

Australasian College of Emergency Medicine. Responses were analysed according to level of experience, access to a neurosurgical service, state and department setting (metropolitan versus rural). **Results:** There were 878 survey respondents (response rate 24%). A total of 383 respondents (44%) agreed or strongly agreed with the statement, A normal non-contrast computed tomography scan (CT - 3rd generation or later) reliably excludes SAH if performed within 6 hours of headache onset, compared to 341 (39%) who disagreed or strongly disagreed. 116 clinicians (13%) agreed or strongly agreed that non-contrast CT was able to exclude SAH if performed within 12 hours of headache onset. A narrow majority of respondents (n=444, 51%) disagreed or strongly disagreed that CT angiography can reliably replace lumbar puncture for diagnosis of SAH, with 185 clinicians (21%) who were unsure. 467 respondents (53%) agreed that spectrophotometry is necessary for detection of xanthochromia versus visual inspection alone. **Conclusion:** Higher resolution CT technology has increased the sensitivity for detecting a bleed on non-contrast CT head. This study demonstrates a high level of disagreement concerning the preferred investigation of suspected SAH, particularly on the reliability of non-contrast CT for excluding a bleed, and highlighting the need to work towards a consensus approach.

Post-Injury Cervical Spine X-Ray Guidelines - Are They Appropriate For Older People

Rajeswari Radha Krishnan, Olayiwola Otaiku, and Paul Goldstraw

Department of Gerontology, The Townsville Hospital, Townsville, Queensland

Background / Aims: Older people have a greater likelihood of significant cervical spine injury with minimal trauma falls. It is important to have an assessment tool that is appropriate to this group. The National Emergency X-Radiography Utilisation Study (NEXUS) protocol is commonly used by Emergency Departments. The alternative, the Canadian Cervical Spine Rule (CCSR) requires the cervical spine x-ray (CSXR) of all patients aged over 65 years and results in large numbers of CSXRs. NEXUS reduces required CSXR by 12.6%. A case study data review is described that suggests deficiencies in NEXUS. Case/Data **Review:** An 80-year-old fell with no apparent injury. CSXR was not performed according to the NEXUS protocol. Intermittent complaints of neck and shoulder pain responded to simple strategies, only once requiring opioids. Independent ADL and mobility were maintained. Four days post injury development of paraesthesia and weakness was compatible with a C6 lesion. CSXR showed a subluxation and canal stenosis confirmed by MRI. Surgical intervention was performed. ED data showed the young (<65 yrs) were more likely to have CXSRs and that only 24% of the SCXRs were in those >75yrs of age. **Discussion:** NEXUS was validated with a cohort of 34,609 but only 2976 (8.6%) were older than 65 years, without any further age breakdown available. Age consideration is needed if using NEXUS alone. A previous cautionary report has not resulted in a change of practice. Further study is required to determine whether NEXUS or CCSR is the appropriate tool for this age group.

Pattern of Major Lower Limb Amputations at The Townsville Hospital- A Retrospective Review

Beverly T. Rodrigues¹, Rajit A. Gilhotra¹, Venkat Vangaveti², David Porter³, David Martin⁴, Jonathan Gollledge⁴, and Usman H. Malabu¹

¹Department of Diabetes and Endocrinology, The Townsville Hospital, Douglas, Queensland

²School of Medicine and Dentistry, James Cook University, Douglas, Queensland

³Department of Pathology, The Townsville Hospital, Douglas, Queensland

⁴Department of Vascular Surgery, The Townsville Hospital, Douglas, Queensland

Background / Aims: North Queensland has a high prevalence of diabetes and vascular disease, particularly amongst the Indigenous population. Both are believed to contribute to lower limb amputations (LLAs), yet no local study has been conducted looking into possible contributing factors and clinical features leading to amputation. This study aimed to determine the prevalence of major LLAs and their associated risk factors at the Townsville

Hospital between the years 2009 to 2012. **Methods:** All major amputations done under vascular surgery at Townsville Hospital from 1/1/2009 to 31/12/2012 were retrospectively audited. Non-parametric analysis and Chi-Square tests were performed using SPSS 20 to identify strongly associated variables with amputation. **Results:** A total of 83 subjects had major LLAs during the period of the study, with a male: female ratio of 1.8:1. Diabetes was identified as the likely cause of LLA in 53% of patients, with the ATSI subgroup comprising 34% of the cohort. The mean age of amputation was significantly lower amongst the ATSI population (49.95 + 4.0 years), compared with non-ATSI (69.27 + 1.7 years) [P < 0.001]. The ATSI population with diabetes had a higher risk of getting amputated (RR 4.97 [95% CI 1.2-20.5] P = 0.01). When comparing previous endovascular intervention prior to amputation amongst patients, 38.5% of ATSI patients had previous intervention compared with 73% in the non-ATSI [P = 0.03]. **Conclusion:** Younger ATSI subjects with diabetes were at higher risk of LLA compared to their Caucasian counterparts, however further prospective studies are needed to confirm our findings.

Quantification of Circulating DNA in Healthy Volunteers

Tri Nugraha Susilawati¹, William John Hannan McBride¹, Aaron Jex², and Alex Loukas³

¹Cairns Clinical School, School of Medicine, James Cook University, Cairns, Queensland

²Faculty of Veterinary Science, The University of Melbourne, Parkville, Victoria

³Queensland Tropical Health Alliance, James Cook University, Cairns, Queensland

Background / Aims: Circulating nucleic acids (CNAs) in plasma/serum have been known as a promising biomarker in a number of pathologies. This is a preliminary study to optimize sample preparation for subsequent study looking for pathogens nucleic acids amongst the abundance of humans nucleic acids background. The aims of present study were to quantify the level of circulating DNA and to investigate whether different methods of blood collection have an impact on DNA concentrations. **Methods:** Samples were obtained from six healthy volunteers. A microplate fluorescence assay (MFA) was performed for DNA quantification using SYBRGreen I dye. The fluorescence intensity was measured in a spectrofluorometer and the concentration of sample DNA was calculated based on the standard curve produced from a series of known DNA concentrations. The Wilcoxon Signed Ranks test was used to compare DNA concentration on: (1) plasma and serum collected using same procedures, (2) specimens collected with and without the application of cuff, (3) specimens collected by using vacuum system and those collected by using standard needle and syringe. **Results:** We found higher levels of DNA in serum compared to plasma samples (p<0.05). There was no significant difference in DNA concentrations between specimens obtained with and without cuff. Also, the use of vacuum system or standard syringe and needle did not significantly alter the levels of DNA. **Conclusion:** Quantification of circulating DNA by MFA is a simple and inexpensive method. Plasma represents the best specimen to use if one is seeking to minimize the quantity of host nucleic acids.

Review of Amputations in Patients with End-Stage Renal Failure on Haemodialysis at The Townsville Hospital

Rajit A. Gilhotra¹, Beverly T. Rodrigues¹, Usman H. Malabu¹, Venkat Vangaveti², George Kan³ and Kunwarjit S. Sangla¹

¹Department of Diabetes and Endocrinology, The Townsville Hospital, Douglas, Queensland

²School of Medicine and Dentistry, James Cook University, Douglas, Queensland

³Department of Renal Medicine, The Townsville Hospital, Douglas, Queensland

Background / Aims: High rates of end stage renal failure (ESRF) have been reported in North Queensland. Furthermore haemodialysis has recently been identified as a risk factor for lower limb amputations. In spite of these no study has been published that analyses the magnitude and risk factors for amputation amongst haemodialysis patients. This study aims to document trends in prevalence and identify risk factors of non-traumatic lower limb amputations in subjects treated with haemodialysis in North Queens-