

Prevalence and risk factors of lower limb amputation amongst diabetic foot ulcer patients at The Townsville Hospital

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Background/Aims: Diabetic foot ulcer (DFU) is a common occurrence in up to 15% of the diabetic population. Lower limb amputation (LLA) is considered a frequent outcome yet, despite having the highest rate of diabetes in the country, there is limited published data on DFU in North Queensland. The aim of this study is to determine prevalence and risk factors for LLAs amongst DFU patients at The Townsville Hospital (TTH). **Methods:** A retrospective study was conducted on patients attending TTH High Risk Foot Clinic (HRFC) between 2010 and 2012. Clinical and biochemical features were extracted from the patients' charts. **Results:** A total of 106 subjects presented with a DFU, out of which 43 (41%) underwent a LLA, with a male: female ratio of 1.7:1. The mean age of amputation was 69.20 + 11.78 years, with no significant difference between the Indigenous Australians and Caucasians cohorts. Diabetic retinopathy (OR 4.13, 95% CI 1.772-9.628, P = 0.001) and past history of coronary artery bypass graft surgery (CABG) (OR 4.0, 95% CI 1.094-14.624, P = 0.028) were factors strongly associated with amputation. Other variables that showed positive associations but fell short of statistical significance included indigenous background, and history of hypertension, peripheral neuropathy and nephropathy. **Conclusion:** We report high prevalence of LLAs occurring in almost half of the DFU cohort at the HRFC, which were found to be closely linked with a history of retinopathy and CABG surgery. Further prospective studies are required to confirm our findings.

Gait speed, outcomes and frailty

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Background/Aims: Recent evidence suggests that gait speed reflects the level of frailty of an older person. While it is known that discharge mobility function reflects discharge outcomes for older inpatients admitted into the geriatric evaluation and management (GEM) unit, it is not known if the patient's medical profile has any impact. The aim of this study was to determine whether gait speed and patient medical profile are related to discharge outcomes. **Methods:** Data was collected from all the patients who were admitted and discharged from the GEM unit in 2013. Age, preadmission abode and discharge destination were routinely collected. To determine the patient's medical/frailty profile, presenting Diagnostic Related Group (DRGs) and gait speed (distanced walked in 6 minutes) at admission and discharged, were collected. **Results:** Data was collected from 124 patients with an average age of 83 years. The three most common DRGs were musculoskeletal disorders (44%), neurological disorders (28%), and cardiac/respiratory disorders (20%). DRGs were also coded as complicated (77%) or simple (23%). Of those who died or were discharged to nursing home (RACF) (11%), all had a medical/frailty profile of a complicated DRG and admitting average gait speed of 7 m/min. Those discharged home (86%) with mixed complicated (67%) and simple (23%) DRG had admitting average gait speeds of 13 m/min and 11 m/min, respectively. Those discharged to RACF vs home gained similar difference in gait speed (7-8 m/min) and the same applied with complicated DRG vs simple DRG (9 m/min). **Conclusion:** The level of medical frailty is demonstrated with gait speed and may impact on older patients' discharge outcomes.

Does the use of an antimicrobial disposable curtain reduce cleaning time, laundry costs and the rate of multiresistant organism transmission?

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Background/Aims: A multimodal approach was required to manage a vancomycin-resistant enterococcus outbreak on an oncology ward in a tertiary hospital in north Queensland. One component of the approach was to trial antimicrobial disposable curtains, since it is known that cloth curtains harbor micro-organisms. The aim of this study was to trial antimicrobial disposable curtains in the oncology ward and a medical ward over a 12-month period from June 2012 to May 2013. **Methods:** Disposable curtains were installed in June 2012. Samples were taken to test microbial growth at three, six, nine and 12 months. The 'control' was a sample curtain that had not been hung in a hospital ward. **Results:** There was no growth of either methicillin-resistant *Staphylococcus aureus* or vancomycin-resistant enterococcus on any of the curtains. Since the trial, the disposable curtains have been installed in 17 inpatient and outpatient areas of the hospital. Not having to change curtains after an infectious patient is discharged saves 50 minutes, which equates to 1.65 full-time staff per annum. There has also been a \$61,590 saving in laundry costs. However, the rate of multi-resistant organism colonization has increased slightly. **Conclusion:** It is acknowledged that poor hand hygiene, poor cleaning practices and poor compliance with standard precautions also contribute to transmission of infections. However, this study has demonstrated that disposable curtains are a worthwhile tool to use in the complicated fight against multiresistant organism transmission.

Effect of Cyclone Yasi on metabolic control in patients with type 2 diabetes

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Background/Aims: Natural disasters represent a severe form of acute stress which can lead to changes in metabolic profiles. The concept of allostasis can be used to explain how individuals adapt to physical and social environments. The aim of this study was to examine the impact of Cyclone Yasi on the metabolic control of individuals with diabetes. **Methods:** A retrospective chart audit was conducted at two general practices hit the hardest by Cyclone Yasi and one general practice less affected. Files of adults with type 2 diabetes were identified and their metabolic parameters (eg. blood pressure, HbA1c, lipid profiles) were extracted from February to August, 2010 (pre-Yasi) and compared to February to August, 2011 (post-Yasi). Paired T-tests were used to determine significant changes in metabolic profiles before and after Yasi. **Results:** A total of 223 participants were included (141 affected, 82 less affected). Increases in all metabolic parameters were found in the affected areas post-Yasi with systolic blood pressure (+9.7 mmHg, p=0.00), HbA1c (+0.25%, p=0.01) and HDL (+0.04 mmol/L, p=0.034) being of statistical significance. The less affected areas showed increases in blood pressure, HDL and HbA1c, however only the increase in HbA1c was significant (+0.40%). Interestingly, there was a fall in LDL levels (-0.2 mmol/L, p=0.02) in the less-affected group. **Conclusions:** After Cyclone Yasi, a greater deterioration in metabolic control was observed in the severely-hit areas compared with less-affected areas. These results suggest that acute severe stress in patients with diabetes can contribute to allostatic load and thus affect metabolic parameters.