

Supplemental Material:

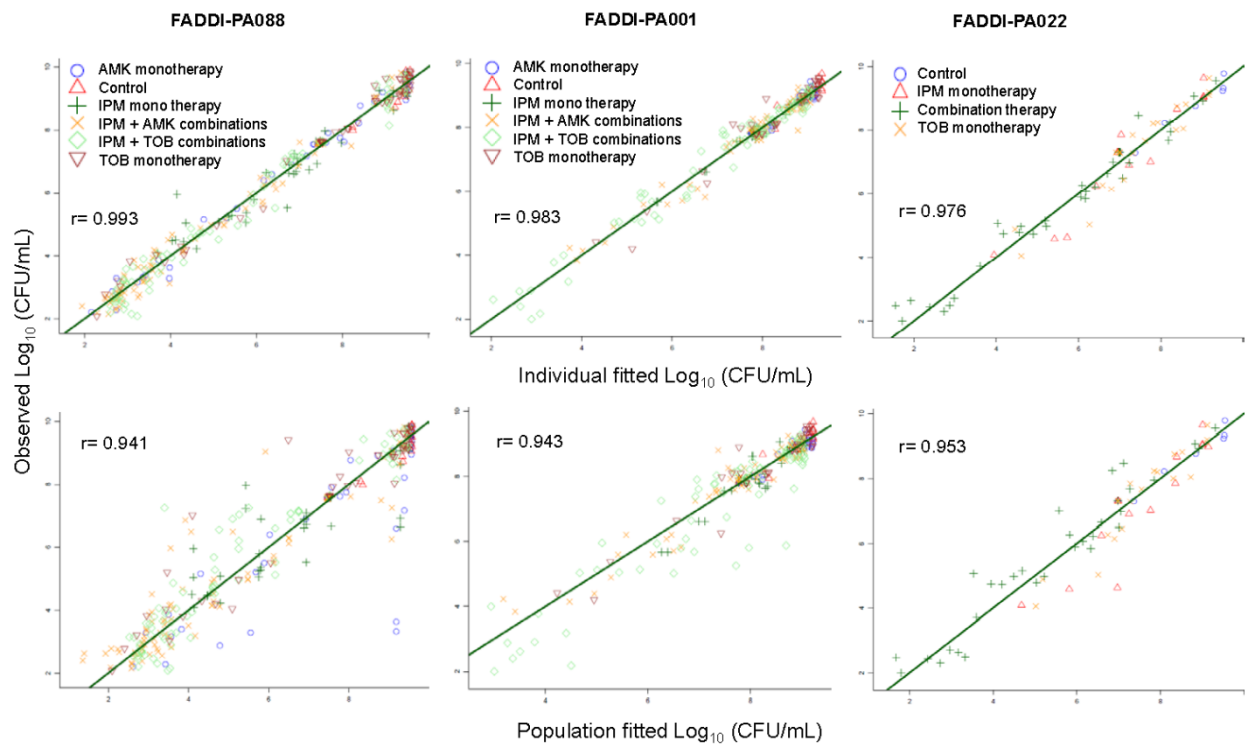


Fig S1: Observed vs. individual (top) and population fitted (bottom) viable counts for imipenem plus aminoglycoside combinations against three *P. aeruginosa* isolates.

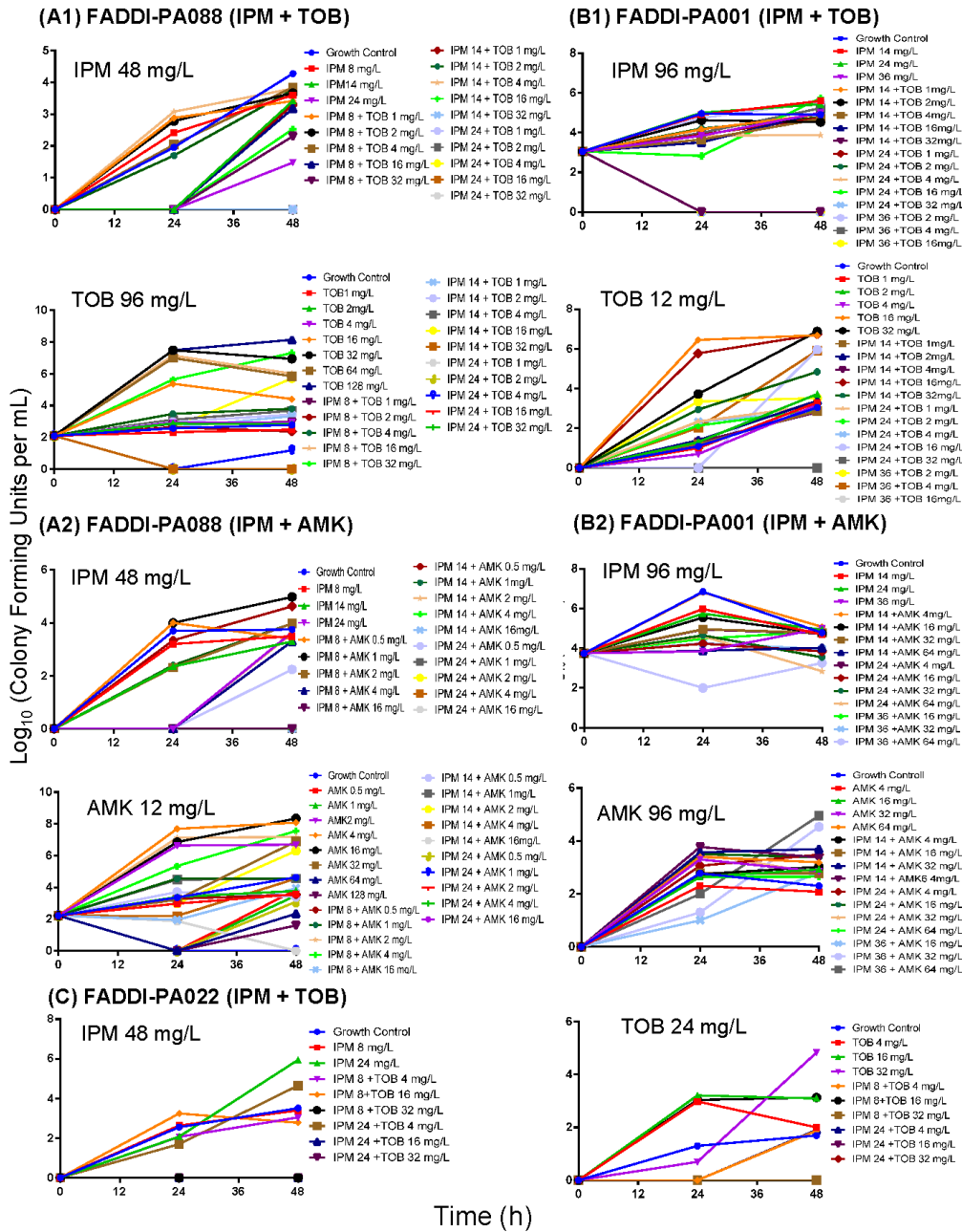


Fig S2: The total (growth control) and resistant subpopulations of imipenem and aminoglycosides (tobramycin and amikacin) on 3×MIC agar plates. All monotherapies (except imipenem monotherapy against FADDI-PA088) resulted in amplification of resistant subpopulations that grew on 3×MIC drug plates. The highest achievable clinically relevant concentrations of imipenem combined with tobramycin or amikacin suppressed amplification of resistance over 48 h.

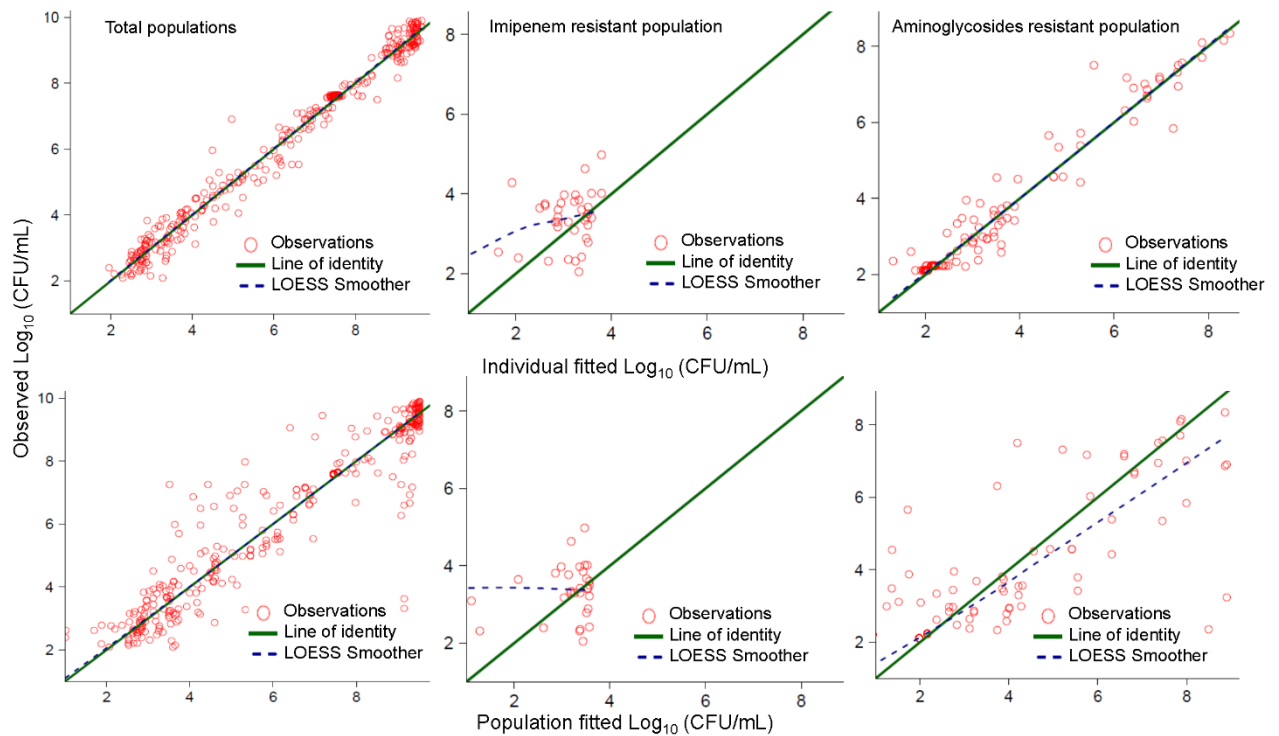


Fig S3: Observed vs. individual (top) and population fitted (bottom) viable counts of the extended MBM that described the time-course of both the total, the carbapenem-resistant, and the aminoglycoside-resistant populations for the imipenem plus aminoglycoside combinations against clinical isolate FADDI-PA088. The extended MBM fitted all viable counts for the imipenem plus tobramycin and the imipenem plus amikacin combinations simultaneously and thus provides a more comprehensive analysis of resistance emergence over time.