|  |
| --- |
| **Pullman Asymptomatic Bacteriuria (ASB) Report**Date of Report: April 2024\*\*This data report is based on cases submitted from September 2023 – March 2024 and does not include previous data.  |

**Inappropriate Diagnosis of UTI measure**



|  |
| --- |
| **Average across hospitals in cohort: 34.5% ; HMS Hospital Average\*: 23.2%****Inappropriate Diagnosis of UTI measure:** $\frac{Number of patients treated for ASB}{Number of positive urine cultures treated (UTI+ASB)}$* **Goal:** lower % = better
* You can lower this number by either reducing unnecessary urine cultures **(diagnostic stewardship)** or reducing antibiotic treatment when unnecessary cultures are obtained **(antibiotic stewardship)**

\*The HMS hospital average was amongst 46 hospitals in the Michigan Hospital Medicine Safety Consortium that participated in a similar quality improvement study.  |
|  |
|  |

**Prevalence and Treatment Rate of ASB**

**Prevalence of ASB:**

$$\frac{Number of treated ASB cases}{Number of ASB cases}$$

 **Treatment Rate**

 **of ASB:**

$$\frac{Number of ASB cases}{Number of positive urine cultures}$$

Data submissions

Total cases (positive urine cultures) included for your site: 50

Cases included per month for your site (median & IQR): 7.5 (5.25-10.5)

Prevalence of ASB

Prevalence of ASB across hospitals: 164 of 390 (42.1%)

Prevalence of ASB at your site: 18 of 50 (36%)

Treatment Rate of ASB

Treatment rate of ASB in overall cohort: 106 of 164 (64.6%)

Treatment rate of ASB at your site: 10 of 18 (55.6%)

**Antibiotic Tables**

| **Table 1: Three Most Common Antibiotics comparing UTI & ASB** |
| --- |
|  **IV** |  **Oral** |
|  **UTI, n=4** | **ASB, n=4** | **UTI, n=29** | **ASB, n=10** |
| Ceftriaxone (n=4) | Ceftriaxone (n=3) | Nitrofurantoin (n=12) | Cefdinir (n=4) |
| NA | Cefazolin (n=1) | Tri-sulfa (n=6) | Cephalexin (n=2) |
| NA | NA | Cephalexin (n=5) | Nitrofurantoin (n=2) |

| **Table 2: Antibiotic Duration (days)** |  **UTI** |  **ASB** |
| --- | --- | --- |
| **Prior, n=29** | **This Month, n=3** | **Prior, n=15** | **This Month, n=3** |
| Total Antibiotic Duration; median (IQR) | 5 (3-7.5) | 7 (3.5-7.5) | 3 (0-7) | 0 (0-4) |
| Number of Cases Receiving >7 days; n (%) | 6 (20.7%) | 1 (33.3%) | 2 (13.3%) | 1 (33.3%) |

Prior is Sept 2023 - Feb 2024 & this month is March 2024

| **Table 3: Characteristics comparing this month to prior n (%)** |  **UTI** |  **ASB** |
| --- | --- | --- |
| **Prior, n=29** | **This Month, n=3** | **Prior, n=15** | **This Month, n=3** |
| **Setting where culture obtained** |
|  ED, then admitted | 1 (3.4%) | 0 | 5 (33.3%) | 0 |
|  ED, then discharged | 13 (44.8%) | 3 (100%) | 6 (40%) | 2 (66.7%) |
|  Ambulatory care clinic | 15 (51.7%) | 0 | 3 (20%) | 1 (33.3%) |
|  Inpatient | 0 | 0 | 1 (6.7%) | 0 |
|  Other | 0 | 0 | 0 | 0 |
| From reflex test | 0 | 0 | 0 | 0 |
| Men | 8 (27.6%) | 0 | 2 (13.3%) | 0 |
| Age >75  | 5 (17.2%) | 0 | 7 (46.7%) | 1 (33.3%) |
| Acute altered mental status changes alone | 1 (3.4%) | 0 | 0 | 2 (66.7%) |

**Characteristic Tables**

Prior is Sept 2023 - Feb 2024 & this month is March 2024

|  |  |  |
| --- | --- | --- |
| **Table 4: Prescribing Characteristics** |  **UTI** |  **ASB** |
| **Prior, n=29** | **This Month, n=3** | **Prior, n=15** | **This Month, n=3**  |
| **Top 3 Prescriber IDs (if available)** |  |
|  | 17 (n=6) | 17 (n=1) | 10 (n=3) | 14 (n=1) |
| 7 (n=4) | 19 (n=1) | 6 (n=3) | 17 (n=1) |
| 11 (n=2) | 26 (n=1) | 2 (n=2) | 19 (n=1) |
| **Prescriber type, n (%)** |  |
| Physician | 25 (86.2%) | 3 (100%) | 15 (100%) | 3 (100%) |
| Physician Assistant | 4 (13.8%) | 0 | 0 | 0 |
| Nurse Practitioner | 0 | 0 | 0 | 0 |
| **Contract of prescribing provider, n (%) (if available)** |  |
| Employed by hospital | 29 (100%) | 3 (100%) | 14 (93.3%) | 3 (100%) |
| Contracted from outside group/locum | 0 | 0 | 1 (6.7%) | 0 |
| Not sure | 0 | 0 | 0 | 0 |

Prior is Sept 2023 - Feb 2024 & this month is March 2024

**Case IDs for the treated ASB cases**

"1121232" "105243" "119241" "119243" "206243" "206246" "216246" "304244" "304245" "401242"

**Key Terms and Definitions**

* Positive urine culture: Any growth on culture
	+ Prevalence of ASB: A positive urine culture without any documented signs or symptoms attributable to urinary tract infection per National Hospital Safety Network (NHSN) and Infectious Diseases Society of America (IDSA) Guidelines.
* Signs or symptoms of UTI includes:
* Fever (>38°C)
* Suprapubic tenderness
* Costovertebral angle pain or tenderness
* Urinary urgency
* Urinary frequency
* Dysuria
* Altered Mental Status + 2 or more SIRS criteria
* Treatment rate of ASB: antibiotic treatment for ASB

**Action items/Insight**:

Based on the Inappropriate Diagnosis of UTI Measure, your hospital is a performing **above average** in terms of percentage of UTI cases that were actually ASB. Please continue to try and work on improving this. Additional comments:

* **Met case submission requirement:** Great job submitting cases! Celebrate this success!
* **Low Fluoroquinolone use:** Fluoroquinolone use appears to be low at your site! Great job!
* **Downtrending treatment duration for ASB:** Treatment duration for ASB is starting to trend down. Great job! Keep working on this.
* **High treatment duration for UTI:** Your median treatment duration for UTI during the last month was 7 days (though in prior months, the median was 5 days) – and a significant number of patients receive >7 days (20.7 to 33.3% over the course of the study period). This is an area on which you could focus to help reduce overall antibiotic use.