Background: Blood cultures have an important role in the diagnosis of serious bloodstream infections, which have an estimated mortality ranging from 14% to up to 50%, and are a major cause of morbidity and mortality worldwide. Blood culture sampling is the most important diagnostic test for bloodstream infections, as it is the only tool that gives reliable information about the causative pathogen and its resistance profile.

Material/methods: Prospectively collected data on 59,263 adult General medicine admissions with blood cultures collected from July 2008 through end of June 2015 were analyzed.

Results: Blood cultures were drawn in 35% of General medical admissions. Of the 59,263 admissions with blood cultures, 12,529 were positive. 4.8% of blood cultures yielded a true bloodstream infection, while contaminants comprised 4.3%. The most common organisms responsible for bloodstream infection (BSI) were Escherichia coli, Staphylococcus aureus, Klebsiella pneumoniae and Pseudomonas aeruginosa. Forty four percent of S. aureus isolates were methicillin-resistant (MRSA), while among E. coli and K. pneumoniae isolates 22% were extended-spectrum β lactamase (ESBL) producers, and 2.6% were carbapenem resistant. Patients with BSI were of older age, and had higher Norton risk scale and Charlson comorbidity index scores. Both the length of hospital stay and 30-day mortality of patients with a BSI were approximately 2.5 times higher than the overall general medicine patient group.

Conclusions: In a population where the median age was 73 years we found the incidence of BSI was 4.8%. MRSA comprised nearly half of S. aureus isolates and ESBL-producers accounted for one-fifth of E. coli and K. pneumoniae isolates. Patients with BSI had more comorbid conditions, spent longer in hospital and had a substantially higher 30-day mortality.