

Abstract. This study aimed to determine the prevalence of healthcare-associated infections (HAIs), all-cause mortality, document the bacterial pathogens isolated in HAIs, and determine the risk factors associated with HAIs and all-cause mortality at selected hospitals in Thailand. A survey with a total time frame of 10 days was conducted at selected 50 hospitals across Thailand during January 2014: 19 primary government hospitals, 15 secondary government hospitals, 13 tertiary government hospitals, 2 private hospitals and 1 government university hospital. Of 15,475 cases reviewed, 688 patients had 791 HAIs (1.1 HAI per infected patient). The rate of HAI was 4.4% (95%CI: 4.1-4.8): 7.3% (95%CI: 4.6-9.3) at the university hospital surveyed, 5.0% (95%CI: 4.6-5.4) at the tertiary hospitals surveyed, 3.9% (95%CI: 3.4-4.6) at the secondary hospitals surveyed, 2.0% (95%CI: 1.3-2.7) at the primary hospitals surveyed, and 1.6% (95%CI: 0.5-2.8) at the private hospitals surveyed. The ward with the frequent number of HAI was the intensive care unit (17%). The two most commonly affected age ranges were those aged >60 years and <1 year. Of the 791 HAIs found in this survey, the 3 most frequently reported types of HAI were: respiratory tract infections ($n=377$, 48%), urinary tract infections ($n=176$, 22%) and surgical site infections ($n=55$, 7%). Of the 688 patients with a HAI, 24% died within three months of this survey. The most frequently reported bacterial pathogen was *Acinetobacter* species (17%). On multivariate analysis, HAIs were significantly associated with patient age <1 year, a university hospital, having major surgery, urinary catheterization, being on a respiratory ventilator, having a tracheostomy, and having central venous catheterization ($p < 0.05$). Death was associated with patient age <1 year, a university hospital, being on a surgical or medical ward, being on a ventilator, and having a central venous catheter ($p < 0.05$). HAIs are major public health problems in the studied hospitals and result in substantial mortality.

Keywords: healthcare-associated infections, prevalence, Thailand