Do we really need to send an MSU?

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Background

- Midstream urine (MSU) samples create a significant workload in our clinic.
- Local guidelines identify four indications for MSU:
 - 1) **Women with dysuria and loin pain.**
 - 2) **Urinary symptoms in pregnancy.**
 - 3) **Men with dysuria and frequency/urgency.**
 - 4) **Epididymo-orchitis.**
- Lower urinary tract infection (UTI) in non pregnant women can be diagnosed clinically and treated empirically.

Potential **GAINS** / **LOSSES** of sending an MSU...

- Positive culture can diagnose UTI**
- Obtain sensitivities for effective treatment**
- Workload**
- Cost**
- Inappropriate treatment of asymptomatic bacteriuria**

Aims/objectives

- Assess whether MSU is requested for appropriate indications according to local guidelines.
- Evaluate the usefulness of MSU in diagnosing and managing patients in a sexual health clinic.

Methods

- 100 MSU requests between 2014 and 2015.
- Retrospective case note review identified the associated clinical presentation and culture results.

Results

Is MSU requested for appropriate indications?

Documented indication for MSU	Frequency
Women with lower urinary tract symptoms	36
Men with dysuria (no frequency/urgency)	19
Lower abdominal pain	9
Unilateral scrotal pain	7
PID	7
Men with dysuria + frequency/urgency	6
Dysuria with genital herpes	3
Other urinary symptoms	3
Positive urine dipstick	3
Not documented	3
Non urinary symptoms	2
Pregnant women with urinary symptoms	1
Test of cure for UTI	1

MSU results

29% of samples indicated were positive (4/14)

22% of samples not indicated were positive (19/86)

Clinical presentations associated with positive MSU that was not indicated:

- 11 = women with lower urinary tract symptoms
- 3 = men with dysuria only
- 2 = pelvic inflammatory disease
- 2 = asymptomatic with positive urine dipstick
- 1 = vaginal discharge

Conclusions

- MSU is often **sent inappropriately**.
- Greater awareness of appropriate indications for MSU will **support optimal resource utilisation** in sexual health clinics.
- Resistance patterns should be monitored** so empirical treatment can be confidently prescribed for lower UTI in non-pregnant women.

Antibiotic sensitivities

	Trimethoprim	Nitrofurantoin
Sensitive	15	19
Resistant - acquired	5	0
Resistant - intrinsic	3	4

References

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