**MAP-AMR Year 2 PPS Phase 2**

**Table 1 Patient interview form**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Variable** | **KNH (n=172)** | **NSIRH (n=11)** | **TNH (n=45)** | **Total (n=228)** |
| **Median age in years (min, max)** | Median\_ 13 yrs  Min\_1 month  Max\_83 yrs | Median\_ 49 yrs  Min\_1 month  Max\_68 yrs | Median\_57 yrs  Min\_1 month  Max\_ 85 yrs | **Median\_24 yrs**  **Min\_ 1 day**  **Max\_ 85 yrs** |
| **Age categories** | | | | |
| Infants (<1 year) | 72 | 1 | 8 | **81** |
| % | 41.86 | 9.09 | 17.78 | **35.53** |
| Children (1-10 years) | 13 |  | 1 | **13** |
| % | 6.98 | - | 2.22 | **5.70** |
| Adolescents (11-19 years) | 11 | 1 | - | **12** |
| % | 6.40 | 9.09 |  | **5.26** |
| Adults (>=20 years) | 76 | 9 | 36 | **122** |
| % | 44.77 | 81.82 | 80.00 | **53.51** |
| **Gender** | | | | |
| Female | 78 | 5 | 11 | **94** |
| % | 45.35 | 45.45 | 24.44 | **41.23** |
| Male | 94 | 6 | 34 | **134** |
| % | 54.65 | 54.55 | 75.56 | **58.77** |
| **Race** | | | | |
| African  % | 172 | 11 | 44  97.78 | **227**  **99.56** |
| Asian | - | - | 1 | **1** |
| % |  |  | 2.22 | **0.44** |
| **Hospital units** | | | | |
| Adult ICU  % | 28  16.28 | 11 | 10 | **49**  **21.49** |
| Burns Unit  % | 7  4.07 | - | - | **7**  **3.70** |
| NICU  % | 12  6.98 | - | 7  15.56 | **19**  **8.33** |
| Pediatric ICU  % | 5  2.91 | - | - | **5**  **2.19** |
| Renal Unit  % | 36  20.93 | - | 18  40.00 | **54**  **23.68** |
| Newborn Unit  % | 48  27.91 | - | - | **48**  **21.05** |
| Oncology  % | 36  20.93 | - | 10  22.22 | **46**  **20.18** |
|  |  |  |  |  |
|  | | | | |
| **Median number of adults in the household (IQR)** | 2 (2, 3) | 2 (2, 3) | 3 (2, 3) | **2 (2, 3)** |
| **Median number of children in the household (IQR)** | 1 (1, 3) | 0 (0, 1) | 1 (0, 2) | **1 (0, 2)** |
| **Patient/ household member receive healthcare abroad or in Kenya with (overnight hospital stay) in the last 6 months?** | | | | |
| Abroad | - | - | 1 | **1** |
| % |  |  | 2.22 | **0.44** |
| Kenya | 22 | 1 | 7 | **30** |
| % | 12.79 | 9.09 | 15.56 | **13.16** |
| No | 150 | 10 | 37 | **197** |
| % | 87.21 | 90.91 | 82.22 | **86.40** |
| **Received healthcare in Kenya *(Most recent visit in the last 6 months) last 3 visits*** |  |  |  |  |
| Member of household | 1 | - | - | **1** |
| % | 4.55 |  |  | **3.33** |
| Patient | 21 | 1 | 7 | **29** |
| % | 95.45 |  |  | **96.67** |
| **Median number of days of Hospital stay (IQR) *(Most recent visit in the last 6 months)*** | 22 (9, 32) | 90 (90, 90) | 5 (1, 12) | **14 (7, 28)** |
| **Was this an ICU admission? *(Most recent visit in the last 6 months)*** |  |  |  |  |
| Yes  **%** | 2  9.09 | - | - | **2**  **6.67** |
| No  **%** | 20  90.91 | 1 | 7 | **28**  **93.33** |
| **Received healthcare in Kenya *(*Second most *recent visit in the last 6 months)*** |  |  |  |  |
| Patient | 3 | - | 2 | **5** |
| **Median number of days of Hospital stay (IQR) *(second most recent visit in the last 6 months)*** | 5 (4, 10) | - | 6 (5, 6) | **5 (4, 7)** |
| **Was this an ICU admission? *(second most recent visit in the last 6 months)*** |  |  |  |  |
| No | 3 | - | 2 | **5** |
| **Received healthcare in Kenya *(Third* most *recent visit in the last 6 months)*** |  |  |  |  |
| Patient | 1 | - | - | **1** |
| **Median number of days of Hospital stay (IQR) *(Third most recent visit in the last 6 months)*** | 14 (14, 14) | - | - | **14 (14, 14)** |
| **Was this an ICU admission? *(third most recent visit in the last 6 months)*** |  |  |  |  |
| No | 1 | - | - | **1** |
| **Antibiotic use for the last 6 months** | | | | |
| Yes | 35 | - | 9 | **44** |
| % | 20.35 |  | 20.00 | **19.29** |
| No | 107 | 5 | 31 | **143** |
| % | 62.21 | 45.45 | 68.89 | **62.72** |
| Unknown | 30 | 6 | 5 | **41** |
| % | 17.44 | 54.54 | 11.11 | **17.98** |
| **Course of antibiotics** |  | | | |
| 1  **%** | 24  68.57 |  | 8  88.89 | **32**  **72.73** |
| 2-3  **%** | 4  11.43 |  | 1  11.11 | **5**  **11.36** |
| 3-4  **%** | 5  14.29 |  | - | **5**  **11.36** |
| More than 5  **%** | 2  4.55 |  | - | **2**  **4.55** |
| **Most recent antibiotic used** |  | | | |
| Penicillin | 12 | - | 3 | **15** |
| % | 34.29 |  | 33.33 | **34.09** |
| Penicillin with enzyme inhibitors | 7 | - | - | **7** |
| % | 20.00 |  |  | **15.91** |
| Cephalosporins | 6 | - | - | **6** |
| % | 17.14 |  |  | **13.64** |
| Quinolones | 4 | - | 1 | **5** |
| % | 11.43 |  | 11.11 | **11.36** |
| Carbapenem | 4 | - |  | **4** |
| % | 11.43 |  |  | **9.09** |
| Sulfonamide | 1 | - | 2 | **3** |
| % | 2.86 |  | 22.22 | **6.82** |
| Macrolides | 1 | - | 1 | **2** |
| % | 2.86 |  | 11.11 | **4.55** |
| Aminoglycosides | - | - | 1 | **1** |
| % |  |  | 11.11 | **2.27** |
| Lincosamide | - | - | 1 | **1** |
| % |  |  | 11.11 | **2.27** |
| **Route of administering the most recent antibiotic used** |  |  |  |  |
| Intravenous | 19 | - | 5 | **24** |
| % | 54.29 |  | 55.56 | **54.55** |
| Oral | 16 | - | 4 | **20** |
| % | 45.71 |  | 44.44 | **45.45** |
| **Second most recent antibiotic used** |  |  |  |  |
| Aminoglycosides | 8 | - | 2 | **10** |
| % | 38.10 |  |  | **41.67** |
| Cephalosporins | 3 | - | 0 | **3** |
| % | 14.29 |  |  | **12.50** |
| Glycopeptides | 1 | - | 1 | **2** |
| % | 4.76 |  |  | **8.33** |
| Penicillin with enzyme inhibitors | 2 | - | 0 | **2** |
| % | 9.52 |  |  | **8.33** |
| Sulfonamide | 2 | - | 1 | **2** |
| % | 9.52 |  |  | **8.33** |
| Carbapenem | 1 | - | 0 | **1** |
| % | 4.76 |  |  | **4.17** |
| Penicillin | 1 | - | 0 | **1** |
| % | 4.76 |  |  | **4.17** |
| Macrolides  % | 1  4.76 |  | 0 | **1**  **4.17** |
| Other  % | 2  9.52 | - | 0 | **2**  **8.33** |
| **Route of administering second most antibiotic used** |  |  |  |  |
| Intravenous | 13 | - | 3 | **16** |
| % | 61.91 |  |  | **66.67** |
| Oral | 7 | - | 0 | **7** |
| % | 33.33 |  |  | **29.17** |
| Topical  % | 1  4.76 |  |  | **1**  **4.16** |
| **Third most recent antibiotic used** |  |  |  |  |
| Cephalosporins | 2 | - | - | **2** |
| % | 25.00 |  |  | **25.00** |
| Carbapenem | 2 | - | - | **2** |
| % | 25.00 |  |  | **25.00** |
| Aminoglycosides | 1 | - | - | **1** |
| % | 12.50 |  |  | **12.50** |
| Penicillin  % | 1  12.50 | - | - | **1**  **12.50** |
| Penicillin with enzyme inhibitors  % | 1  12.50 | - | - | **1**  **12.50** |
| Other  % | 1  12.50 | - | - | **1**  **12.50** |
| **Route of administering third most antibiotic used** |  |  |  |  |
| intravenous | 6 | - | - | **6** |
| % | 33.30 |  |  | **33.30** |
| oral | 2 | - | - | **2** |
| % | 66.70 |  |  | **66.70** |
| **Fourth most recent antibiotic used** |  |  |  |  |
| Penicillin with enzyme inhibitors | 3 | - | - | **3** |
| **%** | 42.86 |  |  | **42.86** |
| Carbapenem  % | 2  28.56 | - | - | **2**  **28.56** |
| Cephalosporins  % | 1  14.29 | - | - | **1**  **14.29** |
| Nitroimidazoles  % | 1  14.29 | - | - | **1**  **14.29** |
| **Route of administering fourth most antibiotic used** |  |  |  |  |
| Intravenous  % | 5  71.43 |  |  | **5**  **71.43** |
| Oral | 2 | - | - | **2** |
| % | 28.57 |  |  | **28.57** |
| **Fifth most recent antibiotic used** |  |  |  |  |
| Glycopeptides  % | 2  28.57 | - | - | **2**  **28.57** |
| Penicillin with enzyme inhibitors  % | 2  28.57 | - | - | **2**  **28.57** |
| carbapenem  % | 1  14.29 | - | - | **1**  **14.29** |
| Macrolides  % | 1  14.29 | - | - | **1**  **14.29** |
| Other  % | 1  14.29 | - | - | **1**  **14.29** |
| **Route of administering fifth most antibiotic used** |  |  |  |  |
| Intravenous  % | **4**  **57.14** | - | - | **4**  **57.14** |
| Oral  % | **2**  **28.57** | - | - | **2**  **28.57** |
| Topical  % | **1**  **14.29** | - | - | **1**  **14.29** |
| **Antifungal use in the last 6 months** | | | | |
| Yes | 4 | - | 1 | **5** |
| % | 2.32 |  | 2.22 | **2.20** |
| No | 148 | 7 | 42 | **197** |
| % | 86.05 | 63.63 | 93.33 | **86.40** |
| Unknown | 20 | 4 | 2 | **26** |
| % | 11.63 | 36.36 | 4.44 | **11.40** |
| **Antifungals courses** |  |  |  |  |
| 1  % | 2  50.00 | - | 1 | **3**  **60.00** |
| 2-3  % | 2  50.00 | - |  | **2**  **40.00** |
| **First antifungal Indication (most recent)** |  |  |  |  |
| Treatment | 4 | - | 1 | 5 |
|  |  |  |  |  |
| **First antifungal treatment (most recent)** |  |  |  |  |
| Oral thrush | 3 | - | 1 | 4 |
| **%** | 75.00 |  |  | **80.00** |
| Other | 1 | - | - | 1 |
| **%** | 25.00 |  |  | **20.00** |
| **First name of antifungal used (most recent)** |  |  |  |  |
| Azoles | 2 | - | 1 | **3** |
| % | 50.00 |  | 50.00 | **60.00** |
| Echinocandin | 1 | - | 1 | **1** |
| % | 25.00 |  | 50.00 | **20.00** |
| Other | 1 | - | - | **1** |
| % | 25.00 |  |  | **20.00** |
| **First route of administering** |  |  |  |  |
| Oral | 2 | - | - | **2** |
| % | 40.00 |  |  | **40.00** |
| Topical | 2 | - | 1 | **2** |
| % | 40.00 |  | 100 | **40.00** |
| Intravenous  % | 1  20.00 |  | - | **1**  **20.00** |
| **Second antifungal Indication (most recent)** |  |  |  |  |
| Treatment  % | 2  100 | - |  | 2  100 |
| **Second Antifungal treatment (most recent)** |  |  |  |  |
| Oral thrush  **%** | 1  25.00 | - | 1  50.00 | 1  20.00 |
| Other  **%** | 3  75.00 | - | 1  50.00 | 4  80.00 |
| **Second name of antifungal used (most recent)** |  |  |  |  |
| Azoles  **%** | 1  25.00 | - |  | **1**  **25.00** |
| Echinocandin  **%** | 1 | - |  | **1** |
| **Second route of administering (most recent)** | 25.00 |  |  | **25.00** |
| Topical  **%** | 1  25.00 | - | - | **1**  **25.00** |
| Intravenous  % | 1  25.00 | - | - | **1**  **25.00** |
|  |  |  |  |  |
| **Major surgeries in the past 12 months** | | | | |
| Yes | 10 | 1 | 3 | **14** |
| % | 5.82 | 9.09 | 6.67 | **6.14** |
| No | 161 | 10 | 42 | **213** |
| % | 93.60 | 90.01 | 93.33 | **93.42** |
| Unknown | 1 |  | - | **1** |
| % | 0.58 |  |  | **0.44** |
| **Number of surgeries** | 1 (1, 2) | 1 (1, 1) | 1 (1, 2) | **1 (1, 2)** |
| **First Surgery Type** |  |  |  |  |
| Ent surgery | 2 | - | - | **2** |
| % | 20.00 |  |  | **14.29** |
| Brain | 1 | - | - | **1** |
| % | 10.00 |  |  | **7.14** |
| Caesarian section | 1 | - | - | **1** |
| % | 10.00 |  |  | **7.14** |
| Orthopaedic spil | - | 1 | - | **1** |
| % |  |  |  | **7.14** |
| Other | 6 | - | 3 | **9** |
| % | 60.00 |  |  | **64.29** |
| **First Surgery facility** |  |  |  |  |
| KENYATTA NATIONAL HOSPITAL | 10 | 1 | - | **10** |
| % |  | 50.00 |  | **71.43** |
| THE NAIROBI HOSPITAL  % | - | - | 1 | **1**  **7.14** |
| LIONS HOSPITAL  % | - | - | 1 | **1**  **7.14** |
| NAIROBI WEST HOSPITAL  % | - | 1  50.00 | 0 | **1**  **7.14** |
| ST MICHAEL’S DIGESTIVE MEDICAL CARE CENTRE  % | - | - | 1 | **1**  **7.14** |
| **Second Surgery Type** |  |  |  |  |
| Ent surgery  % | 2  66.67 | - | - | **2**  **50.00** |
| Other  % | 1  33.33 | - | 1 | **2**  **50.00** |
| **Second Surgery facility** |  |  |  |  |
| KENYATTA NATIONAL HOSPITAL  % | 3 | - | - | **3**  **75.00** |
| KENYATTA UNIVERSITY TEACHING REFERRAL AND RESEARCH HOSPITAL  % | - | - | 1 | **1**  **25.00** |

Table 2 Medical Chart Abstraction Form

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Variable** | **KNH (n=218)** | **NSIRH (n=13)** | | **TNH (n=45)** | **Total (n=276)** |
|  |  |  | |  |  |
| Adult ICU  % | 38  17.43 | 13  - | | 10  22.22 | **61**  **22.10** |
| Burns Unit  % | 7  3.21 | - | | - | **7**  **2.54** |
| NICU  % | 14  6.42 |  | |  | **14**  **5.07** |
| NBU  % | 54  24.77 | - | | 7  15.56 | **61**  **22.10** |
| Pediatric ICU  % | 6  2.75 | - | | - | **6**  **2.17** |
| Renal Unit  % | 36  16.51 | - | | 18  40.00 | **54**  **19.57** |
| Oncology Unit  % | 63  28.90 | **-** | | 10  22.22 | **73**  **26.45** |
| **Gender** | | | | | |
| Female  % | 97  44.50 | 7  53.85 | | 11  24.44 | **115**  **41.66** |
| Male  % | 121  55.50 | 6  46.15 | | 34  75.56 | **161**  **58.33** |
| **Current Location** | | | | | |
| Adult ICU | 30 | 9 | | 10 | **36** |
| **%** | 14.7 | 69.23 | | 22.22 | **14.56** |
| Burns Unit | 7 |  | | - | **7** |
| **%** | 3.43 |  | |  | **2.8** |
| NBU | 58 |  | | 2 | **64** |
| **%** | 28.42 |  | | 4.44 | **25.7** |
| Pediatric ICU | 10 |  | | 5 | **10** |
| **%** | 4.9 |  | | 11.11 | **4.0** |
| Renal Unit | 36 |  | | 18 | **54** |
| **%** | 17.64 |  | | 40.00 | **21.69** |
| Oncology  % | 63  30.88 |  | | 10  22.22 | **73**  **29.32** |
| Na  % | - | 5  38.46 | | - | **5**  **1.81** |
|  |  |  | |  |  |
| **Reason for current admission** | | | | | |
| Sepsis | 33 | 1 | | 5 | **39** |
| Cardiovascular | 12 | 2 | | 8 | **22** |
| Respiratory | 5 | 2 | | 4 | **11** |
| Central Nervous System (CNS) | 9 | 0 | | 2 | **11** |
| Renal | 41 | 0 | | 13 | **59** |
| Orthopedic | 9 | 11 | | 2 | **22** |
| Gastrointestinal | 1 | 0 | | 0 | **1** |
| Surgical | 2 | 0 | | 1 | **3** |
| Toxicology | 0 | 0 | | 0 | **0** |
| Endocrine | 1 | 1 | | 4 | **6** |
| Neonatal conditions | 159 | 0 | | 16 | **175** |
|  |  |  | |  |  |
| **Median Apache Score (IQR) …..***n=29*  *Those in critical care, ≥ 18years* | 18 (15, 20) | - | | 22 (22, 26) | **18.5 (15.75, 22.00)** |
| **Median Pelod Score (IQR) …..***n=39*  *Those in critical care, < 18 years* | 4.9 (2.3, 7.5) | - | | 9.5 (8.5, 10.5) | **4.9 (2.3, 7.5)** |
| **Median mortality rate (IQR) …..***n=39*  *Those in critical care, < 18 years* | 1.2 (0.4, 7.1) | - | | 18.8 (12.95, 24.65) | **1.2 (0.4, 7.1)** |
| **Had an MDRO in the 90 days before the primary surveillance culture was collected** | | | | | |
| yes | 12 | 1 | | - | 13 |
| % | 5.50 | 7.69 | |  | 4.71 |
| no | 206 | 12 | | 45 | 263 |
| % | 94.50 | 92.31 | |  | 95.29 |
| **Type of MDRO** |  | | | | |
| Carbapenem-resistant Acinetobacter baumannii (CRAB) | 2 | - | | - | **2** |
| % | 15.38 |  | |  | **14.29** |
| Carbapenem-resistant Klebsiella pneumonae | 2 | - | | - | **2** |
| % | 15.38 |  | |  | **14.29** |
| Methicillin-resistant Staphylococcus aureus (MRSA) | 1 | - | | - | **1** |
| % | 7.69 |  | |  | **7.14** |
| Other | 8 | 1 | | - | **9** |
| % | 61.54 |  | |  | **69.29** |
| **Did the patient have any of the following during this admission*?*** | | | | | |
| Central venous catheter (e.g. IVCs, SVC lines, femoral lines, PICCs) | 28 | 1 | 7 | | **36** |
| Peripheral venous catheter | 177 | 8 | 19 | | **204** |
| Other non-peripheral access (e.g. midlines) | 5 | 2 | 1 | | **8** |
| Urinary catheter | 48 | 9 | 5 | | **62** |
| Nephrostomy tube | 1 | 0 | 0 | | **1** |
| Surgical – ostomy without tube | 0 | 0 | 0 | | **0** |
| Surgical drain | 18 | 0 | 0 | | **18** |
| Other -ostomy tube | 0 | 0 | 0 | | **0** |
| Dialysis | 36 | 0 | 19 | | 55 |
| Type of dialysis   1. Hemodialysis   Peritoneal | 26  10 | 0  0 | 19  0 | | 45  10 |
| Type of Heamodialysis |  |  |  | |  |
| 1. AV fistula/graft 2. Hemodialysis central line   unkown | 2  23  1 | 0  0  0 | 11  8  0 | | 13  31  1 |
| Interventional Radiology | 61 | 8 | 4 | | 73 |
| Tracheostomy changes | 4 | 0 | 1 | | 5 |
| Bronchoscopy | 0 | 0 | 1 | | 1 |
| TPN | 5 | 0 | 1 | | 6 |
| Endotracheal tube | 36 | 0 | 4 | | 40 |
| Tracheostomy | 7 | 0 | 0 | | 7 |
| Mechanical ventilation | 29 | 0 | 5 | | 34 |
| Gastrointestinal tube (PEG/PEJ) | 2 | 0 | 1 | | 3 |
| Nasogastric/nasoduodenal Tube | 85 | 0 | 6 | | 91 |
| Wound vac | 0 | 0 | 0 | | 0 |
| PEG tube changes | 2 | 0 | 0 | | **2** |
| Endoscopy | 1 | 0 | 0 | | **1** |
| **Surgeries during this admission** | | | | | |
| Yes | 41 | 9 | | 4 | 54 |
| % | 18.81 | 69.23 | | 8.89 | **19.57** |
| No | 177 | 4 | | 41 | 222 |
| % | 81.19 | 30.77 | | 91.11 | **80.43** |
| **Surgery name first most recent** |  |  | |  |  |
| Brain | 13  31.71 | - | | 1  25.00 | **14**  **25.93** |
| Orthopedic and spinal | 1  2.44 | 5  55.56 | | 1  25.00 | **7**  **12.96** |
| Abdominal | 5  12.20 | - | | 1  25.00 | **6**  **11.11** |
| Ent | 3  7.32 | - | | - | **3**  **5.56** |
| Other | 19  46.34 | 4  44.44 | | 1  25.00 | **24**  **44.44** |
| **Facility where surgery was done(most recent)** |  |  | |  |  |
| KENYATTA NATIONAL HOSPITAL | 40  97.56 | - | | - | **40** |
| % |  |  | |  | **74.07** |
| NATIONAL SPINAL INJURY REFERRAL HOSPITAL | - | 9 | | - | **9** |
| % |  |  | |  | **16.67** |
| THE NAIROBI HOSPITAL | - | - | | 4 | **4** |
| % |  |  | |  | **7.41** |
| MEDIHEAL HOSPITAL PARKLANDS  % | 1  2.44 | - | | - | **1**  **1.85** |
| **Surgery name (second most recent)** |  |  | |  |  |
| Brain  % | 1  25.00 | - | | - | **1**  **25.00** |
| Ent  % | 1  25.00 | - | | - | **1**  **25.00** |
| Orthopaedic and spinal  % | 1  25.00 | - | | - | **1**  **25.00** |
| Other  % | 1  25.00 | - | | - | **1**  **25.00** |
| **Facility where surgery was done (second most recent)** |  |  | |  |  |
| KENYATTA NATIONAL HOSPITAL  % | 4  100 | - | | - | **4**  **100** |
| **Surgery name (Third most recent)** |  |  | |  |  |
| ENT  % | 1  100 | - | | - | 1  100 |
| **Facility where surgery was done (second most recent)** |  |  | |  |  |
| KENYATTA NATIONAL HOSPITAL  % | 1  100 | - | | - | 1  100 |
| **Antifungal drugs received during this admission** | | | | | |
| Yes | 18 | - | | - | 18 |
| % | 8.26 |  | |  | **6.52** |
| No | 200 | 13 | | 45 | 258 |
| % | 91.74 |  | |  | **93.48** |
| **Courses of antifungals** |  |  | |  |  |
| 1 | 8  44.44 | - | | - | **8**  **44.44** |
| 2-3 | 9  50.00 | - | | - | **9**  **50.00** |
| 4-5 | 1  5.56 |  | |  | **1**  **5.56** |
| **Antifungal indication first most recent** |  |  | |  |  |
| Prophylaxis | 12 | **-** | | - | 12 |
| **%** | 85.72 |  | |  | **85.72** |
| ORAL THRUSH | 1 | **-** | | **-** | 1 |
| **%** | 7.14 |  | |  | **7.14** |
| Candida auris; blood sample | 1 | **-** | | **-** | 1 |
| **%** | 7.14 |  | |  | **7.14** |
| **Antifungal drug name first most recent** |  |  | |  |  |
| Azoles | 11 | - | |  | **11** |
| % | 61.11 |  | |  | **61.11** |
| Echinocandin | 2 | - | | - | **2** |
| % | 11.11 |  | |  | **11.11** |
| other | 5 | - | | - | **5** |
| % | 27.78 |  | |  | **27.78** |
| **Route of administering antifungal**  **First most recent** |  |  | |  |  |
| oral | 15 | - | | - | **15** |
| % | 83.33 |  | |  | **83.33** |
| Intravenous  % | 2  11.11 | - | | - | **2**  **11.11** |
| Topical  % | 1  5.56 | - | | - | **1**  **5.56** |
| **Antifungal indication second most recent** |  |  | |  |  |
| Prophylaxis  % | 7  87.50 | - | | - | **7**  **87.50** |
| Candida auris; blood sample  % | 1  12.50 | - | | - | **1**  **12.50** |
| **Antifungal drug name second most recent** |  |  | |  |  |
| Echinocandin  % | 4  50.00 | - | | - | **4**  **50.00** |
| Azoles  % | 3  37.50 | - | | - | **3**  **37.50** |
| Other  % | 1  12.50 | - | | - | **1**  **12.50** |
| **Route of administering antifungal first most recent** |  |  | |  |  |
| Intravenous  % | 3  37.50 | - | | - | **3**  **37.50** |
| Oral  % | 3  37.50 | - | | - | **3**  **37.50** |
| Topical  % | 2  25.00 | - | | - | **2**  **25.00** |
| **features of sepsis** | | | | | |
| **Yes**  **%** | 79  36.20 | 1  7.70 | | 10  22.20 | **90**  **32.60** |
| **No**  **%** | 139  63.80 | 12  92.30 | | 35  77.80 | **186**  **67.40** |
| **Appropriate samples taken** | | | | | |
| Blood culture  % | 42  41.58 | - | | 7  53.85 | **49**  **42.61** |
| Urine culture  % | 12  11.88 | - | | 3  23.08 | **15**  **13.04** |
| Tracheal aspirate  % | 9  8.91 | - | | - | **9**  **7.83** |
| Other  % | 20  19.80 | 1 | | - | **21**  **18.26** |
| No sample taken  % | 18  17.82 | - | | 3  23.08 | **21**  **18.26** |
| **Antibacterial drugs received during this admission** | | | | | |
| Yes | 161 | 10 | | 17 | **188** |
| % | 73.85 | 76.92 | | 37.78 | **68.12** |
| No | 55 | 3 | | 28 | **86** |
| % | 25.23 | 23.07 | | 62.22 | **31.16** |
| Unknown  % | 2  0.92 | - | | - | **2**  **0.72** |
| **Antibacterial name first most recent** |  |  | |  |  |
| Penicillin  % | 65  40.37 | - | | 6  35.29 | **71**  **37.77** |
| Cephalosporins  % | 43  26.71 | 5  50 | | 4  23.53 | **52**  **27.66** |
| Penicillin with enzyme inhibitor  % | 16  9.94 | 3  30 | | 2  11.76 | **21**  **11.17** |
| Carbapenem  % | 14  8.7 | - | | 2  11.76 | **16**  **8.15** |
| Quinolones  % | 5  3.11 | 1  10 | | 2  11.76 | **8**  **4.26** |
| Aminoglycosides  % | 7  4.35 | - | | - | **7**  **3.72** |
| Sulfonamide  % | 4  2.48 | - | | - | **4**  **2.13** |
| Glycopeptides  % | 1  0.62 | 1  10 | | - | **2**  **1.06** |
| Lincosamide  % | - | - | | 1  5.88 | **1**  **0.53** |
| Nitroimidazole  % | 1  0.62 | - | | - | **1**  **0.53** |
| Other  % | 3  1.86 | - | | - | **3**  **1.60** |
| **Antibacterial Route of administration** |  |  | |  |  |
| intravenous | 140 | 9 | | 17 | **166** |
| **%** | 86.96 | 90.00 | |  | **88.30** |
| oral | 15 | 1 | | - | **16** |
| **%** | 9.32 | 10.00 | |  | **8.51** |
| topical | 6 | 0 | | - | **6** |
| **%** | 3.73 | 0 | |  | **3.19** |
| **Antibacterial name second most recent** |  |  | |  |  |
| Aminoglycosides  % | 60  50.42 | 2  25.00 | | 10  71.42 | **72**  **51.06** |
| Cephalosporins  % | 18  15.13 | 2  25.00 | | - | **20**  **14.18** |
| Carbapenem  % | 6  5.04 | - | | 3  21.43 | **9**  **6.38** |
| Glycopeptides  % | 3  2.52 | 2  25.00 | | - | **5**  **3.55** |
| Nitroimidazole  % | 5  4.20 | - | | - | **5**  **3.55** |
| Penicillin  % | 4  3.36 | 1  12.50 | | - | **5**  **3.55** |
| Penicillin with enzyme inhibitor  % | 5  4.20 | - | | - | **5**  **3.55** |
| Macrolides  % | 3  2.52 | 1  12.50 | | - | **4**  **2.84** |
| Sulfonamide  % | 4  3.36 | - | | - | **4**  **2.84** |
| Quinolones  % | 2  1.68 | - | | 1  7.14 | **3**  **2.13** |
| Other  % | 9  7.56 | - | | - | **9**  **6.38** |
| **Antibacterial route of administration second most recent** |  |  | |  |  |
| intravenous | 105 | 7 | | 11 | **123** |
| **%** | 88.24 | 57.1 | | 84.62 | **87.86** |
| oral | 12 | 1 | | 1 | **14** |
| **%** | 10.08 | 42.9 | | 7.69 | **10.00** |
| topical | 2 | - | | 1 | **3** |
| **%** | 1.68 |  | | 7.69 | **2.14** |
| **Antibacterial name third most recent** |  |  | |  |  |
| Penicillin  % | 12  22.64 | - | | - | **12**  **20.34** |
| Cephalosporins  % | 9  16.98 | 1  50.00 | | - | **10**  **16.95** |
| Nitroimidazole  % | 7  13.21 |  | | 2  50.00 | **9**  **15.25** |
| Carbapenem  % | 7  13.21 | - | | - | **7**  **11.86** |
| Penicillin with enzyme inhibitor  % | 4  7.55 | - | | 1  25.00 | **5**  **8.47** |
| Aminoglycosides  % | 3  5.66 | 1  50.00 | | 1  25.00 | **5**  **8.47** |
| Sulfonamide  % | 2  3.77 | - | | - | **2**  **3.39** |
| Quinolones  % | 2  3.77 | - | | - | **2**  **3.39** |
| Macrolides  % | 1  1.89 | - | | - | **1**  **1.69** |
| Lincosamide  % | 1  1.89 | - | | - | **1**  **1.69** |
| Other  % | 5  9.43 | - | | - | **5**  **8.47** |
| **Antibacterial route of administration third most recent** |  |  | |  |  |
| Intravenous | 44 | 4 | | 2 | **50** |
| **%** | 83.02 |  | |  | **84.75** |
| Oral | 6 | - | | - | **6** |
| **%** | 11.32 |  | |  | **10.17** |
| Topical | 3 | - | | - | **3** |
| **%** | 5.66 |  | |  | **5.08** |
| **Antibacterial name Fourth most recent** |  |  | |  |  |
| Aminoglycosides  % | 13  39.39 | - | | - | **13**  **36.11** |
| Cephalosporins  % | 6  18.18 | - | | - | **6**  **16.67** |
| Penicillin  % | 3  9.09 | - | | - | **3**  **8.33** |
| Carbapenem  % | 3  9.09 | - | | - | **3**  **8.33** |
| Quinolones  % | 1  3.03 | 1  50.00 | | - | **2**  **5.56** |
| Nitroimidazole  % | 2  6.06 | - | | - | **2**  **5.56** |
| Glycopeptides  % | 1  3.03 | - | | 1 | **2**  **5.56** |
| Sulfonamide  % | 1  3.03 | - | | - | **1**  **2.78** |
| Penicillin with enzyme inhibitor  % | - | 1  50.00 | | - | **1**  **2.78** |
| Other  % | 3  9.09 | - | | - | **3**  **8.33** |
| **Antibacterial route of administration fourth most recent** |  |  | |  |  |
| Intravenous | 29 | 1 | | 1 | **31** |
| **%** | 87.88 | 50.0 | | 100 | **86.11** |
| Oral | 2 | 1 | | - | **3** |
| **%** | 6.06 | 50.0 | |  | **8.33** |
| Topical | 2 |  | | - | **2** |
| **%** | 6.06 |  | |  | **5.56** |
| **Antibacterial name Fifth most recent** |  |  | |  |  |
| Cephalosporins  % | 3  18.75 | 1 | | - | **4**  **22.22** |
| Carbapenem  % | 4  25.00 |  | | - | **4**  **22.22** |
| Aminoglycosides  % | 3  18.75 |  | | - | **3**  **16.67** |
| Penicillin with enzyme inhibitor  % | 2  12.50 |  | | - | **2**  **11.11** |
| Penicillin  % | 1  6.25 |  | | - | **1**  **5.56** |
| Nitroimidazole  % | 1  6.25 |  | | - | **1**  **5.56** |
| Other  % | 2  12.50 |  | | 1 | **3**  **16.67** |
|  |  |  | |  |  |
| **Antibacterial route of administration fifth most recent** |  |  | |  |  |
| Intravenous | 15 | 1 | | - | **16** |
| **%** | 93.75 |  | |  | **88.89** |
| Oral | - | - | | 1 | **1** |
| **%** |  |  | |  | **5.56** |
| Topical  **%** | 1  6.25 |  | |  | **1**  **5.56** |
| **Other treatments received during this admission** | | | | | |
| Cytotoxic chemotherapy |  |  | |  |  |
| Yes  % | 47  21.56 | - | | 12 | **59**  **21.37** |
| No | 170 | 13 | | 32 | **215** |
| **%** | 77.98 |  | | 97.5 | **77.90** |
| Unknown | 1 | - | | 1 | **2** |
| **%** | 0.46 |  | | 2.5 | **0.72** |
| Corticosteroids |  |  | |  |  |
| yes | 49 | 2 | | 17 | **68** |
| **%** | 22.48 | 15.38 | | 37.78 | **24.64** |
| no | 169 | 11 | | 28 | **208** |
| **%** | 77.52 | 84.62 | | 62.22 | **75.36** |
|  |  |  | |  |  |
| **Underlying conditions at time of admission** | | | | | |
| Yes | 77 | 7 | | 28 | **112** |
| % | 35.32 | 53.85 | | 62.22 | **40.58** |
| None | 141 | 6 | | 17 | **164** |
| % | 64.68 | 46.15 | | 37.78 | **59.42** |
| **Conditions:** |  |  | |  |  |
| Chronic Lung Disease | 3 | - | | 1 | **1** |
| Chronic Metabolic Disease | 7 | 3 | | 10 | **20** |
| Cardiovascular Disease | 40 | 6 | | 20 | **66** |
| Gastrointestinal Disease | - | - | | - | **-** |
| Immunocompromised  Condition | 8 | 1 | | 3 | **12** |
| Liver Disease | 0 | - | | - | **-** |
| Malignancy | 23 | - | | 3 | **23** |
| Neurologic Condition | 2 | - | | 3 | **5** |
| Plegias/Paralysis | 1 | - | | - | **1** |
| Renal Disease | 16 | - | | 5 | **21** |
| *Median Highest serum creatinine in mcmol/L* | *1032 (910.5,1176.5)* | *-* | | *742 (556, 1124)* | ***992 (742, 1168)*** |
| Skin conditions | - | - | | - | **-** |
| Trauma | 2 | 3 | | - | **5** |
| Other underlying condition(s) | 18 | - | | 4 | **12** |
| **Candida positive cultures during this admission** | | | | | |
| YES  % | 1  0.46 | - | | - | **1**  **0.36** |
| NO  % | 217  99.54 | 13 | | 45 | **275**  **99.64** |
|  |  |  | |  |  |
| **Date** | *2022-11-22* |  | |  | ***2022-11-22*** |
| **Species** | *Candida Auris* |  | |  | ***Candida Auris*** |
| **Site** | Bloodstream |  | |  | **Bloodstream** |
|  |  |  | |  |  |
|  | | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Lab results on Candida swabs** | | | | |
| *C. auris* | *2* | *1* | *2* | ***5*** |
| *C.glabrata* | *5* | *-* | *-* | ***5*** |
| *C.tropicalis* | *4* | *-* | *-* | ***4*** |
| *C.norvigensis* | *1* | *-* | *-* | ***1*** |
| *C.parapsilosis* | *1* | *-* | *-* | ***1*** |
| *No growth* | *-* | *-* | *43* | ***43*** |
| ***Patients with positive C. auris risk factors analysis*** | | | | |
| ***Patient location*** |  |  |  |  |
|  |  |  |  |  |
| *ADULT ICU* | *2* | *1* | *2* | ***5*** |
|  |  |  |  |  |
| ***AGE CATEGORIES*** |  |  |  |  |
| *Adult* | *1*  *50.00* | *1* | *2*  *100* | ***4***  ***66.67*** |
| *Child* | *1*  *50.00* |  |  | ***1***  ***33.33*** |
|  |  |  |  |  |
| **Any surgery during this admission** | | | | |
| **Yes**  **%** | *1* |  | *1* | ***2***  ***40*** |
| **No**  **%** | *1* | *1* | *1* | ***3***  ***60*** |
| **Number of surgeries** | *1* |  | *1* | ***2*** |
| **Brain** | *1* |  | *1* | ***2*** |
| **Facility** |  |  |  |  |
| **KENYATTA NATIONAL HOSPITAL** | *1* |  |  | ***1*** |
| **THE NAIROBI HOSPITAL** |  |  | *1* | ***1*** |
|  |  |  |  |  |
| **Does the patient have features of sepsis?** | | | | |
| YES  % | *1* |  | *2* | ***3***  ***60*** |
| NO  % | *1* | *1* |  | ***2***  ***40*** |
| **Appropriate samples been taken for** |  |  |  |  |
| Urine culture |  |  | *1* | ***1*** |
| Blood culture | *1* |  | *1* | ***2*** |
| No sample taken |  |  | *1* | ***1*** |
| **Antibacterial drugs received during this admission** | | | | |
| Yes  % | *2* |  | *2* | ***4***  ***80*** |
| No  % |  | *1* |  | ***1***  ***20*** |
| **Courses number** | | | | |
| 1  % | *1* |  | *1* | ***2***  ***50*** |
| 2-3  % | *1* |  | *1* | ***2***  ***50*** |
| **Antibacterial name first most recent** |  |  |  |  |
| Carbapenem  % | *1* |  | *1* | ***2***  ***50*** |
| Cephalosporins  % | *1* |  | *1* | ***2***  ***50*** |
| **Antibacterial Route of administration** |  |  |  |  |
| Intravenous |  |  |  | ***4*** |
| **Antibacterial name second most recent** |  |  |  |  |
| Carbapenem  % | *1* |  | *1* | ***2***  ***66.67*** |
| Aminoglycosides  % |  |  | *1* | ***1***  ***33.33*** |
| **Antibacterial Route of administration** |  |  |  |  |
| Intravenous | *1* |  | *2* | ***3*** |
| **Antibacterial name third most recent** |  |  |  |  |
| Carbapenem  % | *1* |  |  | ***1***  ***50*** |
| Penicillin with enzyme inhibitor  % |  |  | *1* | ***1***  ***50*** |
| **Antibacterial Route of administration** |  |  |  |  |
| Intravenous | *1* |  | *1* | ***2*** |
| **Did the patient have any of the following during this admission*?*** | | | | |
| Urinary catheter | *2* | *1* | *1* | ***4*** |
| Peripheral venous catheter | *2* | *1* | *1* | ***4*** |
| Mechanical ventilation | *-* |  | *2* | ***2*** |
| Nasogastric/nasoduodenal Tube | *1* |  | *1* | ***2*** |
| Central venous catheter (e.g. IVCs, SVC lines, femoral lines, PICCs) | *1* |  | *1* | ***2*** |
| Radiology | *1* |  | *-* | ***1*** |
| Endotracheal tube | *-* |  | *1* | ***1*** |
| Tracheostomy changes |  |  | *1* | ***1*** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Lab results on MDRO** | | | | |
| *I*  *%* |  |  |  | ***4***  ***17.39*** |
| *R*  *%* |  |  |  | ***6***  ***26.09*** |
| *S*  *%* |  |  |  | ***13***  ***56.52*** |
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