



An Analysis of suspected urinary tract infections in older adults: Time to Stop the Dip!!

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Background

- Urinary Tract Infection (UTI) is the most diagnosed infection in Older Adults.
- Despite this however studies show it is a diagnosis which is often made excessively and inappropriately.
- Clinicians often suspect a UTI due to vague non specific symptoms
- High rates of asymptomatic bacteriuria in older people and inappropriately testing for bacteriuria, without sufficient clinical signs and symptoms is problematic.
- This results in clinicians frequently misdiagnosing UTI or inappropriately attributing a nonspecific finding to a UTI.
- This in turn promotes inappropriate antibiotic prescribing.
- In September 2021, the HSE issued a position statement where they clearly outlined that in the absence of signs of symptoms of UTI, use of dipstick analysis should be avoided.
- They also state that dipstick analysis should not be used in those over 65 to assess UTI.

Our Aim

- To determine and quantify if dipstick urinalysis is conducted in those over 65 years old to assess UTI in contradiction to HSE guidance
- To assess the relationship between clinical presentation and the diagnosis of a UTI
- To assess if UTI are diagnosed in individuals in absence of clinical features of UTI.
- Characterise population of older adults diagnosed with a UTI in the hospital

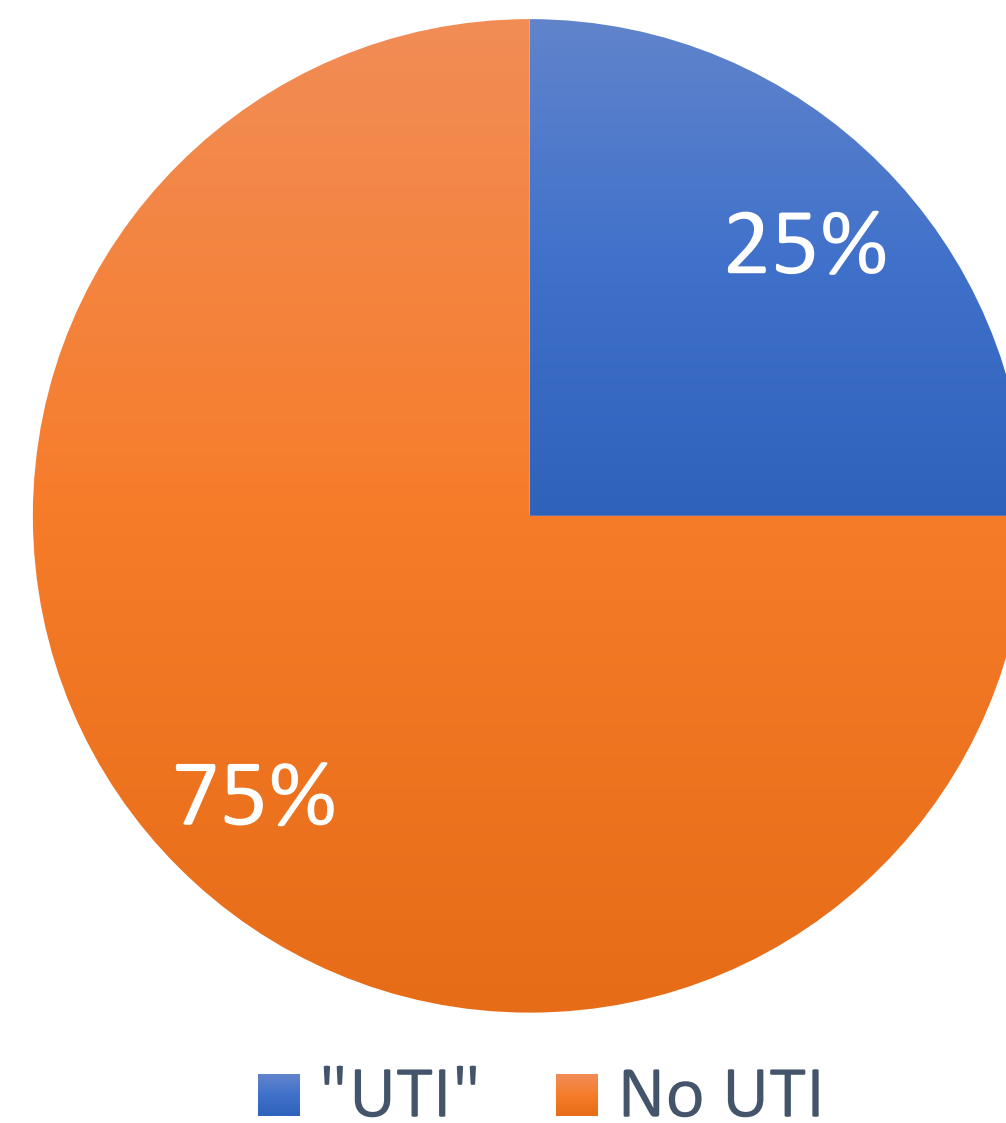
Process

Microbiology laboratory supplied details of 12,357 MSU requested over 42 months

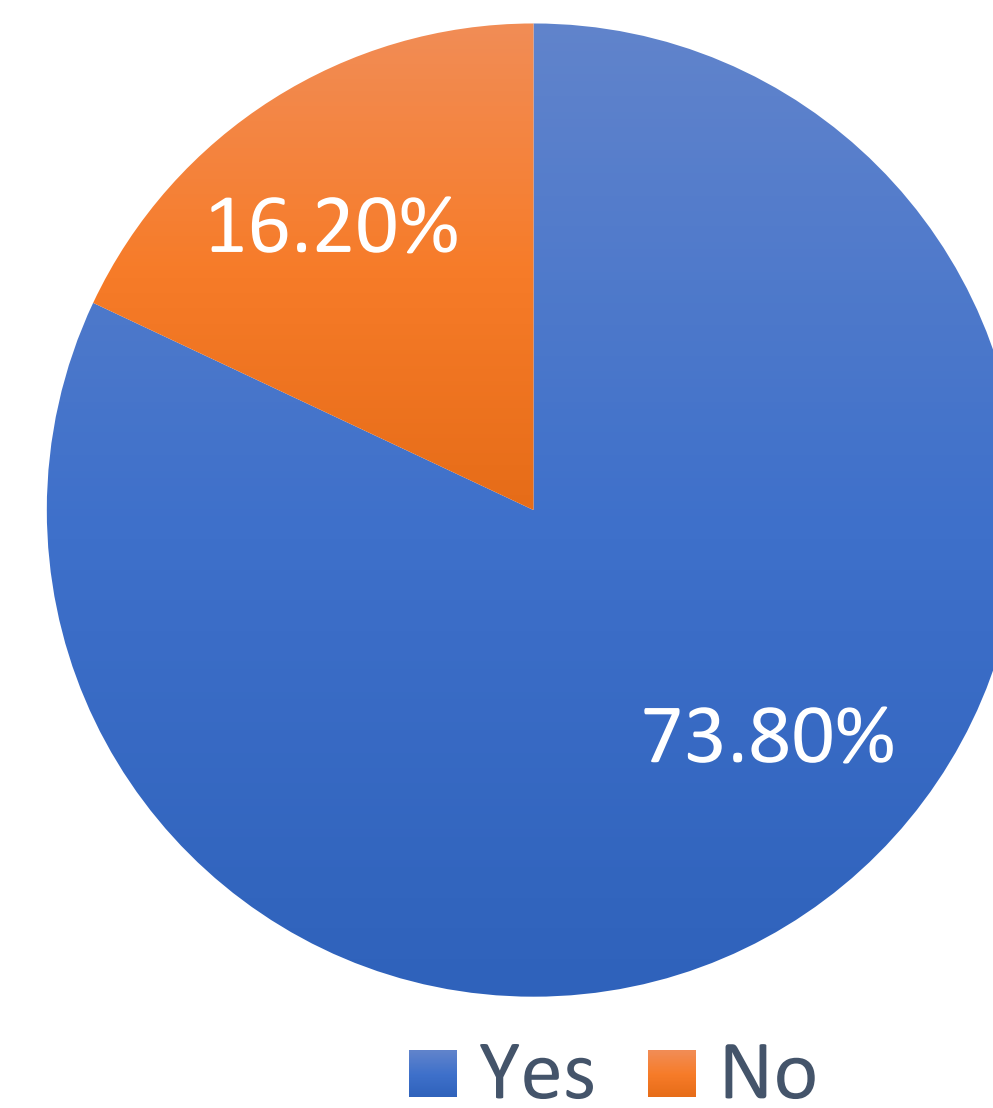
MUH Emergency Department requested 4,910 and St Francis's Off-site Unit requested 184 – leaving 7,263 in-patient MSU requests

Random sample of 257 cases highlighted for potential review – 84 charts had a full review

UTI "Diagnosed" in Chart



Urine Dipstick



Only 16.7% of case had any of the primary symptoms of UTI such as increased frequency, urgency or dysuria but all had a MSU requested

Many cases of "UTI" diagnosis made in the absence of any key UTI symptoms, teams likely treating asymptomatic bactera

	Total	UA conducted	UA not conducted	P Value
LUTS	14	11	3	0.752
Fall	17	13	4	1
AMS	19	13	6	0.562

LUTS – Lower Urinary tract Symptoms; AMS – Altered mental State

There was association dipstick urinalysis being conducted and a UTI being diagnosed (p value ~ 0.01). This association holds even when accounting for LUTS as a confounding variable. Therefore, UTI diagnosis is being made on dipstick results rather to symptoms

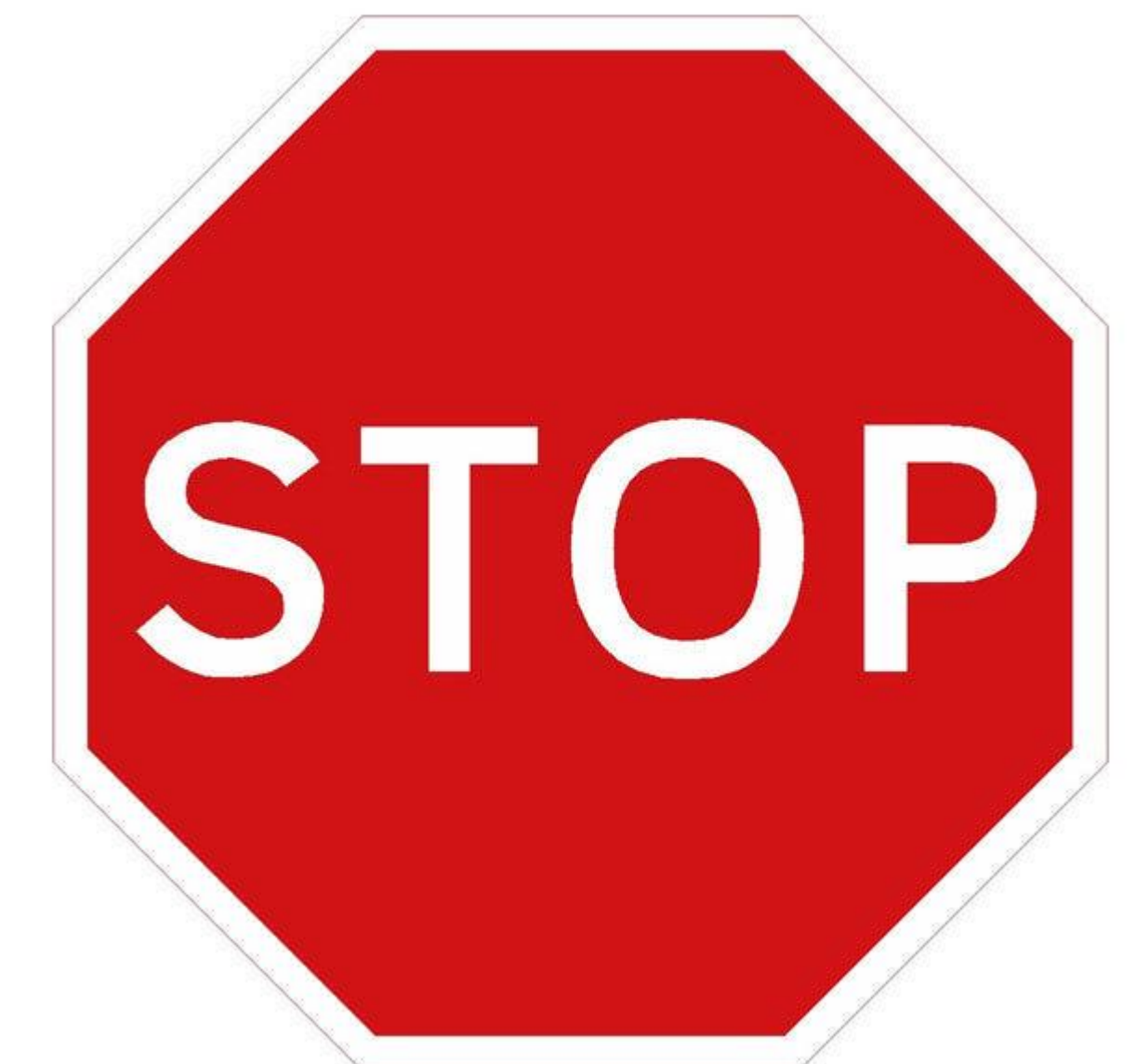
Conclusions

- Dipstick urinalysis is conducted at high rates in older adults in the Mercy University Hospital despite HSE guidance to the contrary.
- "UTI" is being "diagnosed" without supporting symptoms
- Potential inappropriate use of antimicrobials and the associated impact
- Requirement for more education on appropriate dipstick urinalysis and correct UTI diagnosis in older people
- Potential cost savings by reducing inappropriate urinalysis, MSU requests, and inappropriate antibiotic use

TREAT BASED ON SYMPTOMS

Signs and Symptoms of UTI (2 or more of the following)

- Acute dysuria
- New/worsening frequency
- New/worsening urgency
- New onset incontinence
- Rigors
- Suprapubic or flank pain



Over 65 years:
Don't Dip that Urine