**Supplemental Table 1.**  CDC location codes, LOINC codes, and RxNORM ingredient codes.

|  |  |  |
| --- | --- | --- |
|  | **Name** | **Code** |
| **CDC location codes** | Facility Wide Inpatient | 1250-0 |
| Medical Critical Care | 1027-2 |
| Surgical Critical Care | 1030-6 |
| Medical Cardiac Critical Care | 1028-0 |
| Medical-Surgical Critical Care | 1029-8 |
| Medical Ward | 1060-3 |
| Medical-Surgical Ward | 1061-1 |
| Surgical Ward | 1072-8 |
| **LOINC codes** | SARS-CoV-2 (COVID-19) [Presence] in Specimen by Organism specific culture | 94763-0 |
| SARS-CoV-2 (COVID-19) Ag [Presence] in Respiratory specimen by Rapid immunoassay | 94558-4 |
| SARS-CoV-2 (COVID-19) N gene [#/volume] (viral load) in Respiratory specimen by NAA with probe detection | 95521-1 |
| SARS-CoV-2 (COVID-19) N gene [Cycle Threshold #] in Specimen by NAA with probe detection | 94510-5 |
| SARS-CoV-2 (COVID-19) N gene [Cycle Threshold #] in Specimen by Nucleic acid amplification using CDC primer-probe set N1 | 94311-8 |
| SARS-CoV-2 (COVID-19) N gene [Cycle Threshold #] in Specimen by Nucleic acid amplification using CDC primer-probe set N2 | 94312-6 |
| SARS-CoV-2 (COVID-19) N gene [Log #/volume] (viral load) in Respiratory specimen by NAA with probe detection | 95522-9 |
| SARS-CoV-2 (COVID-19) N gene [Presence] in Nasopharynx by NAA with probe detection | 94760-6 |
| SARS-CoV-2 (COVID-19) N gene [Presence] in Nose by NAA with probe detection | 95409-9 |
| SARS-CoV-2 (COVID-19) N gene [Presence] in Respiratory specimen by NAA with probe detection | 94533-7 |
| SARS-CoV-2 (COVID-19) N gene [Presence] in Respiratory specimen by Nucleic acid amplification using CDC primer-probe set N1 | 94756-4 |
| SARS-CoV-2 (COVID-19) N gene [Presence] in Respiratory specimen by Nucleic acid amplification using CDC primer-probe set N2 | 94757-2 |
| SARS-CoV-2 (COVID-19) N gene [Presence] in Saliva (oral fluid) by NAA with probe detection | 95425-5 |
| SARS-CoV-2 (COVID-19) N gene [Presence] in Serum or Plasma by NAA with probe detection | 94766-3 |
| SARS-CoV-2 (COVID-19) N gene [Presence] in Specimen by NAA with probe detection | 94316-7 |
| SARS-CoV-2 (COVID-19) N gene [Presence] in Specimen by Nucleic acid amplification using CDC primer-probe set N1 | 94307-6 |
| SARS-CoV-2 (COVID-19) N gene [Presence] in Specimen by Nucleic acid amplification using CDC primer-probe set N2 | 94308-4 |
| SARS-CoV-2 (COVID-19) ORF1ab region [Cycle Threshold #] in Respiratory specimen by NAA with probe detection | 94644-2 |
| SARS-CoV-2 (COVID-19) ORF1ab region [Cycle Threshold #] in Specimen by NAA with probe detection | 94511-3 |
| SARS-CoV-2 (COVID-19) ORF1ab region [Presence] in Respiratory specimen by NAA with probe detection | 94559-2 |
| SARS-CoV-2 (COVID-19) ORF1ab region [Presence] in Specimen by NAA with probe detection | 94639-2 |
| SARS-CoV-2 (COVID-19) RdRp gene [Cycle Threshold #] in Respiratory specimen by NAA with probe detection | 94646-7 |
| SARS-CoV-2 (COVID-19) RdRp gene [Cycle Threshold #] in Specimen by NAA with probe detection | 94645-9 |
| SARS-CoV-2 (COVID-19) RdRp gene [Presence] in Respiratory specimen by NAA with probe detection | 94534-5 |
| SARS-CoV-2 (COVID-19) RdRp gene [Presence] in Specimen by NAA with probe detection | 94314-2 |
| SARS-CoV-2 (COVID-19) RNA [Cycle Threshold #] in Respiratory specimen by NAA with probe detection | 94745-7 |
| SARS-CoV-2 (COVID-19) RNA [Cycle Threshold #] in Specimen by NAA with probe detection | 94746-5 |
| SARS-CoV-2 (COVID-19) RNA [Log #/volume] (viral load) in Specimen by NAA with probe detection | 94819-0 |
| SARS-CoV-2 (COVID-19) RNA [Presence] in Nasopharynx by NAA with non-probe detection | 94565-9 |
| SARS-CoV-2 (COVID-19) RNA [Presence] in Nasopharynx by NAA with probe detection | 94759-8 |
| SARS-CoV-2 (COVID-19) RNA [Presence] in Nose by NAA with probe detection | 95406-5 |
| SARS-CoV-2 (COVID-19) RNA [Presence] in Respiratory specimen by NAA with probe detection | 94500-6 |
| SARS-CoV-2 (COVID-19) RNA [Presence] in Respiratory specimen by Sequencing | 95424-8 |
| SARS-CoV-2 (COVID-19) RNA [Presence] in Saliva (oral fluid) by NAA with probe detection | 94845-5 |
| SARS-CoV-2 (COVID-19) RNA [Presence] in Saliva (oral fluid) by Sequencing | 94822-4 |
| SARS-CoV-2 (COVID-19) RNA [Presence] in Serum or Plasma by NAA with probe detection | 94660-8 |
| SARS-CoV-2 (COVID-19) RNA [Presence] in Specimen by NAA with probe detection | 94309-2 |
| SARS-CoV-2 (COVID-19) RNA panel - Respiratory specimen by NAA with probe detection | 94531-1 |
| SARS-CoV-2 (COVID-19) RNA panel - Specimen by NAA with probe detection | 94306-8 |
| SARS-CoV-2 (COVID-19) S gene [Cycle Threshold #] in Respiratory specimen by NAA with probe detection | 94642-6 |
| SARS-CoV-2 (COVID-19) S gene [Cycle Threshold #] in Specimen by NAA with probe detection | 94643-4 |
| SARS-CoV-2 (COVID-19) S gene [Presence] in Respiratory specimen by NAA with probe detection | 94640-0 |
| SARS-CoV-2 (COVID-19) S gene [Presence] in Serum or Plasma by NAA with probe detection | 94767-1 |
| SARS-CoV-2 (COVID-19) S gene [Presence] in Specimen by NAA with probe detection | 94641-8 |
| SARS-CoV-2 (COVID-19) whole genome [Nucleotide sequence] in Isolate or Specimen by Sequencing | 94764-8 |
| **RxNORM ingredient codes** | Amantadine | 620 |
| Amikacin | 641 |
| Amoxicillin | 723 |
| Amoxicillin with Clavulanate | 19711 |
| Ampicillin | 733 |
| Amphotericin B | 732 |
| Amphotericin B Liposomal | 236594 |
| Ampicillin with Sulbactam | 1009148 |
| Anidulafungin | 341018 |
| Azithromycin | 18631 |
| Aztreonam | 1272 |
| Caspofungin | 140108 |
| Cefaclor | 2176 |
| Cefadroxil | 2177 |
| Cefazolin | 2180 |
| Cefdinir | 25037 |
| Cefditoren | 83682 |
| Cefepime | 20481 |
| Cefixime | 25033 |
| Cefotaxime | 2186 |
| Cefoxitin | 2189 |
| Cefpodoxime | 20489 |
| Cefprozil | 19552 |
| Ceftaroline | 1040005 |
| Ceftazidime/Avibactam | 1603839 |
| Ceftazidime | 2191 |
| Ceftibuten | 20492 |
| Ceftizoxime | 2192 |
| Ceftolozane/Tazobactam | 1597614 |
| Ceftriaxone | 2193 |
| Cefuroxime | 2194 |
| Cephalexin | 2231 |
| Chloramphenicol | 2348 |
| Ciprofloxacin | 2551 |
| Clarithromycin | 21212 |
| Clindamycin | 2582 |
| Colistimethate | 2708 |
| Cefotetan | 2187 |
| Dalbavancin | 1539239 |
| Daptomycin | 22299 |
| Delafloxacin | 1927663 |
| Dicloxacillin | 3356 |
| Doripenem | 119771 |
| Doxycycline | 3640 |
| Ertapenem | 325642 |
| Erythromycin | 4053 |
| Erythromycin with Sulfisoxazole | 113588 |
| Fidaxomicin | 1111103 |
| Fluconazole | 4450 |
| Fosfomycin | 4550 |
| Gemifloxacin | 138099 |
| Gentamicin | 142438 |
| Imipenem with Cilastatin | 34482 |
| Isavuconazonium | 1608322 |
| Itraconazole | 28031 |
| Levofloxacin | 82122 |
| Linezolid | 190376 |
| Meropenem | 29561 |
| Metronidazole | 6922 |
| Micafungin | 325887 |
| Minocycline | 6980 |
| Moxifloxacin | 139462 |
| Nafcillin | 7233 |
| Nitrofurantoin | 7454 |
| Oritavancin | 1547611 |
| Oseltamivir | 260101 |
| Oxacillin | 7773 |
| Polymyxin B | 8536 |
| Penicillin G | 7980 |
| Penicillin V | 7984 |
| Peramivir | 619693 |
| Piperacillin | 8339 |
| Piperacillin with Tazobactam | 74169 |
| Posaconazole | 282446 |
| Quinupristin with Dalfopristin | 135098 |
| Remdesivir | 2284718 |
| Rifampin | 9384 |
| Rimantadine | 9386 |
| Sulfamethoxazole with Trimethoprim | 10831 |
| Sulfisoxazole | 10207 |
| Tedizolid | 1540825 |
| Telavancin | 473837 |
| Telithromycin | 274786 |
| Tetracycline | 10395 |
| Ticarcillin with Clavulanate | 113931 |
| Tigecycline | 384455 |
| Tinidazole | 10612 |
| Tobramycin | 10627 |
| Vancomycin | 11124 |
| Voriconazole | 121243 |
| Zanamivir | 69722 |

CDC – Centers for Disease Control and Prevention; LOINC – Logical Observation Identifiers Names and Codes; SARS-CoV-2 – Severe Acute Respiratory Syndrome Coronavirus-2; COVID-19 – Coronavirus Disease 2019; NAA – nucleic acid amplification; Ag – antigen; RNA – ribonucleic acid

**Supplemental Table 2A.** Monthly AU for COVID-19 patients from March to December 2020, versus monthly AU for non-COVID-19 patients from March to December 2020 at three hospitals (A, B, and C) facility-wide and in major intensive care units for antimicrobial categories specified by NHSN.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **COVID**  **2020**  **Median Monthly AU** | | | **Non-COVID**  **2020**  **Median Monthly AU** | | | **Percent Difference**  **COVID 2020 vs**  **non-COVID 2020** | | |
| **A** | **B** | **C** | **A** | **B** | **C** | **A** | **B** | **C** |
| **Facility-Wide** | | | | | | | | | |
| All antibacterial agents | 546 | 492 | 636 | 480 | 414 | 447 | NS | +19  \*\* | +42  \*\* |
| Broad-spectrum antibacterial agents hospital-onset infections | 166 | 195 | 218 | 96 | 118 | 114 | +73  \*\* | +66  \*\* | +91  \*\* |
| Broad-spectrum antibacterial agents community-acquired infections | 102 | 80 | 100 | 95 | 66 | 76 | NS | NS | +31  \*\* |
| Narrow-spectrum beta-lactam agents | 58 | 60 | 58 | 115 | 86 | 86 | -50  \*\* | NS | -32  \*\* |
| Antifungal agents used for invasive candidiasis | 24 | 28 | 22 | 22 | 39 | 29 | NS | NS | NS |
| **Major Intensive Care Units** | | | | | | | | | |
| All antibacterial agents | 827 | 639 | 910 | 815 | 542 | 1059 | NS | +18  \*\* | -14  \*\* |
| Broad-spectrum antibacterial agents hospital-onset infections | 356 | 277 | 460 | 274 | 218 | 474 | +29  \*\* | +27  \*\* | NS |
| Broad-spectrum antibacterial agents community-acquired infections | 114 | 68 | 87 | 99 | 66 | 71 | NS | NS | NS |
| Narrow-spectrum beta-lactam agents | 46 | 79 | 60 | 132 | 71 | 99 | -65  \*\* | NS | -39  \*\* |
| Antifungal agents used for invasive candidiasis | 35 | 22 | 75 | 30 | 48 | 74 | NS | NS | NS |

\*\* p-value <=0.05; COVID – coronavirus disease; NS – not significant

**Supplemental Table 2B.** Monthly AU for COVID-19 patients from March to December 2020, versus monthly AU for non-COVID-19 patients from March to December 2019 at three hospitals (A, B, and C) facility-wide and in major intensive care units for antimicrobial categories specified by NHSN.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **COVID**  **2020**  **Median Monthly AU** | | | **Non-COVID**  **2019**  **Median Monthly AU** | | | **Percent Difference**  **COVID 2020 vs**  **non-COVID 2019** | | |
| **A** | **B** | **C** | **A** | **B** | **C** | **A** | **B** | **C** |
| **Facility-Wide** | | | | | | | | | |
| All antibacterial agents | 546 | 492 | 636 | 520 | 445 | 488 | NS | +11  \*\* | +30  \*\* |
| Broad-spectrum antibacterial agents hospital-onset infections | 166 | 195 | 218 | 110 | 119 | 131 | +52  \*\* | +64  \*\* | +66  \*\* |
| Broad-spectrum antibacterial agents community-acquired infections | 102 | 80 | 100 | 107 | 70 | 80 | NS | NS | +26  \*\* |
| Narrow-spectrum beta-lactam agents | 58 | 60 | 58 | 100 | 98 | 86 | -41  \*\* | NS | -32  \*\* |
| Antifungal agents used for invasive candidiasis | 24 | 28 | 22 | 19 | 39 | 35 | NS | NS | NS |
| **Major Intensive Care Units** | | | | | | | | | |
| All antibacterial agents | 827 | 639 | 910 | 771 | 529 | 1161 | NS | +21  \*\* | -22  \*\* |
| Broad-spectrum antibacterial agents hospital-onset infections | 356 | 277 | 460 | 234 | 187 | 506 | +52  \*\* | +48  \*\* | NS |
| Broad-spectrum antibacterial agents community-acquired infections | 114 | 68 | 87 | 102 | 66 | 87 | NS | NS | NS |
| Narrow-spectrum beta-lactam agents | 46 | 79 | 60 | 99 | 89 | 99 | -53  \*\* | NS | -40  \*\* |
| Antifungal agents used for invasive candidiasis | 35 | 22 | 75 | 25 | 38 | 80 | NS | NS | NS |

\*\* p-value <=0.05; COVID – coronavirus disease; NS – not significant

**Supplemental Table 2C.** Monthly AU for non-COVID-19 patients from March to December 2020, versus monthly AU for non-COVID-19 patients from March to December 2019 at three hospitals (A, B, and C) facility-wide and in major intensive care units for antimicrobial categories specified by NHSN.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Non-COVID**  **2020**  **Median Monthly AU** | | | **Non-COVID**  **2019**  **Median Monthly AU** | | | **Percent Difference**  **non-COVID 2020 vs**  **non-COVID 2019** | | |
|  | **A** | **B** | **C** | **A** | **B** | **C** | **A** | **B** | **C** |
| **Facility-Wide** | | | | | | | | | |
| All antibacterial agents | 480 | 414 | 447 | 520 | 445 | 488 | -8  \*\* | -7  \*\* | -8  \*\* |
| Broad-spectrum antibacterial agents hospital-onset infections | 96 | 118 | 114 | 110 | 119 | 131 | -12  \*\* | NS | -13  \*\* |
| Broad-spectrum antibacterial agents community-acquired infections | 95 | 66 | 76 | 107 | 70 | 80 | -11  \*\* | -6  \*\* | NS |
| Narrow-spectrum beta-lactam agents | 115 | 86 | 85 | 100 | 98 | 86 | +15  \*\* | -13  \*\* | NS |
| Antifungal agents used for invasive candidiasis | 22 | 39 | 29 | 19 | 39 | 35 | NS | NS | -16  \*\* |
| **Major Intensive Care Units** | | | | | | | | | |
| All antibacterial agents | 815 | 542 | 1059 | 771 | 529 | 1161 | NS | NS | -9  \*\* |
| Broad-spectrum antibacterial agents hospital-onset infections | 274 | 218 | 474 | 234 | 187 | 506 | NS | +17  \*\* | NS |
| Broad-spectrum antibacterial agents community-acquired infections | 99 | 66 | 71 | 102 | 66 | 87 | NS | NS | NS |
| Narrow-spectrum beta-lactam agents | 132 | 71 | 99 | 99 | 89 | 99 | NS | -20  \*\* | NS |
| Antifungal agents used for invasive candidiasis | 30 | 48 | 74 | 25 | 38 | 80 | NS | NS | NS |

\*\* p-value <=0.05; COVID – coronavirus disease; NS – not significant

**Supplemental Table 3A.** Monthly AU for COVID-19 patients from March to December 2020, versus monthly AU for non-COVID-19 patients from March to December 2020 at three hospitals (A, B, and C) facility-wide and in major intensive care units for specific antimicrobials and classes frequently used in clinical settings.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **COVID**  **2020**  **Median Monthly AU** | | | **Non-COVID**  **2020**  **Median Monthly AU** | | | **Percent Difference**  **COVID 2020 vs**  **non-COVID 2020** | | |
| **A** | **B** | **C** | **A** | **B** | **C** | **A** | **B** | **C** |
| **Facility-Wide** | | | | | | | | | |
| Aminoglycosides (amikacin, gentamicin, tobramycin) | 3 | 3 | 19 | 3 | 8 | 6 | NS | -66  \*\* | +200  \*\* |
| Azithromycin | 36 | 4 | 69 | 18 | 8 | 22 | +99  \*\* | NS | +216  \*\* |
| Carbapenems (imipenem/cilastatin, meropenem, ertapenem) | 93 | 16 | 55 | 50 | 14 | 20 | +84  \*\* | NS | +182  \*\* |
| Ceftriaxone | 72 | 56 | 76 | 58 | 40 | 38 | +24  \*\* | +39  \*\* | +102  \*\* |
| Piperacillin/tazobactam | 25 | 81 | 74 | 18 | 53 | 53 | NS | +52  \*\* | +38  \*\* |
| Quinolones (ciprofloxacin, moxifloxacin, levofloxacin) | 17 | 11 | 14 | 32 | 18 | 33 | NS | NS | -56  \*\* |
| Vancomycin | 97 | 88 | 65 | 65 | 57 | 62 | +48  \*\* | +54  \*\* | NS |
| **Major Intensive Care Units** | | | | | | | | | |
| Aminoglycosides (amikacin, gentamicin, tobramycin) | 3 | 4 | 60 | 4 | 6 | 30 | NS | NS | NS |
| Azithromycin | 36 | 3 | 40 | 50 | 10 | 58 | NS | NS | NS |
| Carbapenems (imipenem/cilastatin, meropenem, ertapenem) | 186 | 25 | 112 | 145 | 26 | 90 | NS | NS | NS |
| Ceftriaxone | 84 | 51 | 79 | 83 | 54 | 52 | NS | NS | NS |
| Piperacillin/tazobactam | 67 | 125 | 137 | 48 | 97 | 229 | NS | NS | NS |
| Quinolones (ciprofloxacin, moxifloxacin, levofloxacin) | 19 | 7 | 6 | 14 | 7 | 12 | NS | NS | -52  \*\* |
| Vancomycin | 205 | 117 | 89 | 168 | 94 | 139 | NS | NS | -36  \*\* |

\*\* p-value <=0.05; COVID – coronavirus disease; NS – not significant

**Supplemental Table 3B.** Monthly AU for COVID-19 patients from March to December 2020, versus monthly AU for non-COVID-19 patients from March to December 2019 at three hospitals (A, B, and C) facility-wide and in major intensive care units for specific antimicrobials and classes frequently used in clinical settings.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **COVID**  **2020**  **Median Monthly AU** | | | **Non-COVID**  **2019**  **Median Monthly AU** | | | **Percent Difference**  **COVID 2020 vs**  **non-COVID 2019** | | |
| **A** | **B** | **C** | **A** | **B** | **C** | **A** | **B** | **C** |
| **Facility-Wide** | | | | | | | | | |
| Aminoglycosides (amikacin, gentamicin, tobramycin) | 3 | 3 | 19 | 9 | 9 | 8 | -70  \*\* | -68  \*\* | +129  \*\* |
| Azithromycin | 36 | 4 | 69 | 22 | 11 | 30 | +59  \*\* | NS | +129  \*\* |
| Carbapenems (imipenem/cilastatin, meropenem, ertapenem) | 93 | 16 | 55 | 67 | 16 | 22 | NS | NS | +150  \*\* |
| Ceftriaxone | 72 | 56 | 76 | 54 | 42 | 38 | +33  \*\* | NS | +98  \*\* |
| Piperacillin/tazobactam | 25 | 81 | 74 | 21 | 48 | 63 | NS | +67  \*\* | +16  \*\* |
| Quinolones (ciprofloxacin, moxifloxacin, levofloxacin) | 17 | 11 | 14 | 38 | 26 | 38 | -55  \*\* | NS | -62  \*\* |
| Vancomycin | 97 | 88 | 65 | 73 | 62 | 69 | +32  \*\* | +42  \*\* | NS |
| **Major Intensive Care Units** | | | | | | | | | |
| Aminoglycosides (amikacin, gentamicin, tobramycin) | 3 | 4 | 60 | 5 | 9 | 37 | NS | NS | NS |
| Azithromycin | 36 | 3 | 40 | 55 | 20 | 83 | NS | NS | NS |
| Carbapenems (imipenem/cilastatin, meropenem, ertapenem) | 186 | 25 | 112 | 177 | 33 | 93 | NS | NS | NS |
| Ceftriaxone | 84 | 51 | 79 | 64 | 51 | 64 | NS | NS | NS |
| Piperacillin/tazobactam | 67 | 125 | 137 | 26 | 83 | 251 | NS | +51  \*\* | NS |
| Quinolones (ciprofloxacin, moxifloxacin, levofloxacin) | 19 | 7 | 6 | 32 | 12 | 24 | NS | NS | -75  \*\* |
| Vancomycin | 205 | 117 | 89 | 158 | 88 | 162 | NS | +33  \*\* | -45  \*\* |

\*\* p-value <=0.05; COVID – coronavirus disease; NS – not significant

**Supplemental Table 3C.** Monthly AU for non-COVID-19 patients from March to December 2020, versus monthly AU for non-COVID-19 patients from March to December 2019 at three hospitals (A, B, and C) facility-wide and in major intensive care units for specific antimicrobials and classes frequently used in clinical settings.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Non-COVID**  **2020**  **Median Monthly AU** | | | **Non-COVID**  **2019**  **Median Monthly AU** | | | **Percent Difference**  **non-COVID 2020 vs**  **non-COVID 2019** | | |
|  | **A** | **B** | **C** | **A** | **B** | **C** | **A** | **B** | **C** |
| **Facility-Wide** | | | | | | | | | |
| Aminoglycosides (amikacin, gentamicin, tobramycin) | 3 | 8 | 6 | 9 | 9 | 8 | -66  \*\* | NS | -24  \*\* |
| Azithromycin | 18 | 8 | 22 | 22 | 11 | 30 | NS | NS | -28  \*\* |
| Carbapenems (imipenem/cilastatin, meropenem, ertapenem) | 50 | 14 | 20 | 67 | 16 | 22 | -25  \*\* | -16  \*\* | NS |
| Ceftriaxone | 58 | 40 | 38 | 54 | 42 | 38 | NS | NS | NS |
| Piperacillin/tazobactam | 18 | 53 | 53 | 21 | 48 | 63 | NS | NS | -15  \*\* |
| Quinolones (ciprofloxacin, moxifloxacin, levofloxacin) | 32 | 18 | 33 | 38 | 26 | 38 | -17  \*\* | -28  \*\* | -15  \*\* |
| Vancomycin | 65 | 57 | 62 | 73 | 62 | 69 | NS | -8  \*\* | -10  \*\* |
| **Major Intensive Care Units** | | | | | | | | | |
| Aminoglycosides (amikacin, gentamicin, tobramycin) | 4 | 6 | 30 | 5 | 9 | 37 | NS | NS | NS |
| Azithromycin | 50 | 10 | 58 | 55 | 20 | 83 | NS | -52  \*\* | -30  \*\* |
| Carbapenems (imipenem/cilastatin, meropenem, ertapenem) | 145 | 26 | 90 | 177 | 33 | 93 | -18  \*\* | NS | NS |
| Ceftriaxone | 83 | 54 | 52 | 64 | 51 | 64 | NS | NS | NS |
| Piperacillin/tazobactam | 48 | 97 | 229 | 26 | 83 | 251 | NS | NS | NS |
| Quinolones (ciprofloxacin, moxifloxacin, levofloxacin) | 14 | 7 | 12 | 32 | 12 | 24 | -56  \*\* | -37  \*\* | -48  \*\* |
| Vancomycin | 168 | 94 | 139 | 158 | 88 | 162 | NS | NS | -14  \*\* |

\*\* p-value <=0.05; COVID – coronavirus disease; NS – not significant