

The Art of Urine Culture Stewardship

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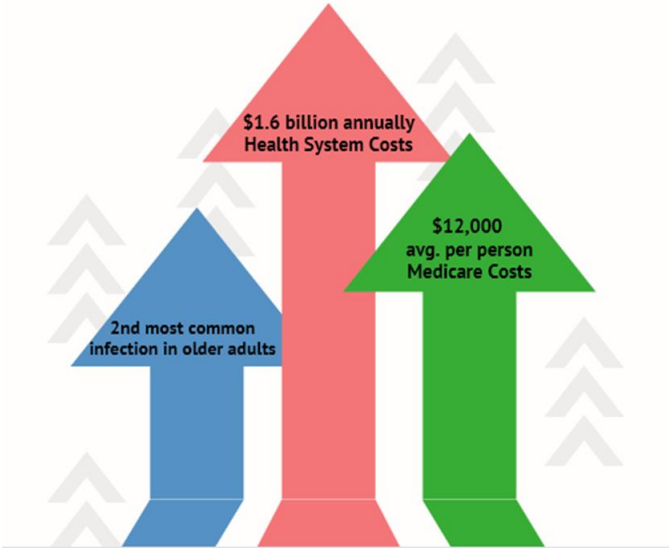
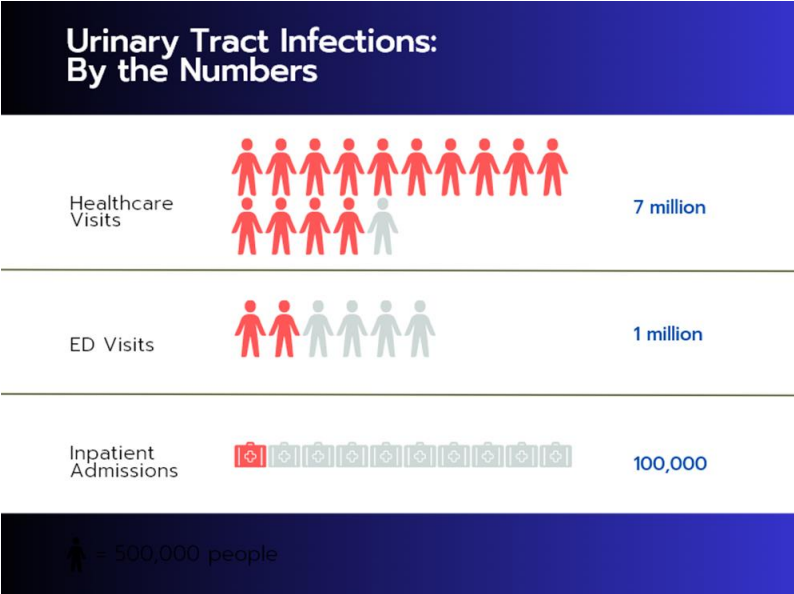


Objectives

- Examine collection changes and urine culture stewardship principles
- Identify stakeholders in stewardship initiatives
- Define challenges and barriers to the implementation of urine culture stewardship



Why Urine Culture Stewardship?



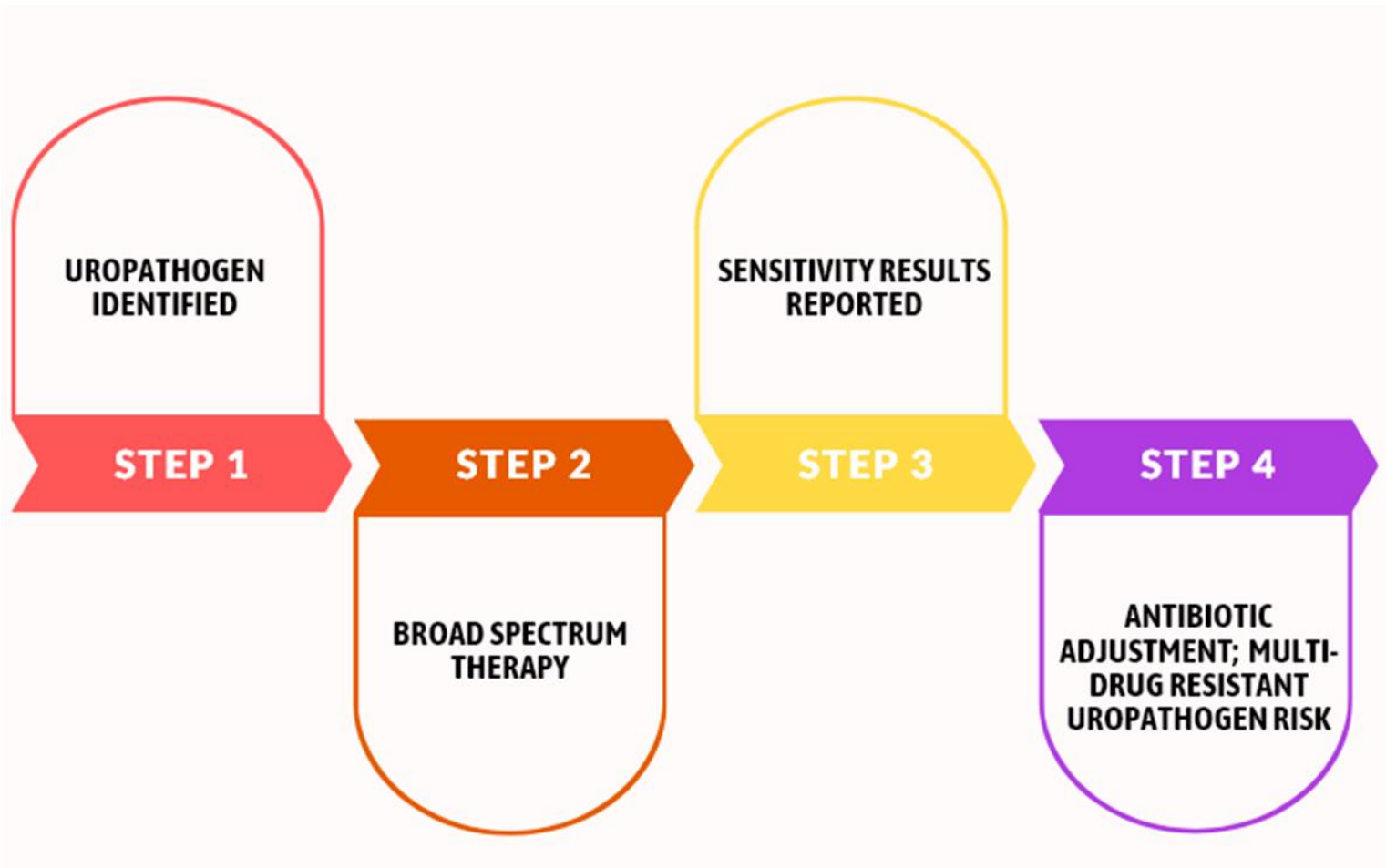
Status: Baseline only [Learn more about our data release schedule](#)

 Most Recent Data: 551.3 hospital admissions for urinary tract infections per 100,000 adults (2016)	 Target: 496.2 per 100,000	 Desired Direction: Decrease desired
 Baseline: 551.3 hospital admissions for urinary tract infections per 100,000 adults aged 65 years and over occurred in 2016		

Sulham K, Hammelman E. 1416. Medicare Spending on Urinary Tract Infections: A Retrospective Database Analysis. *Open Forum Infect Dis.* 2021;8(Suppl 1):S793. Published 2021 Dec 4. doi:10.1093/ofid/ofab466.1608
 Simmering JE, Tang F, Cavanaugh JE, Polgreen LA, Polgreen PM. The Increase in Hospitalizations for Urinary Tract Infections and the Associated Costs in the United States, 1998-2011. *Open Forum Infect Dis.* 2017;4(1):ofw281. Published 2017 Feb 24. doi:10.1093/ofid/ofw281
 U.S. Department of Health and Human Services. Healthy People 2030: Infectious Disease. - <https://health.gov/healthypeople/objectives-and-data/browse-objectives/infectious-disease/reduce-rate-hospital-admissions-urinary-tract-infections-among-older-adults-07> Accessed November 11, 2022




Without Stewardship, Resistance Rises



Reflex Algorithm Example:

UA demonstrates leukocyte esterase (1+), white blood cells (>10 per hpf), and/or positive nitrite.



If yes, Reflex to Culture (Order placed)
If no, Culture is not performed



Culture and Sensitivities Reported



Stakeholder Identification: Who and What to Ask



Informatics as a Clinical Aid

Suppression Conditions

1. Presence of abnormal lab result: Leukocyte Esterase \geq 1+, and/or Nitrite positive, and/or White Blood Cell >10 hpf in last 48 hours
2. Pregnancy

*Suppression conditions are those conditions that will not produce a BPA upon Urine Culture only order placement.

Acknowledgement Reasons

- Endoscopic urological procedure
- Neutropenic patient
- Patient \leq 3 years old
- Patient Pregnant
- Specimen collected via urinary diversionary device
- Other

Important (Advisory) (1)

i Routine urine cultures can lead to false UTI diagnosis and overuse of antibiotics. Unless patient meets the exception criteria, consider order for urinalysis with reflex culture.

Order

Do Not Order

URINALYSIS, COMPLETE W/REFLEX TO CULTURE (INPATIENT)

Acknowledge Reason

Endoscopic urological procedure

Neutropenic patient

Patient \leq 3 yrs

Patient pregnant

Specimen collected via urinary diversion...

Other

Accept



Challenges and Barriers to Stewardship Implementation

