Prior Antibiotic Therapy and the Onset of Healthcare-Associated Infections Sustained by Multidrug-Resistant *Klebsiella pneumoniae* in Intensive Care Unit Patients: A Nested Case-Control Study

Giuseppe Migliara 1,§,*, Valentina Baccolini 1,§, Claudia Isonne 1, Sara Cianfanelli 1, Carolina Di Paolo 1, Annamaria Mele 1, Lorenza Lia 1, Angelo Nardi 1, Carla Salerno 1, Susanna Caminada 1, Vittoria Cammalleri 1, Francesco Alessandri 2, Guglielmo Tellan 2,3, Giancarlo Ceccarelli 1, Mario Venditti 1, Francesco Pugliese 2,4, Carolina Marzuillo 1, Corrado De Vito 1, Maria De Giusti 1, and Paolo Villari 1

§ These authors contributed equally

1 Department of Public Health and Infectious Diseases, Sapienza University of Rome, 00185 Rome, Italy; valentina.baccolini@uniroma1.it (V.B.); claudia.isonne@uniroma1.it (C.I.); sara.cianfanelli@uniroma1.it (Sara Cianfanelli); carolina.dipaolo@uniroma1.it (C.D.P.); annamaria.mele@uniroma1.it (A.M.); lorenza.lia@uniroma1.it (L.L.); angelo.nardi@uniroma1.it (A.N.); carla.salerno@uniroma1.it (C.S.); susanna.caminada@uniroma1.it (S.C.); vittoria.cammalleri@uniroma1.it (V.C.); giancarlo.ceccarelli@uniroma1.it (G.C.); mario.venditti@uniroma1.it (M.V.); carolina.marzuillo@uniroma1.it (C.M.); corrado.devito@uniroma1.it (C.D.V.); maria.degiusti@uniroma1.it (M.D.G.); paolo.villari@uniroma1.it (P.V.)

2 Department of Anesthesia and Intensive Care Medicine Azienda Universitaria-Ospedaliera Policlinico Umberto I, 00185 Rome, Italy; guglielmo.tellan@uniroma1.it (G.T.); f.pugliese@uniroma1.it (F.P.)

3 Department of Internal, Anesthesiological and Cardiovascular Clinical Sciences, Sapienza University of Rome, 00185 Rome, Italy

4 Department of General and Specialist Surgery “P. Stefanini”, Sapienza University of Rome, Rome, Italy

* Correspondence: giuseppe.migliara@uniroma1.it; Tel: +39-06-4991-4886

Table S1. Classification of antibiotic agents into their respective antibiotic class.

| Antibiotic Class          | Antibiotic Agent                  |
|---------------------------|-----------------------------------|
| Aminoglycosides           | Gentamicin                        |
|                           | Amikacin                          |
|                           | Paromomycin                       |
| Carbapenems               | Ertapenem                         |
|                           | Imipenem                          |
|                           | Meropenem                         |
|                           | Ceftaxime                         |
|                           | Ceftazidime                       |
|                           | Cefepime                          |
|                           | Ceftriazone                       |
|                           | Ceftazidime/Avibactam             |
|                           | Cefoperazone                      |
|                           | Ceftolozane/Tazobactam            |
| Glycopeptides             | Vancomycin                        |
|                           | Teicoplanam                       |
| Lipopeptide               | Daptomycin                        |
| Oxazolidinones            | Linezolid                         |
|                           | Amoxicillin/Clavulanic acid       |
| Penicillin                | Ampicillin/Sulbactam              |
|                           | Piperacillin/Tazobactam           |
| Polymyxins                | Colistin                          |