CVC insertion till 16 August 2014 or discontinuation of TCS. CLABSI was calcu-
lated based on no. of CVC-associated BSIs per 1000 catheter-days. 
Results: Fifteen patients were recruited with a median age of 3.25 years (1.6 to 6 years). Major (66.7%), Malay race (46.7%), had a Hick-
man CVC (80%) and immunosuppressed (66.7%, from malignancy [n = 7] or congenital immunodeficiency [n = 3]). The median TCS duration was 234
days and each lock lasted a median of 30 hours. Median pre and post-TCS
CLABSI rates was 9.95 (IQR 4.37–17.54) and 2.15 (IQR 0–4.46) per 1000 cath-
erter days respectively (p = 0.003). For GI patients, the pre and post rate ratio
was 0.22 (95% CI 0.02–0.95, p = 0.04). For H/O patients the ratio was 0.47
(95% CI 0.17 – 1.15, p = 0.1). Only 1 patient had nausea and vomiting
upon initiation. Two patients experienced line occlusion : 1 patient changed
to Taurodine-Heparin (Taurolock-HEP100®), 1 patient discontinued TCS.
Conclusions: Taurodine-citrine solution was successful in reducing CLABSI
rates from 9.95 to 2.15 per 1000 catheter days with minimal side effects
and is an effective antimicrobial lock therapy in pediatric patients on
long-term CVC.

**Impact of Antimicrobial Appropriateness on Clinical Outcome of Bacteremic Adults due to Community-Onset Extended-Spectrum-β-Lactamase-Producing Enterobacteriaceae**

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**Purpose:** To investigate determine the impact of empirical antibiotics on the patients’ outcome and the relationship of carbapenem minimum inhibitory concentration (MIC) and clinical outcome among adults with community-onset bacteremia due to extended-spectrum-β-lactamase (ESBL)-producing Enterobacteriaceae

**Methods:** A multicenter study was conducted retrospectively for adults with community-onset bacteremia due to ESBL-producing *Escherichia coli*, *Klebsiella pneumoniae* and *Proteus mirabilis* in the emergency department, during the period between January 2005 and June 2010. Clinical data were determined from chart records. ESBL phenotype and MIC determined following the Clinical and Laboratory Standards Institute criteria.

**Results:** Of 133 eligible adults, their mean age was 72.2 years, with a predominance of males (78 patients, 58.6%). The crude mortality at discharge was 30.8% (41 patients), and 27.8% (37 patients) died within 28 days after the onset of bacteremia. Despite the empirically appropriate therapy or car-

**Conclusions:** Of critical ill patients with such infections, their outcomes were superior in patients treated with appropriate empirical antibiotics compared to those with inappropriate empirical antibiotics. A relationship of eserapenem MIC value and clinical outcome among patients definitively treated with carbapenems was established.

**The Experience of Enhancing the Infectious Specimens Delivery Completeness in Psychiatric Hospital**

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**Purpose:** According to the standard of Ministry of Health and Welfare Department of Infectious Disease Control in our hospital in physical

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**A COMPUTER REMINDER REDUCES CATHETER-ASSOCIATED URINARY TRACT INFECTIONS IN HOSPITALIZED PATIENTS**

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**Purpose:** This study applies "computer reminder" to evaluate the effect of reminder system on the rate of catheter-associated urinary tract infections, catheterization days, and urinary catheter use.

**Methods:** A retrospective study was performed in medical center. we approach all indwelling urinary catheters present for more than 24 hours during Apr 2011 to Apr 2013. Since Apr 19 th, 2012, when physicians or nurses click the cather-
eterization date, the reminder appears automatically, call attention
to catheterization days and assess early removal of the catheter.

**Results:** A total of 48,556 patients were recruited. The rate of catheter-

**Conclusions:** "Computer reminder" provided physicians or nurses to assess and remove of the catheter as soon as possible. The results suggested to

**Efficacy of Reptigel™ and Other Preparations with Antiseptic Properties Against Biofilm Formed by Pseudomonas aeruginosa, Candida albicans and Methicillin-Resistant Staphylococcus aureus (MRSA)**

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**Purpose:** The efficacy of eight topical wound preparations and a silver-
imregnated dressing was assessed against *Pseudomonas aerugi-

**Methods:** P. aeruginosa and mixed C. albicans and MRSA biofilms were estab-
lished on polystyrene coupons for 48 hours using a CDC reactor. Coupons were treated for 4 or 24 hours with a range of agents. Control samples were treated with PBS. All products were tested at commercial concentra-
tions and 1:10 dilution. Remaining viable biofilm material was quantified in triplicate using serial dilutions and colony counts.
Results: Repigel™ treatment showed no recovery of *P. aeruginosa* biofilm material (>5 Log reduction vs. untreated controls) at both the commercial concentration and 1:10 dilution at both time-points. Topical preparations containing mupirocin 2% and fusidic acid 2% showed no difference vs. controls at 1:10 dilution. Four hours of treatment did not significantly reduce the biofilm load, but a >1 Log reduction in *P. aeruginosa* biofilm material was demonstrated after 24 hours. Treatment of mixed *C. albicans* / MRSA biofilms with Repigel™ resulted in a 5 Log reduction in biofilm material at both time-points. The 1:10 dilution of Repigel™ produced a >1 Log reduction in mixed biofilm material at both time-points, similar to findings with the other topical preparations.

Conclusions: Repigel™ at commercial concentration and 1:10 dilution prevented the recovery of viable *P. aeruginosa* biofilm material and reduced the recovery of viable organisms from multispecies biofilms of *C. albicans* and MRSA. The efficacy of Repigel™ in this *in vitro* model supports its potential anti-septic effectiveness against multiple bacterial strains in exuding chronic wounds.

Funded: Mundipharma

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**THE FIRST ISOLATE OF KLEBSIELLA PNEUMONIAE CARBAPENEMASE (KPC) – PRODUCING KLEBSIELLA PNEUMONIAE AT A REGIONAL HOSPITAL**

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**Purpose:** To report an isolate of *Klebsiella pneumoniae* with *Klebsiella pneumoniae* carbapenemase (KPC), which is the first isolate of KPC-producing strain at a regional hospital.

**Methods:** The *K. pneumoniae* isolate was isolated from sputum specimen in a patient who came from nursing home. The antimicrobial susceptibility testing was performed by disk diffusion test and the Phoenix NMC/ID-32 identification system (Becton Dickinson Diagnostic Systems, Sparks, MD). The results were interpreted according to the criteria recommended by the Clinical Laboratory Standards Institute 2014. The modified Hodge test (MHT) was performed for the presence of carbapenemase. The carbapenemase genes were confirmed at the Centers for Disease Control (CDC), Taiwan.

**Results:** The *K. pneumoniae* was susceptible to gentamicin, amikacin, and trimethoprim-sulamethoxazole, but resistant to piperacillin-tazobactam, levofloxacin, cefturoxime, ceftriaxone, cefazidime, imipenem, and meropenem. The MHT revealed the presence of a carbapenemase, and then the CDC confirmed that the carbapenemase was KPC.

**Conclusions:** This was the first isolate of KPC-producing strain in this hospital. Especially, the strain was not a hospital-acquired strain, but a nursing home-acquired strain. Infection control measures are recognized the important measure to prevent the spread of multidrug-resistant (MDR) strains. In order to reduce the incidence of MDR strains, herein, we suggest that both monitoring MDR strains and infection control measures should be performed not only in hospitals but also in long-term care facilities.

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**THE PROJECT TO IMPROVE T.B. CASES TO RETURN TO CLINIC FOR TREATMENT**

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**Purpose:** The rates of TB cases returned clinics are 78% in 2011 and 79% in 2012. The pretest was 65.2% health care workers for tuberculosis. The knowledge deficits in Tuberculosis (T.B.) and side effects of medications. We strengthened in cases education, family members and health workers about the knowledge of T.B. We provide transport for T.B. patient, improve process and public health cooperation, increase patient medication compliance. Return to clinic rate for treatment reach to 100%.

**Methods:** To elevate return rate, methods are following. (1) patient and family: the Tuberculosis case manager changed the way of health education by using language that patients understand. (2) We strengthen staff to guide educational resources related to internet search, to sharing case. Cognitive test score was improved to 95.4%. (3) Modify health education leaflets. Provides bus schedules to increase willingness to back to hospital. (4) the T.B. case manager calls case back for treatment and provides public nurse contact. Results: In 2013 year, return to clinic rate for treatment after hospital discharge diagnosis can reach 100%, no loss of any patients; another found by telephone to ask drug side effects more frequently than 2012 year 20%, medication compliance of patients are 100%. Last year, We lost 15 cases, the treatment course of 9 months estimated annual loss of health insurance of approximately 321060NT $.

**Conclusions:** Enhance cognitive education, hospitals and public cooperation in the management of T.B. Patients improve medication compliance with complete and effective course of treatment. Thereby reducing community cluster infections with multiple drug-resistant T.B. Reducing government cost and improving the quality of patient care. We lost 5 cases, but we do cooperate with public nurse to lead cases to follow-up. We suggest that hospital can afford a private education room to patient to have consult in the future.

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**USE ENVIRONMENTAL CLEAN PROJECT TO IMPROVE HEALTHCARE-ASSOCIATED INFECTION IN THE HOSPITAL**

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**Purpose:** The sanitary of hospital environment is the most important factor to provide the clean healthcare. It’s also related to health care associated