the types of bacteria. This retrospective study with case control design were used to collect 264 patients who were above age of 65 and stayed in medical intensive care unit during the year 2006 to 2011.
Results: The results showed that risk factors associated with bloodstream infections of the followings are: central venous catheter device (OR, 33.315; 95%CI, 1.203～922.610); other infections (OR, 9.440; 95% CI, 1.075～82.897); re-on central venous catheter device (OR, 6.278; 95%CI, 2.054～19.190); hemodialysis (OR, 6.010; 95%CI, 1.516～23.833); receiving a blood transfusion (OR,3.171; 95%CI, 1.161～8.659); length of ICU stay (OR, 1.325; 95%CI, 1.196～1.468). The most common isolates are *Candida species* (22.7%) ,*Klebsiella pneumoniae* (10.6%), *Acinetobacter baumannii complex* (9.9%) ,*Staphylococcus aureus* (9.9%).
Conclusion: The findings indicate that using care bundles to reduce catheter related blood stream infections is urgent and essential for the implementation of catheterization, duration of catheter use, the quality of catheter care.

PS 1-211

POINT PREVALENCE SURVEY OF ANTIMICROBIAL UTILIZATION AND HOSPITAL-ACQUIRED INFECTIONS IN A MEDICAL CENTER IN TAIWAN

Ya-Ling Chen, Hsin Chi. *Infection Control Center, MacKay Memorial Hospital, Taiwan*

Purpose: The investigation of healthcare-associated infections (HAIs) incidence by using prospective surveillance of infection control practice spends a lot of time. Now we use ECDC point prevalence survey way to determine the rate of documented infections and prevalence of antimicrobials usage is more efficient way.
Materials and Methods: During the periods of August 12 to 31, 2013 and May 1 to 17, 2014, survey was conducted on the remained hospitalized patients at 8:00 in the morning or the newborn born before 8:00 AM. We visited all patients and check the use of central catheter, urinary catheter, or breathing apparatus. All medical records including patient's age, sex, date of admission, surgery, and diagnosis and whether invasive catheter device and antibiotic use and investigation is still in active health care-associated infections periods.
Results: We investigated 1668 patients. The 3 most common age distribution were 60-70 years old (14.4%), 50-60 years old (14.7%) and less than1 year old (13.5%). A total of 60% patients had peripheral venous catheters, 19.3% patients had Central Venous Catheters, 15.6% had Foley catheter. Endo trachea tube and ventilator were use in 7.8% and 6.5% of patients, respectively. 28.1% patients had operation at this admission period. During these periods, 46% patients had antimicrobial use on the surveillance day (Table 1). Pneumonia and clinical sepsis are the most common infection site between community (pneumonia 27.5 %, clinical sepsis 20.4%) and health care institution (pneumonia 29.9%, clinical sepsis 28.2%).

Table 1 Indication use in antibiotics (PS 1-211).

Indication	Community infection	Unknown	HAIs	Other	Surgery prophylaxis	Long term care facility
%	46.2	28.4	11.9	7	6.4	0.2

Conclusions: According this survey, we found invasive device rate and antibiotic utilization are high, bundle interventions and antibiotic management is imperative.

PS 1-212

PNEUMOCYSTIS COLONIZATION IN IMMUNOCOMPROMISED PATIENTS: INCIDENCE AND RISK FACTORS

Nan-Yao Lee [a,c], Meng-Yu Weng [a], Chwan-Yau Luo [b,c], Shen-Shin Chang [b], Ming-Chi Li [a], Po-Lin Chen [a], Wen-Chien Ko [a,c]. [a]*Department of Internal Medicine, National Cheng Kung University Hospital, Tainan, Taiwan;* [b]*Department of Surgery, National Cheng Kung University Hospital, Tainan, Taiwan;* [c]*School of Medicine, National Cheng Kung University, Tainan, Taiwan*

Purpose: The incidenceand risk factors for pharyngeal colonization of *Pneumocystis jirovecii* in immunocompromised patients are unknown and such information may provide insights into the transmission of *P.jirovecii*. The aim of this study was to determine the incidence ofand risk factors for *P. jirovecii* colonization in this population as well as the risk of Pneumocystis pneumonia development in colonizedsubjects.
Methods: A prospectivestudy among immunocompromised patients was conducted at a medical centre during a one-year follow-up. *Pneumocystis* DNA was extracted from oral swash sample, and real-time PCR and sequencing were performed to detect the presence of *P. jirovecii*. Clinical data were obtained from medical chartsbya uniform data record form. Univariate and multivariate analyses were performed to determine predictors of Pneumocystis colonization.
Results: 416 participants enrolled, *P. jirovecii* was detected in 62 (13.2%) subjects without clinic syndrome of PCP recognized as colonization. The patients with *Pneumocystis* colonization were associated with male gender ($P=0.012$), chronic lung ($P=0.049$), kidney ($P=0.047$) disease, kidney transplant recipient($P<0.001$), acquired systemic lupus erythematosus ($P=0.016$), *Rheumatoid arthritis ($P=0.001$), received any suppressive therapy ($P<0.001$) or steroid treatment ($P<0.001$).*Multivariate analysis demonstrated that kidney transplant recipient [odds ratio (OR), 0.14; 95% confidence interval (CI), 0.03-0.76; $P=0.02$], receive immunosuppressive therapy (OR, 3.82;95% CI, 1.1-18.2; $P<=0.037$) and steroid treatment (OR, 2.7;95% CI, 0.98-0.99; $P=0.025$) were associated with colonization. The incidence of *Pneumocystis*colonization for participants with or without*suppressive therapy was 115.4 and 36.1 cases per 1,000 person-year respectively; the hazard ratio for* colonization was 3.2 (95% CI, 1.49-6.82; $P=0.003$). Genotype 1 and 3 was most common (26, 41.3%), followed genotypes 2 (7, 11.1%) and 4 (1, 1.6%); mixed-genotype infections were seen in 4.7% of the cases.
Conclusion: *Pneumocystis* colonization is frequent in kidney transplant recipient ongoing with immunosuppressive therapy that this population represents a potential reservoir and transmission source of *P. jirovecii*. A high prevalence of colonization was associated with any immunosuppressive therapy. However, the role of pharyngeal colonization in disease transmission among immunocompromised patients requires further studies.

PS 1-213

ESCHERICHIA COLI ENDOCARDITIS OF NATIVE AORTIC AND MITRAL VALVES: A CASE REPORT

Wen-Liang Yu [a], Chien-An Chen [b], Wen-Shiann Wu [b]. [a]*Department of Intensive Care Medicine, Chi-Mei Medical Center, Tainan, Taiwan;* [b]*Department of Internal Medicine, Chi-Mei Medical Center, Tainan, Taiwan*

Purpose: Infective endocarditis (IE) is rarely caused by *Escherichia coli*, which corresponds to 0.51% of IE with a mortality rate of 21%. We reported an IE case by *E. coli* with underlying bicuspid aortic valve and severe aortic regurgitation.
Case report
A 46-year-old woman with underlying aortic regurgitation was admitted to our hospital due to acute dyspnea for 1 day and decreased urine output recently. There was no fever, chills, abdominal pain, dizziness, nausea, or vomiting before admission. She was intubated due to respiratory failure. Upon admission, a temperature of 37.6°Cand a blood pressure of 108/57mmHg were noticed. A grade III/VI to and fro murmur was auscultated over aortic area with radiation to left neck. A white blood cell of 14,200/μL and a urine WBC of 10-19/HPF were found. CXR showed acute pulmonary edema. The urine and sputum cultures yielded no significant bacteria. However, four separate sets of blood culture yielded *E. coli*. Empiric antibiotic with ceftazidime was used. The ultrasound and CT of the abdomen did not show any infectious focus. Transthoracic echocardiogram showed adequate left ventricular performance, severe aortic regurgitation, mild mitral regurgitation, and severe tricuspid regurgitation with severe pulmonary hypertension. Transesophageal echocardiogram revealed bicuspid aortic valves with two vegetations over aortic valve (0.9 x 0.5cm, 0.6 x 0.2cm) and one vegetation (0.3 x 0.3cm) over anterior leaflet of mitral valve. Surgical intervention was

not performed because of severe pulmonary hypertension. Then antibiotic was shifted to piperacillin-tazobactam (21 days) plus gentamycin (14 days). She was discharged after four weeks of antibiotic treatment and remained well at the 8-month follow-up visit after discharge.
Conclusions: Clinicians should consider the possibility of endocarditis rather than urosepsis for patients with continuous *E. coli* bacteremia. Early diagnosis and prompt adequate antibiotic therapy could achieve a good outcome.

PS 1-214

WHY CANNOT MARIA BE EXTINGUISHED IN BURKINA FASO?

Yang Chao-Ying, PhD, Assistant Prof., RN, ICN[a], Bamago Daouda, RN[a,b], Sibonne Moise, RN[a,b], Yvette Toe sissima, RN[a,b], Nikiema Lassane, RN[a,b]. [a]*Health Business Administration Department, Foo-Yin University, Taiwan;* [b]*Department of Health, Burkina Faso*

Purpose: Maria is the most severe infection disease and an enormous public-health problem in Burkina Faso. It causes disease in approximately 515 million people and kills between one and three million, most of them young children here. The study purpose tried to analyze the influential factors obstructing public health policies.
Methods: We used qualitative research: interview 8 Burkina Faso public health head nurses. We also collected information and reviewed literatures of Maria relative to Burkina Faso.
Results: The most influential factor has been identified that it is Drug market control. Illegal and false Maria drugs have been occupied the drug market severely. The second is low literacy rate. There were 71.3% of illiteracy adult at ages 15 and above. This has caused the many difficulties of health education in the communities. The third is poverty in urban. The authorities' official statistics measuring poverty incidence has manifested around 45 percent in 2012. Urban poverty is the most severe. People living in urban were not able to see doctors because of expensive health services and drugs. The forth is that the report system of communicable disease was not complete. Sick people did not see the doctor and easily took medicine from drugs market. Official report is not correct. The five is that the culture and habits of sickness were to seek traditional medicine but not to see the doctor or public health services.
Conclusions: The drug market uncontrolled, illiteracy, poverty, uncompleted report system and culture issue have led to Maria still exists in Burkina Faso. Our suggestions: Public health education should act door by door to explain the real Maria drugs can only cure the disease. The second approach that the school health education should influence parents and families to understand Maria and its prevention and early treatments.

PS 1-215

THE EARLY CLINICAL FEATURES AND PREDICTORS OF SEVERE DENGUE AND DENGUE SHOCK SYNDROME IN ADULT PATIENTS

Ing-Kit Lee, Jien-Wei Liu. *Division of Infectious Diseases, Department of Internal Medicine, Kaohsiung Chang Gung Memorial Hospital, Kaohsiung, Taiwan*

Purpose: Understanding the early clinical features of and risk factors for severe dengue (SD) and dengue shock syndrome (DSS) is important in determining triage and management algorithms.
Methods: We undertook a retrospective study of laboratory-confirmed adult dengue patients in Kaohsiung Chang Gung Memorial Hospital, Taiwan, between 1 July 2002 and 31 July 2014. The World Health Organization 1997 and 2009 criteria were applied to define DSS and SD. Dengue patients who did not meet the criteria for SD and DSS were grouped as controls. The demographic, clinical and laboratory features of dengue patients at hospital presentation were used to determine the predictor for development of SD and DSS after hospitalization.
Results: A total of 1063 patients were included in the study. Mean length of illness from onset illness to hospital presentation of the 55 SD (mean age, 63 years) patients, and 1008 non-SD (mean age, 48.7 years) patients was 3.8 days and 3.7 days, respectively. Of the 55 SD patients, the mean time interval from illness onset to development of SD was 5.3 days, and from hospital presentation to occurrence of SD was 1.5 days. Three commonest warning signs at arrival were abdominal pain (45.5%), vomiting (36.4%) and pleural effusion (32%). Leukocytosis (white cell count $>10\times10^9$ cells/L) was seen in 10 (18.2%) of 55 SD patients upon their arrival. DSS occurred in 23 (mean age, 62.4 years) (41.8%) of 55 SD patients. The mean interval from illness onset to DSS was 5.5 days. Overall, there were twelve patients died. Multivariate analysis showed elderly (adjusted odds ratio [aOR] 1.052), gastrointestinal bleeding (aOR 12.127), leukocytosis (aOR 49.744), and severe thrombocytopenia (platelet count $<50\times10^9$ cells/L) (aOR 3.212) were independent predictors of SD. Predictors of DSS were aging (aOR 1.039), gastrointestinal bleeding (aOR 38.841), and severe thrombocytopenia (aOR 2.850).
Conclusions: The application of these predictive tools in the clinical setting can early recognition of SD and DSS, and reduce otherwise preventable morbidity and mortality in adult dengue patients.

PS 1-216

ASSOCIATION OF PULMONARY TUBERCULOSIS AND ETHAMBUTOL WITH INCIDENT DEPRESSIVE DISORDER: A NATIONALWIDE POPULATION-BASED COHORT STUDY

Yung-Feng Yen [a,b], Pesus Chou [b], Chung-Yeh Deng [c]. [a]*Section of Infectious Diseases, Taipei City Hospital, Taipei City Government, 145, Zhengzhou Rd., Datong Dist., Taipei 10341, Taiwan;* [b]*Community Medicine Research Center and Institute of Public Health, National Yang-Ming University, 155, Section 2, Ni-Long Street, Taipei 11221, Taiwan;* [c]*Institute of Hospital and Health Care Administration, National Yang-Ming University, 155, Section 2, Ni-Long Street, Taipei 11221, Taiwan*

Purpose: Depressive disorder frequently co-occurs with tuberculosis (TB), which is characterized by chronic inflammation. Inflammatory responses from chronic infection might affect the brain and increase the risk of depressive disorder. However, the temporal association between chronic infection and incident depressive disorder has not been prospectively evaluated. This study was aimed to determine the effects of pulmonary TB (PTB) and anti-TB drugs on the risk of incident depressive disorder.
Methods: From Jan. 1, 2000, we identified adult patients with PTB from the Taiwan National Health Insurance Research Database. A control cohort without PTB, matched for age ($\pm$5 years), sex, comorbidities, and income level, was selected for comparison. The 2 cohorts were followed until Dec. 31, 2011, and observed for occurrence of depressive disorder.
Results: Of the 23,145 patients (4629 study patients and 18,516 matched controls), 302 (8.09%) had depressive disorder during a mean follow-up period of 6.53 years, including 79 (1.71%) study patients and 223 (1.20%) controls. After adjusting for age, sex, comorbidities, and income level in the Cox proportional hazards model, PTB was found to be an independent risk factor of incident depressive disorder (adjusted HR, 1.74). The risk of incident depressive disorder was significantly higher (adjusted HR, 2.54) in patients with TB who received more than 60 defined daily doses (DDDs) of ethambutol, and the effect was dose-dependent.

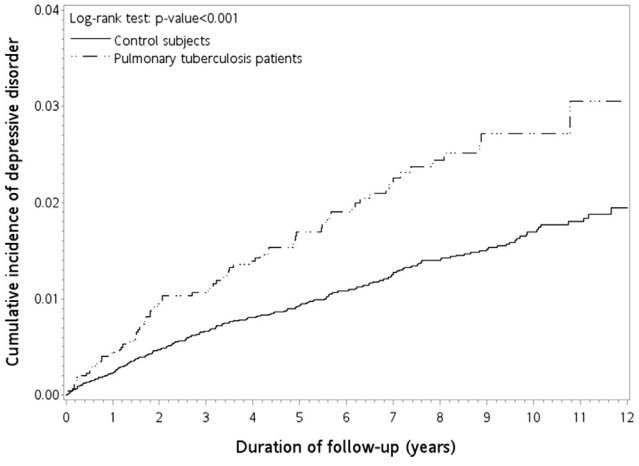

Figure 1 Kaplan—Meier curves for time to diagnosis of incident depressive disorder in patients with pulmonary tuberculosis and control subjects in Taiwan.

Conclusions: PTB patients had a higher risk of incident depressive disorder, particular in those with an ethambutol dose of more than 60 DDDs. Depressive disorder should be sought in patients following tuberculosis.