individuals or have no recommendations. The annual incidence of varicella in the general population ranged from 13.7 to 47.6 per 100,000 in Asia-Pacific countries with universal vaccination, and from 100 to 512 per 100,000 in Asia-Pacific countries without universal vaccination. Studies in China, Japan, and South Korea showed varicella incidence peaking in spring and winter. Limited publication has reported varicella incidence in Australia, which is defined by the state and territory health authorities using health care resource utilization targeted on inpatient care. The most frequent complications among hospitalized patients were skin and respiratory complications. Hospital population ranged from 13.7 to 76 per 100,000. In the study, annual varicella incidence data were collected. Given limited varicella vaccination policy in this region, gaps in evidence need to be addressed to inform policy makers about the public health impact of varicella.

**PIN8**

**INFLUENZA VACCINATION IN JAPAN AMONG THE GENERAL POPULATION AND HIGH-RISK GROUPS**

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**OBJECTIVES:** Influenza vaccination rates have not been high enough in Japan. This study investigated current influenza vaccination rates among the general Japan population and rates among high-risk adults. **METHODS:** This study included data from the 2011-2012 Japan (Ns = 30,000) National Health and Wellness Surveys (NHWS) and a cross-sectional national Internet-based survey (the NHWS includes a national random sample of adults (18+ years) which included items on vaccination history as well as high-risk group status as defined by the World Health Organization (WHO). Vaccination rates and characteristics of vaccinees were reported descriptively. Logistic regressions were conducted to predict vaccination behavior from sociodemographics and risk-related variables. **RESULTS:** 17.17% of adults in Japan reported being vaccinated for influenza compared with 18.17% in 2010. Even among patients with high-risk groups, the overall influenza vaccination rates were low, ranging from 24.83% (caregivers) to 42.86% (patients with immunodeficiencies). The most common reason for non-vaccination was the belief that it was not important (45.3%); other reasons were high price (35.8%), patients included believing that vaccine is not effective (13.0%) and that prior infection leads to future resistance (12.3%). Respondents who were vaccinated were more likely to be female (OR = 1.006), older (OR = 1.212), university educated (OR = 1.226), and employed (OR = 1.243) with higher incomes (Virginia < 0.05). The strongest predictors of vaccination were having an immunodeficiency (OR = 3.613), heart disease (OR = 2.571), chronic lung disease (OR = 2.615), chronic liver disease (OR = 1.625), chronic renal condition (OR = 1.608) or chronic metabolic conditions (OR = 1.532) (all p < 0.05). **CONCLUSIONS:** Overall vaccination rates were low in Japan with no increase in vaccination rates in the prior year. All WHO-recommended vaccination groups had rates less than 50% and a large gap remains between these recommendations and vaccination behavior. In 2011, the influenza vaccination rates among adults in the United States were 36.2%, almost twice the vaccination rate in Japan.

**PIN9**

**HEALTH CARE-ASSOCIATED INFECTION PREVALENCE AMONG GRADE A TERTIAL HOSPITALS IN CHINA: A META-ANALYSIS**

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**OBJECTIVES:** To assess the prevalence of health care-associated infection (HAI) in 2012 among Grade A hospitals in China. **METHODS:** Literatures were searched from PubMed, EMBASE, Cochrane Library, CNKI, cppp, WANGFANG, and Sinomed from Jan. 2012 to Mar. 2014. Literature were screened and data was extracted by two independent reviewers, separately. Meta-analyses were conducted by R3.0.3. The pooled HAI prevalence of the other 25 studies with 65,063 patients in grade A level 2 hospitals was 3.2% (95% CI 2.95-3.48) with a significant heterogeneity (I² = 82.7%, P < 0.05). The aggregated prevalence rate of HAI was 3.4% across all studies. Among the 50 studies, 25 were performed in Grade A tertiary hospitals and the rest 25 in grade A level 2 hospitals. The 25 studies performed in Grade A tertiary hospitals including 26,700 participants reported the pooled HAI prevalence as 3.5% (95% CI: 3.0%-4.1%). The aggregated HAI prevalence of the other 25 studies with 65,063 patients in grade A level 2 hospitals was 3.2% (95% CI: 2.7%-3.8%), which was not significantly different from that in Grade A tertiary hospitals (P = 0.32). In the analyses of different infection sites, 18 studies targeting at lower respiratory infection (19,055 participants) revealed the highest combined constituent ratio as 46.6% (95% CI: 40.15-53.2%). The pooled constituent ratio of 17 studies targeting at urinary system infection (19,949 participants) was 16.1% (95% CI: 11.5%-21.2%) and that of 19 studies targeting at upper respiratory infection (20,924 participants) was 15.2% (95% CI: 11.2%-20.2%). In the analyses of the antibiotics using, 18 studies identified (19,090 participants) in grade A tertiary hospitals and revealed pooled antibiotics using ratio as 42.96% (95% CI: 38.3%-47.8%). **CONCLUSIONS:** The aggregated prevalence rate of HAI was 3.4% across all general hospitals. The pooled prevalence rate among grade A tertiary hospitals and grade A level 2 hospitals showed no significant difference. Among all infection sites, lower respiratory infection accounts for the highest proportion.

**PIN10**

**INFLUENZA VACCINATION IN CHINA AMONG THE URBAN POPULATION AND HIGH-RISK GROUPS**

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**OBJECTIVES:** This study investigated current influenza vaccination rates among urban populations ranged from 13.7 to 76 per 100,000 in Asia-Pacific countries with universal vaccination, and from 100 to 512 per 100,000 in Asia-Pacific countries without universal vaccination. Studies in China, Japan, and South Korea showed varicella incidence peaking in spring and winter. Limited publication has reported varicella incidence in Australia, which is defined by the state and territory health authorities using health care resource utilization targeted on inpatient care. The most frequent complications among hospitalized patients were skin and respiratory complications. Hospital population ranged from 13.7 to 76 per 100,000. In the study, annual varicella incidence data were collected. Given limited varicella vaccination policy in this region, gaps in evidence need to be addressed to inform policy makers about the public health impact of varicella. The aggregated prevalence as 3.0%-4.1%). The aggregated HAI prevalence of the other 25 studies with 65,063 patients in grade A level 2 hospitals was 3.2% (95% CI: 2.7%-3.8%), which was not significantly different from that in Grade A tertiary hospitals (P = 0.32). In the analyses of different infection sites, 18 studies targeting at lower respiratory infection (19,055 participants) revealed the highest combined constituent ratio as 46.6% (95% CI: 40.15-53.2%). The pooled constituent ratio of 17 studies targeting at urinary system infection (19,949 participants) was 16.1% (95% CI: 11.5%-21.2%) and that of 19 studies targeting at upper respiratory infection (20,924 participants) was 15.2% (95% CI: 11.2%-20.2%). In the analyses of the antibiotics using, 18 studies identified (19,090 participants) in grade A tertiary hospitals and revealed pooled antibiotics using ratio as 42.96% (95% CI: 38.3%-47.8%). **CONCLUSIONS:** The aggregated prevalence rate of HAI was 3.4% across all general hospitals. The pooled prevalence rate among grade A tertiary hospitals and grade A level 2 hospitals showed no significant difference. Among all infection sites, lower respiratory infection accounts for the highest proportion.

**INFECTION – Cost Studies**

**PIN14**

**CLINICAL OUTCOMES AND HOSPITAL COSTS ASSOCIATED WITH EMPERICAL TREATMENT OF HOSPITAL-ACQUIRED PNEUMONIA WITH VANCYMOXIN OR LINEZOLID IN A CHINESE TERTIAL CARE HOSPITAL: A RETROSPECTIVE COHORT STUDY**

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1A facility-based retrospective cohort study was conducted and data were collected from 150 patients who were registered but not on treatment from December 2011 to December 2013. Multiple logistic regression analysis was applied to identify the risk factors for mortality among HIV patients. **RESULTS:** A total of 40 patients were died during the follow-up period. Patients with age between 39-59 years (OR 0.49, 95% CI 0.28-0.84), baseline World Health Organization (WHO) staging III and IV (OR 0.09, 95% CI 0.04-0.20) and OR 1.11, 95% CI 0.04-0.21), patients with opportunistic infections (OR 4.93, 95% CI 2.17-8.74), were found to have less risk for mortality compared to their counterparts. Patients with low BMI (OR 2.05, 95% CI 1.21-3.49), CD4 count > 200 cells/µl (OR 3.88, 95% CI 2.27-6.65) were found to have more risk. **CONCLUSIONS:** Age group 18-38, patients with WHO stage IV, patients with BMI < 18 and CD4 count > 200 cells/µl were all significant predictors of mortality. Therefore, patients with the aforementioned predictors should be followed closely and frequently.