Ceftobiprole is a novel, broad-spectrum cephalosporin, which has been developed as an intravenous agent. A cephalosporin is a β-lactam antibiotic that inhibits bacterial cell wall synthesis. The object of this study was to characterize the MRSA isolates responsible for healthcare-associated pneumonia (HAP) and community-acquired pneumonia (CAP) infections collected during Phase 3 trials for ceftobiprole. No significant differences (i.e., odds ratio and respective 95% CI refer to comparisons of rates for clonal complexes observed between study arms.)

CONCLUSIONS
The majority of isolate recovered from the pneumonia trials for ceftobiprole was CC5-MRSA-II/IV (38.1; 30/78). This is in contrast to previous studies that have demonstrated a predominance of CC239-MRSA-II (17.9%; 10/56). Other clones detected were: CC8-MRSA-IV (8.3%; 12/145), CC30-MRSA-II (6.7%; 10/145), and CC80-MRSA-IV (2.4%; 1/42; Table 2). In the CAP arm, the most common clones were CC5-MRSA-II/IV (35.7%; 24/68), followed by CC30-MRSA-II (22.0%; 15/68), and CC80-MRSA-IV (18.9%; 13/68). Overall, the most common isolates were CC5-MRSA-II/IV, which was reflective of the overall distribution of study patients, with >50% being of European origin. Most isolates responsible for HAP were CC5-MRSA-II/IV (41.6%; 32/77), followed by CC30-MRSA-II (25.3%; 19/77). Overall, most of the strains responsible for HAP were of US origin, with the majority being of CC5-MRSA-II (54.5%; 14/26). This is in contrast to CAP, where the majority of isolates were of European origin (73.1%; 52/71). The geographical distribution of MRSA was reflective of the overall distribution of study patients, with >50% being of European origin. Most isolates responsible for HAP and CAP infections collected during Phase 3 trials for ceftobiprole.

REFERENCES