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Introduction:
Infections contribute to a significant proportion of morbidity and mortality worldwide. While many infections are successfully managed with antimicrobial therapy, rates of antimicrobial resistance (AMR) are increasing. Certain patient populations such as those admitted to intensive care units (ICU) are at high risk.

Methods:
We conducted a retrospective, observational study of all ICU patients at a tertiary referral hospital in Rwanda from January 2015 through December 2016 We collected data on diagnosis, ICU length of stay, mortality and hospital length of stay, as well as microorganism, site of culture, AMR and antibiotics prescribe

Results:
Overall, 331 patients were admitted to the ICU. Most patients were admitted from the main operating theater (n=150, 45%). The most common admitting diagnoses were sepsis (n=113, 34%), head trauma (n= 90, 27%)

A total of 268 samples were collected from 331 patients. The samples were from blood (n=110, 33%), tracheal aspirate (n=22, 7%). The most common organisms isolated were Klebsiella (n=30, 29%), Acinetobacter (n=20, 19%), E.coli (n=16, 15%), Proteus (n=15, 14%), Citrobacter (n=8, 8%), S aureus (n=7, 7%), Pseudomonas (n=5, 5%), and other (n=9, 9%)

Of Klebsiella isolates, 100% and 76% were resistant to ceftriaxone and cefotaxime, respectively. Of E.coli isolates, 86% and 71% were resistant to ceftriaxone and cefotaxime, respectively. All Acinetobacter isolates were resistant to ceftriaxone and cefotaxime

Conclusion:
There is an alarming rate of antimicrobial resistance to commonly used antibiotics in the ICU. Expanding antibiotic options and strengthening antimicrobial stewardship are critical for patient care.