Supplementary table 1. Clinical characteristics of *K. pneumoniae,* antimicrobial susceptibility profile and molecular mechanisms of resistance

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Isolatea** | **12914** | **12910** | **12913** | **12905** | **12903** | **12900** | **12941** | **12902** | **12901** | **12938** | **12934** |
| Age (yr)/sex | 0.3/F | 41/F | 62/M | 70/M | 65/F | 79/M | 60/F | 42/M | 36/F | 0.1/M | 56/M |
| Type of infection | Umbilical | VAP | Pleural fluid | VAP | VAP | VAP | VAP | VAP | VAP | Bacteremia | Bacteremia |
| Ward | ICU | ICU | ICU | ICU | ICU | ICU | ICU | ICU | ICU | Neonatology | ICU |
| Isolate date (mo/day/yr) | 7/01/2009 | 7/13/2009 | 9/22/2009 | 11/9/2009 | 11/9/2009 | 11/30/2009 | 6/14/2010 | 7/06/2010 | 3/26/2012 | 2/26/2016 | 5/23/2016 |
| MIC (µg/mL) |  |  |  |  |  |  |  |  |  |  |  |
| Ceftazidime | 128 | >256 | >256 | >256 | 0.5 | 128 | >256 | 128 | 128 | 64 | >256 |
| Cefotaxime | >256 | >256 | >256 | 256 | 64 | 64 | >256 | 64 | 256 | 128 | 256 |
| Gentamicin | 1 | >128 | >128 | >128 | 1 | 1 | 1 | 1 | 1 | >128 | >128 |
| Levofloxacin | >64 | 8 | 8 | 32 | 8 | >64 | >64 | >64 | >64 | 16 | >64 |
| Aztreonam | >128 | >128 | >128 | >128 | 128 | >128 | >128 | >128 | >128 | >128 | 1 |
| Imipenem | 64 | 16 | 16 | 32 | 0.06 | 32 | 8 | 32 | 32 | 16 | 64 |
| Meropenem | 128 | 32 | 32 | 128 | 0.015 | 64 | 16 | 64 | 128 | 16 | 64 |
| Tetracycline | 128 | 1 | 1 | >128 | 2 | >128 | 128 | >128 | 128 | 2 | >128 |
| Colistin | 0.125 | 0.25 | 0.25 | 4 | 0.25 | 0.125 | 0.25 | 0.125 | 0.25 | 0.25 | 2 |
| Trimethoprim  sulfamethoxazole | >16/304 | >16/304 | >16/304 | >16/304 | 0.25/4.75 | 8/152 | >16/304 | 8/152 | >16/304 | 0.25/4.75 | 16/304 |
| Carbapenemase genes | KPC-2 | NDM-1 | KPC-2 | NDM-1 | - | KPC-2 | KPC-2 | KPC-2 | KPC-2 | KPC-2 | NDM-1 |
| ESBL-producing | + | + | + | - | + | - | + | - | + | + | - |
| MLST | ST833 | ST11 | ST147 | ST11 | ND | ST833 | ST833 | ST833 | ST833 | ND | ST11 |
| Plasmid | 130/70 | 200/130/120/70 | 200/130 | 260/160/120 | 200/120/60 | 160/100/80/50 | 200/130/90/50 | 160/130/120/90/70 | 120/60 | 130/70 | 200/130/100/70 |
| PFGE | B4 | C | A | C1 | NR | B2 | NR | B3 | B | NR | C2 |

Abbreviations: VAP, ventilator*-*associated pneumonia; (-), negative; (+), positive; ND, Not determined; NR, Not related.

aAll *K. pneumoniae* isolates were identified by multiplex-PCR (M-PCR).**9**

Supplementary table 2. Clinical characteristics of the cases, *A. baumannii and* antimicrobial susceptibility profile, and molecular mechanisms of resistance

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Isolate** | **12918** | **12920** | **12921** | **12922** | **12923** |
| Age (yr)/sex | 8/M | M | 0,1/M | 0,1/F | 0,1/M |
| Origin of the sample | Catheter central | Oropharynx | VAP | VAP | Nose |
| Ward | Pediatric | Internal Medicine | ICU | ICU | ICU |
| Isolate date (day/mo/yr) | 30/05/2016 | 15/06/2016 | 20/06/2016 | 27/06/2016 | 27/06/2016 |
| MIC (µg/mL) |  |  |  |  |  |
| Ceftazidime | >256 | 128 | 128 | >256 | >256 |
| Cefotaxime | >256 | >256 | >256 | >256 | >256 |
| Gentamicin | >128 | 16 | 16 | >128 | >128 |
| Levofloxacin | 32 | 8 | 8 | 16 | 16 |
| Imipenem | 256 | 64 | 64 | >256 | >256 |
| Meropenem | 256 | 128 | 128 | 256 | 256 |
| Tetracycline | >128 | 4 | 4 | >128 | >128 |
| Colistin | 0.125 | 0.125 | 0.125 | 0.125 | 0.25 |
| Trimethoprim/sulfamethoxazole | 1/19 | 4/76 | 4/76 | >16/304 | 1/19 |
| Carbapenemase genes | NDM-1, OXA-23 | OXA-23 | OXA-23 | NDM-1 | NDM-1, OXA-23 |
| MLST | ST2 | ND | ND | ND | ND |
| PFGE | N | N | N | N | N |

Abbreviations: VAP*,* ventilator*-*associated pneumonia*; -,* negative; ND, Not determined.

Supplementary table 3. Clinical characteristics of the cases, *P. aeruginosa* antimicrobial susceptibility profile, and molecular mechanisms of resistance

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Isolate** | **12930, 27** | **12926, 23** | **12928, 25** | **12932, 29** | **12933, 30** | **12925.22** |
| Age (yr)/sex | 25/F | 34/M | 51/M | 63/M | 64/F | 27/F |
| Specimen origin | Wound | VAP | VAP | Urine | VAP | Urine |
| Ward | Internal Medicine | ICU | Shock Room | ICU | ICU | ICU |
| Isolate date (day/mo/yr) | 10/02/2016 | 14/03/2016 | 14/03/2016 | 23/05/2016 | 23/05/2016 | 27/06/2016 |
| MIC (µg/mL) |  |  |  |  |  |  |
| Ceftazidime | 32 | 32 | 32 | 64 | 256 | 64 |
| Gentamicin | 2 | >128 | 2 | >28 | >128 | >28 |
| Levofloxacin | 0.5 | 16 | 4 | 64 | 32 | 64 |
| Aztreonam | 16 | 16 | 32 | 32 | 32 | 32 |
| Imipenem | 2 | 128 | 2 | 256 | 128 | 256 |
| Meropenem | 2 | 32 | 2 | 128 | 64 | 128 |
| Metallo--lactamase gene | - | VIM-type | - | VIM-type | VIM-type | VIM-type |
| PFGE | NR | J | NR | K1 | I2 | K |

Abbreviations: VAP, ventilator*-*associated pneumonia*;* -, negative; NR, Not related.