OSPEDALE POLICLINICO SAN MARTINO
Sistema Sanitario Regione Liguria
Istituto di Ricovero e Cura a Carattere Scientifico

Approccio pratico alla gestione delle infezioni delle vie urinarie

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Progetto A.M.I.C.O.

Approccio Ragionato per la gestione delle **M**alattie **I**nfettive in **C**ollaborazione con il Pronto Soccors**O**

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Clinica Malattie Infettive

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Progetto A.M.I.C.O.

Obiettivi

Obiettivo primario

Ottimizzare la gestione dei pazienti che accedono al Pronto Soccorso con patologie di sospetta/comprovata natura infettiva e facilitare il percorso intraospedaliero di tali pazienti.

Obiettivo secondario

Formazione del personale sanitario di Pronto Soccorso sulla corretta gestione diagnostico-terapeutica dei pazienti che accedano al Pronto Soccorso con patologie di sospetta/comprovata natura infettiva.

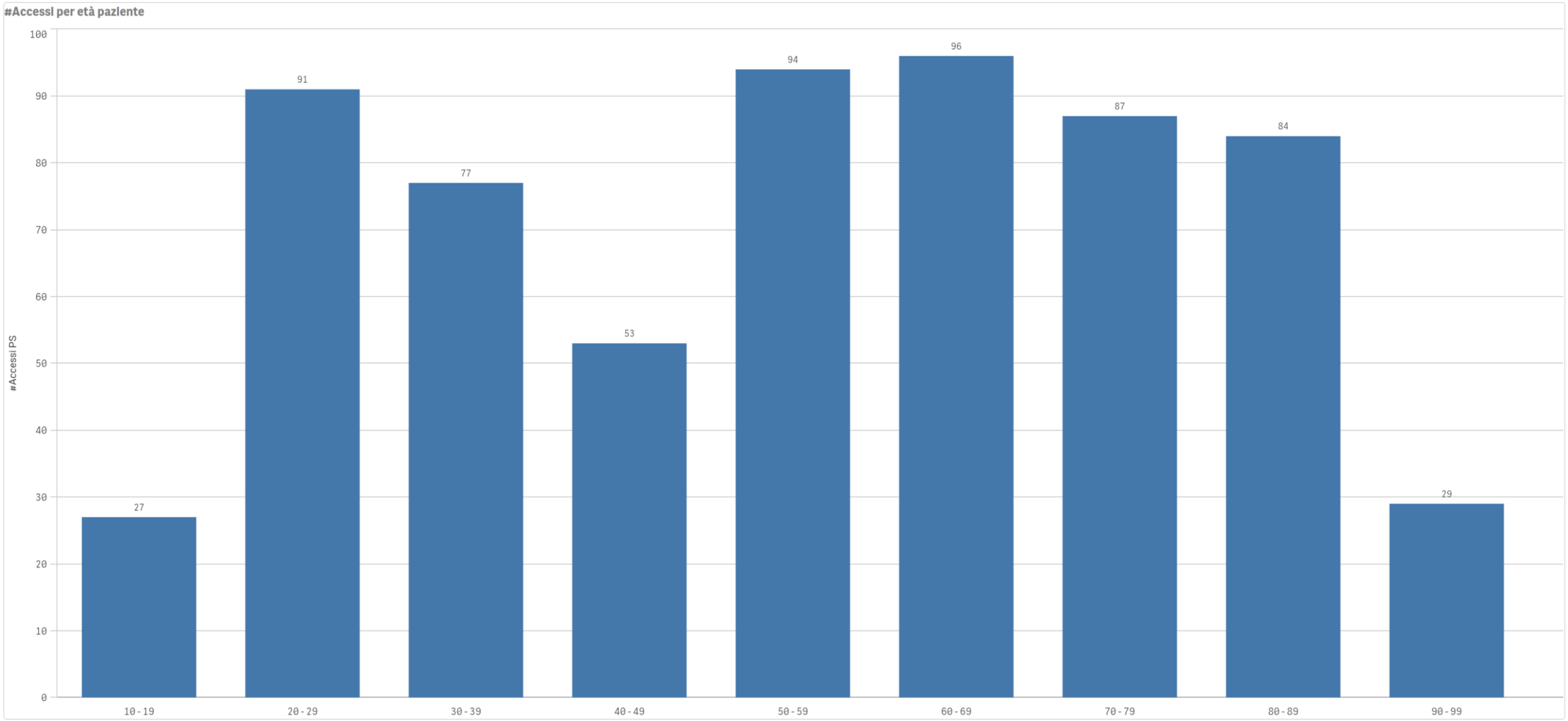
Outline

- **Asymptomatic bacteriuria**
- Diagnostic challanges
- Treatment tips
- Non antibiotic strategies

Epidemiology of ABU

- 1-5% of healthy pre-menopausal females
- 4-19% healthy elderly females and men
- 0.7-27% in patients with diabetes
- 2-10% in pregnant women
- 15-50% in institutionalised elderly populations
- 23-89% in patients with spinal cord injuries
- asymptomatic bacteriuria in younger men is uncommon, but when detected, chronic bacterial prostatitis must be considered

Ospedale Policlinico San Martino Genova: accessi giornalieri per età



But……symptoms of infection in elderly patients may be completely atypical:

- not fever
- not leukocytosis
- drowsiness
- mental confusion
- lack of appetite
- hypotension

What we can do?
We screen asymptomatic bacteriuria

Prior to urological surgery

- Diagnostic and therapeutic procedures **not entering the urinary tract**
- Screening and treatment are not considered necessary

AP is not routinely recommended for
- urodynamic exams
- diagnostic cystoscop
- extracorporeal shock-wave lithotripsy

- Diagnostic and therapeutic procedures **entering the urinary tract and breaching the mucosa**
- Bacteriuria is a definite risk factor

AP is recommended for
- ureteroscopy
- percutaneous nephrolithotomy
- endoscopic resection of bladder tumor
- endoscopic resection of the prostate
- prosthetic or major surgery

Marino et al. Urologia Journal 2024

Patients arrive in ED with post-procedural urinary tract infections, for example after urethral stent placements, nephrostomies, in addition to the procedures you indicated. It is appropriate to start antibiotic prophylaxis in these cases too?

Risk factors can be taken into account?

Clinical Practice Guideline Definitions of UTI Syndromes

uncomplicated UTIs occur in healthy, non-pregnant women
all other UTIs fall into the category of complicated UTIs

Table 2. Clinical Practice Guideline Definitions of UTI Syndromes in Adults[a]

Defining term(s)	Proposed IDSA	Current IDSA	EAU	AUA, CUA, and SUFU
Complicated UTI and acute pyelonephritis	Any infection beyond the bladder, includes pyelonephritis, CAUTI, febrile or bacteremic patients	Urinary symptoms plus functional or structural abnormalities of the urinary tract. CVA pain and tenderness, often with fever (pyelonephritis)	Dysuria, urgency, frequency, flank pain, CVA tenderness, suprapubic pain, fever, chills, nausea, vomiting; anatomical or functional abnormalities of the urinary tract (eg, obstruction, incomplete voiding due to detrusor muscle dysfunction; presence of diabetes or immunosuppression	Anatomical or functional abnormality of the urinary tract (eg, stone disease, diverticulum, neurogenic bladder); immunocompromised host; multidrug resistant bacteria
Uncomplicated UTI	All other infections not defined as complicated	Frequency, urgency, dysuria, or suprapubic pain in a woman with a normal genitourinary tract	Dysuria, frequency and urgency and the absence of vaginal discharge; limited to nonpregnant women with no known relevant anatomical and functional abnormalities or comorbidities	Dysuria in conjunction with variable degrees of increased urinary urgency and frequency, hematuria, or new or worsening incontinence; female host; no known factors that would increase susceptibility to develop UTI

Nelson et al. JAMA Network Open. 2024;7(11)

Localised UTI (i.e., cystitis)

- Cytistis with typical signs/symptoms (e.g. frequency[1], urgency[2], suprapubic pain[3])
- No signs/symptoms of systemic infection
- Applies to all sexes[4]
- Risk factors may be present and should be addressed

Systemic UTI

- UTI with signs/symptoms of systemic infection (e.g. fever[5], chills[6])
- May also include typical local symptoms (e.g. for pyelonephritis[7] or prostatitis[8])
- Risk factors may be present and should be addressed

Localised UTI[1]
Dysuria (pain, burning, stinging)
Urgency
Frequency
Incontinence
Urethral purulence
Pressure or cramping in the lower abdomen

Systemic UTI[1,2]
Fever or hypothermia
Rigors, shaking chills
Delirium
Hypotension
Tachycardia
Costovertebral angle pain/tenderness

may necessitate blood sampling, imaging, intravenous antimicrobial treatment and hospitalisation

EAU Gudelines 2025

About 30% of outpatients suffer from urinary tract infections caused by ESBL producing bacteria.

In case of complicated urinary infections, even more with hemodynamic instability, what hempiric antibiotic therapy do you recommend? For how long?

Grazie per l’attenzione