Ürolojik Girişimler Öncesinde İnfeksiyon Yönetimi

Doç. Dr. Aysun YALÇI
Ankara Gülhane Eğitim ve Araştırma Hastanesi

Sunum Planı

- Hastanemizde durum
- Rehberler
- Rehbere karşı çıkanlar
- Polimikrobiyal üreme
- Cerrahi alan enfeksiyonu
- Prostat biyopsisi
- Nefrostomi
- Perkutan nefrolitotomi
- Radikal sistektomi
- Protez cerrahisi
- Funguri
- Özet

Hastanemizde Durum

Aralık 2019

- Ürolojide yatan 55 adet hasta kliniğimize konsülte edilmiş→ bunların 25'i preoperatif değerlendirme (%45.5)

- 45 adet ayaktan hasta üroloji polk'den konsülte edilmiş→ bunların 16 tanesi preoperatif değerlendirme (%35.5)

Clinical Infectious Diseases

IDSA FEATURES

IDSA Infectious Diseases Society of America

hivma hiv medicine association

OXFORD

Clinical Practice Guideline for the Management of

EAU GUIDELINES ON

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Best Practice Policy Statement on

UROLOGIC SURGERY ANTIMICROBIAL PROPHYLAXIS

(1/1/14): There are changes for recommended prophylaxis for transrectal prostate biopsy. Oral Trimethoprim-sulfamethoxazole is now allowed as a prophylactic agent, and when using IM/IV Aminoglycoside or Aztreonam as an alternative agent, Metronidazole or Clindamycin are no longer required.

(08/15/2013): The U.S. Food and Drug Administration (FDA) released a statement related to the use of fluoroquinolones. The risk of peripheral neuropathy associated with fluoroquinolones taken by mouth or injection should be relayed to patients. This potential serious side effect may be permanent.

(9/20/12): Important recommendation changes for the Antimicrobial Prophylaxis Best Practice Statement for Shock-Wave Lithotripsy.

Please see page 20 for revisions to the recommendation.

(9/30/08): This document references a drug(s) for which the U.S. Food and Drug Administration (FDA) released revised regulatory or warning information. In July 2008, the FDA issued a notice that a boxed warning and a Medication Guide for patients are to be added to the prescribing information to strengthen the existing warnings about the increased risk of developing tendinitis and tendon rupture in patients taking fluoroquinolone antimicrobial drugs for systemic use.

Fluoroquinolones are associated with an increased risk of tendinitis and tendon rupture. This risk is further increased in those over age 60, in kidney, heart, and lung transplant recipients and with use of concomitant steroid therapy. Physicians should advise patients, at the first sign of tendon pain, swelling, or inflammation, to stop taking the fluoroquinolone, to avoid exercise and use of the affected area and to

Clinical Infectious Diseases
IDSA FEATURES

Clinical Practice Guideline for the Management of Asymptomatic Bacteriuria: 2019 Update by the Infectious Diseases Society of America[a]

Lindsay E. Nicolle,[1] Kalpana Gupta,[2] Suzanne F. Bradley,[3] Richard Colgan,[4] Gregory P. DeMuri,[5] Dimitri Drekonja,[6] Linda O. Eckert,[7] Suzanne E. Geerlings,[8] Béla Köves,[9] Thomas M. Hooton,[10] Manisha Juthani-Mehta,[11] Shandra L. Knight,[12] Sanjay Saint,[13] Anthony J. Schaeffer,[14] Barbara Trautner,[15] Bjorn Wullt,[16] and Reed Siemieniuk[17]

XIII. Should Patients Undergoing Endourological Procedures Be Screened or Treated for ASB?

Recommendations

1. In patients who will undergo endoscopic urologic procedures associated with mucosal trauma, we recommend screening for and treating ASB prior to surgery (*strong recommendation, moderate-quality evidence*). **Values and**

invasive endourologic procedures in the presence of bacteriuria. **Remarks:** In individuals with bacteriuria, these are procedures in a heavily contaminated surgical field. High-quality evidence from other surgical procedures shows that perioperative antimicrobial treatment or prophylaxis for contaminated or clean-contaminated procedures confers important benefits.

2. In patients who will undergo endoscopic urologic procedures, we suggest that a urine culture be obtained prior to the procedure and targeted antimicrobial therapy prescribed rather than empiric therapy (*weak recommendation, very low-quality evidence*).
3. In patients with ASB who will undergo a urologic procedure, we suggest a short course (1 or 2 doses) rather than more prolonged antimicrobial therapy (*weak recommendation, low-quality evidence*). **Remarks:** Antimicrobial therapy should be initiated 30–60 minutes before the procedure.

Clinical Infectious Diseases
IDSA FEATURES

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XIV. Should Patients Undergoing Implantation of Urologic Devices or Living With Urologic Devices Be Screened for or Treated for ASB?

1. In patients planning to undergo surgery for an artificial urine sphincter or penile prosthesis implantation, we suggest not screening for or treating ASB (*weak recommendation, very low-quality evidence*). **Remarks:** All patients should receive standard perioperative antimicrobial prophylaxis prior to device implantation.
2. In patients living with implanted urologic devices, we suggest not screening for or treating ASB (*weak recommendation, very low-quality evidence*).

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EAU GUIDELINES ON UROLOGICAL INFECTIONS

(Limited text update March 2018)

G. Bonkat (Co-chair), R. Pickard (Co-chair), R. Bartoletti, T. Cai, F. Bruyere, S.E. Geerlings, B. Köves, F. Wagenlehner
Guidelines Associates: A. Pilatz, B. Pradere, R. Veeratterapillay

Recommendations	Strength rating
Do not screen or treat asymptomatic bacteriuria in the following conditions:	
• women without risk factors;	Strong
• patients with well-regulated diabetes mellitus;	Strong
• post-menopausal women;	Strong
• elderly institutionalised patients;	Strong
• patients with dysfunctional and/or reconstructed lower urinary tracts;	Strong
• patients with renal transplants;	Strong
• patients prior to arthoplasty surgeries;	Strong
• patients with recurrent urinary tract infections.	Strong
Screen for and treat asymptomatic bacteriuria prior to urological procedures breaching the mucosa.	Strong
Screen for and treat asymptomatic bacteriuria in pregnant women with standard short course treatment.	Weak

EAU GUIDELINES ON UROLOGICAL INFECTIONS

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Is Preoperative Assessment and Treatment of Asymptomatic Bacteriuria Necessary for Reducing the Risk of Postoperative Symptomatic Urinary Tract Infections After Urologic Surgical Procedures?

Tommaso Cai, Paolo Verze, Alessandro Palmieri, Mauro Gacci, Paolo Lanzafame, Gianni Malossini, Gabriella Nesi, Gernot Bonkat, Florian M. E. Wagenlehner, Vincenzo Mirone, Riccardo Bartoletti, and Truls E. Bjerklund Johansen

UROLOGY 99, 2017

- Aralık 2008-Ekim 2013
- 2201 hasta
- Retrospektif vaka kontrol

Table 1. Patient clinical and laboratory characteristics at the time of enrollment

Group	1 (With AB)	2 (Without AB)	*P* (t or χ^2/df)
No. of patients	668	1533	
Median age (±SD)	70.1 (.3)	70.2 (11.1)	.84 (0.19/2187)
Sex			.75
Male	476 (71.2)	1088 (70.9)	
Female	192 (28.8)	445 (29.1)	
Charlson comorbidity index			.32
<2	539 (80.7)	1211 (79.0)	
2	119 (17.8)	307 (20.1)	
≥3	10 (1.5)	15 (0.9)	
Body mass index (kg/m^2) (±SD)	24.9 (±9.9)	24.8 (±10.1)	.83 (0.21/2187)
Type of surgical procedure			.73
Endoscopic surgery	435 (65.1)	1007 (65.6)	
Open or laparoscopic surgery	233 (34.9)	526 (34.4)	
Patients with catheters or ureteral stents			.10
Endoscopic surgery	23/435 (5.3)	32/1007 (6.0)	
Open or laparoscopic surgery	2/233 (0.8)	6/526 (1.1)	
Previous UTIs			.87
Yes	69 (10.3)	159 (10.4)	
No	599 (89.7)	1374 (89.6)	
ASA score			.83
1	571 (85.5)	1318 (85.9)	
2	59 (8.8)	116 (7.6)	
3	38 (5.7)	99 (6.4)	
			—
Bacterial strains isolated		—	
Escherichia coli	325 (48.8)	—	
Enterococcus faecalis	242 (36.2)	—	
Enterococcus faecium	54 (8.1)	—	
Klebsiella spp.	24 (3.5)		
Serratia spp.	23 (3.4)		
Type of antimicrobial prophylaxis			.34
Fluoroquinolones	107 (16.1)	230 (15.0)	
Trimethoprim-sulfamethoxazole	391 (58.6)	874 (57.2)	
Aminoglycosides	44 (6.5)	99 (6.4)	
Cephalosporins	86 (12.9)	202 (13.1)	
Piperacillin-tazobactam	40 (5.9)	128 (8.3)	

AB, asymptomatic bacteriuria; ASA, American Society of Anesthesiologists; SD, standard deviation; UTI, urinary tract infection.
The table shows all patient clinical and laboratory characteristics at the time of enrollment. Data in parentheses are percentages unless otherwise specified.

Table 2. Clinical characteristics of all patients with postoperative urinary tract infections

Group	A (With AB)	B (Without AB)	OR/*P* (95% CI)
No. of enrolled patients	668	1533	
No. of patients with symptomatic UTIs	70 (10.3)	128 (8.4)	0.77/.12 (0.56-1.05)
Febrile UTIs	6 (8.6)	12 (9.3)	
Afebrile UTIs	64 (91.4)	116 (90.7)	
No. of urosepsis (among all febrile UTIs)	3 (50.0)	5 (41.8)	1.1/.58 (0.25-4.75)
Charlson comorbidity index			0.83/.73 (0.42-1.65)
<2	56 (80.0)	95 (74.2)	
2	13 (18.6)	26 (20.4)	
≥3	1 (1.4)	7 (5.4)	
Type of surgical procedure			1.03/.5 (0.57-1.87)
Endoscopic surgery	44 (62.8)	77 (60.2)	
Open or laparoscopic surgery	26 (37.2)	51 (39.8)	
ASA score			0.95/.5 (0.53-1.72)
1	32 (45.7)	58 (45.3)	
>1	38 (54.3)	70 (54.7)	
Type of antimicrobial prophylaxis			0.82/.5 (0.45-1.46)
Fluoroquinolones	10 (14.3)	29 (22.8)	
Trimethoprim-sulfamethoxazole	43 (61.4)	70 (54.7)	
Aminoglycosides	4 (5.7)	8 (6.2)	
Cephalosporins	8 (11.4)	13 (10.2)	
Piperacillin-tazobactam	5 (7.2)	8 (6.1)	

CI, confidence interval; OR, odds ratio; other abbreviations as in Table 1.
The table shows all clinical and microbiological characteristics of all patients with postoperative UTIs. Data in parentheses are percentages unless otherwise specified.

Table 3. Microbiological characteristics of all patients with postoperative urinary tract infections

Group	A (With AB)	B (Without AB)	OR/*P* (95% CI)
No. of patients with symptomatic UTIs	70 (10.3)	128 (8.3%)	0.77/.12 (0.56-1.05)
Febrile UTIs	6 (8.6)	12 (9.3)	
Afebrile UTIs	64 (91.4)	116 (90.7)	
Bacterial strains isolated			1.02/.5 (0.56-1.84)
Escherichia coli	31 (44.2)	55 (42.9)	
Enterococcus spp.	21 (30.0)	36 (28.2)	
Pseudomonas aeruginosa	10 (14.2)	18 (14.1)	
Klebsiella spp.	8 (11.6)	19 (14.8)	
Resistant strains			
Ciprofloxacin			
Escherichia coli	12/31 (38.7)	21/55 (38.2)	
Enterococcus spp.	7/21 (33.3)	11/36 (30.5)	
Ceftriaxone			
Escherichia coli	8/31 (25.8)	14/55 (25.4)	
Klebsiella spp.	1/8 (12.5)	2/19 (10.5)	
Levofloxacin			
Escherichia coli	10/31 (32.2)	17/55 (30.9)	
Klebsiella spp.	1/8 (12.5)	2/19 (10.5)	
Gentamicin			
Escherichia coli	7/31 (22.5)	14/55 (25.4)	
Klebsiella spp.	2/8 (25.0)	2/19 (10.5)	
Piperacillin-tazobactam			
Escherichia coli	3/31 (9.6)	5/55 (9.1)	
Klebsiella spp.	2/8 (25.0)	5/19 (26.3)	
Imipenem			
Escherichia coli	0/31 (—)	0/55 (—)	
Klebsiella spp.	0/8 (—)	0/19 (—)	

Abbreviations as in Tables 1 and 2.

The table shows all microbiological characteristics of all patients with postoperative UTIs. Data in parentheses are percentages unless otherwise specified.

Table 4. Univariate and multivariate analysis results of factors affecting the development risk of symptomatic UTIs in all enrolled patients

Categories (Variables)	Univariate Analysis (*P*) (HR; 95% CI)	Multivariate Analysis (*P*) (HR; 95% CI)
Previous UTIs (yes or no)	(.49) (HR 0.63; 0.08-1.20)	(.38) (HR 0.77; 0.31-1.01)
Charlson comorbidity index (<2, ≥2)	(.77) (HR 0.99; 0.89-1.43)	(.59) (HR 1.1; 0.79-1.57)
ASA score (1, >1)	(.02) (HR 11.3; 6.10-13.56)	(.001) (HR 10.8; 7.89-14.8)
Type of procedure (endoscopy, open or laparoscopy)	(.12) (HR 0.78; 0.62-1.40)	(.18) (HR 0.80; 0.59-1.08)
Type of antimicrobial prophylaxis (fluoroquinolones, cotrimoxazole, others)	(.65) (HR 0.87; 0.55-1.80)	(.13) (HR 1.37; 0.93-2.02)

HR, hazard risk; other abbreviations as in Tables 1 and 2.

The table shows the univariate and multivariate analysis results of factors affecting the development risk of symptomatic UTIs in all enrolled patients.

- Preoperatif bakteriüri taraması ürolojik cerrahi öncesi gerekli değildir.
- EUA'ya göre cerrahi profilaksi yapılması yeterlidir.
- Preoperatif idrar analizi semptomatik hastalarda ve yüksek komorbidite skoru olan hastalarda yapılmalıdır.

Re: Cai et al.: Is Preoperative Assessment and Treatment of Asymptomatic Bacteriuria Necessary for Reducing the Risk of Postoperative Symptomatic Urinary Tract Infections After Urologic Surgical Procedures? (Urology 2017;99:100-105)

Amit Bansal, M.S.
Sudheer K. Devana, M.Ch.
Ravimohan S. Mavuduru, M.Ch.
Girdhar S. Bora, M.Ch.
Department of Urology
Postgraduate Institute of Medical Education and Research
Chandigarh, India

- ABU olan grupta semptomatik ÜSE %10,3 ve olmayan grupta %8,4 → istatistik anlamlı fark yok
- Preoperatif antibiotik profilaksisi iki grupta farklı olabilir.
- ABU olan gruba kx de üreyen mikroorganizmanın duyarlı olduğu antibiyotik ile profilaksi verilmiş olabilir???

Reply by the Authors

- Biz bütün profilaksileri EUA rehberine göre yaptık.
- Profilaksileri antibiyogramları dikkate almadan rehberin önerdiği şekilde ve sürede verdik.

EUROPEAN UROLOGY 73 (2018) 476–481

available at www.sciencedirect.com
journal homepage: www.europeanurology.com

European Association of Urology

Words of Wisdom

- Göreceli olarak daha sağlıklı bir populasyon seçilmiş.
- ABU tanımı net değil
- Tüm antibiyotiklerin kullanımı ayrı ayrı belirtilmemiş.
- Tüm rehberler semptomatik ve asemptomatik BU'yi tedavi etmeyi öneriyor. Tedavinin süresi ile ilgili bilgilerimiz yetersiz.
- Sepsis gibi hayatı tehdit eden bir durum gelişebileceği için mutlaka preoperatif ABU'nin tespit edilerek tedavisi gerekir.

LITERATURE REVIEW

Perioperative infectious risk in urology: Management of preoperative polymicrobial urine culture. A systematic review. By the infectious disease Committee of the French Association of urology

Gestion du risque infectieux périopératoire en urologie : que faire de l'ECBU polymicrobien ? Revue systématique de la littérature. Par le Comité d'infectiologie de l'Association française d'urologie (CIAFU)

M. Vallée[a,*], V. Cattoir[b], S. Malavaud[c], A. Sotto[d], G. Cariou[e], P. Arnaud[f], H. Bugel[g], P. Coloby[h], E. Chartier-Kastler[i,j], F. Bruyère[k,l]

Progrès en urologie (2019) 29, 253–262

- İdrar kx operasyondan ne kadar önce alınmalı?
- 4-10 gün önce
- >10 gün üreyen mikroorganizma operasyona yakın değişebilir
- <4 gün tedavi edecek vakit kalmaz

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Progrès en urologie (2019) 29, 253–262

Üretral stent veya üriner kateteri olmayan hastada polimikrobiyal üreme→

- Piyüri ve semptom yokluğunda üriner kolonizasyon ihtimali yoktur.
- Üriner kolonizasyon ihtimali yüksekse kx tekrarlanmalıdır.

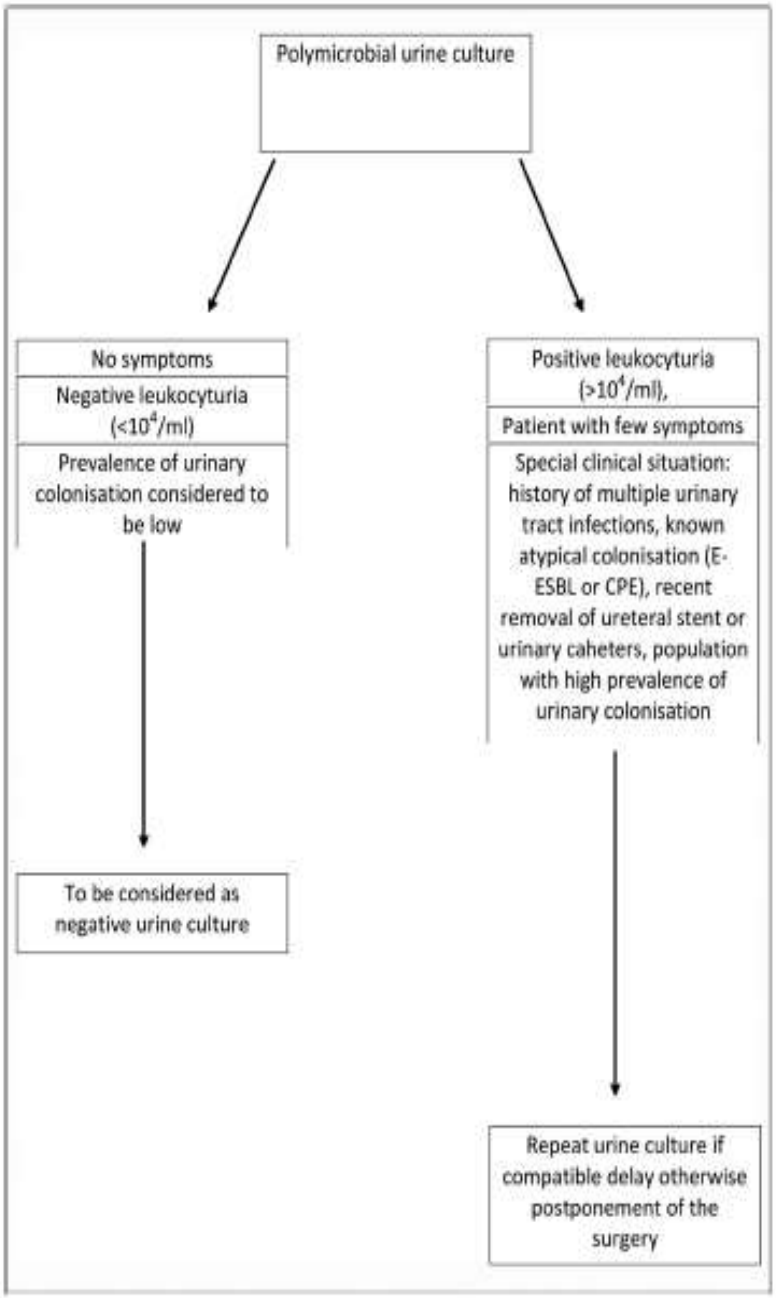

Figure 2. Management of polymicrobial urine culture in a patient without ureteral stents, urinary catheters or infected stones.

- Hastanın piyürisi varsa veya
- Hafif de olsa semptomu varsa veya
- Özel klinik bir durum söz konusuysa
  - Geçirilmiş sık İYE öyküsü varsa
  - Bilinen atipik bir kolonizasyon (ESBL ve KPE) varsa
  - Uretral stent veya kateter yeni çekilmişse

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Progrès en urologie (2019) 29, 253–262

Üretral stent veya üriner kateteri olan hastada polimikrobiyal üreme→

- %30-45 vakada idrar kx de üreyen mikroorganizma ile stent kx de üreyen mikroorganizma aynıdır.

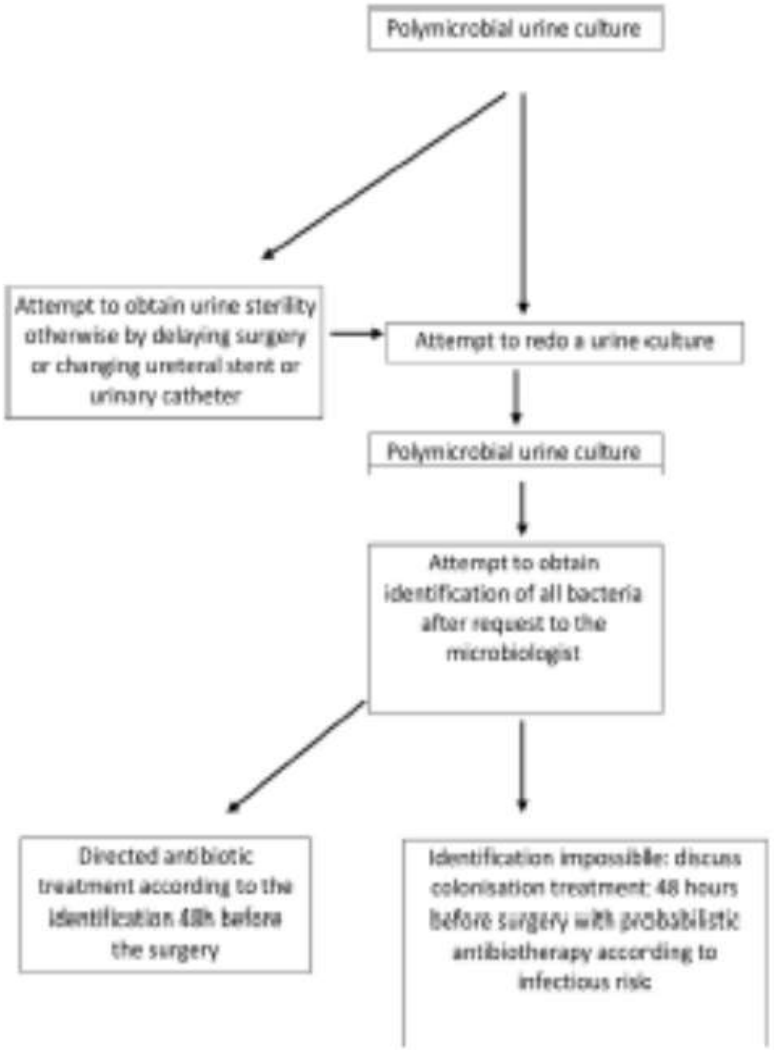

Figure 3. Management of polymicrobial urine culture in patient with ureteral stents, urinary catheters or colonised stones.

- Steril idrar elde etmeye çalışılmalı (cerrahi ertelenmeli veya stent veya kateter değiştirilmeli)
- İdrar kx tekrarlanmalı
- Yine çoklu üreme söz konusuysa tek tek antibiyogram çalışılmalı cerrahiden 48 saat önce tedavi edilmeli
- Tek tek çalışılamıyorsa cerrahiden 48 saat önce riske göre tedavi edilmeli

LITERATURE REVIEW

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- Bu nedenle postoperatif enfeksi[illegible]ski yüksek olan durumlarda polimikrobiyal [illegible]arsa antibiyotik verilmeli→
  - İdrar geçişi iyi ol[illegible]
  - Mikrobiyot[illegible] etkisi az olan
  - *Enterob[illegible]acae*'ya etkili
  - Kullanımı kolay
- Ameliyattan 48 saat önce tek doz ve operasyon sabahı 2. doz

Fosfomisin-trometamin

- Ürolojik cerrahi düşünülen hastada mümkünse kateter idrar örneği alınmadan önce değiştirilmeli böylece polimikrobiyal üreme engellenebilir
- Ancak en son öneri kolonize kateter varlığında 24 saatlik küratif tedavi sonrası kateter değiştirilmeli ve operasyon en az 48 saat sonra yapılmalıdır.

Complications Associated With Photoselective Vaporization of the Prostate: Categorization by a Panel of GreenLight Users According to Clavien Score and Report of a Single-center Experience

Benoit Peyronnet, Benjamin Pradere, Nicolas Brichart, Thomas Bodin, Philippe Bertrand, The Members of the French Group of GreenLight Users, and Franck Bruyère

Urology. 2014 Sep;84(3):657-64

- Polimikrobiyal idrar kx olan her 5 hastadan birinde postoperatif septik komplikasyon gelişmiş.
- Basitçe ‘kontaminasyon’ ya da ‘kolonizasyon’ demek doğru değil

International Journal of Urology (2004) **11**, 941–947

Original Article

Bacteria of preoperative urinary tract infections contaminate the surgical fields and develop surgical site infections in urological operations

RYOICHI HAMASUNA, HIRONORI BETSUNOH, TETSUYA SUEYOSHI, KAZUMICHI YAKUSHIJI, HIROMASA TSUKINO, MASAFUMI NAGANO, TOSHIYUKI TAKEHARA AND YUKIO OSADA

Department of Urology, Miyazaki Medical College, University of Miyazaki, Kiyotake, Miyazaki, Japan

- 137 hasta açık ve laparoskopik ürolojik cerrahi
- Her hastadan cerrahiden 1 gün önce ve operasyon günü idrar kx ve operasyon sırasında subkutan sürüntü kx
- 34 enfeksiyöz komplikasyon →
  - 20 CAE
  - 6 ÜSE
  - 2 Epididimit
  - 1 Prostatit
  - 1 Sepsis
  - 1 Pnömoni

International Journal of Urology (2004) **11**, 941–947

Original Article

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RYOICHI HAMASUNA, HIRONORI BETSUNOH, TETSUYA SUEYOSHI, KAZUMICHI YAKUSHIJI, HIROMASA TSUKINO, MASAFUMI NAGANO, TOSHIYUKI TAKEHARA AND YUKIO OSADA

Department of Urology, Miyazaki Medical College, University of Miyazaki, Kiyotake, Miyazaki, Japan

Table 3 Relationship between the pathogens of urinary tract infections and those of surgical site infections in patients who had preoperative urinary tract infections†

Patient number	Age	Sex	Operation	Result of culture of urine before operation	Result of swab-culture‡	Sensitivity§	Result of culture of infected wound	Sensitivity
1	65	M	Cystolithotomy	*P. aeruginosa*	*P. aeruginosa*	R	*P. aeruginosa*	R
				P. mirabilis	*P. mirabilis*	S		
					MRCNS	R		
2	20	F	Partial nephrectomy	MRSA	MRSA	R	MRSA	R
3	91	M	Cutaneoureterostomy	MRSA	MRCNS	R	MRCNS	R
				E. faecalis				
4	67	F	Cutaneoureterostomy	*P. aeruginosa*	*P. aeruginosa*	R	*P. aeruginosa*	R
5	74	M	Nephrectomy	MRSA	MRSA	R	MRSA	R
				P. aeruginosa	MSSA	S		
				MSSA				
6	83	M	Cystectomy	No growth	MRSA	R	MRSA	R
			Cutaneoureterostomy		*E. faecalis*	R	*E. faecalis*	R
7	69	F	Partial ureterostomy	No growth	MRSA	R	MRSA	R
			Ureteroureterostomy		MSCNS	S	*E. faecalis*	R
8	78	M	Cystectomy	No growth	*Corynebacterium* sp.	S	MRSA	R
			Cutaneoureterostomy					
9	68	M	Cystolithotomy	*E. coli*	–		*E. coli*	S
				E. avium				
10	89	M	Cystectomy	*E. faecalis*	–		–	
			Cutaneoureterostomy					
11	28	F	Nephrectomy	*E. coli*	–		–	
12	63	M	Nephrectomy	*Enterobacter* sp.	–		–	
13	65	M	Cystectomy	No growth	–		–	
			Cutaneoureterostomy					
14	73	M	Open only (inoperable)	No growth	–		–	

†, two of 16 patients who had preoperative UTI were excluded, because the pus from infected wounds of these patients was not cultured; ‡, the subcutaneous tissue was brushed several times by a sterile cotton swab just before the skin was sutured. The swab was smeared over nutrient agar and cultured for 48 h at 37°C. §, results in sensitivity test of the bacteria against antibiotics used as antimicrobial prophylaxis. *E. avium*, *Enterococcus avium*; *E. coli*, *Escherichia coli*; *E. faecalis*, *Enterococcus faecalis*; MRCNS, methicillin-resistant coagulase negative *Staphylococcus*; MRSA, methicillin-resistant *Staphylococcus aureus*; MSCNS, methicillin-sensitive coagulase negative *Staphylococcus*; MSSA, methicillin-sensitive *Staphylococcus aureus*; *P. aeruginosa*, *Pseudomonas aeruginosa*; *P. mirabilis*, *Proteus mirabilis*; R, resistant; S, sensitive.

International Urology and Nephrology
https://doi.org/10.1007/s11255-017-1752-2

UROLOGY - ORIGINAL PAPER

Preoperative urine culture is unnecessary in asymptomatic men prior to prostate needle biopsy

David Z. Qi[1] · Kathleen Lehman[1] · Kalyan Dewan[2] · Girish Kirimanjeswara[2] · Jay D. Raman[1]

- 150 hasta
- 6 hastada asemptomatik bakteriüri
- Hiçbiri tedavi edilmedi.
- 4 (%2.7) hastada enfeksiyöz komplikasyon
  - 2 Sepsis
  - 2 ÜSE
- ABU olan 6 hastada enfeksiyöz komplikasyon gelişmedi.

Preprostate Biopsy Rectal Culture and Postbiopsy Sepsis

Aisha Khalali Taylor, MD[a,*],
Adam Bryant Murphy, MD, MBA, MSCI[b]

Urol Clin N Am 42 (2015) 449–458

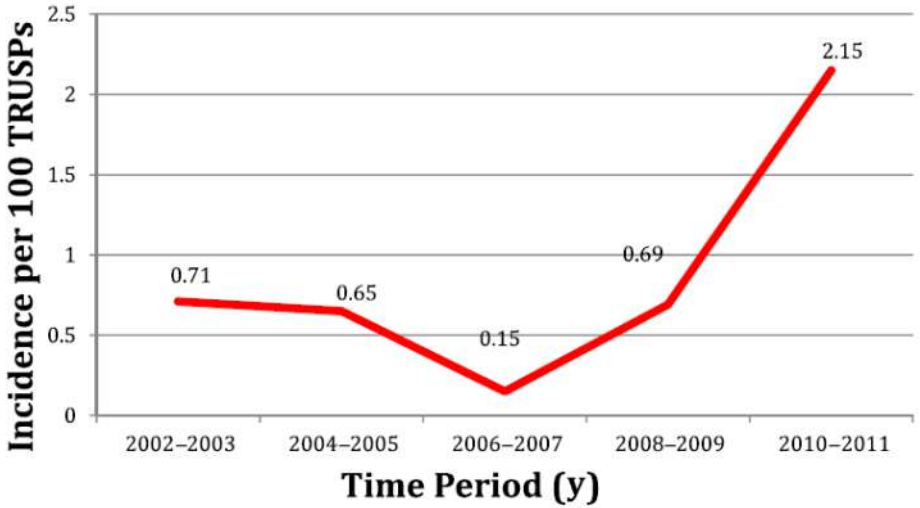


Fig. 1. Increasing incidence of infectious complications following TRUSP over the last decade. (*Adapted from* Carignan A, Roussy JF, Lapointe V, et al. Increasing risk of infectious complications after transrectal ultrasound-guided prostate biopsies: time to reassess antimicrobial prophylaxis? Eur Urol 2012;62:453; with permission.)

JIDC | THE JOURNAL OF INFECTION IN DEVELOPING COUNTRIES

Brief Original Article

Risk factors for infection development after transrectal prostate biopsy and the role of resistant bacteria in colonic flora

Emine Dilek Eruz[1], Aysun Yalci[1], Eriz Ozden[2], Halide Aslaner[3], Suna Ogucu Durgun[4], Deniz Derya Taymur[5], Kemal Osman Memikoglu[1], Hakan Erdem[6], Halil Kurt[7]

- 168 hasta
- 17 (%10.1) hastada ÜSE
- 6 (%3.6) hastada sepsis
- Rektal örneklerde siprofloksasin dirençli kolonizasyon oranı %48.2

Preprostate Biopsy Rectal Culture and Postbiopsy Sepsis

Aisha Khalali Taylor, MD[a,*],
Adam Bryant Murphy, MD, MBA, MSCI[b]

Urol Clin N Am 42 (2015) 449–458

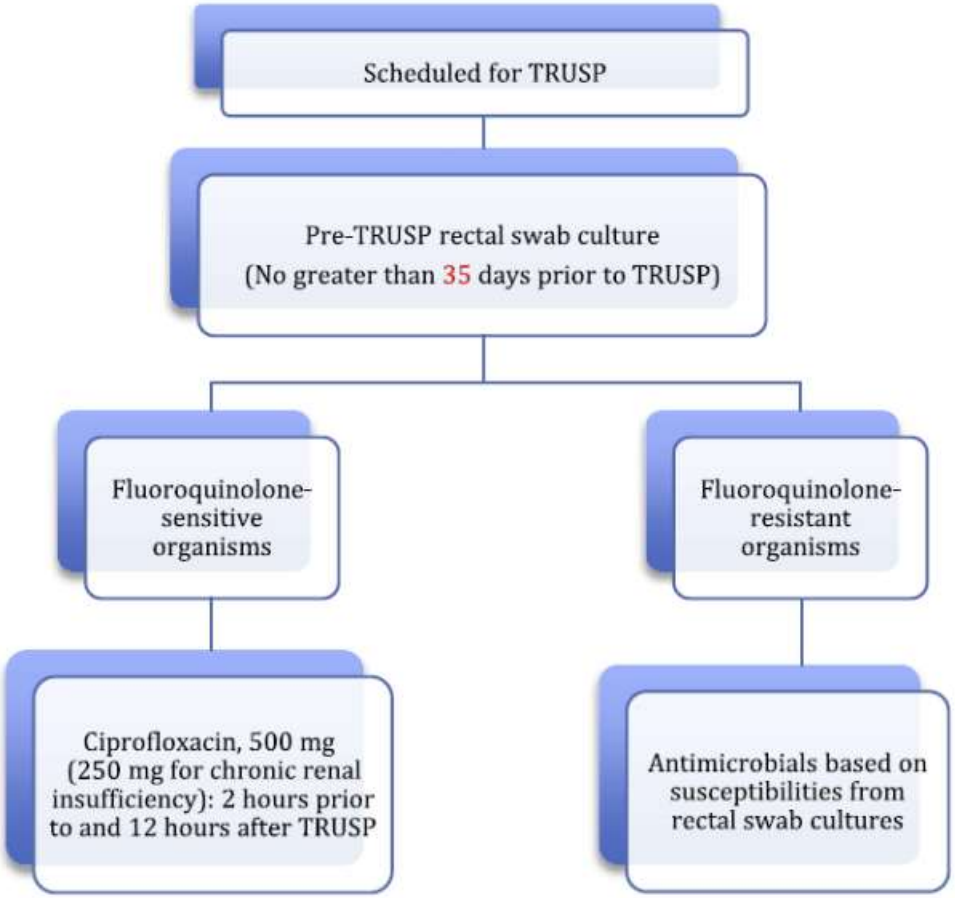


Fig. 2. The targeted approach to antimicrobial TRUSP prophylaxis.

Preprostate Biopsy Rectal Culture and Postbiopsy Sepsis

Aisha Khalali Taylor, MD[a,*],
Adam Bryant Murphy, MD, MBA, MSCI[b]

Urol Clin N Am 42 (2015) 449–458

Table 1
Targeted antimicrobial prophylaxis for TRUSP and impact on infectious complications; visual summary of most current literature

Authors,[Ref.] Year	Dates of Analysis	Study Design	Total No. of Patients	No. of Patients Undergoing Empiric Approach	No. of Patients Undergoing Targeted Approach	Post-TRUSP Infectious Complications, Empiric Arm (%)	Post-TRUSP Infectious Complications, Targeted Arm (%)	Prevalence of Resistant Organisms Isolated by RS (%)
Taylor et al,[44] 2012	Jul 2010–Mar 2011	Prospective	457	345	112	2.6	0	19.6
Duplessis et al,[22] 2012	May 2010–Mar 2011	Prospective with historical controls	338	103	235	2.9	0	14
Liss et al,[45] 2015	May 2013–Apr 2014	Retrospective	5355	3553	1802	0.44	0.56	25
Dai et al,[46] 2015	Feb 2013–Feb 2014	Retrospective	487	173	314	2.9	1.9	12.1
Summers et al,[8] 2015	Jun 2013–Jun 2014	Prospective with historical controls	2926	2759	167	2.8	0.6	14

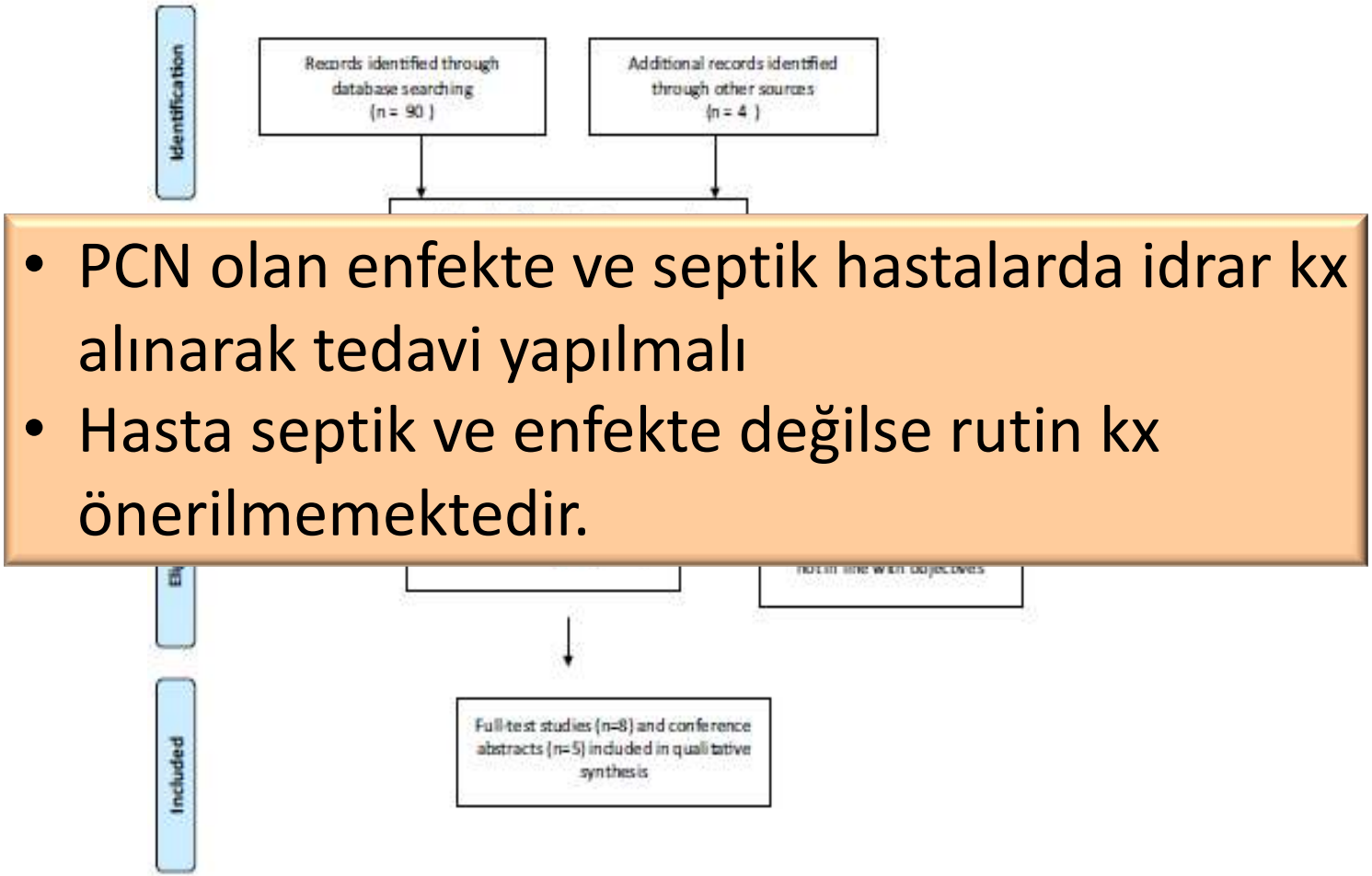
World Journal of Urology
https://doi.org/10.1007/s00345-019-02663-4

TOPIC PAPER

A systematic review of the clinical significance of nephrostomy urine cultures

Deepak Batura[1] · G. Gopal Rao[2]

Published online: 07 February 2019



- PCN olan enfekte ve septik hastalarda idrar kx alınarak tedavi yapılmalı
- Hasta septik ve enfekte değilse rutin kx önerilmemektedir.

JOURNAL OF PALLIATIVE MEDICINE
Volume XX, Number XX, 2019

DOI: 10.1089/jpm.2019.0289

Brief Report

Retrospective Analysis of the Role of Antibiotic Prophylaxis in the Placement and Replacement of Percutaneous Nephrostomy Catheters in Patients with Malignant Ureteral Obstruction

Jeferson Rodrigo Zanon, MD, MSc,[1] Mateus Saldanha Cardoso, MD,[2] Marcelo Jenné Mimica, MD, MSc, PhD,[3,4] Eliney Ferreira Faria, MD, PhD,[5] Glauco Baiocchi, MD, MSc, PhD,[6] and José Humberto Tavares Guerreiro Fregnani, MD, MSc, PhD[7,8]

TABLE 2. ASSOCIATIONS BETWEEN THE TIME OF NEPHROSTOMY CATHETER PLACEMENT, ANTIBIOTIC PROPHYLAXIS PROTOCOLS USED, AND URINARY TRACT INFECTION AFTER THE PROCEDURE

		Urinary tract infection after nephrostomy		
		No	*Yes*	p-*Value*
Time of placement of the nephrostomy catheter	First placement	80 98.8%	1 1.2%	0.010
	Replacement	78 88.6%	10 11.4%	
Use of antibiotic prophylaxis before first placement	No	16 100%	0 0.0%	0.999
	Yes	64 98.5%	1 1.5%	
Use of antibiotic prophylaxis before catheter replacement	No	11 78.6%	3 21.4%	0.146
	Empirical antibiotic prophylaxis	23 85.2%	4 14.8%	
	Targeted antibiotic prophylaxis	44 93.6%	3 6.4%	

JOURNAL OF PALLIATIVE MEDICINE
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Brief Report

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Jeferson Rodrigo Zanon, MD, MSc,[1] Mateus Saldanha Cardoso, MD,[2] Marcelo Jenné Mimica, MD, MSc, PhD,[3,4] Eliney Ferreira Faria, MD, PhD,[5] Glauco Baiocchi, MD, MSc, PhD,[6] and José Humberto Tavares Guerreiro Fregnani, MD, MSc, PhD[7,8]

- İlk takılma sırasında antibiyotik profilaksisi faydalı değil çünkü profilaksi alan ve almayan grupta İYE oranları benzer
- Kateter değişimi öncesi alınan idrar kx de üreme oranı %90.8
- Kateter değişimi için antibiyotik profilaksisi (hedeflenmiş profilaksi=tedavi???) İYE için koruyucudur.

Prevention and treatment of complications following percutaneous nephrolithotomy

Andreas Skolarikos and Jean de la Rosette

Current Opinion in Urology 2008, 18:229–234

- Perkütan nefrolitotomide ateş ve sepsis için risk faktörleri→
  - Tedavi edilmemiş İYE
  - Renal yetmezlik
  - Büyük taş
  - Uzun süreli operasyon
  - Yüksek volumlu yüksek basınçlı irrigasyon

Urolithiasis
https://doi.org/10.1007/s00240-019-01148-8

ORIGINAL PAPER

Check for updates

Does preoperative urine culture still play a role in predicting post-PCNL SIRS? A retrospective cohort study

Jingchao Liu[1] · Changkuo Zhou[1] · Wenjun Gao[1] · Huangwei Huang[1] · Xianzhou Jiang[1] · Dongqing Zhang[1] 2019

- Ateş ve sepsis için risk faktörleri→
  - Tedavi edilmemiş İYE
  - Renal yetmezlik
  - Büyük taş
  - Uzun süreli operasyon
  - Yüksek volumlu yüksek basınçlı irrigasyon

Original Article

Use and duration of antibiotic prophylaxis and the rate of urinary tract infection after radical cystectomy for bladder cancer: Results of a multicentric series

Maximilian Haider, M.D.[a,*], Christian Ladurner, M.D.[b], Roman Mayr, M.D.[a], Zafer Tandogdu, M.D.[c], Hans-Martin Fritsche, M.D.[d], Vincent Fradet, M.D., PhD.[e], Evi Comploj, M.D.[b,f], Armin Pycha, M.D.[b,g], Francis Lemire, M.D.[e], Louis Lacombe, M.D.[e], Yves Fradet, M.D.[e], Paul Toren, M.D., PhD.[e], Michele Lodde, M.D.[e]

M. Haider et al. / Urologic Oncology: Seminars and Original Investigations 37 (2019) 300.e9–300.e15

Table 5
Logistic regression analysis of the development of postoperative urinary tract infection

	Univariable			Multivariable		
Variable	OR	CI 95%	P value	OR	CI 95%	P value
Urological center B ref. A	1.718	0.811–3.639	0.158	–	–	–
C ref. A	0.887	0.334–2.352	0.809	–	–	–
ASA 3–4 vs. 1–2	0.682	0.342–1.360	0.277	–	–	–
Preoperative urine culture neg. vs. pos.	1.146	0.460–2.854	0.769	0.935	0.339–2.577	0.897
pT ≥2 vs. <2	0.803	0.396–1.631	0.544	–	–	–
pN ≥1 vs. 0	1.420	0.677–2.977	0.354	–	–	–
Grade high vs. low	0.662	0.294–1.491	0.319	–	–	–
Prior radiotherapy yes vs. no	1.269	0.333–4.831	0.727	–	–	–
Use of steroids yes vs. no	2.167	0.519–9.045	0.289	–	–	–
Bladder catheter before surgery yes vs. no	0.329	0.122–0.883	**0.027**	0.352	0.114–1.084	0.069
Ureteral stent before surgery yes vs. no	0.623	0.135–2.873	0.544	–	–	–
Nephrostomy before surgery yes vs. no	0.422	0.169–2.109	0.422	–	–	–
Intestinal preparation before surgery yes ref no/unknown	0.958	0.196–4.686	0.958	–	–	–
Urinary derivation continent vs. incontinent	4.364	2.145–8.841	**<0.0001**	**5.027**	**2.119–11.923**	**<0.001**
Sex: women vs. men	1.370	0.628–2.987	0.428	–	–	
Age: ≥65 vs. <65	0.513	0.252–1.047	0.067	1.465	0.577–3.720	0.421
BMI: ≥30 vs. <30	1.127	0.508–2.497	0.769	1.219	0.509–2.919	0.657
Duration of prophylactic antibiotic therapy 2–5 d vs. 1 d	1.154	0.451–2.952	0.765	1.589	0.573–4.409	0.374
≥ 6 d vs. 1 d	0.899	0.397–2.037	0.799	1.177	0.461–3.003	0.733

Bold means $p < 0.05$.
CI = confidence interval; OR = odds ratio.

Original Article

Use and duration of antibiotic prophylaxis and the rate of urinary tract infection after radical cystectomy for bladder cancer: Results of a multicentric series

Maximilian Haider, M.D.[a,*], Christian Ladurner, M.D.[b], Roman Mayr, M.D.[a], Zafer Tandogdu, M.D.[c], Hans-Martin Fritsche, M.D.[d], Vincent Fradet, M.D., PhD.[e], Evi Comploj, M.D.[b,f], Armin Pycha, M.D.[b,g], Francis Lemire, M.D.[e], Louis Lacombe, M.D.[e], Yves Fradet, M.D.[e], Paul Toren, M.D., PhD.[e], Michele Lodde, M.D.[e]

- Radikal sistektomi öncesi mekanik barsak hazırlığı yapılmakta
- Barsak hazırlığı yapılan ve yapılmayan gruplarda enfeksiyon sıklığı farklı değil
- Kolon ile ileum karşılaştırıldığında kolonun kullanıldığı durumlarda enfeksiyon oranı daha az
- Enterokoklar sık bir enfeksiyon etkeni
- Antibiyotik profilaksi süresi ile enfeksiyon sıklığı arasında bağlantı yok

Procedure for Obtaining a Urine Sample From a Urostomy, Ileal Conduit, and Colon Conduit

2.0 ANCC Contact Hours

A Best Practice Guideline for Clinicians

Mary Mahoney ■ Kathryn Baxter ■ Joanna Burgess ■ Carole Bauer ■ Cathy Downey ■ Janet Mantel ■ Jacqueline Perkins ■ Michelle Rice ■ Ginger Salvadalena ■ Vickie Schafer ■ Shirley Sheppard

J Wound Ostomy Continence Nurs. 2013;40(3):277-279.
Published by Lippincott Williams & Wilkins

- Hasta semptomatik değilse idrar alma
- İleum ve kolondan mesane yapılmış hastalarda pratik olarak her zaman bakteriüri vardır.
- Asemptomatik bakteriüri tedavi edilmemelidir.

SEXUAL MEDICINE REVIEWS REVIEW

Are Urine Cultures Necessary Prior to Urologic Prosthetic Surgery?

Nicholas L. Kavoussi, MD, Boyd R. Viers, MD, Travis J. Pagilara, MD, Jordan A. Siegel, MD, Matthias D. Hofer, MD, Billy Cordon, MD, Nabeel Shakir, MD, Jeremy Scott, MD, and Allen F. Morey, MD

Sex Med Rev 2018;6:157–161

- 259 hasta→ 85 penil protez, 174 yapay sfinkter
- Enfeksiyon oranı %1.5
- Preoperatif alınan idrar kx leri ile postoperatif protez enfeksiyonları arasında ilişki yok.
- İdrar yoluna girilmeden yapılan işlemler
- Profilaksi ve kateter takılması enfeksiyonu engellemek için yeterli

Journal of Endourology

DOI: 10.1089/end.2018.0852

Outcomes of endourologic interventions in patients with pre-operative funguria

Todd Yecies, Anand Mohapatra, Michelle Jo Semins[1]

Table 2: Stone composition and culture results of patients with pre-operative funguria undergoing endourologic intervention.

Stone Composition, # (%)	N = 58
Carbonate Apatite	25 (43.1%)
Calcium Oxalate	29 (50.0%)
Uric Acid	3 (5.2%)
Struvite	1 (1.7%)
Stone Culture, # (%)	N = 29
Candida sp. only	15 (51.7%)
Candida sp. + Bacteria	11 (37.9%)
Bacteria only	1 (3.4%)
No growth	2 (6.9%)

Journal of Endourology
© Mary Ann Liebert, Inc.
DOI: 10.1089/end.2018.0852

Outcomes of endourologic interventions in patients with pre-operative funguria

Todd Yecies, Anand Mohapatra, Michelle Jo Semins[1]

Table 3. Univariable and multivariable analysis of predictors of post-operative SIRS in patients with pre-operative funguria. Cells left blank were not included in the multi-variable model.

Predictor	Post-Operative SIRS			
	Univariable analysis*		Multivariable analysis*	
	Odds Ratio	*P* Value	Odds Ratio [95%CI]	*P* Value
glabrata				
Aggregate Stone Size	1.01 [0.98-1.04]	0.60		
Stent or Nephrostomy Dwell Time Per day	0.99 [0.99-1.01]	0.53		
Operative Time Per 10 minute interval	1.02 [1.00-1.04]	0.04	1.01 [0.99-1.03]	0.09

Abbreviations: SIRS, systemic inflammatory response syndrome; BMI, body mass index; CI, confidence interval; CCI, charlson comorbidity index

- Preop. kandididürisi olan hastaların komorbidite oranlarının yüksek olduğu, kateterleri olduğu ve yakın zamanda antibiyotik aldıkları tespit edilmiş.
- Perioperatif enfeksiyöz komplikasyonlara yatkın olan bu hastalarda funguri işlem öncesi tedavi edilmelidir.

Eve götürülecekler

- Mukozal hasarın olacağı girişimler öncesi asemptomatik bakteriüri tedavi edilmeli ancak bu öneri ile ilgili yeni çalışmalara ihtiyaç var

- Preop. alınan örneklerde üreme polimikrobiyalse basitçe ‘kontaminasyon’ ya da ‘kolonizasyon’ deyip geçmemek hastada kolonizasyon ihtimali yüksekse ileri tetkik ve tedavi yapılmalı

Eve götürülecekler

- Preop. idrar kx lerinde üreyen mikroorganizmalar aynı zamanda CAE etkenleridir
- Prostat bx öncesi rektal örnekler alınarak hedeflenmiş profilaksi yapılabilir
- Nefrostomi kateterleri ilk takıldığında antibiyotik profilaksisi faydalı değil ancak kateter değişimi öncesi idrar kx alınarak tedavi verilmeli

Eve götürülecekler

- Perkütan nefrolitotomi ve nefrolitotripsi sonrası ÜSE için öncesindeki üremeler risk faktörü bu nedenle mutlaka tedavi edilmeli

- Radikal sistektomi öncesi barsak hazırlığı yapılan ve yapılmayan gruplarda enfeksiyon sıklığı farklı değil

- İleum veya kolondan mesane yapılmış hastalarda pratik olarak her zaman bakteriüri vardır. Asemptomatik bakteriüri tedavi edilmemelidir

Eve Götürülecekler

- Preoperatif alınan idrar kx'leri ile postoperatif ürolojik protez enfeksiyonları arasında ilişki yok.

- Preop. funguri tedavi edilmelidir

TeŞekkür ederim