**Conclusions:** A new pharmacist work pattern was built to reduce VI-AKI which contains PopPK and TDM. Intervention of pharmacists in pneumonia treatment with vancomycin can improve the safety of vancomycin usage and reduce the incidence of VI-AKI.

IMPACT OF CHRONIC KIDNEY DISEASE ON THE OUTCOME OF ACUTE CHOLANGITIS

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**Introduction:** Acute cholangitis is a serious and life-threatening illness that results from sepsis and obstruction. Patients with chronic kidney disease (CKD) who develop acute cholangitis accompanied by sepsis are very vulnerable to acute kidney injury(AKI) and have a poor prognosis. We aim to investigate the association of acute cholangitis and AKI with clinical outcomes in CKD patients.

**Methodology:** We retrospectively evaluated the medical records of patients who were diagnosed with acute cholangitis from January 2011 to December 2016 in our institution. We compared laboratory finding between patients' baseline and at the time of hospitalization to assess AKI. The Patients were divided into two groups - CKD and non-CKD - according to eGFR cut-off of 60 mls/min/1.72m<sup>2</sup>. The primary endpoints were incidence of AKI, length or stay, all cause of death. Patients were excluded if they were not hospitalized, only visited the emergency room, or could not confirm the baseline blood test.

**Results:** A total of 1659 patients were evaluated, a mean age was 69 years old. The mean eGFR of CKD group as  $41.4\pm1.2$  (ml/min/1.73 m2), whereas non-CKD group was  $92.0\pm0.4$  (ml/min/1.73 m2). There was a statistically significant increase in AKI incidence rate in the CKD group (24%, 7.5% P < 0.001). The length of hospital stay (11.7  $\pm$  11.0,  $9.3\pm6.0$ , P = 0.02) and length of intensive care unit(ICU) stay (7.19  $\pm$  7.5,  $3.47\pm2.1$ , P = 0.04) were significantly higher in CKD group compared to non-CKD group. Patients with CKD had significantly more ICU treatment (11.5%, 1.5%, P < 0.001) than patients with normal renal function and had a higher mortality rate during hospitalization (11.1%, 1.0% P < 0.001). The presence of CBD stone (50.7%, 52.8%, P = 0.561) and obstruction (11.5%, 10.7%, P = 0.726) were not significantly different between the two groups.

**Conclusions:** Patients with CKD admitted with acute cholangitis have higher risk of acute kidney injury incidence, length of hospital and ICU stay, and all cause in-hospital mortality.

## EFFECT OF INTRAOPERATIVE HYPOTENSION ON RENAL FUNCTION AFTER ARTHROSCOPIC SHOULDER SURGERY - A RETROSPECTIVE STUDY

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**Introduction:** Kidney function is known to be affected by blood flow. Hypotension is likely to occur in a sitting posture. We hypothesized that renal function was reduced by shoulder surgery in a sitting position and a retrospective study was performed.

**Methodology:** This retrospective study was approved by the Chungnam National University Hospital Institutional Review Board and waiver of consent was passed. 640 patients underwent arthroscopic shoulder surgery under general anaesthesia from July 2013 to March 2015 at our hospital. Blood pressure in the upper arm was recorded every 5 min. The hypotension group (n = 150) was the group whose blood pressure fell below 50 mmHg at any one time, and the normal group (n = 490) was the other group. Renal function tests including BUN and Cr were recorded before, 1 day, and 3 days after surgery. The ratio of Cr before and after surgery (Cr post/pre) was calculated. Comparisons between the two groups were performed by independent sample T-test, and Spearman rho non-parametric correlation analysis and partial correlation analysis were performed.

**Results:** Contrary to what was expected, Cr decreased and GFR increased after surgery. There was no difference between the two groups in Cr post / pre. In Spearman rho correlation analysis, Cr post / pre was found to be significantly higher in the more frequent cases of MAP falling below 50 mmHg, higher body weight, higher ASA class, hypertension, and more women. In order to rule out the effects of these factors, there was no significant difference between the two groups in partial correlation analysis.

**Conclusions:** Almost patients had decreased Cr after arthroscopic shoulder surgery with the sitting position. At sitting position, hypotension during arthroscopic shoulder surgery has no relation with postoperative renal function.

## RELATIONSHIP BETWEEN SERUM PHOSPHATE LEVELS AND CAROTID INTIMA MEDIA THICKNESS IN HEMODIALYSIS PATIENTS

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**Introduction:** The main cause of death in chronic kidney disease patients is cardiovascular disease. Increased phosphate levels in the blood in chronic kidney patients may trigger changes in the vascular smooth muscle cells and cause vascular calcification. Carotid Intima-Media Thickness (cIMT) is a good and fairly easy, non-invasive cardiovascular examination modality. This study aims to determine the relationship of phosphate levels in blood with carotid intima media thickness in haemodialysis patients.

**Methodology:** This was a cross-sectional study was conducted in haemodialysis patients in a Mohammad Hoesin Hospital in Palembang. After the patient was tested for phosphate levels in the blood, cIMT measurements using echocardiography were carried out. Statistical tests were performed using independent T-Test.

**Results:** Thirty haemodialysis patients in Mohammad Hoesin Hospital patients in Palembang, Indonesia were examined for phosphate levels in the blood and cIMT measurements. There were 20 patients with unthickened cIMT and 10 patients with thickened cIMT (>0.9 mm). The mean serum phosphate level in patients with unthickened cIMT was  $3.5 \pm 0.99$  mg / dL, and the mean serum phosphate level in patients with thickened cIMT was  $5.2 \pm 2.3$  mg / dL. There was a statistically significant relationship between serum phosphate levels with cIMT (P = 0.007).

**Conclusions:** There is a relationship between serum phosphate levels and cIMT in haemodialysis patients.

## KNOWLEDGE AND PERCEPTION OF CONTRAST-INDUCED ACUTE KIDNEY INJURY

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**Introduction:** Contrast-induced acute kidney injury (CI-AKI) is the third leading cause of hospital-acquired acute kidney injury. Hence, the need for contrast-enhanced imaging has to be balanced with the risk of acute renal impairment in patients who are at risk. We aimed to investigate the knowledge and perception of CI-AKI among doctors who frequently request for contrast-enhanced CT.

**Methodology:** A questionnaire survey was conducted in July 2019 with 58 doctors of various grades from the Department of Medicine and Department of Oncology in Hospital Kuala Lumpur.

Results: Two thirds of the respondents are female with majority being medical officers (46.6%) and house officers (39.7%). Almost half graded their knowledge of CI-AKI as neutral (48.3%) whilst the rest felt that they had poor or very poor knowledge (34.5%). Only 56.9% managed to define CI-AKI correctly. Interestingly, although more senior doctors rated their knowledge as neutral or good, the grade of doctors was not statistically associated with correct definition of CI-AKI. Most doctors (63.6%) agreed that pre-existing renal impairment will increase the risk of CI-AKI by 3 to 5-fold. Majority also agreed that CI-AKI is associated with increased morbidity and mortality (87.8% and 64.3% respectively). In prevention of CI-AKI, 75.6% agreed that intravenous hydration is helpful, but half agreed with the use of N-acetylcysteine. Despite this, 40% never consulted Nephrologists to discuss about CI-AKI. Similarly, 46% never provided feedback to Radiologists about CI-AKI.

**Conclusions:** There is a clear knowledge gap in this survey of doctors at tertiary level care, although the study is limited by small sample size and incomplete responses. Many do not keep updated with the latest management and prevention strategies of CI-AKI. Lack of communication with Nephrologists