Table: Risk factors for bacteremic UTI in hospitalized older adults without definitive signs or symptoms of UTI, Multivariable Model*

Variable (n=11,793)	N (%) unless specified	OR/RR	95% Confidence Interval		Pᵉ
Age (Median IQR)	78.2 (67.7-86.6)	1.01	1.00	1.03	0.07
Male sex	3114 (26.4%)	**1.45**	1.02	2.07	0.04
Hypotension (SBP<90)	888 (7.5%)	**1.79**	1.14	2.82	0.01
Heart rate >90 beats per minute	5407 (45.8%)	**1.68**	1.19	2.37	0.003
No AMS or Dementia	5299 (44.9%)	REF			
AMS (with or without dementia)	4932 (41.8%)	1.31	0.92	1.87	0.14
Dementia without AMS	997 (8.5%)	0.56	0.25	1.27	0.16
Change in urine color/character	2233 (18.9%)	1.42	0.97	2.10	0.07
Fatigue	3176 (26.9%)	**1.47**	1.04	2.08	0.03
Functional decline	947 (8.0%)	1.28	0.76	2.16	0.34
Urinary retention	927 (7.9%)	**1.79**	1.11	2.90	0.02
Indwelling catheter	1835 (15.6%)	0.93	0.61	1.43	0.75
Complicated urologic history**	6440 (54.6%)	1.26	0.86	1.85	0.24
UA WBC/hpf 0-5	1441 (12.2%)	REF			
UA WBC/hpf 6-10	1263 (10.7%)	0.78	0.28	2.22	0.65
UA WBC/hpf 11-25	1765 (14.9%)	0.66	0.25	1.73	0.40
UA WBC/hpf >25	6577 (55.8%)	**2.47**	1.23	4.96	0.01
Log serum WBC***		**3.88**	2.90	5.19	<.0001

Abbreviations: UA: Urinalysis, WBC: white blood cells, hpf: high-powered field, SBP: systolic blood pressure, OR: Odds Ratio, RR: Relative Risk, AMS: Altered mental status
*Definitive signs or symptoms of a UTI: Dysuria, urgency, frequency, fever, rigors, suprapubic pain, flank pain, spasticity, hematuria
**Complicated urologic history: was defined as a history of nephrolithiasis (kidney stones), urologic surgery (ureteral stents, cystoscopy, suprapubic catheter, lithotripsy, ureteroscopy, percutaneous nephrostomy tube), urinary obstruction, urinary retention or neurogenic bladder, urinary incontinence in the 30 days prior to the hospital encounter.
***Log serum WBC: 1 unit increase in log Serum WBC = Serum WBC X 2.718
ᵉP <0.05 was considered significant

field (WBC/hpf) on urinalysis were associated with bacteremic UTI (Table). Older age, presence of an indwelling catheter, complicated urologic history, functional decline, AMS, dementia, and change in urine were not associated with higher odds for bacteremic UTI (Table). Of patients with AMS and no definitive signs or symptoms of a UTI, only 89 (1.8%) of 4,932 developed a bacteremic UTI. **Conclusions:** Bacteremic UTI is relatively rare in hospitalized inpatients presenting with bacteriuria without symptoms of UTI. Predictors of bacteremic UTI included male sex, hypotension, tachycardia, urinary retention, fatigue, serum leukocytosis, and higher levels of pyuria (>25 WBC/hpf) on urinalysis. Our findings provide stewards a framework to risk stratify inpatients of older age who present with positive urine cultures but without (or are unable to express) signs or symptoms of UTI.
Disclosures: None

Presentation Type:
Poster Presentation - Poster Presentation
Subject Category: Antibiotic Stewardship
Antibiotic use among SARI patients according to the AWaRe classification before and during the COVID-19 pandemic in Bangladesh
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Background: Irrational antibiotic use among hospitalized patients can lead to antibiotic resistance. For rational use, the WHO introduced the Access, Watch, and Reserve (AWaRe) classification of antibiotics. We explored antibiotic use according to the AWaRe classification among patients hospitalized with severe acute respiratory infection (SARI) between the prepandemic and COVID-19 pandemic periods in Bangladesh. **Methods:** From June 2017 to November 2022, we analyzed SARI inpatient data from the hospital-based influenza surveillance platform at 9 tertiary-level hospitals in Bangladesh. We defined June 2017–February 2020 as the prepandemic period and March 2020–November 2022 as the pandemic period. Physicians identified inpatients meeting the WHO SARI case definition and recorded patient demographics, clinical characteristics, and antibiotics
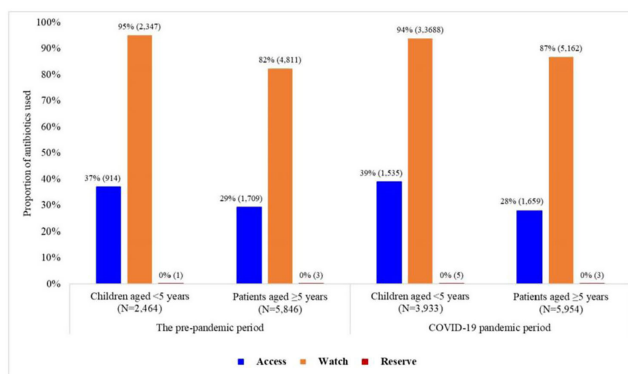

Figure: Antibiotic use among SARI patients according to the AWaRe classification during the pre- and COVID-19 pandemic periods in Bangladesh

received during hospitalization. We used descriptive statistics to summarize the data. **Results:** We enrolled 20,640 SARI patients (median age, 20 years; IQR, 1.6–50; 63% male); and among them, 18,197 (88%) received antibiotics (26% of those received >1 different course of antibiotics). Compared to the prepandemic period, the proportion of antibiotic use among SARI patients was higher during the pandemic: 93% (9,887 of 10,655) versus 83% (8,310 of 9,985) (P < .001). According to AWaRe classification, Access, Watch, and Reserve groups accounted for 32% (n = 2,623), 86% (n = 7,158), and 0.05% (n = 4), respectively, before the pandemic and 32% (n = 3,194), 90% (n = 8,850), and 0.08% (n = 8), respectively, during the pandemic (Fig.). The most common antibiotic prescribed for children aged <5 years during the prepandemic was ceftriaxone (n = 1,940, 74%), followed by amikacin (n = 325, 13%) and flucloxacillin (n = 300, 12%); similarly, during the pandemic, most common antibiotic prescribed was ceftriaxone (n = 3,097, 79%), followed by amikacin (n = 723, 18%) and flucloxacillin (n = 348, 9%). The most common antibiotic prescribed for patients aged ≥5 years during the prepandemic period was ceftriaxone (n = 3,174, 54%), followed by amoxicillin-clavulanic acid (n = 1,304, 22%) and azithromycin (n = 1,038, 18%). During the pandemic, the most common antibiotic prescribed for patients aged ≥5 years was ceftriaxone (n = 3,793, 64%), followed by amoxicillin-clavulanic acid (n = 1,327, 22%) and clarithromycin (n = 797, 13%). Among children aged <5 years, use of the Watch group of antibiotics during the prepandemic and pandemic periods was similar: 94% (n = 3,688) versus 95% (n = 2,347) (P = .099). However, among patients aged ≥5 years, the use of Watch antibiotics was higher during the pandemic compared to the prepandemic period: 87% (n = 5,163) versus 82% (n = 4,811) (P < .001). **Conclusions:** Use of antibiotics in the Watch group was predominant among SARI patients both before and during the COVID-19 pandemic, and it increased among SARI patients aged ≥5 years during the pandemic period in Bangladesh. Promoting antibiotic stewardship programs for physicians, including in-service training on antibiotic use, could reduce irrational antibiotic use, which might contribute to mitigating antibiotic resistance in the country.
Disclosures: None

Presentation Type:
Poster Presentation - Poster Presentation
Subject Category: Antibiotic Stewardship
Electronic health record–based identification of inpatients receiving antibiotic treatment for community-acquired pneumonia
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Background: Inappropriate antibiotic use for community-acquired pneumonia (CAP) is common. Although antibiotic stewardship activities require real-time, accurate identification of patients being treated for