

## Sterile Versus Non-Sterile Clean Boxed Gloves for Minor Skin Excisions in General Practice

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**Background / Aims:** The perceived benefit of sterile gloves over non-sterile gloves during minor surgical procedures in general practice has become controversial over the last few decades. With skin cancer incidence rising in Australia the role of general practitioners in management of skin cancer through surgical excision is growing. There are currently no trials to suggest that use of sterile gloves is better than use of non-sterile gloves for minor skin procedures in a general practice setting. The aim of this study is to determine if the use of non-sterile clean gloves will result in a statistically non-inferior incidence of surgical site infection (SSI) compared to sterile gloves. **Methods:** Single centered randomised controlled non-inferiority trial conducted in a Mackay general practice between June 7th 2012- March 31st 2013 involving sterile glove group and non-sterile clean boxed glove group. **Results:** There were a total of 493 patients who were randomised. The overall infection rate was 8.9%. The infection rate in the sterile glove group was 9.3% and 8.7% in non-sterile glove group. The difference between the two groups was 0.6% (95%CI -0.044 to 0.057). Use of non-sterile gloves was non-inferior to use of sterile gloves by pre-determined margin of less than 7%. **Conclusion:** Use of non-sterile gloves is non-inferior to use of sterile gloves in regards to SSI for minor surgical procedures in a general practice setting. This has the potential for large cost saving benefits to general practice without compromising patient care and outcomes.

## Does the Gender of Medical Practitioners Influence Analgesia Provided for Testicular Pain in the Emergency Department?

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**Background / Aims:** Patient factors such as age, ethnicity and level of education have previously been shown to influence prescription of analgesia. Biases associated with prescription remain poorly understood. This study sought to explore whether the gender of the treating physician was associated with prescription of analgesia in the emergency department (ED). **Methods:** A retrospective search was conducted of Emergency Department Information System data to identify all presentations to The Townsville Hospital (TTH) ED of testicular torsion and epididymo-orchitis between late 2004 and early 2013. Patient records were randomly selected from this group and information was collected on medical practitioner gender, patient pain score and type of analgesia prescribed. **Results:** Records were reviewed for 105 patients presenting with testicular pain, with ages ranging from 0-82 years and a mean age of 28.4 years. Patients reported a median pain score of 7/10 (IQR 4.5-8). Of the 105 treating doctors, 73 were male (69.5%) and 32 were female (30.5%). Female doctors were more likely to prescribe analgesia ( $n=28$ ,  $p=0.02$  chi square). There was also a non-significant trend for female doctors to prescribe more opiates ( $n=16$ ,  $p=0.12$  chi-square). **Conclusion:** Female medical practitioners in the ED are more likely to prescribe analgesia for testicular pain than their male counterparts. These results are useful for creating awareness of gender disparities in pain management and clinical presentations.

# POSTER ABSTRACTS

## Medical Research Symposium

Tuesday, 15 October, 2013

12:30-4.30 pm (lunch from 12 pm)

Robert Douglas Auditorium, The Townsville Hospital

## Response Rates of HPV Associated Oropharyngeal Squamous Cell Carcinomas (OPSCC), Treated with Low-Dose, Weekly Cisplatin Concurrent with Radiation

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**Background / Aims:** Patients with HPV-associated OPSCC, who are treated with concurrent chemo radiation with high-dose Cisplatin have better survival compared with patients with HPV-negative OPSCC. Recent focus of research has been to deintensify treatment in the hope of minimising treatment-related morbidity, without compromising the current cure rate. Weekly, low-dose Cisplatin, which is relatively well-tolerated, is an option in these patients as radio-sensitiser. **Methods:** Records of patients with OPSCC, treated in Townsville cancer centre in 2011 and 2012 were retrospectively reviewed. Cisplatin was administered at 40mg/m<sup>2</sup> weekly, concurrent with radiation. Response rate was assessed 3 months after completion of treatment with PET scan, clinical examination and nasal endoscopy. **Results:** A total of 54 patients with oropharyngeal SCC were treated. 31 cases were p16 -positive, 15 were negative and 8 unknown. Out of the 31 cases of HPV-associated OPSCC, 17 were smokers or ex-smokers (55%). 24 of the p16 positive patients were treated with radical chemo radiation with weekly Cisplatin. Out of this, 23 patients had complete response at 3 months (95.8%), 1 patient had progressive disease. Of the 10 p16-negative patients treated with radical chemo-radiation with weekly Cisplatin, 7 patients had complete response at 3 months (70%), while 3 had partial response. **Conclusion:** HPV-associated OPSCC, treated with low-dose weekly Cisplatin has very high response rate, comparable to those reported.

## An Observational Study of Sub-Protective Behaviour at an Outdoor Spectator Sporting Event in Tropical Queensland, Australia

Jane Nikles and Simone Lee Harrison

Skin Cancer Research Group, The Anton Breinl Centre, School of Public Health, Tropical Medicine and Rehabilitation Sciences, James Cook University, Townsville, Queensland

**Background / Aims:** Queensland has the highest rate of skin cancer in the world. Aims To describe the prevalence of observed sun-protection behaviours of a high-risk population in tropical Queensland engaged in outdoor leisure activity. **Methods:** Unobtrusive observations of clothing worn by 457 attendees at the Supercar Championship in Townsville, Queensland, Australia were conducted in an unshaded area around solar noon, in July 2009. **Results:** Caps were the most popular hat choice. More children (45.1%) than adults (27.1%) wore wide-brimmed/legionnaires/ bucket hats ( $p=0.007$ ). Many women (35.3%), girls (26.3%), men (24.5%) and boys (18.8%) wore no hat. More females than males wore no hat ( $p=0.016$ ). More women (17.4%) than men (6.6%) wore full-length sleeves ( $p=0.001$ ). Short-sleeve shirts were worn by 90% of men and 55% of women. A further 28% of women wore sleeveless/cap-sleeved shirts ( $p<0.0005$ ). More girls (27.7%) than boys (3%) wore sleeveless/cap-sleeved shirts. More boys (87.9%) than girls (61.1%) wore short-sleeves ( $p=0.037$ ). Full-length

sleeves were equally uncommon among boys (9.1%) and girls (11.1%;  $p=1$ ). **Conclusion:** Observed sun protection behaviours were inadequate to protect spectators from over-exposure to ultraviolet radiation and risk of skin cancer.

### Do music and dance improve recall?

Deanne Johnstone and Darlene Wallace

Clinical Skills Unit, School of Medicine and Dentistry, James Cook University, Townsville, Queensland

**Background / Aims:** Since 2008, the Gait Arms Legs and Spine (GALS) Screening Tool is taught to Year One medicine students at James Cook University (JCU), as part of the musculoskeletal (MSK) examination. GALS is a sequence of concise movements that assesses the range of motion of major joints in the body. Strategies including small group teaching, instructional video, practical demonstration and simulated volunteer patients are utilised in the two hour workshops, to teach GALS. Written and audio visual resources are available to students on JCUs online learning platform. Post-workshops, students are assessed on the application of the GALS Screening Tool. With the dual intentions to enhance student learning and to improve short/long term recall, educators created a GALS music and dance video. This intervention applies both neuroscience and learning principles, by linking the GALS sequence to the rhythm and melody of a popular song. **Methods:** A pilot longitudinal study will evaluate this initiative, comparing the control group (Year One cohort 2010) with the intervention group (Year One cohort 2012). **Results:** Interim results show: Watching either video, the instructional or the GALS music and dance, increased the likelihood of passing the Year One OSCE assessment. On average, the control group documented half of the GALS sequence, two years post-workshop. 58% of students of the control group reported less confidence in their knowledge regarding the GALS sequence, two years post-workshops. **Conclusion:** This presentation will illustrate the teaching perspectives, interim results and future directions of this research.

### An Evaluation of the research capacity of Emergency Department Clinicians at The Townsville Hospital

Jenine Lawlor<sup>1</sup>, Jeremy Furyk<sup>2</sup>, Richard Franklin<sup>1</sup>, David Plummer<sup>1,3</sup>, Linda Shields<sup>4</sup> and Wendy Smyth<sup>5</sup>

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**Background / Aims:** This study aimed to assess the baseline research capabilities of emergency department (ED) clinicians at The Townsville Hospital (TTH). **Methods:** A survey was sent to clinicians working in the ED of TTH over a one month period in 2012. Participants were asked to provide information on demographics, interest in participating in future research, research experience and support needs, and attitudes and beliefs about research. **Results:** Of the 13 allied health, 109 medical and 223 nursing staff working in the ED at the time of the survey, 212 clinicians (13 allied health, 88 medical and 111 nursing) responded yielding an overall response rate of 61.5%. A minority of clinicians reported participating in research activities such as publications (11.8%) and conference presentations (12.3%) in the preceding 3 years, however the majority of clinicians (68.3%) were interested in getting involved in future research. In general clinicians had more experience and required less support with earlier stages of the research process such as searching and critically reviewing literature. The four barriers that were identified as most influential on research involvement were insufficient time (71.2%), lack of support such as training or supervision (61.8%), not having a relevant or interesting (42.0%), and being unable access to adequate funding or resources (23.6%). **Conclusion:** Research involvement of TTH ED clinicians was only small, with more sup-

port required for more complex research tasks. Attitudes towards research were generally positive with reported interest in future involvement likely to facilitate research capacity building efforts in the ED.

### Impact of Transformational Change in the Medical Admission Process in Townsville Hospital

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**Background / Aims:** A new admitting module was introduced in the Medical Emergency Department (ED). A senior registrar was posted in the ED during the maximum rush hours 2 pm to 10 pm from Monday to Friday for 3 months to accept all referrals and allocate the patients to other registrars and RMO depending upon the severity of the problem. The aim of this study is to determine the efficacy of implementing a new medical admission module at the Townsville hospital. **Methods:** February to May 2013 data of all the medical admissions through the ED was compared with the corresponding 3 months of 2012 to analyse the difference in the number of patients admitted time taken from referral to admission. Data was analysed using SPSS 20, for normality; non-parametric Mann-Whitney U tests to determine the difference in means. A  $p<0.05$  was considered statistically significant. **Results:** The number of patients admitted during 2013(1225) was significantly higher than the corresponding period of 2012 (1166);  $p=0.009$ . There was a significant increase in the day time (8 am to 10 pm) admissions in 2013 (970) as compared to 2012 (941)  $p=0.01$ . However in the night (10 pm to 8 am) no significant difference was observed (255 in 2013 versus 225 in 2012,  $p=0.5$ ). In both years, the number of admissions were significantly more on Mondays (22% in 2013, 25% in 2012). In spite of the increase in the number of admissions, the mean time taken from referral to admission was significantly less (89 minutes) in 2013 than in 2012 (212 minutes)  $p<0.0001$ . **Conclusion:** The new medical admitting module significantly reduced the admitting time in spite of the increased number of admissions.

### Incidence of Normal Modified Allens Test in Newborn Babies

Sithambarampillai Sivayoganathan, Subodhini Kulathungha, Prasanna Shingri Nanjappa Kumar, Tieh Hee Hai Guan Koh, and Yogavijayan Kandasamy

Neonatal Unit, The Townsville Hospital, Townsville, Queensland

**Background:** Radial artery cannulation, a common procedure in the NICU, can be associated with complications which include ischemia. The Modified Allens test (MAT), assessing the collateral circulation in the hand, is recommended before the radial artery cannulation. The incidence of normal MAT in adults is 73% and 11% in neonates. **Aim:** The aim of our 6 month prospective study is to determine whether there are any difference in the incidence of normal MAT based on the babies gender, birth weight and gestation. We also studied the inter-observer variation. **Methods:** All babies admitted to the unit were eligible for the study. Two examiners independently performed the MAT on the first day of admission. A normal Allens is when reperfusion time is under 10 seconds. **Results:** A total of 151 babies were recruited: mean gestation 36.7 weeks (range 23 to 41.3 weeks); 37% of babies <37 weeks gestation, 63% term; 55.6% male, 44.4% female; 37% were <2500g and 67% were >2500g. The incidence of normal MAT was 26.5% for examiner A, and 19.2% for examiner B ( $p$  value 0.7). The incidence of normal MAT was: 47.4% for term and 21.4% for preterm babies ( $p=0.001$ ), 21.4% in low birth weight group babies compared to 47.4% for >2500g babies ( $p=0.001$ ). There was no difference between male and female, right and left hands. **Conclusion:** The incidence of normal MAT in newborn babies is lower than adult population and is lower in babies who are preterm and low birth weight.