the treatment of BPH is lacking. This systematic review registered with PROSPERO (registration number: CRD42014007248) aims to provide the evidence for the AE associate with tadalafil use in BPH indication. **CONCLUSIONS:** Tadalafil use in BPH has now been increasing over the years. The data from published RCTs will help to identify the AE associated with its use.

PUK2
PREVALENCE AND ASSOCIATED COMPLICATION OF ACUTE KIDNEY INJURY AMONG DENGUE PATIENTS
Khan Y[1], Sarriff A[1], Khan AH[2], Adnan AS[3], Jummat F[4], Mallhi TH[1]
[1]*Universiti Sains Malaysia, Penang, Malaysia,* [2]*Universiti Sains Malaysia, Minden, Malaysia,* [3]*CKD Resource Centre, Hospital Universiti Sains Malaysia, Kota Bharu, Kelantan, Malaysia,* [4]*School of Medical Sciences, HUSM, Kota Bharu, Kelantan, Malaysia*
OBJECTIVES: Dengue fever is a mosquito borne infectious disease that is mainly prevalent in tropical and subtropical zones of the world. One of the potential complications of dengue fever is acute kidney injury (AKI). Current study aims to assess the incidence and risk factors for AKI among dengue patients. **METHODS:** A retrospective review of medical records of dengue infected patients enrolled from May 2005 to December 2013 was conducted at a tertiary care hospital in Kelantan. **RESULTS:** Total 124 patient records (male: 63, female: 61) with mean age of 29.57± 15.09 were reviewed retrospectively. Out of 124 patients, 104 (83.9%) suffered with classical DF, 19 (15.3%) with dengue hemorrhagic fever (DHF) while only 1(0.8%) with Dengue shock syndrome (DSS).The prevalence of AKI among Dengue patients was found to be 7.2 % (9 patients). On the basis of Acute Kidney Injury Network (AKIN) criteria, 2(22%) had stage 1 AKI while remaining 7 (78%) had stage 2 AKI. For the purpose of analysis of risk factors for AKI, patients were categorized into group I (with AKI) and group II (without AKI). Mann Whitney "U" test was used to compare differences between groups. A higher serum creatinine (112.39 vs. 56.87; p:0.001), bilirubin (70.81 vs. 48.73; p:0.038), urea (104.50 vs. 58.08; p:0.001), WBC (92.25 vs. 59.90; p:0.013) and Hb (90.91 vs. 60.04; p:0.021) levels were observed among AKI dengue patients. Though the duration of hospital stay of group I was more than group II, but this difference was statistically insignificant (I=77.33, II= 61.34; p: 0.192). **CONCLUSIONS:** AKI is a least studied and poorly understood complication of dengue fever. Such patients are at verge of developing DHS/DSS resulting in complicated clinical course and increased mortality. A cautious diagnosis and timely management should be the first and foremost step for management of such patients.

PUK3
EPIDEMIOLOGY OF END STAGE RENAL DISEASE PATIENTS ON HEMODIALYSIS FOR HOSPITAL READMISSIONS
Kumar P
Manipal University, Manipal, India
OBJECTIVES: The study aims to determine the different epidemiological factors responsible for the cause of hospital readmissions in chronic hemodialysis (HD) patients. **METHODS:** Reviewed data of 170 patients with 124 male and 46 female patients receiving maintenance HD twice weekly schedule on a Mon/Thu, Tue/Fri, Wed/Sat with prevalent adult's HD patients on period from 1st Jan to Dec 31, 2010 or continued until close at death, modality change, deviation from HD schedule not during a hospital stay, loss to follow-up. Eligible patients were actively recruited who were on chronic HD fulfilling the inclusion criteria. ICD-9-CM diagnosis codes were used. **RESULTS:** A total of 170 patients with End-stage renal disease (ESRD) on chronic HD included the study cohort. The mean age was 52.4±11.6 years; 27% were women with a mean year of patients on hemodialysis of 3.2±2.6. Hypertension 29.3% and hypertension with diabetes 26.4% were the leading cause of ESRD and least cause of renal failure was seen with polycystic kidney disease, Glomerulonephritis, *Interstitial nephritis, and others. Hospital readmission was commonly for cardiovascular complications 62% to infections 31% and other 7%.* IHD, Stroke and Congestive heart failure lead to readmission and with infection of AV fistula 66% were more commonly seen compared to Catheterization. **CONCLUSIONS:** Hypertension is the leading cause for ESRD and *cardiovascular complications* were associated with elevated *hospital readmission in addition* to infection. AV fistula is the other common source of infection leading to *readmission.*

PUK5
ACTIVATION OF ENDOGENOUS ANTI-INFLAMMATORY MEDIATOR CYCLIC AMP CONFERS PROTECTION IN MURINE ACUTE PYELONEPHRITIS INDUCED BY UROPATHOGENIC E COLI
Lin Y[1], Gui BS[1], Wei Y[1], Zhang T[1], Liu D[2], Li K[1]
[1]*The Second Affiliated Hospital, School of Medicine, Xi'an Jiaotong University, Xi'an, China,* [2]*The Fifth Hospital of Xi'an, Xi'an, China*
OBJECTIVES: To investigate the effect of forskolin, on susceptibility/severity of acute pyelonephritis and innate immune responses to pathogen using an established experimental model of ascending urinary tract infection and primary cell cultures (i.e. renal tubular epithelial cells, monocytes/macrophages). **METHODS:** Forskolin is produced by the Indian Coleus plant (*Coleus forskohlii*), which is commonly used to raise levels of cyclic AMP (cAMP) in the study and research of cell physiology. Forkolin (250mg/kg) was given before the induction of infection by i.p. injection. Kidney infection was assessed in forskolin or control reagent treated mice at 6, 24, 48h after bladder inoculation of UPEC (J96). Bacteria load in kidneys was analyzed by the agar plate assay. Tissue damage was assessed by histopathology. Leukocytes infiltration was analysed by immunochemical staining, tissue MPO activity assay and flow cytometry. Renal synthesis of cytokines/chemokines was analysed by RT-PCR. **RESULTS:** Administration of forskolin significantly reduced bacteria load in kidneys and renal tissue damage at both 6 and 24h time points by 10 folds, this was associated with reduced intrarenal production of pro-inflammatory cytokines and chemokines (*e.g.* TNF-α, IL-1β, KC, MCP-1) and attenuated intrarenal infiltration and accumulation of leukocytes (*i.e.* CD45+. Gr-1+, F4/80+) as well as intrarenal myeloperoxidase (MPO) activity. In vitro, forskolin*I* inhibited LPS or UPEC mediated pro-inflammatory cytokine and chemokine production by primary renal tubular epithelial cells and monocytes/macrophages. **CONCLUSIONS:** These findings demonstrate that administration of forskolin is beneficial for controlling the development of UPEC mediated acute pyelonephritis in mice. The protective effect of forskolin (via cAMP activation) in this experimental acute pyelonephritis can be explained at least in part by limiting excessive inflammatory responses through acting on both renal parenchymal and inflammatory cells.

PUK6
C5A RECEPTOR ANTAGONIST PROTECTS MICE FROM UROPATHOGENIC ESCHERICHIA COLI-INDUCED KIDNEY INFECTION
Zhang T[1], Wu KY[1], Duan ZY[1], Lin Y[1], Gui BS[1], Liu D[2], Li K[1]
[1]*The Second Affiliated Hospital, School of Medicine, Xi'an Jiaotong University, Xi'an, China,* [2]*The Fifth Hospital of Xi'an, Xi'an, China*
OBJECTIVES: To determine if blocking C5aR could effectively protect mice from UPEC induced kidney infection. **METHODS:** A well-established mouse model of ascending UTI leading to kidney infection was employed. C5aR antagonist (C5aRa, W54011) (250mg/kg) was given before the induction of infection by i.p. injection. Kidney infection was assessed in C5aRa or control reagent treated mice at 6, 24, 72h after bladder inoculation of UPEC. Bacteria load in kidneys was analysed by the agar plate assay. Tissue damage was assessed by histopathology. Leukocytes infiltration was analysed by immunochemical staining, tissue MPO activity assay and flow cytometry. Renal synthesis of cytokines/chemokines was analysed by RT-PCR. **RESULTS:** Compared to control reagent treated mice, C5aRa treated mice, either from B6 or BALB/c background, exhibited significantly lower rates of kidney infection (B6: 37.5% vs 100% [n=16], BALB/c: 26% vs 87% [n=15]), reduced kidney tissue damage and gene expression of KC, IL-6 and TNF-α in kidney tissues. The reduction of kidney infection and tissue damage resulting from C5aR blockade was more profound at 48h and 72h post infection. C5aR blockade led a small reduction of neutrophil infiltration at 6h, but had no apparent effect on late time point. **CONCLUSIONS:** C5aR blockade effectively protected mice from UPEC-induced kidney infection suggesting that C5aR signal is a critical pathogenic factor in UTIs, thus representing a promising target for treating or preventing human UTIs.

URINARY/KIDNEY DISORDERS – Cost Studies

PUK7
BUDGET IMPACT ANALYSIS OF PERITONEAL DIALYSIS VERSUS. CONVENTIONAL IN-CENTER HEMODIALYSIS IN MALAYSIA
Bavanandan S[1], Ahmad G[1], Teo AH[2], Chen L[3], Liu FX[4]
[1]*Hospital Kuala Lumpur, Kuala Lumpur, Malaysia,* [2]*Baxter Healthcare (M) Sdn Bhd, Kuala Lumpur, Malaysia,* [3]*Baxter Asia Pacific, Shanghai, China,* [4]*Baxter Healthcare Corporation, Deerfield, IL, USA*
OBJECTIVES: The increasing prevalence of patients with end-stage renal disease in Malaysia is driving up the costs of dialysis care dramatically. Several studies have projected significant cost savings by increasing the proportion of patients on peritoneal dialysis (PD). This study investigates the five-year health care budget impact of variable distribution of adult patients treated with PD and in-center hemodialysis (ICHD) on government funding in Malaysia. **METHODS:** An Excel®-based budget impact model was constructed to assess dialysis-associated costs when changing dialysis modalities between PD and ICHD. The model incorporates the current modality distribution and accounts for Malaysian government dialysis payments and EPO costs. Epidemiological data, including dialysis prevalence, incidence, mortality, and transplant rate from Malaysian renal registry reports, were used to estimate the dialysis patient population for the next five years. The baseline scenario assumed a stable distribution of PD (8%) and ICHD (92%) over five years. Alternative scenarios included the prevalence of PD increased by 2.5%, 5.0%, and 7.5% or decreased 1% yearly over five years. All four scenarios were accompanied with commensurate changes in ICHD. **RESULTS:** Under the current best available cost information, an increase in the prevalent PD population from 8% in 2014 to 18%, 28%, or 38% in 2018 is predicted to result in five-year cumulative savings for the Malaysian government of RM13.9 million, RM27.9 million, and RM41.96 million, respectively. If the prevalent PD population were to decrease from 8% in 2014 to 4.0% by 2018, the total expenditure for dialysis treatments would increase by RM5.6 million over the next five years. **CONCLUSIONS:** Under the best available cost information associated with PD and HD paid by the Malaysian government, increasing the proportion of patients on PD could result in reduction in dialysis-associated costs in the future.

PUK8
FINANCIAL IMPLICATIONS TO TAIWAN HEALTH SYSTEM FROM CHANGING THE DIALYSIS MODALITY MIX
Yang WC[1], Hsu CC[2], Liu FX[3]
[1]*Taipei Veterans General Hospital, Taipei, Taiwan,* [2]*National Health Research Institutes, Taipei, Taiwan,* [3]*Baxter Healthcare Corporation, Deerfield, IL, USA*
OBJECTIVES: In 2012, 0.3% of Taiwan end-stage renal disease (ESRD) patients accounted for 6.64% of National Health Insurance (NHI) dialysis spending. We investigated the five-year financial impact of changing the distribution of patients undergoing peritoneal dialysis (PD) and in-center hemodialysis (ICHD) in Taiwan. **METHODS:** An Excel®-based budget impact model was constructed to assess dialysis-associated costs. The model incorporates Taiwan current modality distribution and accounts for ESRD outpatient and inpatient total health care cost. Epidemiological data of ESRD patients from 2000 to 2011 was acquired from Taiwan Renal Data System by Taiwan Society of Nephrology. The transplant rate was provided by experts in the field. These data were used to estimate dialysis population for the next five years. Dialysis costs were obtained by National Health Research Institutes (NHRI) Databases for 2008. The baseline scenario assumed a stable distribution of PD (10%) and ICHD (90%) over five years. Four scenarios, includ-