The treatment of BPH is lacking. This systematic review registered with PROSPERO (registration number: CRD42020407348) 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 understand complication of 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 10.8% with Dengue shock syndrome (DSS) The prevalence of AKI among Dengue patients was found to be 72.9% (9/26 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 (140.50 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, this difference was statistically insignificant (67±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 DFS/DSS resulting in complicated clinical course and increased mortality. A causative diagnosis and timely management will be the first and foremost step for management of such patients.

PUK2
PREVALENE AND ASSOCIATED COMPLICATION OF ACUTE KIDNEY INJURY AMONG DENGUE PATIENTS
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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 complication of this disease is acute kidney injury (AKI). This 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 10.8% with Dengue shock syndrome (DSS). The prevalence of AKI among Dengue patients was found to be 72.9% (9/26 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 (140.50 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, this difference was statistically insignificant (67±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 DFS/DSS resulting in complicated clinical course and increased mortality. A causative diagnosis and timely management will be the first and foremost step for management of such patients.

PUK3
EPIDEMIOLOGY OF END STAGE RENAL DISEASE PATIENTS ON HEMODIALYSIS IN TREATMENT READING ROOMS
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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 scheduled on a Mon/Thu, Tue/Fri, Wed/Sat with prevalent adult’s HD patients on period from 1st Jan to Dec 31, 2010 and those who continued until close at death, modality change, deviation from HD schedule not followed. RESULTS: Myeloperoxidase (MPO) activity. In vitro, forskolin increased P U S activity in vitro, forskolin induced LPS or UPEC mediated pro-inflammatory cytokine and chemokine production by primary renal tubular epithelial cells and 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 pro-inflammatory responses through acting on renal parenchymal and inflammatory cells.

PUK6
CSA RECEPTOR ANTAGONIST PROTECTS MICE FROM UROPATHOGENIC ESCHERICHIA COLI-INDUCED KIDNEY INFECTION
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OBJECTIVES: To determine if blocking CsaR could effectively protect mice from UPEC induced uropathogenic infection. Methods: Well-established mouse model of ascending UTI leading to kidney infection was employed. CsaR antagonist (CsaR, W54011) (250mg/kg) was given before the infection of i.p. injection. Kidney infection was assessed in CsaR or control reagent treated mice at 6, 24, 72h after infection. Three outcomes were 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: Compared to control reagent treated mice, CsaR 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 KCl, IL-6 and TNF-α in kidneys tissues. The reduction of kidney infection and tissue damage resulting from CsaR blockade were more profound at 48h and 72h post infection. CsaR blockade led a small reduction of neutrophil infiltration at 12h, and no apparent effect at 48h and 72h. Flow cytometry results revealed a significantly improved protected mice from UPEC-induced kidney infection suggesting that CsaR 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
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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® spreadsheet-based 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 expenditures. Results: The program is effective in reducing 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 model also considered 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 RM41.9 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
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OBJECTIVES: In 2012, 0.3% of Taiwan end-stage renal disease (ESRD) patients were treated with 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). METHODS: An Excel® based PD/ICHD 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 National Health Insurance (NHI) Databases for 2008. The baseline scenario assumed a stable distribution of PD (10%) and ICHD (90%) over five years. Four scenarios, including...
The results are sensitive to drug cost, drug efficacy and probability of BPH patients' AUR and TURP. The incremental cost per capita is HKD 1,045 (USD 134) over 4 years. The cost of dialysis budget by NT$2,199 million (0.67%), NT$3,299 million (1.0%), and NT$5,498 million (1.6%) for chronic renal failure patients over 4 years. The mean (SD) of direct hospital costs per visit was 16,440 (22,677) RMB, among which 62.4% were spent on inpatient care. The costs of inpatient care, clinical diagnostic procedures and nurses' services were 31.5%, 36.9% and 6.5%, respectively. The mean (SD) length of stay was 15 (12) days. Key regression analysis results suggest that age, the type of basic medical insurance schemes, hospital levels, and whether the patient had received kidney transplant were all significantly associated with the total direct inpatient services costs (P < 0.05). Gender was insignificantly associated with the total costs (P > 0.10). CONCLUSIONS: Both demand and supply side factors were significantly associated with the direct inpatient services costs of chronic renal failure. The establishment of urban basic medical insurance schemes has reduced the financial burden for the insured urban population.

**UK10**

HEALTH AND ECONOMIC IMPACT OF COMBINATION THERAPY VS. MONOTHERAPY FOR TREATMENT OF BENIGN PROSTATIC HYPERPLASIA IN HONG KONG

Chau C., Lam C., Chan J., Yip W., Lunga K.

OBJECTIVES: The aim of this study was to synthesize the evidence on cost-effectiveness of treatment for hyperphosphatemia in chronic kidney disease patients. Patients: Methods: Using hyperphosphatemia, chronic kidney disease, cost, and economic evaluation as the keywords for searching in PUBMED. Among 70 articles, we selected eight related articles for review. RESULTS: First, researches in this area are more concentrated in developed countries, such as UK and US. Second, there is still lack of model for Asian population. Two articles mentioned that lanthanum carbonate is associated with considerable clinical benefits and good value for money in CKD (USD 800/QALY gained). One article found that lanthanum carbonate may be more cost-effective if used in conjunction with Sevelamer in the treatment of ESRD patients with hyperphosphatemia who were previously treated with calcium-based binders (for complete population was considered, the ICERs of LC versus sevelamer were 15,285/QALY and 9,337/LYS). The five literature that suggests, sevelamer is a cost-effective drug for the treatment of hyperphosphatemia in patients with CKD (70 QALYs, £25,916/QALYs, UK; 18 life-years, Canada). CONCLUSIONS: We get different results from the existing international studies which couldn't inform decision makers in China. So, it's necessary for us to carry out the research in the Chinese setting in the future.

**UK13**

ECONOMIC EVALUATION OF THE TREATMENTS FOR HYPERPHOSPHATEMIA AMONG PATIENTS WITH CHRONIC KIDNEY DISEASE: A REVIEW

Li X., Yan L.

OBJECTIVES: The aim of this study was to investigate the direct medical costs for inpatient services of chronic renal failure in Guangzhou, China and to explore its determinants. METHODS: Direct inpatient services costs data were drawn from the reimbursement claim database in Guangzhou City, which covers the entire Urban Employed Basic Medical Insurance and Urban Resident Basic Medical Insurance enrollees of Guangzhou City. The records of patients who were admitted to hospitals between January 2010 and December 2012 with a diagnosis of chronic renal failure were all included. Descriptive and regression analyses (through the extended estimation of equations) were conducted for evaluating direct hospital costs. RESULTS: A total of 3,524 hospitalisation records were identified. The mean (standard deviation, SD) age of patients was 60 (18) years and the majority (54%) patients were male. Patients were more likely to receive inpatient treatments at tertiary hospitals (83%), followed by secondary (16%) and primary hospitals (1%). The mean (SD) of direct hospital costs per visit was 16,440 (22,677) RMB, among which 62.4% were spent on inpatient care. The costs of inpatient care, clinical diagnostic procedures and nurses' services were 31.5%, 36.9% and 6.5%, respectively. The mean (SD) length of stay was 15 (12) days. Key regression analysis results suggest that age, the type of basic medical insurance schemes, hospital levels, and whether the patient had received kidney transplant were all significantly associated with the total direct inpatient services costs (P < 0.05). Gender was insignificantly associated with the total costs (P > 0.10). CONCLUSIONS: Both demand and supply side factors were significantly associated with the direct inpatient services costs of chronic renal failure. The establishment of urban basic medical insurance schemes has reduced the financial burden for the insured urban population.