

### **Description of Additional Supplementary files**

**Supplementary Data 1.** Minimal inhibitory concentrations (MICs) for all *E. coli* and *K. pneumoniae* strains in NeoOBS study tested against six antibiotics and their susceptibility against the three new antibiotic combinations (fosfomycin/flomoxef; fosfomycin/amikacin and flomoxef/amikacin). AMP: ampicillin; GEN: gentamycin; TZP: piperacillin-tazobactam; CTX: cefotaxime; MEM: meropenem; FLX: flomoxef; AMK: amikacin; FOS: fosfomycin.

**Supplementary Data 2.** List of Accession IDs of sequencing data generated in the study.