of benign prostatic hyperplasia is the same as for patients after radical prostatectomy. (Moderate Recommendation; Evidence Level: Grade C)

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Surgical Recommendations

Statement Seventeen: Artificial urinary sphincter should be considered for patients with **bothersome** stress urinary incontinence after prostate treatment. (Strong Recommendation; Evidence Level: Grade B)

Statement Twenty: Male slings should be considered as treatment options for **mild to moderate** stress urinary incontinence after prostate treatment. (Moderate Recommendation; Evidence Level: Grade B)

Statement Twenty-two: Adjustable balloon devices may be offered to patients with **mild** stress urinary incontinence after prostate treatment. (Moderate Recommendation; Evidence Level: Grade B)

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Outcome Assessment

Male synthetic sling versus artificial urinary sphincter trial for men with urodynamic stress incontinence after prostate surgery (MASTER): study protocol for a randomised controlled trial.

- 3-day urinary bladder diaries at baseline, 6, 12 and 24 months.
- 24-h urinary pad test will be used at baseline as an objective assessment of urine loss
- Multicentre, randomised controlled, non-inferiority trial
- Harms, cost assessment
- Final report late 2020 or early 2021

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AUA/SUFU Guidelines on Incontinence after Prostate Treatment

International Continence Society
2020

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Approved by the AUA Board of Directors October 2018

Authors' disclosure of potential conflicts of interest and author/staff contributions appear at the end of the article.

American Urological Association (AUA)/
Society of Urodynamics, Female Pelvic Medicine & Urogenital Reconstruction (SUFU)

INCONTINENCE AFTER PROSTATE TREATMENT: AUA/SUFU GUIDELINE

Jaspreet S. Sandhu, MD; Benjamin Breyer, MD; Craig Comiter, MD; James A. Eastham, MD; Christopher Gomez, MD; Daniel J. Kirages, PT; Chris Kittle; Alvaro Lucioni, MD; Victor W. Nitti, MD; John T. Stoffel, MD; O. Lenaine Westney, MD; M. Hassan Murad, MD; Kurt Mc Cammon, MD

Incontinence after Prostate Treatment: AUA/SUFU Guideline

CrossMark

Jaspreet S. Sandhu, Benjamin Breyer, Craig Comiter, James A. Eastham, Christopher Gomez, Daniel J. Kirages, Chris Kittle, Alvaro Lucioni, Victor W. Nitti, John T. Stoffel, O. Lenaine Westney, M. Hassan Murad and Kurt McCammon

From the American Urological Association Education and Research, Inc., Linthicum, Maryland

THE JOURNAL OF UROLOGY® Vol. 202, 369-378, August 2019

Agenda

Rationale

Patient Population

Guideline Sections

Cases

Rationale

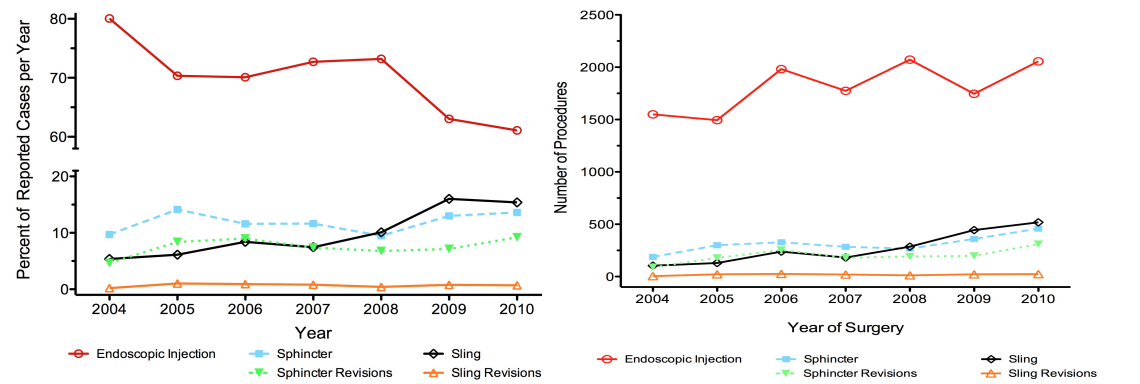
Urinary Incontinence after Prostate Treatment (IPT) is very common

1. ALWAYS an iatrogenic problem
2. Risk factors for and natural history of functional recovery not universally known
3. Management of IPT varies greatly
4. Large body of evidence regarding above exists

This AUA/SUFU guideline provides an evidence based approach to

1. Evaluation of the patient
2. Risk factors for IPT, which should be discussed with all patients prior to treatment
3. Assessment of the patient prior to intervention
4. Stepwise approach to management

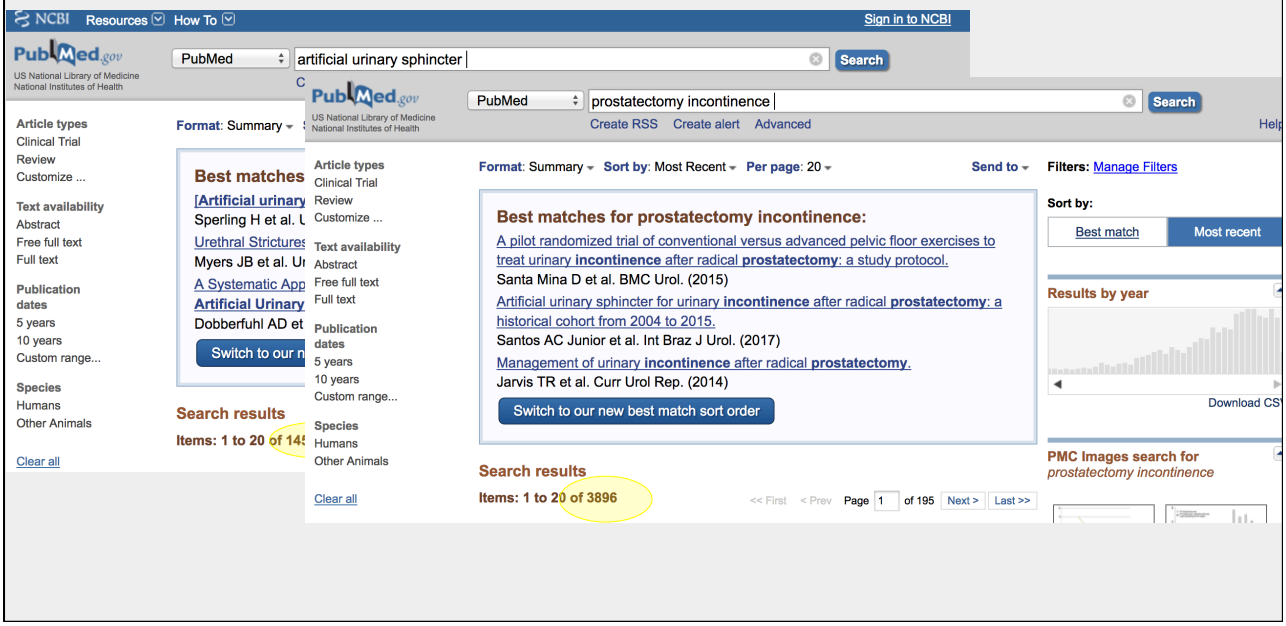
Rationale – Varied Management



Incontinence procedures reported by certifying urologists as percentage of total number per year (*A*) and absolute number logged per year (*B*).

Poon et al JU 2012

Rationale – Ample Evidence



Incontinence after Prostate Treatment includes:

- After Radical Prostatectomy
- After Radiation Therapy for Prostate Cancer
- After Transurethral Resection of the Prostate
- After Multimodal Treatment for Prostate Cancer

IPT Guideline Sections

- Pre-Prostate Treatment
- Post-Prostate Treatment
- Evaluation of Incontinence After Prostate Treatment
- Treatment Options
- Complications after Surgery
- Special Situations

Pre-Prostate Cancer Treatment

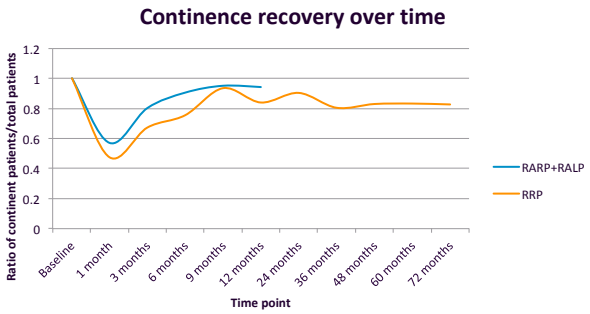
1. Clinicians should inform patients undergoing radical prostatectomy of all known factors that could affect continence. (Moderate Recommendation; Evidence Level: Grade B)

- Age, Prostate size, MUL (if known), possible BMI
- Surgical approach not a factor

2. Clinicians should counsel patients regarding the risk of sexual arousal incontinence and climacturia following radical prostatectomy. (Strong Recommendation; Evidence Level: Grade B)

3. Clinicians should inform patients undergoing radical p
in the short-term and generally improves to near base
persist and require treatment. (Strong Recommendat

- 30% rate of climacturia - often temporary



Pre-Prostate Cancer Treatment

4. Prior to radical prostatectomy, patients may be offered pelvic floor muscle exercises or pelvic floor muscle training. (Conditional Recommendation; Evidence Level: Grade C)

5. Patients undergoing transurethral resection of the prostate after radiation therapy or radical prostatectomy after radiation therapy should be informed of the high rate of urinary incontinence following these procedures. (Moderate Recommendation; Evidence Level: Grade C)

- >50% rate of urinary incontinence after salvage radical prostatectomy
- ~25% rate of new onset urinary incontinence after TURP following RT
- Order of surgery and radiation matter
  - *Adjuvant/Salvage RT does not result in dramatically different UI rates*
  - *Pre-primary RT TURP not related with dramatically different UI rates*

Ste

MORBIDITY AND FUNCTIONAL OUTCOMES OF SALVAGE RADICAL PROSTATECTOMY FOR LOCALLY RECURRENT PROSTATE CANCER AFTER RADIATION THERAPY

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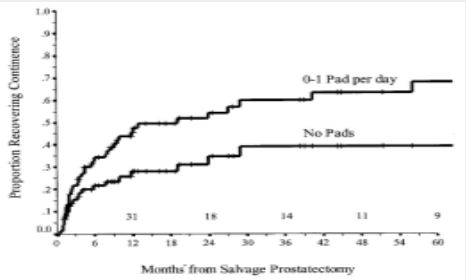


Kaplan-Meier estimate of requirement for 1 urinary pad daily or less and no pads after salvage RP.

TABLE 5. *Predictors of urinary continence (1 pad daily or less) after salvage RP*

	% 3-Yr Continence (95% CI)			Multivariate Analysis	
	Factor Present	Factor Absent	p Value	HR (95% CI)	p Value
NS-RP	71 (50–91)	55 (38–72)	0.29	2.2 (1.1–4.2)	0.02
TRUS size greater than 25 cc	81 (65–97)	45 (20–71)	0.02	2.7 (1.1–6.8)	0.04
Pos surgical margins	79 (57–100)	50 (40–71)	0.01	2.2 (1.1–4.5)	0.04
Pt age older than 65	69 (52–86)	58 (40–75)	0.94		
No seminal vesicle invasion or lymph node involvement	58 (35–81)	67 (49–86)	0.65		
Pre-RT PLND and/or retropubic IRT	62 (39–84)	73 (53–93)	0.82		
Previous transurethral prostate resection	60 (46–75)	54 (25–84)	0.74		
Poor urethrovesical anastomosis	46 (7–86)	76 (56–95)	0.98		

Includes patients who underwent bilateral and unilateral NS with or without nerve graft.

100 consecutive patients

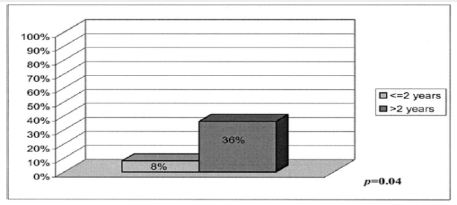
URINARY MORBIDITY AND INCONTINENCE FOLLOWING TRANSURETHRAL RESECTION OF THE PROSTATE AFTER BRACHYTHERAPY

M. A. KOLLMEIER,* R. G. STOCK, J. CESARETTI AND N. N. STONE

From the Departments of Radiation Oncology and Urology (NNS), Mount Sinai School of Medicine, New York, New York

TABLE 1. *Patient characteristics*

	No. Pts
Stage:	
T1c	16
T2b	9
T2c	6
T3a	5
T3b	1
T3c	1
Gleason:	
6 or Less	24
7	8
8	4
9	2
PSA (ng/ml):	
10 or Less	25
10.1–20	10
Greater than 20	3



Time vs post-implantation TURP and incontinence rate

TABLE 4. *Select published data on TURP and incontinence*

References	No. Pts	Treatment Regimen	No. Incontinent (%)	Correlations
Gibbons et al[14]	13	EBRT alone	1 (8)	None
Green et al[15]	6	EBRT alone	2 (33)	None
Holzman et al[16]	44	^{198}Au + EBRT	12 (27)	Local tumor recurrence
Patel et al[17]	7	EBRT	0	None
Hirschberg and Klotz[18]	16	EBRT	4 (25)	Shorter time to TURP
Hu and Wallner[8]	10	^{125}I implant alone	7 (70)	Tissue amount removed Urethral max dose greater than 400 Gy
Gelblum et al[2]	28	Implant with/without EBRT	5 (17)	None
Koutrouvelis et al[13]	11	^{125}I or ^{103}Pd implant alone	3 (27)	None

38 patients treated for retention/obstructive symptoms – median 11 months
7 patients incontinent (18%)

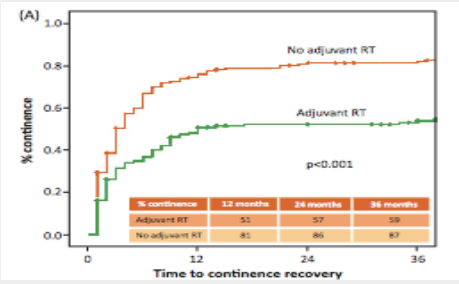
Impact of Adjuvant Radiation Therapy on Urinary Continence Recovery After Radical Prostatectomy

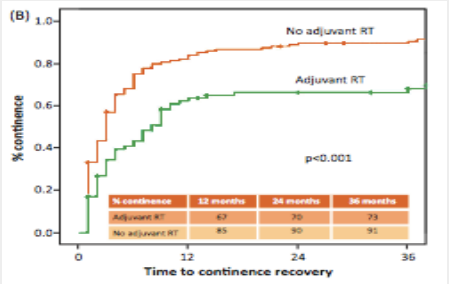
*Nazareno Suardi *, Andrea Gallina, Giuliana Lista, Giorgio Gandaglia, Firas Abdollah, Umberto Capitanio, Paolo Dell'Oglio, Alessandro Nini, Andrea Salonia, Francesco Montorsi, Alberto Briganti*

EUROPEAN UROLOGY 65 (2014) 546–551

361 men

- 153 men received adjuvant radiotherapy between 1-6 months after surgery
- Compared to 208 men who did not



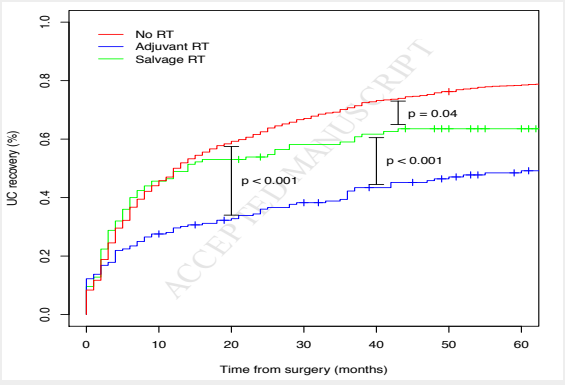


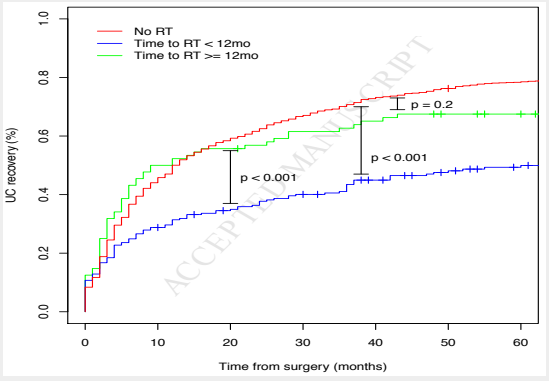
EARLY POST-OPERATIVE RADIOTHERAPY IS ASSOCIATED WITH WORSE FUNCTIONAL OUTCOMES IN PROSTATE CANCER PATIENTS

Emanuele Zaffuto[1,2], Giorgio Gandaglia[1], Nicola Fossati[1], Paolo Dell'Oglio[1], Marco Moschini[1], Vito Cucchiara[1], Nazareno Suardi[1], Vincenzo Mirone[3], Marco Bandini[1], Shahrokh F Shariat[4], Pierre I Karakiewicz[2], Francesco Montorsi[1], Alberto Briganti[1]

PII: S0022-5347(16)31377-5
DOI: 10.1016/j.juro.2016.09.079
Reference: JURO 14043
To appear in: *The Journal of Urology*
Accepted Date: 7 September 2016

Adjuvant RT (199) compared to Salvage RT (128) and no RT (1863)



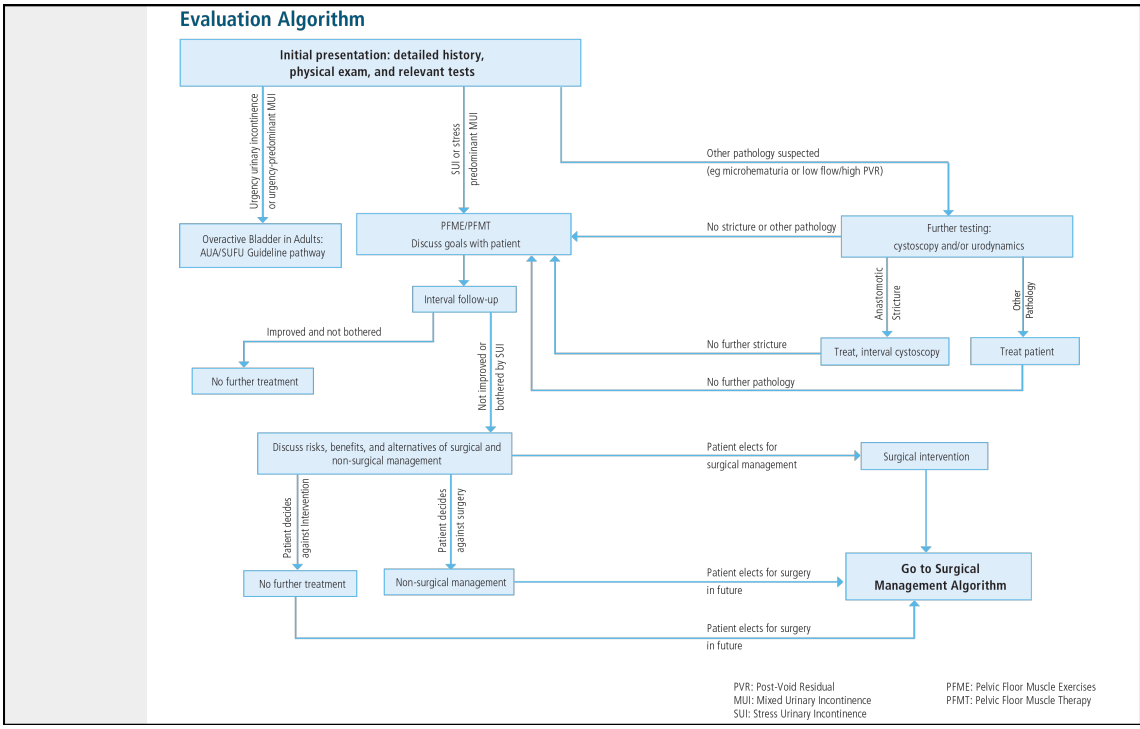


Evaluation of Incontinence after Prostate Treatment

9. Clinicians should evaluate patients with incontinence after prostate treatment with history, physical exam, *and appropriate diagnostic modalities* to categorize type and severity of incontinence and degree of bother. (Clinical Principle)

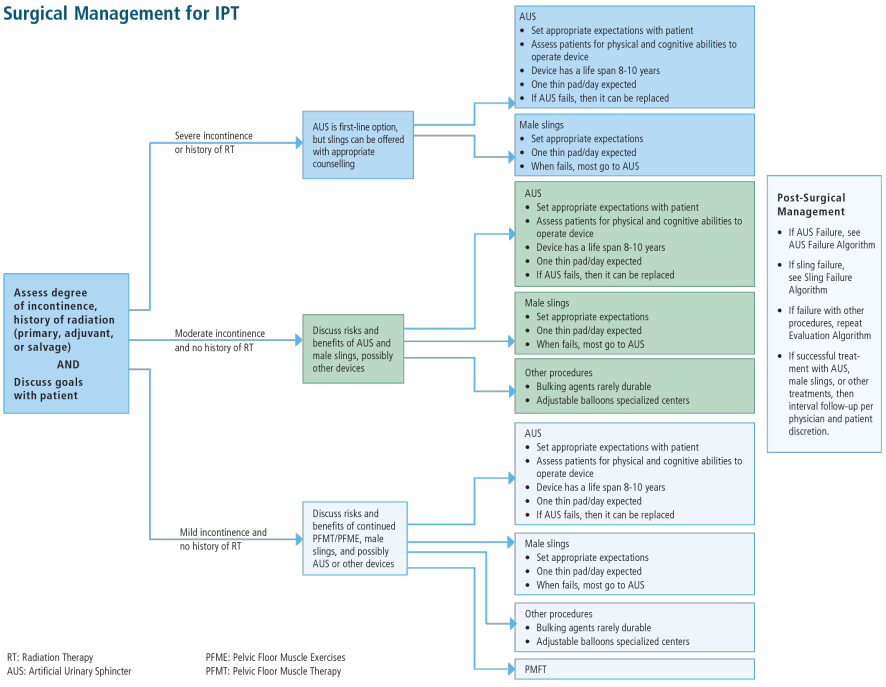
10. Patients with urgency urinary incontinence or urgency predominant mixed urinary incontinence should be offered treatment options per the American Urological Association Overactive Bladder guideline. (Clinical Principle)

- Denovo urgency/frequency treated as OAB
- *Anticholinergics, beta 3 agonists, then botulinum toxin +/- neuromodulation*



Treatment Options for IPT

Surgical Management for IPT



Additional Resources/Ongoing Dissemination

Auanet.org

Journal of Urology Article

Instructional Course at AUA2021

- Management of Lower Urinary Tract Dysfunction after Prostate Cancer Treatment

Recurrent Incontinence after anti-incontinence surgery

Kurt A. McCammon, MD
Eastern Virginia Medical School
Norfolk, Virginia

ICS 2020 ONLINE

Kurt A. McCammon, MD

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Affiliations to disclose†:

None

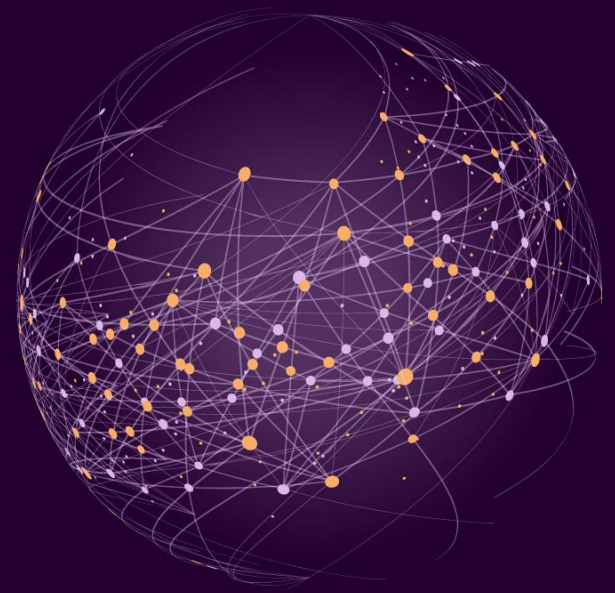
† All financial ties (over the last year) that you may have with any business organisation with respect to the subjects mentioned during your presentation

Funding for speaker to attend:

- [X] Self-funded
- [ ] Institution (non-industry) funded
- [ ] Sponsored by:

Incontinence following sling and salvage radiation therapy
Case presentation: history

- 63 year old male S/P RRP
- Moderate SUI 12 months post op prostatectomy failed PFMT
- Underwent male sling with significant improvement for 3 years
- Biochemical recurrence 4 years S/P RRP
- Underwent salvage RT and now presents with recurrent SUI requiring 6 large pads a day



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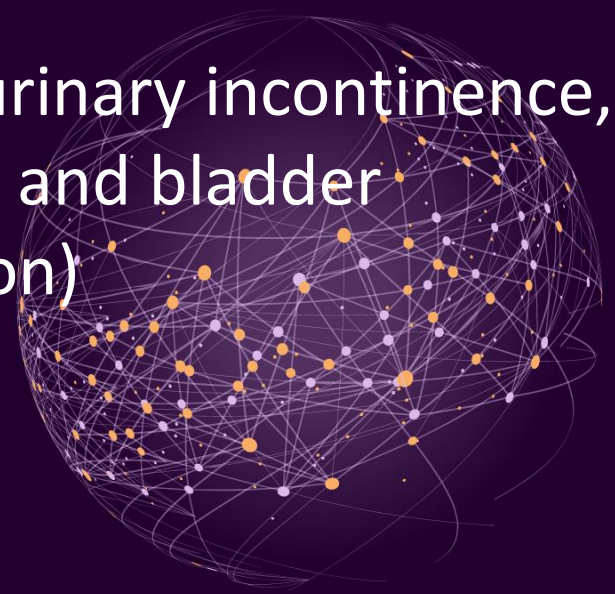
Incontinence following sling and salvage radiation therapy
Case presentation: evaluation

Statement Twenty-eight: In patients with persistent or recurrent urinary incontinence after artificial urinary sphincter or sling, the clinician should again perform history, physical examination, and/or other investigations to determine the cause of incontinence. (Clinical Principle)

Statement Fourteen: Prior to surgical intervention for stress urinary incontinence, cystourethroscopy should be performed to assess for urethral and bladder pathology that may affect outcomes of surgery. (Expert Opinion)



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Incontinence following sling and salvage radiation therapy
Case presentation: evaluation

Statement Fifteen: Clinicians may perform urodynamic testing in a patient prior to surgical intervention for stress urinary incontinence in cases where it may facilitate diagnosis or counseling. (Conditional Recommendation; Evidence Level: Grade C)

Evaluation

Cystoscopy: no sling erosion and no anastomotic stricture (VUAS)

Urodynamics: Stable compliant bladder and capacity of 300 mL; SUI VLPP 70 cm H20

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Incontinence following sling and salvage radiation therapy
Case presentation: initial recommendation

Statement Twenty-four: In men with stress urinary incontinence after primary, adjuvant, or salvage radiotherapy who are seeking surgical management, artificial urinary sphincter is preferred over male slings or adjustable balloons. (Moderate Recommendation; Evidence Level: Grade C)

Statement Twenty-nine: In patients with persistent or recurrent stress urinary incontinence after sling, an artificial urinary sphincter is recommended. (Moderate Recommendation; Evidence Level: Grade C)

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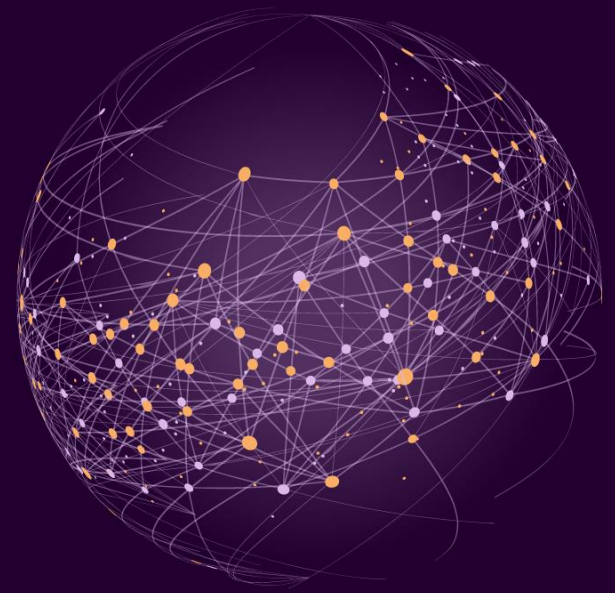
Incontinence following sling and salvage radiation therapy
Case presentation: follow-up

- **Patient under went an uneventful Artificial Urinary Sphincter (single cuff through a perineal approach)**

  - **Activated 6 weeks later**
  - **3 months post-op using a safety pad and very satisfied**



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Artificial urinary sphincter failure
Case presentation: history

- 72 year old
- History of post prostatectomy incontinence treated with an AUS (4.5 cm cuff, 61-70 pressure regulating balloon) 5 years ago
- Patient returns stating that he was doing well until three days ago when he abruptly “started leaking just like before the surgery.”

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Artificial urinary sphincter failure
Case presentation: initial recommendation

Statement Twenty-eight: In patients with persistent or recurrent urinary incontinence after artificial urinary sphincter or sling, the clinician should again perform history, physical examination, and/or other investigations to determine the cause of incontinence. (Clinical Principle)

Physical exam: pump in the right hemiscrotum; activated but with failure to fill completely, no signs of infection

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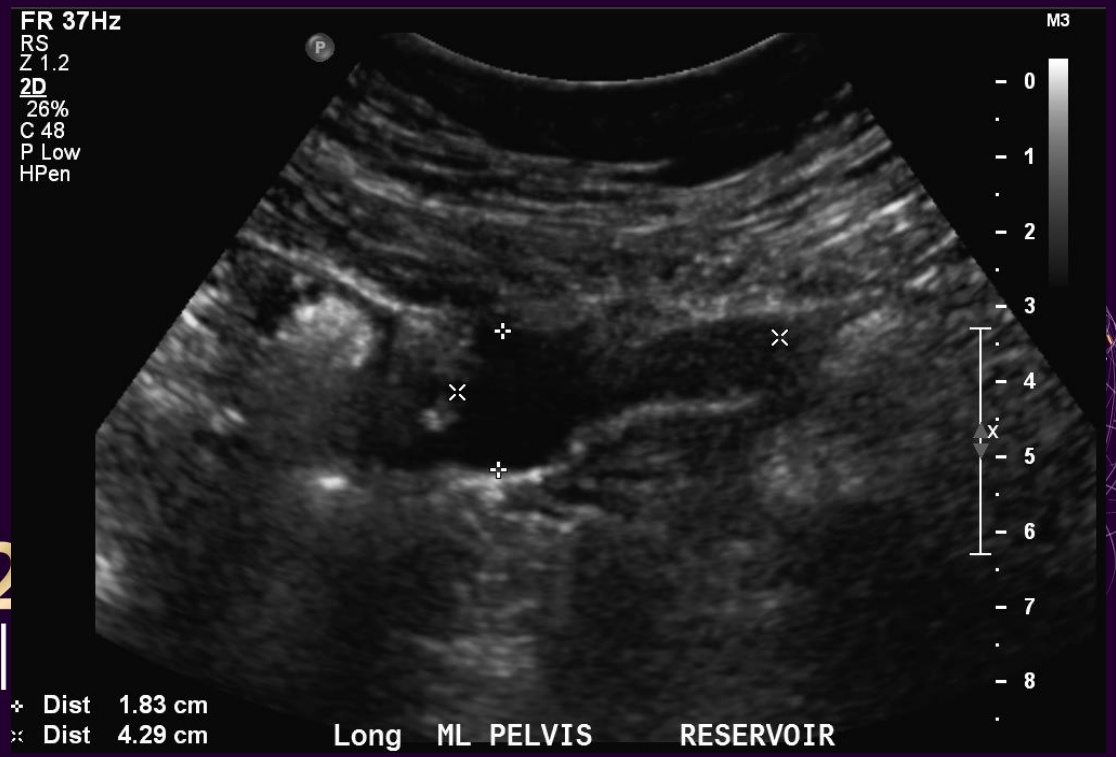
Artificial urinary sphincter failure
Case presentation: cystoscopy and correlating pelvic ultrasound

Cystoscopy demonstrating no erosion

Pelvic ultrasound - fluid loss and absence of spherical shape



Artificial urinary sphincter failure
Case presentation: initial recommendation

Statement Twenty-seven: Patients should be counseled that artificial urinary sphincter will likely lose effectiveness over time and reoperations are common. (Strong Recommendation; Evidence Level: Grade B)

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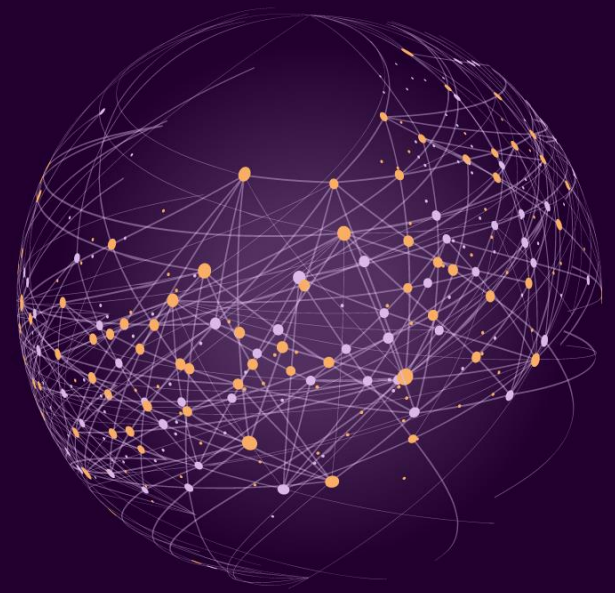
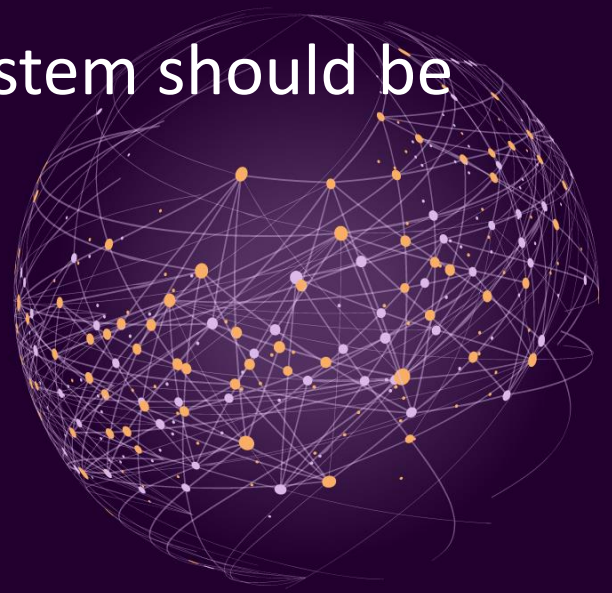


Artificial urinary sphincter failure
Case presentation: initial recommendation

Statement Thirty: In patients with persistent or recurrent stress urinary incontinence after artificial urinary sphincter, revision should be considered. (Strong Recommendation; Evidence Level: Grade B)

- In the absence of identifying a specific defect, the entire system should be replaced.



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Artificial urinary sphincter failure
Case presentation #2: history

- 77 year old
- Post prostatectomy, treated with AUS 8 years ago
- Recently underwent hip surgery
- Foley catheter is removed POD #7
- Presents 3 weeks later with dysuria, incomplete emptying and scrotal swelling

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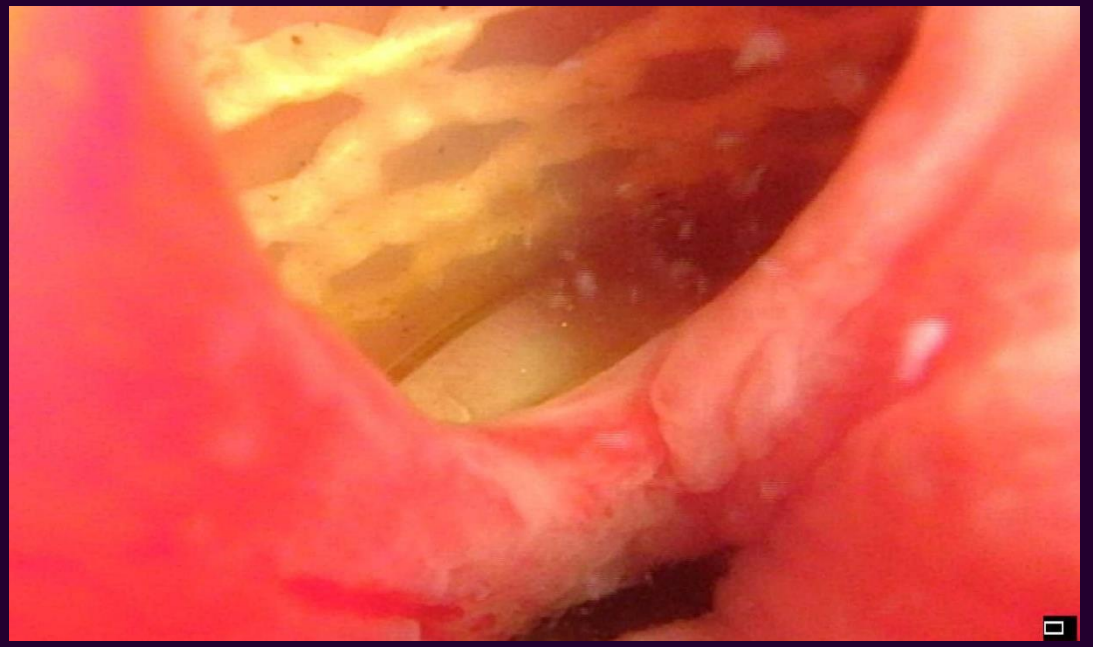
Artificial urinary sphincter failure
Case presentation #2: evaluation

Physical Exam: difficulty palpating pump, scrotum warm and swollen

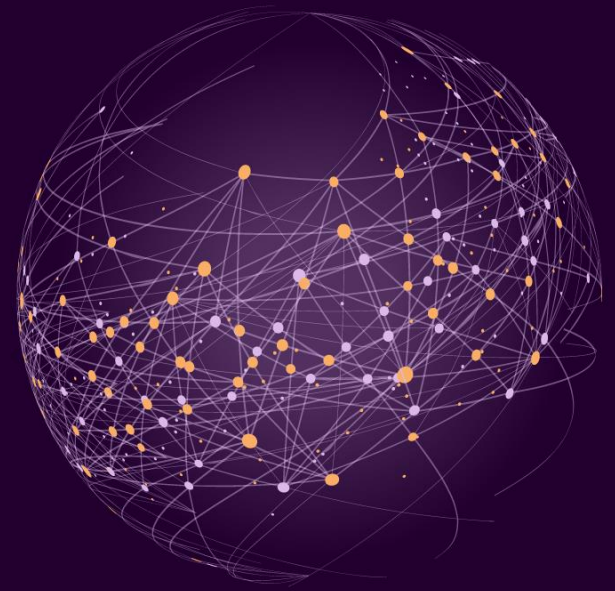
Cystoscopy: small cuff erosion seen, no strictures



Artificial urinary sphincter failure
Case presentation #2: initial recommendation

Statement Thirty-one: In a patient presenting with infection or erosion of an artificial urinary sphincter or sling, explantation should be performed and reimplantation should be delayed. (Clinical Principle)

- Cystoscopy was performed to ensure urethral patency prior to device replacement 3-6 months later



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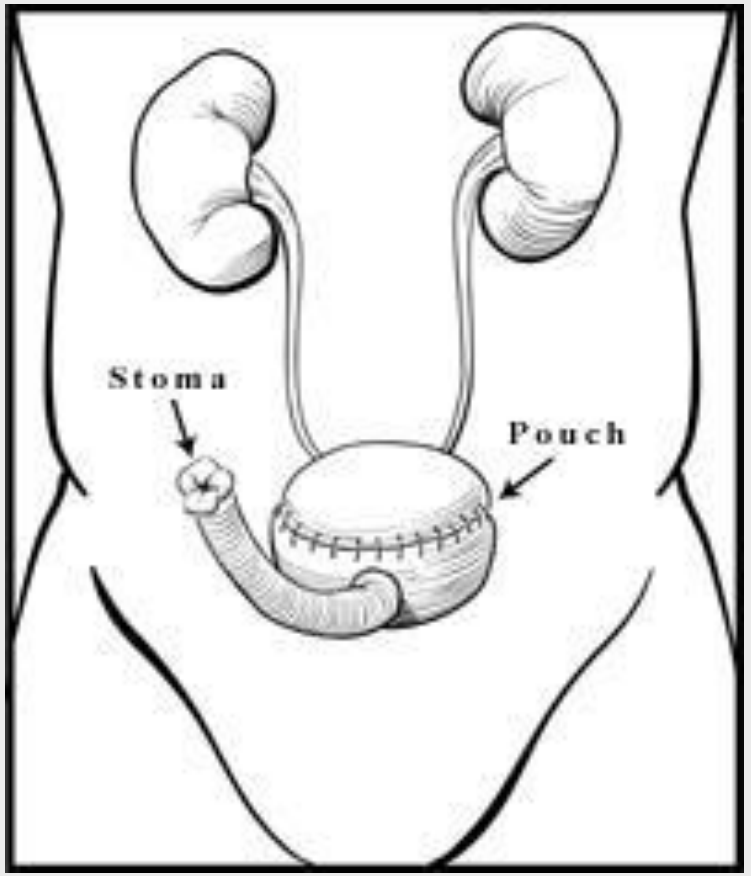
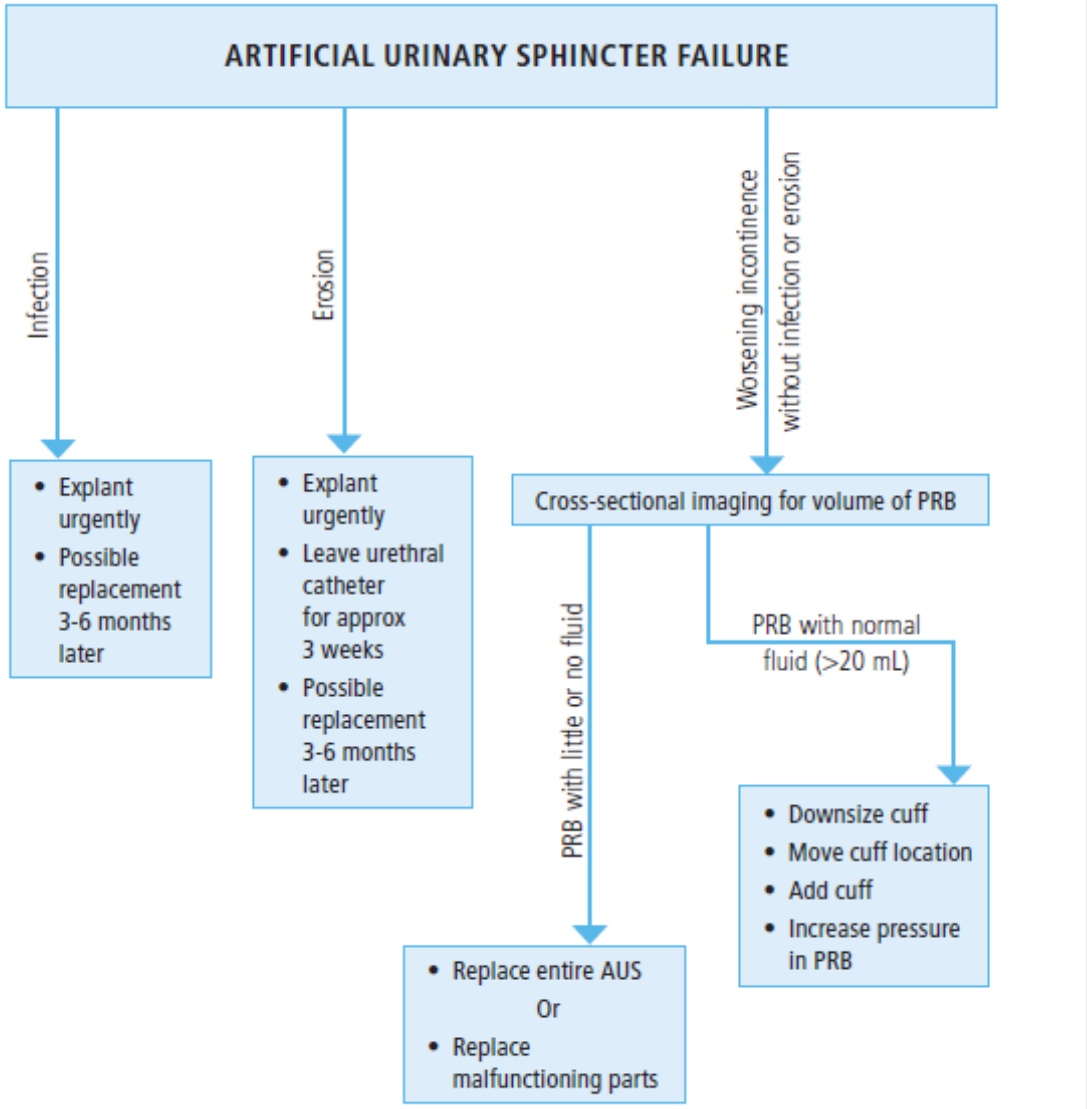
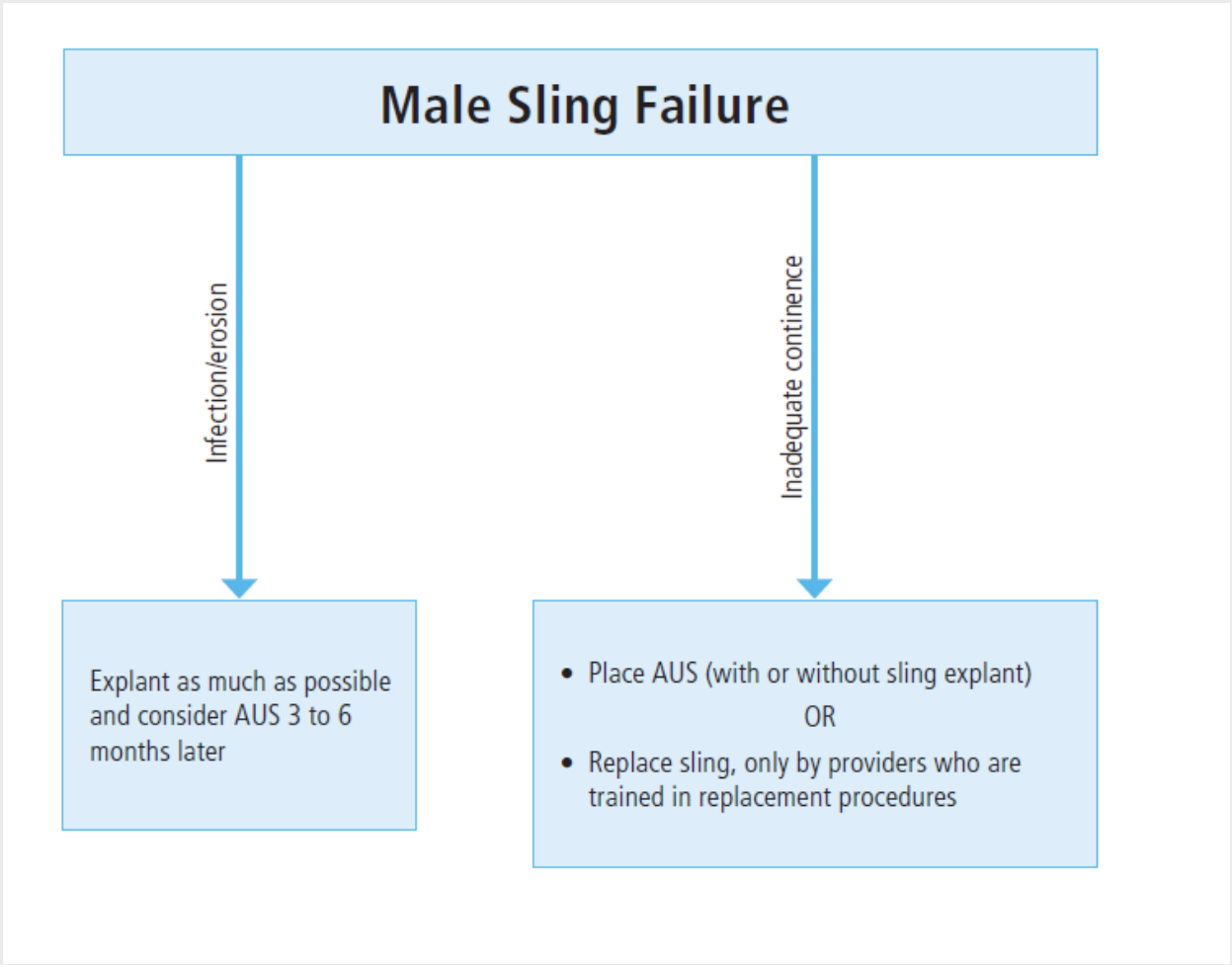
Statement 32: A urinary diversion can be considered in patients who are unable to obtain long-term quality of life after incontinence after prostate treatment and who are appropriately motivated and counseled. (Expert Opinion)

Urinary Diversion



Salvage Surgical Management Algorithms





Thanks!

“We make a living by what we get, but we make a life by what we give”

Winston Churchill

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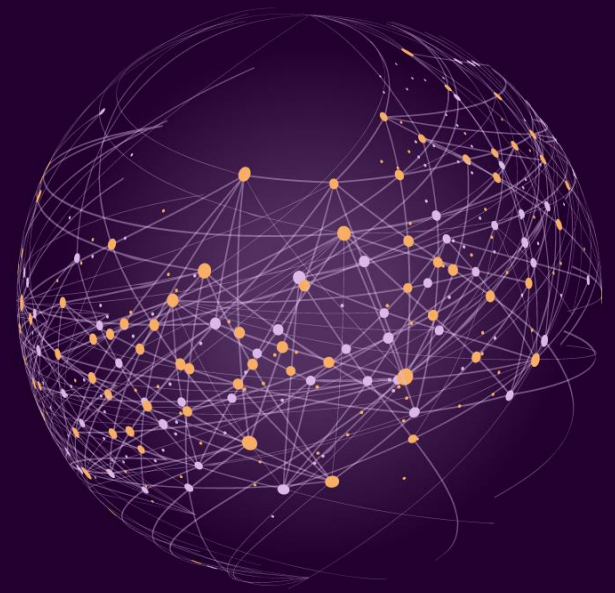

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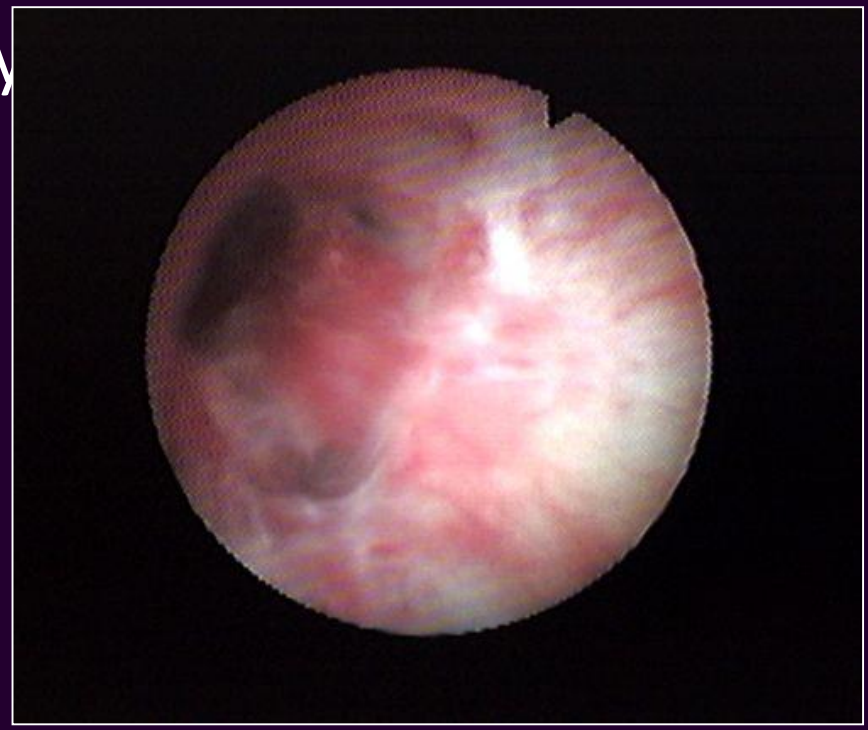
Incontinence following sling and salvage radiation therapy
Case presentation #2: history

- 63 year old male S/P RRP
- Underwent male sling with significant improvement for 3 years
- Underwent salvage RT and now presents with recurrent SUI requiring 6 large pads a day
- Urodynamics: Stable compliant bladder and capacity cm H20
- *Cystoscopy showed* ***VUAS stricture 5 Fr***



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Incontinence following sling and salvage radiation therapy
Case presentation #2: recommendation

Statement Thirty-six: Patients with symptomatic vesicourethral anastomotic stenosis or bladder neck contracture should be treated prior to surgery for incontinence after prostate treatment. (Clinical Principle)

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Incontinence following sling and salvage radiation therapy
Case presentation #2: follow-up

- **Patient underwent multiple endoscopic attempts at control**
- **After 4 interventions (including internal urethrotomy and transurethral resection) patient with recurrent VUAS**
- **Sling excision and uncomplicated posterior urethroplasty performed**
- **Cystoscopy 6 months later revealed a patent urethra but patient with worse and very bothersome urinary incontinence (8 pads/day)**

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Incontinence following sling and salvage radiation therapy
Case presentation #2: recommendation

Statement Thirty-four: Patients with stress urinary incontinence following urethral reconstructive surgery may be offered artificial urinary sphincter and should be counseled that complications rates are higher. (Conditional Recommendation; Evidence Level: Grade C)

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Incontinence following sling and salvage radiation therapy
Case presentation: final recommendation

- **Patient under went an uneventful Artificial Urinary Sphincter (single cuff via a *transcorporal approach*)**

  - **Activated 6 weeks later**
  - **3 months post-op using a safety pad and very satisfied**

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