The incidence of healthcare-associated infections and sepsis (HAIs) is 5-10 times higher in patients in intensive care units (ICUs) than in those at other hospital departments” Hamp et al (2017).

Abstract:

The incidence of healthcare-associated infections and sepsis (HAIs) is 5-10 times higher in patients in intensive care units (ICUs) than in those at other hospital departments. Predisposition for these lies in many intrinsic (disease severity, loss of immunity) and extrinsic factors (frequent use of broad-spectrum antibiotics with consequent presence of antibiotic-resistant pathogens).

The majority of HAIs in ICUs are associated with the use of invasive devices (DA-HAIs; device-associated healthcare-associated infections) (19%). Their incidence differs among specific types of ICUs (2%-49%). The most frequent DA-HAI are central line-associated bloodstream infections (CLA-BSI), ventilator-associated pneumonia (VAP), catheter-associated urinary tract infection (CAUTI) and surgical site infections (SSI). SSI is most often described as a distinct and separate entity of HAIs in ICUs. Recently, gram-negative bacilli (Pseudomonas aeruginosa, Klebsiella pneumoniae and Acinetobacter spp.) are more frequently isolated in
DA-HAls than gram-positive ones (Staphylococcus aureus, Enterococcus spp.), often present as resistant strains. On the other hand, urinary or/and systemic infections tend to increase. DA-HAls endanger and slow down patient recovery, prolong hospital stay, and generally increase the mortality rate. DA-HAls are of special interest of the Hospital Committee Center for Infective Disease in order to improve patient safety and reduce total cost allocated for prevention of DA-HAls. DA-HAI rate is the most useful intra- and inter-hospital measure to compare surveillance and effectiveness of preventive procedures among different ICU types.

Reference: