

Table S1. Prevalence of Antimicrobial Drug Use According to Different Specialties According to the Survey Year.

| Specialty | Number of patients | Prevalence, % |
|--------------------------------|---------------------------|----------------------|
| Total | | |
| August 2018 | 256 | 28.5 |
| August 2019 | 275 | 28.7 |
| General surgery | | |
| August 2018 | 53 | 30.2 |
| August 2019 | 35 | 28.6 |
| Orthopaedic surgery | | |
| August 2018 | 46 | 17.4 |
| August 2019 | 42 | 35.7 |
| Neurosurgery | | |
| August 2018 | 23 | 30.4 |
| August 2019 | 34 | 23.5 |
| Gynaecology | | |
| August 2018 | 4 | 25.0 |
| August 2019 | 2 | 50.0 |
| Oral and maxillofacial surgery | | |
| August 2018 | 13 | 76.9 |
| August 2019 | 17 | 41.2 |
| Otorhinolaryngology | | |
| August 2018 | 5 | 60.0 |
| August 2019 | 8 | 87.5 |
| Ophthalmology | | |
| August 2018 | 0 | NA |
| August 2019 | 3 | 100.0 |
| Urology | | |
| August 2018 | 13 | 23.1 |
| August 2019 | 14 | 21.4 |
| Dermatology | | |
| August 2018 | 4 | 25.0 |
| August 2019 | 2 | 50.0 |
| Internal medicine | | |
| August 2018 | 90 | 23.3 |

| | | |
|--------------------|-----|------|
| August 2019 | 108 | 19.4 |
| Paediatric surgery | | |
| August 2018 | 0 | NA |
| August 2019 | 2 | 0.0 |
| Paediatrics | | |
| August 2018 | 5 | 60.0 |
| August 2019 | 8 | 37.5 |

NA, not available.

Table S2. The Reasons for Antimicrobial Drug Use According to Survey Year.

| Reasons | August 2018 (n = 79) | August 2019 (n = 87) |
|--------------------------------|---------------------------------|---------------------------------|
| Treatment for infection, n (%) | 43 (54.4) | 51 (58.6) |
| Prophylaxis, n (%) | | |
| Surgical | 28 (35.4) | 33 (37.9) |
| Medical | 5 (6.3) | 1 (1.1) |
| Noninfectious reasons, n (%) | 1 (1.3) | 2 (2.3) |
| Unknown reasons, n (%) | 2 (2.5) | 0 (0.0) |

Table S3. Number and Type of Antimicrobial Drugs Given to Treat Infections According to the Survey Year.

| Type | August 2018 ^a | August 2019 ^a |
|-------------------------------|--------------------------|--------------------------|
| Total antimicrobial drugs | 43 (100.0) | 51 (100.0) |
| Ceftriaxone | 9 (20.9) | 15 (29.4) |
| Cefmetazole | 7 (16.3) | 3 (5.9) |
| Cefazolin | 6 (14.0) | 0 (0.0) |
| Ampicillin-sulbactam | 5 (11.6) | 3 (5.9) |
| Piperacillin-tazobactam | 3 (7.0) | 4 (7.8) |
| Ceftazidime | 2 (4.7) | 0 (0.0) |
| Amoxicillin | 2 (4.7) | 1 (2.0) |
| Ampicillin | 1 (2.3) | 1 (2.0) |
| Amoxicillin-clavulanate | 1 (2.3) | 0 (0.0) |
| Azithromycin | 1 (2.3) | 0 (0.0) |
| Cefditoren pivoxil | 1 (2.3) | 3 (5.9) |
| Minocycline | 1 (2.3) | 1 (2.0) |
| Piperacillin | 1 (2.3) | 0 (0.0) |
| Vancomycin (parenteral) | 1 (2.3) | 2 (3.9) |
| Trimethoprim-sulfamethoxazole | 1 (2.3) | 1 (2.0) |
| Cefalexin | 1 (2.3) | 0 (0.0) |
| Cefozopran | 0 (0.0) | 3 (5.9) |
| Cefotaxime | 0 (0.0) | 3 (5.9) |
| Metronidazole (parenteral) | 0 (0.0) | 2 (3.9) |
| Levofloxacin | 0 (0.0) | 2 (3.9) |
| Clindamycin | 0 (0.0) | 2 (3.9) |
| Acyclovir | 0 (0.0) | 1 (2.0) |
| Amphotericin B (enteral) | 0 (0.0) | 1 (2.0) |
| Gentamicin | 0 (0.0) | 1 (2.0) |
| Metronidazole (enteral) | 0 (0.0) | 1 (2.0) |
| Valacyclovir | 0 (0.0) | 1 (2.0) |

^aData are expressed as numbers (percentages).

Table S4. Infection Sites for Which Patients Received Antimicrobial Therapy According to the Survey Year.

| Infection site ^a | August 2018 ^b | | August 2019 ^b | |
|----------------------------------|------------------------------------|---------------------------------------|------------------------------------|---------------------------------------|
| | Number of drugs, n (%) (n = 43) | Number of patients, n (%) (n = 40) | Number of drugs, n (%) (n = 51) | Number of patients, n (%) (n = 44) |
| Hepatobiliary system | 10 (23.3) | 10 (25.0) | 2 (3.9) | 2 (4.5) |
| Bloodstream | 9 (20.9) | 9 (22.5) | 6 (11.8) | 6 (13.6) |
| Urinary tract | 8 (18.6) | 7 (17.5) | 9 (17.6) | 9 (20.5) |
| Skin and soft tissue | 7 (16.3) | 6 (15.0) | 5 (9.8) | 5 (11.4) |
| Eye, ear, nose, throat, or mouth | 5 (11.6) | 5 (12.5) | 4 (7.8) | 3 (6.8) |
| Lower respiratory tract | 4 (9.3) | 3 (7.5) | 9 (17.6) | 9 (20.5) |
| Intra-abdominal | 3 (7.0) | 3 (7.5) | 0 (0.0) | 0 (0.0) |
| Gastrointestinal tract | 3 (7.0) | 3 (7.5) | 6 (11.8) | 4 (9.1) |
| Empirical/undetermined | 1 (2.3) | 1 (2.5) | 1 (2.0) | 1 (2.3) |
| Bone and joint | 2 (4.7) | 2 (5.0) | 6 (11.8) | 5 (11.4) |
| Central nervous system | 2 (4.7) | 2 (5.0) | 5 (9.8) | 2 (4.5) |
| Others | 0 (0.0) | 0 (0.0) | 1 (2.0) | 1 (2.3) |

^aAntimicrobial drugs and patients could be given for more than one infection site.

^bData are expressed as numbers (percentages).

Table S5. Appropriateness of the Antimicrobial Drugs Used for Treatment According to the Location in the Hospital, Specialty, Type of Antimicrobial Drug, and Type of Infection.

| | August 2018 ^a | | August 2019 ^a | |
|----------------------------|--------------------------|------------------------------|--------------------------|------------------------------|
| | Total number of uses | Number of inappropriate uses | Total number of uses | Number of inappropriate uses |
| Location in hospital | | | | |
| Ward | 41 | 15 (36.6) | 51 | 30 (58.8) |
| Critical care unit | 2 | 2 (100.0) | 0 | NA |
| Specialty | | | | |
| Internal medicine | 17 | 0 (0.0) | 19 | 8 (42.1) |
| General surgery | 8 | 6 (75.0) | 4 | 3 (75.0) |
| Neurosurgery | 4 | 4 (100.0) | 7 | 5 (71.4) |
| Orthopaedic surgery | 1 | 1 (100.0) | 6 | 4 (66.7) |
| Otorhinolaryngology | 1 | 0 (0.0) | 5 | 2 (40.0) |
| Others | 12 | 6 (50.0) | 10 | 8 (80.0) |
| Type of antimicrobial drug | | | | |
| Ceftriaxone | 9 | 4 (44.4) | 15 | 7 (46.7) |
| Cefmetazole | 7 | 2 (28.6) | 3 | 1 (33.3) |
| Cefazolin | 6 | 1 (16.7) | 0 | NA |
| Ampicillin-sulbactam | 5 | 4 (80.0) | 3 | 2 (66.7) |
| Others | 16 | 6 (37.5) | 30 | 20 (66.7) |
| Site of infection | | | | |
| Hepatobiliary system | 10 | 2 (20.0) | 2 | 0 (0.0) |
| Bloodstream | 9 | 1 (11.1) | 5 | 2 (40.0) |
| Urinary tract | 8 | 2 (25.0) | 9 | 6 (66.7) |
| Skin and soft issue | 5 | 2 (40.0) | 5 | 5 (100.0) |
| Lower respiratory tract | 4 | 2 (50.0) | 8 | 5 (62.5) |
| Bone and joint | 2 | 0 (0.0) | 6 | 4 (66.7) |
| Gastrointestinal tract | 2 | 2 (100.0) | 6 | 1 (16.7) |

^aData are expressed as numbers (percentages).

NA, not available.

Table S6. Type and Duration of Antimicrobial Drug Used for Surgical Prophylaxis According to the Survey Year.

| | August 2018^a (n = 28) | August 2019^a (n = 33) |
|------------------------------------------|---------------------------------------------------|---------------------------------------------------|
| Duration | | |
| Mean days (SD) | 2.5 (1.3) | 1.8 (1.1) |
| Median days (IQR) | 2 (2 – 3) | 2 (1 – 2) |
| One day | 4 (14.3) | 16 (48.5) |
| Two days | 11 (39.3) | 11 (33.3) |
| More than two days | 13 (46.4) | 6 (18.2) |
| Type of antimicrobial drugs ^b | | |
| Cefazolin | 13 (46.4) | 0 (0.0) |
| Ampicillin-sulbactam | 7 (25.0) | 3 (9.1) |
| Cefotiam | 3 (10.7) | 0 (0.0) |
| Cefmetazole | 2 (7.1) | 4 (12.1) |
| Ceftriaxone | 1 (3.6) | 10 (30.3) |
| Cefcapene pivoxil | 1 (3.6) | 1 (3.0) |
| Amoxicillin | 1 (3.6) | 0 (0.0) |
| Flomoxef | 0 (0.0) | 5 (15.2) |
| Ampicillin | 0 (0.0) | 5 (15.2) |
| Cefalexin | 0 (0.0) | 4 (12.1) |
| Cefoperazone-sulbactam | 0 (0.0) | 1 (3.0) |

^aData are expressed as numbers (percentages).

^bA total of 28 and 33 antimicrobial drugs were given to 28 and 32 patients for surgical prophylaxis in August 2018 and 2019, respectively.

IQR, interquartile range; SD, standard deviation.