Outreach

Your Outreach Librarian can help facilitate evidence-based practise for all Burns members of staff, as well as assisting with academic study and research. We can help with literature searching, obtaining journal articles and books, and setting up individual current awareness alerts.

Literature Searching
We provide a literature searching service for any library member. For those embarking on their own research it is advisable to book some time with one of the librarians for a 1 to 1 session where we can guide you through the process of creating a well-focused literature research and introduce you to the health databases access via NHS Evidence.

Critical Appraisal Training
We also offer one-to-one or small group training in literature searching, accessing electronic journals, and critical appraisal/Statistics. These are essential courses that teach how to interpret clinical papers.

Books
Books can be searched for using SWIMS our online catalogue at www.swims.nhs.uk. Books and journals that are not available on site or electronically may be requested from other locations. Please email requests to: thomas.osborne@uhbristol.nhs.uk
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2: New NICE Guidance

3: Latest relevant Systematic Reviews from the Cochrane Library.

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Tables of Contents from Burns journals

If you require full articles please email me @ Thomas.Osborne@UHBristol.nhs.uk

Burns Volume 40, Issue 8, p1421-1822, e61-e72 December 2014

Editorial Board

Silver in wound care: A review of the state-of-the-art
Silver-resistance, allergy, and blue skin: Truth or urban legend?
A literature review of the military uses of silver-nylon dressings with emphasis on wartime operations
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Silver-based dressings for the reduction of surgical site infection: Review of current experience and recommendation for future studies
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Gut microbiota and environment in patients with major burns – A preliminary report
Which factors influence the development of post-traumatic stress disorder in patients with burn injuries? A systematic review of the literature
Clothing-related burns in New South Wales, Australia: Impact of legislation on a continuing problem
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A survey of skin substitute use in United Kingdom and Australasia
Airborne bacterial dispersal during and after dressing and bed changes on burns patients
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Can an innocent toy become dangerous? The hydrogen gas balloon burn
A brief summary of long-term treatment modalities for major burn survivors in low and middle-income countries
Chemical burns in children: Aetiology and prevention
Paediatric post-burn scar management in the UK: A national survey
Our experiences on the reconstruction of lateral scalp burn alopecia with tissue expanders
Burn related mortality in Greater Manchester: 11-year review of Regional Coronial Department Data
Increased wound pH as an indicator of local wound infection in second degree burns
Evaluation of saline, RPMI and DMEM/F12 for storage of split-thickness skin grafts
The analysis of distribution of multidrug resistant and species from burn patients and burn ward environment
Effect of pharmacological interventions on muscle protein synthesis and breakdown in recovery from burns
A comparison of Biobrane™ and cadaveric allograft for temporizing the acute burn wound: Cost and procedural time

Biobrane for burns of the ear – A novel technique

Efficacy of aquacel Ag dressing in the treatment of deep burns in children

Reply to: Perforator detection with a hand-held Doppler device: Importance of the learning curve

In view of standardization: Comparison and analysis of initial management of severely burned patients in Germany, Austria and Switzerland

Perforator detection with a hand-held Doppler device: Importance of the learning curve

Quality of life of individuals treated in an outpatient burn treatment centre: Application of the

Neck burn reconstruction with pre-expanded scapular free flaps

A population-based study of the epidemiology of acute adult burns in Ecuador from 2005 to 2014

Development and evaluation of a novel smart device-based application for burn assessment and management

A new model for the standardization of experimental burn wounds

Childhood burns in Sulaimaniyah province, Iraqi Kurdistan: A prospective study of admissions and outpatients

3D photography is an accurate technique for measuring small wound areas

Adipose-derived stem cells cultivated on electrospun-lactide/glycolide copolymer fleece and gelatin hydrogels under flow conditions – aiming physiological reality in hypodermis tissue engineering

Anti-inflammatory effect of glycyrrhizin on rat thermal injury via inhibition of high-mobility group box 1 protein

Tracheostomy in pediatric burn patients

Chemical burns revisited: What is the most appropriate method of decontamination?

Pilot project in rural western Madhya Pradesh, India, to assess the feasibility of using LED and solar-powered lanterns to remove kerosene lamps and related hazards from homes

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Journal of Burn Care & research (Lippincott Williams)

November/December 2014 - Volume 35 - Issue 6

Burn Therapist Contributions to the American Burn Association and the Journal of Burn Care and Research: A 45th Anniversary Review

Effect of Exercise on Burn-Induced Changes in Tissue-Specific Glucose Metabolism

Wound Healing Trajectories in Burn Patients and Their Impact on Mortality

A Mobile App for Measuring the Surface Area of a Burn in Three Dimensions: Comparison to the Lund and Browder Assessment

Characterization of Sex Dimorphism Following Severe Thermal Injury

Estimation of Burn Depth at Burn Centers in the United States: A Survey

Returning to Work After Electrical Injuries: Workers’ Perspectives and Advice to Others

Is Location of Burns Related to Outcome? A Comparison Between Burns on Extremities and Burns on Head and/or Trunk in Patients With Low to Intermediate TBSA in a Burn Center in The Netherlands

Peripherally Inserted Central Line Catheter Infections in Burn Patients

Secondary Bacterial Infection and Empirical Antibiotic Use in Toxic Epidermal Necrolysis Patients
New NICE Guidance

**NICE issues final guidance on ‘spray-on skin’ technology for healing burn wounds, and garments to prevent pressure ulcers**

...year with acute wounds caused by burns. In England in 2011/12 there...213 hospital admissions for burns and corrosions (chemical burns), of which 9043 were emergency...is the standard management for burn wounds which are full thickness...

Published November 2014

**MTG21: The ReCell Spray-On Skin system for treating skin loss, scarring and depigmentation after burn injury - Costing statement**

Published November 2014
Latest relevant Systematic Reviews from the Cochrane Library

If you require full articles, or a more enhanced search of any of the below topics please email me @ Thomas.Osborne@UHBristol.nhs.uk

Intravenous lidocaine for the treatment of background or procedural burn pain
Jason Wasiak, Patrick D Mahar, Siobhan K McGuinness, Anneliese Spinks, Stefan Danilla, Heather Cleland and Hannah B Tan
Online Publication Date: October 2014

Recombinant human growth hormone for treating burns and donor sites
Roelf S Breederveld and Wim E Tuinebreijer
Online Publication Date: September 2014

New activity in Uptodate/DynaMed

Risk of injury in children with epilepsy (May 2014)

Children with epilepsy are at increased risk for preventable injuries. In a population-based study of over 11,000 children and young adults with epilepsy and over 45,000 controls, those with epilepsy were at increased risk for poisoning from medicinal products, fractures, and burns [63]. Potential explanations for the observed risks include inadvertent overdose and increased access to medications in the home, adverse effects of anticonvulsants (eg, metabolic bone disease), and the seizures themselves. (See "Overview of the treatment of seizures and epileptic syndromes in children", section on 'Injuries'.)

Updated 2014 Oct 24 10:11:00 AM: lidocaine IV does not reduce opioid consumption or anxiety during wound dressing procedures in adults with burn injury (Cochrane Database Syst Rev 2014 Oct 17)

Updated 2013 Aug 26 11:04:00 AM: upper limb appears to be site of most electrical burn injuries in pediatric patients (Pediatr Emerg Care 2013 Jun)
Quick Exercise

Fill in the gaps in the pyramid of evidence…

Current Awareness Database Articles

If you require full articles, or a more enhanced search of any of the below topics please email me @ Thomas.Osborne@UHBristol.nhs.uk

Title: Saponated cresol poisoning in childhood

Citation: Journal of Medicine and Biomedical Research, 2014, vol./is. 13/1(129-136), 1596-6941 (2014)

Author(s): Abhulimhen-Iyoha B.I., Monday P.

Abstract: A 22-month-old child with 1896 burns following the oral and dermal contact of approximately 60mis of a disinfectant containing 50% saponated cresol is described. She developed electrolyte derangement, ocular and haematological manifestations and was treated successfully. The need for public enlightenment on
promotion of the safe use of household chemicals and prevention of accidental poisoning in childhood through information and education campaigns is advocated.

Title: Association between medical home characteristics and staff professional experiences in pediatric practices.

Citation: Archives of Public Health, 2014, vol./is. 72/1(36), 0778-7367;0778-7367 (2014)


Abstract: BACKGROUND: The patient-centered medical home (PCMH) model has been touted as a potential way to improve primary care. As more PCMH projects are undertaken it is critical to understand professional experiences as staff are key in implementing and maintaining the necessary changes. A paucity of information on staff experiences is available, and our study aims to fill that critical gap in the literature.

METHODS: Eligible pediatric practices were invited to participate in the Florida Pediatric Medical Home Demonstration Project out of which 20 practices were selected. Eligibility criteria included a minimum of 100 children with special health care needs and participation in Medicaid, a Medicaid health plan, or Florida KidCare. Survey data were collected from staff working in these 20 pediatric practices across Florida. Ware's seven-point scale assessed satisfaction and burnout was measured using the six-point Maslach scale. The Medical Home Index measured the practice's medical home characteristics. Descriptive and multivariate analyses were conducted. In total, 170 staff members completed the survey and the response rate was 42.6%.

RESULTS: Staff members reported high job satisfaction (mean 5.54; SD 1.26) and average burnout. Multivariate analyses suggest that care coordination is positively associated (b=0.75) and community outreach is negatively associated (b=0.18) with job satisfaction. Quality improvement and organizational capacity are positively associated with increased staff burnout (OR=1.37, 5.89, respectively). Chronic condition and data management are associated with lower burnout (OR=0.05 and 0.20, respectively). Across all models adaptive reserve, or the ability to make and sustain change, is associated with higher job satisfaction and lower staff burnout.

CONCLUSIONS: Staff experiences in the transition to becoming a PCMH are important. Although our study is cross-sectional, it provides some insight about how medical home, staff and practice characteristics are associated with job satisfaction and burnout. Many PCMH initiatives include facilitation and it should assist staff on how to adapt to change. Unless staff needs are addressed a PCMH may be threatened by fatigue, burnout, and low morale.

Full Text:
Available from Springer NHS Pilot 2014 (NESLi2) in Archives of Public Health; Note: ; Collection notes: Only available on NHS networked computers. Not available with Athens username/password.
Available from BioMedCentral in Archives of Public Health

Title: Nosocomial outbreak of staphylococcal scalded skin syndrome in neonates in England, December 2012 to March 2013

Citation: Euro surveillance : bulletin European sur les maladies transmissibles = European communicable disease bulletin, 2014, vol./is. 19/33, 1560-7917 (2014)


Abstract: Staphylococcal scalded skin syndrome (SSSS) is a blistering skin condition caused by exfoliative toxin-producing strains of Staphylococcus aureus. Outbreaks of SSSS in maternity settings are rarely reported. We describe an outbreak of SSSS that occurred among neonates born at a maternity unit in England during December 2012 to March 2013. Detailed epidemiological and microbiological investigations were undertaken. Eight neonates were found to be infected with the outbreak strain of S. aureus, of spa type t346, representing a single pulsotype. All eight isolates contained genes encoding exfoliative toxin A (eta) and six of them contained genes encoding toxin B (etb). Nasal swabs taken during targeted staff screening yielded a staphylococcal carriage rate of 21% (17/80), but none contained the outbreak strain. Mass screening involving multi-site swabbing and pooled, enrichment culture identified a healthcare worker (HCW) with the outbreak strain. This HCW was known to have a chronic skin condition and their initial nasal screen was negative. The outbreak ended when they were excluded from work. This outbreak highlights the need for implementing robust swabbing and culture methods when conventional techniques are unsuccessful in identifying staff carrier(s). This study adds to the growing body of evidence on the role of HCWs in nosocomial transmission of S. aureus.
**Title:** Epidemiology of Coxiella burnetii infection in Africa: a OneHealth systematic review.

**Citation:** PLoS Neglected Tropical Diseases [electronic resource], April 2014, vol./is. 8/4(e2787), 1935-2727;1935-2735 (2014 Apr)

**Author(s):** Vanderburg S, Rubach MP, Halliday JE, Cleaveland S, Reddy EA, Crump JA

**Abstract:** BACKGROUND: Q fever is a common cause of febrile illness and community-acquired pneumonia in resource-limited settings. Coxiella burnetii, the causative pathogen, is transmitted among varied host species, but the epidemiology of the organism in Africa is poorly understood. We conducted a systematic review of C. burnetii epidemiology in Africa from a "One Health" perspective to synthesize the published data and identify knowledge gaps. METHODS/PRINCIPAL FINDINGS: We searched nine databases to identify articles relevant to four key aspects of C. burnetii epidemiology in human and animal populations in Africa: infection prevalence; disease incidence; transmission risk factors; and infection control efforts. We identified 929 unique articles, 100 of which remained after full-text review. Of these, 41 articles describing 51 studies qualified for data extraction. Animal seroprevalence studies revealed infection by C. burnetii (<13%) among cattle except for studies in Western and Middle Africa (18-55%). Small ruminant seroprevalence ranged from 11-33%. Human seroprevalence was <8% with the exception of studies among children and in Egypt (10-32%). Close contact with camels and rural residence were associated with increased seropositivity among humans. C. burnetii infection has been associated with livestock abortion. In human cohort studies, Q fever accounted for 2-9% of febrile illness hospitalizations and 1-3% of infective endocarditis cases. We found no studies of disease incidence estimates or disease control efforts. CONCLUSIONS/SIGNIFICANCE: C. burnetii infection is detected in humans and in a wide range of animal species across Africa, but seroprevalence varies widely by species and location. Risk factors underlying this variability are poorly understood as is the role of C. burnetii in livestock abortion. Q fever consistently accounts for a notable proportion of undifferentiated human febrile illness and infective endocarditis in cohort studies, but incidence estimates are lacking. C. burnetii presents a real yet underappreciated threat to human and animal health throughout Africa.

**Full Text:**
Available from ProQuest in PLoS Neglected Tropical Diseases
Available from National Library of Medicine in PLoS Neglected Tropical Diseases

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**Title:** Empirically derived profiles of classroom management strategies and related student outcomes: A latent profile analysis.

**Citation:** Dissertation Abstracts International Section A: Humanities and Social Sciences, 2014, vol./is. 75/4-A(E)(No Pagination Specified), 0419-4209 (2014)

**Author(s):** Clare, Ann G

**Abstract:** Elementary school is an important part of children's development and disruptive behavior in the classroom can interrupt the development of academic and social behavior competence (Sutherland & Oswald, 2005). Problem behavior in the classroom often causes teachers to interrupt instruction and may influence others to engage in misbehavior. Therefore, effective classroom management strategies are essential for teachers to utilize. The purpose of this study was to investigate the multiple classroom management strategies which teachers use in the classroom and the effects those strategies have on their students' behavior and the teachers' level of burnout. Participants included 68 K-3rd grade teachers and the students in their classrooms. Latent profile analysis was conducted to develop profiles of multiple classroom management strategies used by teachers. Results indicated that teachers use variable rates of praise, behavioral expectations and instructional management. The model solution resulted in three profiles of multiple classroom management strategies. Profile 1, or those teachers using a ‘typical’ profile of classroom management strategies, used low rates of specific and general praise, moderate rates of reprimands and average amounts of behavioral expectations and instructional management. Profile 2, or those teachers using an ‘ineffective’ profile of classroom management strategies, used low rates of specific and general praise, moderate rates of reprimands and low amounts of behavioral expectations and instructional management. Profile 3, or those teachers using a 'proficient' profile of classroom management strategies, used higher rates of specific and general praise than the other two profiles, similar rates of reprimands compared to the other two and average amounts of behavioral expectations and instructional
management. Once teacher profiles were determined, differences among student variables were compared using the Mplus Auxiliary function (Muthen & Muthen, 2007). Significantly lower rates of aggression and a higher percent of time on task were found in classrooms in which teachers used a proficient profile of classroom management strategies. In addition to investigating the relationship between teacher classroom management profiles, teacher levels of selfefficacy in classroom management, prior training and experience were added to the model as covariates. None of these variables were significantly associated with the profiles of classroom management strategies. Further, the Mplus Auxiliary function (Muthen & Muthen, 2007) was utilized to determine if teacher classroom management profiles were related to teachers’ level of burnout. Teacher classroom management profiles were not significantly related to teachers’ level of burnout. Implications of these findings are discussed for school-based school psychological practice. (PsycINFO Database Record (c) 2014 APA, all rights reserved)

Title: Nosocomial outbreak of staphylococcal scalded skin syndrome in neonates in England, December 2012 to March 2013

Citation: Euro surveillance : bulletin Europeen sur les maladies transmissibles = European communicable disease bulletin, 2014, vol./is. 19/33, 1560-7917 (2014)


Abstract: Staphylococcal scalded skin syndrome (SSSS) is a blistering skin condition caused by exfoliative toxin-producing strains of Staphylococcus aureus. Outbreaks of SSSS in maternity settings are rarely reported. We describe an outbreak of SSSS that occurred among neonates born at a maternity unit in England during December 2012 to March 2013. Detailed epidemiological and microbiological investigations were undertaken. Eight neonates were found to be infected with the outbreak strain of S. aureus, of spa type t346, representing a single pulsotype. All eight isolates contained genes encoding exfoliative toxin A (eta) and six of them contained genes encoding toxin B (etb). Nasal swabs taken during targeted staff screening yielded a staphylococcal carriage rate of 21% (17/80), but none contained the outbreak strain. Mass screening involving multi-site swabbing and pooled, enrichment culture identified a healthcare worker (HCW) with the outbreak strain. This HCW was known to have a chronic skin condition and their initial nasal screen was negative. The outbreak ended when they were excluded from work. This outbreak highlights the need for implementing robust swabbing and culture methods when conventional techniques are unsuccessful in identifying staff carrier(s). This study adds to the growing body of evidence on the role of HCWs in nosocomial transmission of S. aureus.

Title: Management of children in the deployed intensive care unit at Camp Bastion, Afghanistan

Citation: Journal of the Royal Army Medical Corps, September 2014, vol./is. 160/3(236-240), 0035-8665 (September 2014)

Author(s): Inwald D.P., Arul G.S., Montgomery M., Henning J., McNicholas J., Bree S.

Abstract: Background The deployed Intensive Therapy Unit (ITU) in the British military field hospital in Camp Bastion, Afghanistan, admits both adults and children. The purpose of this paper is to review the paediatric workload in the deployed ITU and to describe how the unit copes with the challenge of looking after critically injured and ill children. Methods Retrospective review of patients <16 years of age admitted to the ITU in the British military field hospital in Camp Bastion, Afghanistan, over a 1-year period from April 2011 to April 2012. Results 112/811 (14%) admissions to the ITU were paediatric (median age 8 years, IQR 6-12, range 1-16). 80/112 were trauma admissions, 13 were burns, four were non-trauma admissions and 15 were readmissions. Mechanism of injury in trauma was blunt in 12, blast (improvised explosive device) in 45, blast (indirect fire) in seven and gunshot wound in 16. Median length of stay was 0.92 days (IQR 0.45-2.65). 82/112 admissions (73%) were mechanically ventilated, 16/112 (14%) required inotropic support. 12/112 (11%) died before unit discharge. Trauma scoring was available in 65 of the 80 trauma admissions. Eight had Injury Severity Score or New Injury Severity Score >60, none of whom survived. However, of the 16 patients with predicted mortality >50% by Trauma Injury Severity Score, seven survived. Seven cases required specialist advice and were discussed with the Birmingham Children’s Hospital paediatric intensive care retrieval service. The mechanisms by which the Defence Medical Services support children admitted to the deployed adult ITU are described, including staff training in clinical, ethical and child protection issues, equipment, guidelines and
clinical governance and rapid access to specialist advice in the UK. Conclusions With appropriate support, it is possible to provide intensive care to children in a deployed military ITU.

Title: Referral patterns in pediatric burn patients

Citation: The American surgeon, September 2014, vol./is. 80/9(836-840), 1555-9823 (Sep 2014)

Author(s): Doud A.N., Swanson J.M., Ladd M.R., Neff L.P., Carter J.E., Holmes J.H.

Abstract: Though multiple studies have demonstrated superior outcomes amongst adult burn patients at verified burn centers (VBCs) relative to nondedicated burn centers (NBCs), roughly half of such patients meeting American Burn Association (ABA) referral guidelines are not sent to these centers. We sought exam ine referral patterns amongst pediatric burn patients. Retrospective review of a statewide patient database identified pediatric burn patients from 2000 to 2007 using International Classification of Disease (ICD-9) discharge codes. These injuries were crossreferenced with ABA referral criteria to determine compliance with the ABA guidelines. 1831 children sustained burns requiring hospitalization during the study period, of which 1274 (70%) met ABA referral criteria. Of 557 treated at NBCs, 306 (55%) met criteria for transfer. Neither age, gender, nor payer status demonstrated significant association with treatment center. VBCs treated more severely injured patients, but there was no difference in survival or rate of discharge home from NBCs versus VBCs. Studies to evaluate differences in functional outcomes between pediatric burn patients treated at VBCs versus NBCs would be beneficial to ensure optimization of outcomes in this population.

Full Text: Available from ProQuest in American Surgeon, The

Title: Creation of a standardized burn course for Low Income Countries: Meeting local needs

Citation: Burns, November 2014, vol./is. 40/7(1292-1299), 0305-4179;1879-1409 (01 Nov 2014)

Author(s): Spiwak R., Lett R., Rwanyuma L., Logsetty S.

Abstract: Results: There were 11 nurses, 6 doctors, a physiotherapist, occupational therapist, and a dietician. 15 worked in either the adult or pediatric burn units, the other six worked in emergency, ICU or the operating room. The majority of respondents (56%) had less than 3 years of experience working with burn patients. Overall agreement that the course met their objectives was rated as 4.6 out of 5. As well the students agreement that they had a better understanding of burn injury was rated as 4.8/5. 55.6% indicated that scalds were the most commonly seen injury followed by 27.8% responding that flames were the most common. Some responses to the question of top difficulties facing the caregivers were similar to HIC: staffing shortages, bed shortages, and finding useable donor site in large burns. Other responses highlighted the challenges these care givers face: poverty stricken patients, not enough appropriate food available, and deficiencies in infection control practices.Conclusion: It is possible to create a course that translates knowledge from a HIC setting to meet the needs of the end-user in a LIC setting.Introduction: Standardized courses for the care of the burn patient have historically been developed in High Income Countries (HIC). These courses do not necessarily reflect the challenges and needs of Low Income Countries (LIC) and some components may not be relevant there (i.e. use of ventilators in a country that has no or very limited number of ventilators). We are developing a Burn Management Course for East Africa. This course was created and trialied in a LIC and subsequently a formal manual and course curriculum created. Recently the first iteration of the course was undertaken in a major regional burn centre in East Africa. We present participant feedback on the course content, and potential future directions for course development. Objective: (1) To evaluate the ability of a standardized burn course for LIC to meet the needs of the participants. (2) To explore characteristics of burn care and needs related to delivery of burn care in LIC.Methods: 21 students participated in a multidisciplinary burn management course. They were asked to complete an anonymous questionnaire at the end of the course.

Title: Epidemiology and trends in severe burns in the Netherlands

Citation: Burns, November 2014, vol./is. 40/7(1406-1414), 0305-4179;1879-1409 (01 Nov 2014)

Author(s): Dokter J., Vloemans A.F., Beertuizen G.I.J.M., Van Der Vlies C.H., Boxma H., Breederveld R., Tuinebreijer W.E., Middelkoop E., Van Baar M.E.
Abstract: Introduction: The aim of this study was to characterize the epidemiology of severe burns in the Netherlands, including trends in burn centre admissions, non burn centre admissions and differences by age. Methods: Patients with burn-related primary admission in a Dutch centre from 1995 to 2011 were included. Nationwide prospectively collected data were used from three separate historical databases and the uniform Dutch Burn Repository R3 (2009 onwards). General hospital data were derived from the National Hospital Discharge Register. Age and gender-adjusted rates were calculated by direct standardization, using the 2005 population as the reference standard. Results: The annual number of admitted patients increased from 430 in 1995 to 747 in 2011, incidence rates increased from 2.72 to 4.66 per 100,000. Incidence rates were high in young children, aged 0-4 years and doubled from 10.26 to 22.96 per 100,000. Incidence rates in persons from 5 up to 59 increased as well, in older adults (60 years and older) admission rates were stable. Overall burn centre mortality rate was 4.1%, and significantly decreased over time. There was a trend towards admissions of less extensive burns, median total burned surface area (TBSA) decreased from 8% to 4%. Length of stay and length of stay per percent TBSA decreased over time as well. Conclusions: Data on 9031 patients admitted in a 17-year period showed an increasing incidence rate of burn-related burn centre admissions, with a decreasing TBSA and decreasing burn centre mortality. These data are important for prevention and establishment of required burn care capacity.

Title: Use of a pediatric oxygenator integrated in a veno-venous hemofiltration circuit to remove CO2: A case report in a severe burn patient with refractory hypercapnia

Citation: Burns, November 2014, vol./is. 40/7(e57-e60), 0305-4179;1879-1409 (01 Nov 2014)

Author(s): Rousseau A.-F., Damas P., Renwart L., Amand T., Erpicum M., Morimont P., Dubois B., Massion P.B.

Language: English

Abstract: Acute respiratory distress syndrome management is currently based on lung protective ventilation. Such strategy may lead to hypercapnic acidosis. We report a case of refractory hypercapnia in a severe burn adult, treated with simplified veno-venous extracorporeal carbon dioxide removal technique. We integrated a pediatric oxygenator in a continuous veno-venous hemofiltration circuit. This technique, used during at least 96 h, was feasible, sure and efficient with carbon dioxide removal rate up to 32%.

Title: Epidemiology of burns in Taiwan: A nationwide report including inpatients and outpatients

Citation: Burns, November 2014, vol./is. 40/7(1397-1405), 0305-4179;1879-1409 (01 Nov 2014)

Author(s): Chen S.-H., Chen Y.-C., Chen T.-J., Ma H.

Abstract: Introduction: The aim of the study is to understand the incidence of burns among outpatients and inpatients of Taiwan in 2010. Characteristics of the burned patients were also studied in terms of gender, age, burn sites, burn degree, reconstructive surgical treatment, as well as which specialty and medical facility they are treated in. Methods: Burned patients were identified from the 1,000,000-person cohort dataset sampled from the Taiwan National Health Insurance database. Ones who had been hospitalized with discharge diagnoses related to burns were categorized as inpatients and others who had only ambulatory visits and emergency room visits were classified as outpatients. Results: 7630 burn-injury patients were found, presenting an annual incidence of burns as 670.8/10^5 in males (n = 3303) and 852.5/10^5 in females (n = 4327). Only 3.4% (156 males and 107 females) of them were hospitalized. Higher incidence of burns were found in females and young children, while males and the elderly tended to have more severe burns, based on high-degree burns, admission rate, and incidence of hospitalizations for burns. Conclusion: This is a population-based study demonstrating the epidemiology of burns among outpatients and inpatients in Taiwan, leading us closer to the reality of burns treated in different settings of medical facilities.

Title: Epidemiology of burns in the United Arab Emirates: Lessons for prevention.

Citation: Burns (03054179), 01 May 2014, vol./is. 40/3(500-505), 03054179

Author(s): Grivna, Michal, Eid, Hani O, Abu-Zidan, Fikri M
Abstract: PURPOSE: To study mechanism, risk factors and outcome of hospitalized burns so as to give recommendations for prevention. METHODS: Burn patients admitted to Al Ain hospital for more than 24h or who died after arrival were studied over 4 years. Demographics, burn type, location and time of injury, total body burned surface area (TBSA), body region, hospital and ICU stay and outcome were analyzed. RESULTS: 203 patients were studied, 69% were males and 25% were children under 5 years old. The most common location for burn was home. Women were burned more at home (p<0.0001). 28% of patients were injured at work with more men (p<0.0001) and non-UAE nationals (p<0.01). Scalds from water, tea were the major hazard at home, while majority of burns at work were from gas and flame. Burns caused by gas and flame had larger TBSA and longer ICU stay. Six (3%) patients died and nine (4%) were transferred to the specialized burn center. CONCLUSIONS: Safety education for caregivers and close supervision of young children is important to reduce pediatric burns. Occupational safety education of young men could prevent burns caused by gas and flame.

Title: Delivery of operative pediatric surgical care by physicians and non-physician clinicians in Malawi

Citation: International Journal of Surgery, 2014, vol./is. 12/5(509-515), 1743-9191;1743-9159 (2014)

Author(s): Tyson A.F., Msiska N., Kiser M., Samuel J.C., Mclean S., Varela C., Charles A.G.

Abstract: Background: Specialized pediatric surgeons are unavailable in much of sub-Saharan Africa. Delegating some surgical tasks to non-physician clinical officers can mitigate the dependence of a health system on highly skilled clinicians for specific services. Methods: We performed a case-control study examining pediatric surgical cases over a 12 month period. Operating surgeon was categorized as physician or clinical officer. Operative acuity, surgical subspecialty, and outcome were then compared between the two groups, using physicians as the control. Results: A total of 1186 operations were performed on 1004 pediatric patients. Mean age was 6 years (+5) and 64% of patients were male. Clinical officers performed 40% of the cases. Most general surgery, urology and congenital cases were performed by physicians, while most ENT, neurosurgery, and burn surgery cases were performed by clinical officers. Reoperation rate was higher for patients treated by clinical officers (17%) compared to physicians (7.1%), although this was attributable to multiple burn surgical procedures. Physician and clinical officer cohorts had similar complication rates (4.5% and 4.0%, respectively) and mortality rates (2.5% and 2.1%, respectively). Discussion: Fundamental changes in health policy in Africa are imperative as a significant increase in the number of surgeons available in the near future is unlikely. Task-shifting from surgeons to clinical officers may be useful to provide coverage of basic surgical care.

Title: Invasive Candida infections in the nursery: State of the art

Citation: Signa Vitae, 2014, vol./is. 9/2(5-8), 1334-5605;1845-206X (2014)

Author(s): Manzoni P., Castagnola E., Jacqz-Aigrain E., Mostert M., Stronati M., Farina D.

Abstract: Neonatal sepsis caused by fungi (mainly Candida spp.) causes a huge burden of morbidity and mortality, poor late outcomes, as well as increased hospital costs.Invasive Candida Infections (ICI) include bloodstream, urine, cerebrospinal, peritoneal infections, infections starting from burns and wounds, or from any other usually sterile site.Premature neonates are particularly prone to this kind of disease, due to their decreased innate and adaptive immunities, translating into a specific, decreased resistance to candidiasis.This specific, increased risk for ICI is greatest when gestational age and birth weight are lowest. As the burden of ICI has been increasing over the last years, research efforts have been focused towards identifying key risk factors, effective preventative strategies, and efficacious and well-tolerated antifungal drugs for the neonatal population.This article summarizes the most remarkable issues in these areas, and features an overview of the current diagnostic, preventative and treatment strategies.

Title: Referral patterns in pediatric burn patients

Citation: The American surgeon, September 2014, vol./is. 80/9(836-840), 1555-9823 (Sep 2014)

Author(s): Doud A.N., Swanson J.M., Ladd M.R., Neff L.P., Carter J.E., Holmes J.H.
Abstract: Though multiple studies have demonstrated superior outcomes amongst adult burn patients at verified burn centers (VBCs) relative to nondedicated burn centers (NBCs), roughly half of such patients meeting American Burn Association (ABA) referral guidelines are not sent to these centers. We sought examine referral patterns amongst pediatric burn patients. Retrospective review of a statewide patient database identified pediatric burn patients from 2000 to 2007 using International Classification of Disease (ICD-9) discharge codes. These injuries were crossreferenced with ABA referral criteria to determine compliance with the ABA guidelines. 1831 children sustained burns requiring hospitalization during the study period, of which 1274 (70%) met ABA referral criteria. Of 557 treated at NBCs, 306 (55%) met criteria for transfer. Neither age, gender, nor payer status demonstrated significant association with treatment center. VBCs treated more severely injured patients, but there was no difference in survival or rate of discharge home from NBCs versus VBCs. Studies to evaluate differences in functional outcomes between pediatric burn patients treated at VBCs versus NBCs would be beneficial to ensure optimization of outcomes in this population.

Full Text: Available from ProQuest in American Surgeon, The

Title: Management of children in the deployed intensive care unit at Camp Bastion, Afghanistan

Citation: Journal of the Royal Army Medical Corps, September 2014, vol./is. 160/3(236-240), 0035-8665 (September 2014)

Author(s): Inwald D.P., Arul G.S., Montgomery M., Henning J., McNicholas J., Bree S.

Abstract: Background The deployed Intensive Therapy Unit (ITU) in the British military field hospital in Camp Bastion, Afghanistan, admits both adults and children. The purpose of this paper is to review the paediatric workload in the deployed ITU and to describe how the unit copes with the challenge of looking after critically injured and ill children. Methods Retrospective review of patients <16 years of age admitted to the ITU in the British military field hospital in Camp Bastion, Afghanistan, over a 1-year period from April 2011 to April 2012. Results 112/811 (14%) admissions to the ITU were paediatric (median age 8 years, IQR 6-12, range 1-16). 80/112 were trauma admissions, 13 were burns, four were non-trauma admissions and 15 were readmissions. Mechanism of injury in trauma was blunt in 12, blast (improved explosive device) in 45, blast (indirect fire) in seven and gunshot wound in 16. Median length of stay was 0.92 days (IQR 0.45-2.65). 82/112 admissions (73%) were mechanically ventilated, 16/112 (14%) required inotropic support. 12/112 (11%) died before unit discharge. Trauma scoring was available in 65 of the 80 trauma admissions. Eight had Injury Severity Score or New Injury Severity Score >60, none of whom survived. However, of the 16 patients with predicted mortality >50% by Trauma Injury Severity Score, seven survived. Seven cases required specialist advice and were discussed with the Birmingham Children's Hospital paediatric intensive care retrieval service. The mechanisms by which the Defence Medical Services support children admitted to the deployed adult ITU are described, including staff training in clinical, ethical and child protection issues, equipment, guidelines and clinical governance and rapid access to specialist advice in the UK. Conclusions With appropriate support, it is possible to provide intensive care to children in a deployed military ITU.

Title: Management of pain in acute presentations to a tertiary paediatric emergency department (PED)

Citation: Archives of Disease in Childhood, October 2014, vol./is. 99/(A336), 0003-9888 (October 2014)

Author(s): Mullen S., Fitzsimmons A.

Abstract: Background and aims To review pain assessment and management in our PED. Methods We reviewed the filmsy for patients who were coded as soft tissue injury, fracture or burn over a 6 day period in June 2013 and compared this to standards set by College of Emergency Medicine (CEM) in the UK. Results Number of patients = 67 98% did not have a pain score recorded from triage. No recorded pain score from any medical personnel. 49% received analgesia with 82% receiving paracetamol alone and 15% receiving oramorph. Of those receiving analgesia, 70% did so within 20 min of arrival and 85% within first hour. There was no documented re-assessment of pain scores although 6% of patients did receive further analgesia. Conclusion The results hi-lighted a need for re-education of nursing and medical staff on the benefits of pain scores. Coupled with this re-education there will be a review of the current PED filmsy with a greater emphasis on pain scales, pain scores and prompts to re-score. There are good points to be taken from the data. 70% of patients received...
analgesia within 20 min of presentation compared to 43% from the CEM annual audit in 2012. 6% of patients also received further analgesia to manage their pain. This may support the theory that although pain assessment is occurring it is not being documented.

Full Text:
Available from Highwire Press in Archives of disease in childhood

Title: West Midlands major trauma centre emergency department practitioner collaborative

Citation: Anaesthesia, October 2014, vol./is. 69/(26), 0003-2409 (October 2014)

Author(s): Doyle G., Williams M.

Abstract: The West Midlands contains three major trauma centres; Queen Elizabeth Hospital Birmingham, University Hospital Coventry and Warwickshire and University Hospital North Staffordshire, along with Birmingham Children's Hospital who provide the paediatric trauma service. Methods In April 2013 practitioners with newly developed roles in Trauma in the Emergency Department made initial contact, and in October 2013 a formal collaborative was formed, with membership consisting of anaesthetic practitioners, both Nurses and Operating Department Practitioners that are working in the ED setting as an integral part of the trauma team. Results Our poster presentation will serve to introduce the work of the collaborative to the wider clinical community. Working alongside the ED staff and the attending duty anaesthetists the practitioners engage in the clinical care of acute admissions, including but not limited to trauma, medical, burns and paediatric alerts. The primary responsibility is providing skilled assistance for Rapid Sequence Inductions and airway management in conjunction with the duty anaesthetist whilst working in an isolated area. The associated risks of providing anaesthesia in isolated sites are well documented in the NAP4 audit 'Major Complications of Airway Management' and the RCoA paper 'Anaesthetic Services in Remote Sites'. As the role in ED has developed the practitioners have accomplished the requisite skills to fully integrate into the team and care for the full range of admissions into the Resus room i.e. MI, COPD etc. The poster presentation will be an excellent platform to promote the collaborative and its work and inspire colleagues from similar institutions in the UK. Discussion The future aspiration for the collaborative is to establish shared educational and learning opportunities, a cross site skills exchange programme and facilitate a forum for sharing experiences and improving practice, with the potential to expand and include more centres across the wider region or country. The scope for creating an accredited qualification via a university based training programme is also being explored, to allow practitioners to be formally recognised for their extended skills. The opportunity to present at the AAGBI Annual Congress will allow the collaborative to clearly demonstrate the scope of the speciality and introduce the key roles that are undertaken and how they can improve patient care, as well as setting out future aspirations to the visiting clinical cohort.

Title: Silent progression of liver disease and development of cirrhosis in children several years after cranial tumor resection

Citation: Hepatology, October 2014, vol./is. 60/(528A), 0270-9139 (October 2014)

Author(s): Pai A.K., Zhou S., Krieger M., Alexopoulos S., Genyk Y., Kerkar N.

Abstract: Patients with hypothalamic and pituitary tumors can become obese, insulin resistant, and dyslipidemic, increasing the risk of liver disease. The following cases were seen in our center from 1998-2014. Patient 1 was an 8 y.o. girl who developed panhypopituitarism, obesity, and type II DM after craniopharyngioma resection. Six years later, she presented with mildly elevated liver enzymes and severe hypoxemia; she was diagnosed with hepatopulmonary syndrome secondary to NASH. She received a liver transplant and recovered from HPS, but struggled with non-adherence and weight gain. She developed recurrent NASH after six months. Patient 2 was an 11 y.o. boy with a history of a resected suprasellar germinoma, chemotherapy, and radiation, with subsequent panhypopituitarism, type II DM, and morbid obesity. He presented six years later in hemorrhagic shock after variceal bleeding. Despite multiple banding and TIPS procedures, he succumbed to liver failure before transplantation. Autopsy confirmed advanced cirrhosis with steatosis. Patient 3 was a 6 y.o. girl who underwent fenestration of a hypothalamic pilocytic astrocytoma and a hepatotoxic chemotherapy regimen. She developed obesity, hypothyroidism, type II DM, and dyslipidemia. She presented four years later with elevated liver enzymes that remained high after chemotherapy concluded, with some improvement during periods of glycemic control and worsening with statin exposure. Liver biopsy revealed steatohepatitis and cirrhosis, attributed to NASH and drug-induced liver injury. Patient 4 was a 3 y.o.
boy with onset of type II DM, OSA, obesity, and panhypopituitarism after craniopharyngioma resection. After thirteen years of normal liver enzymes on metformin therapy, he was found to have thrombocytopenia, hypersplenism, and mildly elevated liver enzymes. Liver histology showed advanced fibrosis without steatosis, consistent with burnedout NASH. Discussion: Children who endure hypothalamic/pituitary tumor resections may be at increased risk of NAFLD. Features of metabolic syndrome were recognized early in our pediatric patients, but liver disease was identified much later. Screening for liver disease early and at regular intervals may be indicated in this population, but screening parameters have not been validated. It is well known that liver enzymes may not be sensitive indicators of NAFLD, but new serologic biomarkers and emerging radiologic modalities (e.g., transient liver elastography) need exploration. Our report underscores the need for multicenter data to elucidate the natural history of NAFLD in this vulnerable patient population to determine who is at risk of rapid progression to advanced fibrosis.

Title: Central nervous thrombophlebitis and behcet disease

Citation: Archives of Disease in Childhood, October 2014, vol./is. 99/(A532), 0003-9888 (October 2014)

Author(s): Boutrid N., Rahmoune H., Rahmoune F.C., Loucif A., Bioud B.

Abstract: Introduction Behcet's Disease (BD) is manifested by a triad of relapsing hypopyon uveitis, aphthous stomatitis and genital ulcers. We present the case of a school-aged boy with a Behcet-related acute cerebral venous thrombosis. Material and method A 8 years old boy is admitted for acute and severe headaches with nausea. Clinical examination notes a febrile child with marked aphthous mouth (with a history of genital 'burns'). ESR and CRP are mildly high, while cerebral angio-CT reveals a superior sagittal sinus occlusion. Steroids and palliative management completely resolve these symptoms, while angio-MRI confirms the isolated thrombophlebitis. Discussion The major manifestations of vascular Behcet Disease include venous occlusion, arterial occlusion and aneurysm formation. Cerebral venous thrombosis (CVT) results in signs and symptoms of increased intracranial pressure, like for our child. Steroids remain the mainstay initial treatment, with a particular attention to anticoagulation and adjunction/relay with colchicine. Conclusion Cerebral venous thrombosis may reveal BD is associated with a good prognosis when treated promptly, specially in paediatric patients.

Full Text: Available from Highwire Press in Archives of disease in childhood

Title: Clinical analysis of 39 cases with staphylococcus aureus scalded skin syndromes

Citation: Journal of Dermatology, October 2014, vol./is. 41/(27), 0385-2407 (October 2014)

Author(s): Wang S.-S., Lu Y.-H.

Abstract: Purpose: Study of staphylococcal scalded skin syndrome (SSSS) of the clinical manifestations, treatment and prognosis. Methods: A retrospective analysis of the clinical data of 39 hospitalized children with SSSS diagnosed. Results: The 39 cases of SSSS in children aged 1~6 years old infants in hospital 7~14 days, after cured, without recurrence. Conclusion: SSSS occurs in the neonate and infant. Application of antibiotics early, adequate, effective treatment is of great significance.

Title: Geriatric burn injuries presenting to the emergency department of a major burn center: Clinical characteristics and outcomes

Citation: Annals of Emergency Medicine, October 2014, vol./is. 64/4 SUPPL. 1(S81), 0196-0644 (October 2014)

Author(s): Rosen T., Mulcare M.R., Stern M.E., Clark S., Golden D.L., Lachs M.S., Flomenbaum N., Gallagher J.

Abstract: Background: Burn injuries in geriatric patients are common, and older adults are at higher risk of severe burns than children and younger adults due to co-morbidities, thin and fragile skin, cognitive impairment, decreased mobility, and reduced immunologic response. Most research to date has focused on the care of
hospitalized patients after admission to burn units. Little is known about the clinical characteristics of geriatric burn victims who present to the emergency department (ED) and their ED assessment and management. Study Objectives: To describe the clinical characteristics and outcomes of geriatric patients presenting to the ED with burn injuries. Methods: We performed retrospective chart review on all patients aged >65 with a burn injury presenting during a 1-year period (April 2011 to March 2012) to a large, urban, academic ED in a hospital with a 40-bed burn center. We collected demographics, baseline clinical information, burn injury characteristics, ED and burn unit assessment and management, and outcomes. Results: Eighty patients were treated for burn injuries during this period. Average age was 77 years (SD 8), with 36% >80 years. Sixty percent were female. Fifty-five percent arrived via ambulance; 13% had dementing illness. The most common burn types were scald (52%) and flame (29%), and the most common causes were cooking (59%) and house fire (18%). Burns were most common on upper extremities (48%) followed by lower extremities (33%), and 28% of patients sustained second and third degree burns on >5% total body surface area (TBSA). In 38% of patients, tetanus shot was not given despite no documentation of pre-injury vaccination status. Fourteen percent suffered inhalation injury. Of those, 45% were intubated in the ED and an additional 18% received fiberoptic airway evaluation. One patient subsequently required intubation in the burn unit. No patients were extubated during the first 3 days of hospitalization. Of the 80 patients treated for burn injuries, 59% of patients were admitted, with a median length of stay of 10 days (IQR 4-20). Two percent of admitted patients received hyperbaric therapy, and 53% received skin graft surgeries. Thirteen percent of admitted patients died, and these patients had a median burn size of 32% TBSA (IQR 12-40). Conclusion: Geriatric burn injury ED visits most commonly are for scalds on upper extremities suffered while cooking. These patients are frequently admitted for prolonged hospitalizations and have significant mortality. Better understanding of geriatric burn injuries may identify areas in which to improve awareness and emergency care for these vulnerable patients.

**Title:** A review of cuffed vs. Uncuffed endotracheal tubes in children

**Citation:** Archives of Disease in Childhood, October 2014, vol./is. 99/(A548-A549), 0003-9888 (October 2014)

**Author(s):** Crankshaw D., Entwistle M.

**Abstract:** Background and aims The use of cuffed endotracheal tubes in paediatric patients is still a controversial topic. This paper aims to investigate whether cuffed or uncuffed tubes should be used in children under the age of 8 based on the literature that is currently available on this topic. Currently there are no guidelines on this topic. Methods literature review. Results The results of the first four studies reviewed all show significant results in favour of use of a cuffed endotracheal tube and a change in current practice. None of the studies reviewed showed that patients were more likely to suffer injury as a result of using a cuffed tube. This is important as the review covers a variety of patients including those undergoing elective operations, burn patients and those who are critically ill. All of the studies reviewed demonstrated potential benefits of introducing cuffed tubes into practice as they reduced exchange rate, air leaks and the costs associated with the anaesthetic gases used; without a significant increase in the rates of post-extubation stridor or failed extubation. Conclusion In conclusion cuffed tubes are shown to decrease the need for multiple intubations, reduce costs and are not shown to increase adverse effects in children of all ages.

**Full Text:**
Available from *Highwire Press* in *Archives of disease in childhood*


**Citation:** Journal of Emergency Medicine, November 2014, vol./is. 47/5(619), 0736-4679 (01 Nov 2014)

**Author(s):** Morse A.

**Title:** Economic burden of burn injuries in the Netherlands

**Citation:** Value in Health, November 2014, vol./is. 17/7(A606-A607), 1098-3015 (November 2014)

**Author(s):** Hop J.M., Wijnen B.F.M., Nieuwenhuis M., Dokter J., Middelkoop E., Polinder S., Van Baar M.E.
Abstract: Objectives: Burn care has rapidly improved in the past decades. However, health care innovations can be expensive, demanding careful choices on their implementation. Obtaining knowledge on the extent of the costs of burn injuries is an essential first step for economic evaluations within burn care. The objective of this study was to determine the economic burden of patients with burns admitted to a burn center and to identify important cost categories until three months post-burn. Methods: A prospective cohort study was conducted in the burn center of Maasstad Hospital Rotterdam, the Netherlands, including all patients with acute burn related injuries from August 2012 until July 2013. Total costs were calculated from a societal perspective, until three months post injury. Subgroup analyses were performed to examine whether the mean total costs per patient differed by age, etiology or percentage total body surface area (TBSA) burned. Results: In our population, with a mean burn size of 8%, mean total costs were 24,246 per patient varying from 11,498 to 71,756. Most important cost categories were burn center days, surgical interventions and work absence. Flame burns were significantly more costly than other types of burns, adult patients were significantly more costly than children and adolescents and a higher percentage TBSA burned also corresponded to significantly higher costs. Conclusions: Mean total costs of burn care in the first three months post injury were estimated at 24,246 and depended on age, etiology and TBSA. Mean total costs in our population probably apply for other high-income countries as well, although we should realize that patients with burn injuries are diverse and represent a broad range of total costs. To reduce costs of burn care, future intervention studies should focus on reducing length of stay and enabling an early return to work.

Title: Epidemiology of burns in Taiwan: A nationwide report including inpatients and outpatients

Citation: Burns, November 2014, vol./is. 40/7(1397-1405), 0305-4179:1879-1409 (01 Nov 2014)

Author(s): Chen S.-H., Chen Y.-C., Chen T.-J., Ma H.

Abstract: Introduction: The aim of the study is to understand the incidence of burns among outpatients and inpatients of Taiwan in 2010. Characteristics of the burned patients were also studied in terms of gender, age, burn sites, burn degree, reconstructive surgical treatment, as well as which specialty and medical facility they are treated in. Methods: Burned patients were identified from the 1,000,000-person cohort dataset sampled from the Taiwan National Health Insurance database. Ones who had been hospitalized with discharge diagnoses related to burns were categorized as inpatients and others who had only ambulatory visits and emergency room visits were classified as outpatients. Results: 7630 burn-injury patients were found, presenting an annual incidence of burns as 670.8/10<sup>5</sup> in males (n = 3303) and 852.5/10<sup>5</sup> in females (n = 4327). Only 3.4% (156 males and 107 females) of them were hospitalized. Higher incidence of burns were found in females and young children, while males and the elderly tended to have more severe burns, based on high-degree burns, admission rate, and incidence of hospitalizations for burns. Conclusion: This is a population-based study demonstrating the epidemiology of burns among outpatients and inpatients in Taiwan, leading us closer to the reality of burns treated in different settings of medical facilities.

Title: Epidemiology and trends in severe burns in the Netherlands

Citation: Burns, November 2014, vol./is. 40/7(1406-1414), 0305-4179:1879-1409 (01 Nov 2014)

Author(s): Dokter J., Vloemans A.F., Beerthuizen G.I.J.M., Van Der Vlies C.H., Boxma H., Breederveld R., Tuinebreijer W.E., Middelkoop E., Van Baar M.E.

Abstract: Introduction: The aim of this study was to characterize the epidemiology of severe burns in the Netherlands, including trends in burn centre admissions, non burn centre admissions and differences by age. Methods: Patients with burn-related primary admission in a Dutch centre from 1995 to 2011 were included. Nationwide prospectively collected data were used from three separate histori- cal databases and the uniform Dutch Burn Repository R3 (2009 onwards). General hospital data were derived from the National Hospital Discharge Register. Age and gender-adjusted rates were calculated by direct standardization, using the 2005 population as the reference standard. Results: The annual number of admitted patients increased from 430 in 1995 to 747 in 2011, incidence rates increased from 2.72 to 4.66 per 100,000. Incidence rates were high in young children, aged 04 years and doubled from 10.26 to 22.96 per 100,000. Incidence rates in persons from 5 up to 59 increased as well, in older adults (60 years and older) admission rates were stable. Overall burn centre mortality rate was 4.1%, and significantly decreased over time. There was a trend towards admissions of less extensive burns, median total burned surface area (TBSA) decreased from 8% to 4%. Length of stay and length
of stay per percent TBSA decreased over time as well. Conclusions: Data on 9031 patients admitted in a 17-year period showed an increasing incidence rate of burn-related burn centre admissions, with a decreasing TBSA and de-creasing in-burn centre mortality. These data are important for prevention and establishment of required burn care capacity.

**Title:** Creation of a standardized burn course for Low Income Countries: Meeting local needs

**Citation:** Burns, November 2014, vol./is. 40/7(1292-1299), 0305-4179;1879-1409 (01 Nov 2014)

**Author(s):** Spiwak R., Lett R., Rwanyuma L., Logsetty S.

**Abstract:** Results: There were 11 nurses, 6 doctors, a physiotherapist, occupational therapist, and a dietician. 15 worked in either the adult or pediatric burn units, the other six worked in emergency, ICU or the operating room. The majority of respondents (56%) had less than 3 years of experience working with burn patients. Overall agreement that the course met their objectives was rated as 4.6 out of 5. As well the students agreement that they had a better understanding of burn injury was rated as 4.8/5. 55.6% indicated that scalds were the most commonly seen injury followed by 27.8% responding that flames were the most common. Some responses to the question of top difficulties facing the caregivers were similar to HIC: staffing shortages, bed shortages, and finding useable donor site in large burns. Other responses highlighted the challenges these care givers face: poverty stricken patients, not enough appropriate food available, and deficiencies in infection control practices.

**Conclusion:** It is possible to create a course that translates knowledge from a HIC setting to meet the needs of the end-user in a LIC setting.

**Introduction:** Standardized courses for the care of the burn patient have historically been developed in High Income Countries (HIC). These courses do not necessarily reflect the challenges and needs of Low Income Countries (LIC) and some components may not be relevant there (i.e. use of ventilators in a country that has no or very limited number of ventilators). We are developing a Burn Management Course for East Africa. This course was created and trialed in a LIC and subsequently a formal manual and course curriculum created. Recently the first iteration of the course was undertaken in a major regional burn centre in East Africa. We present participant feedback on the course content, and potential future directions for course development. 

**Objective:** (1) To evaluate the ability of a standardized burn course for LIC to meet the needs of the participants. (2) To explore characteristics of burn care and needs related to delivery of burn care in LIC.

**Methods:** 21 students participated in a multidisciplinary burn management course. They were asked to complete an anonymous questionnaire at the end of the course.

**Title:** Use of a pediatric oxygenator integrated in a veno-venous hemofiltration circuit to remove CO2: A case report in a severe burn patient with refractory hypercapnia

**Citation:** Burns, November 2014, vol./is. 40/7(e57-e60), 0305-4179;1879-1409 (01 Nov 2014)

**Author(s):** Rousseau A.-F., Damas P., Renwart L., Amand T., Erpicum M., Morimont P., Dubois B., Massion P.B.

**Abstract:** Acute respiratory distress syndrome management is currently based on lung protective ventilation. Such strategy may lead to hypercapnic acidosis. We report a case of refractory hypercapnia in a severe burn adult, treated with simplified veno-venous extracorporeal carbon dioxide removal technique. We integrated a pediatric oxygenator in a continuous veno-venous hemofiltration circuit. This technique, used during at least 96 h, was feasible, sure and efficient with carbon dioxide removal rate up to 32%.

**Title:** A skin protectant regimen for the management of diaper skin compromise in pediatric oncology patients

**Citation:** Pediatric Blood and Cancer, December 2014, vol./is. 61/(S356), 1545-5009 (December 2014)

**Author(s):** Braeutigam C., Pyle A., Baker C., Pearson A., Visscher M.

**Abstract:** Objectives: Severe diaper dermatitis is an extremely challenging side effect of treatment among infants with leukemia. It is likely due to multiple factors including chemotherapy leading to chemical burns, hyper hydration with increased urine and stool output, looser stools, with suspected higher concentrations of enzymes, decreased immune function, and decreased healing capacity resulting in severe morbidity. The
The institutional current practice of a liquid barrier film and a topical barrier cream were not sufficiently effective. The objective was to determine the effectiveness of a regimen consisting of a substantive liquid skin protectant plus a zinc-based ointment with daily sitz baths and frequent diaper changes to minimize/prevent irritant diaper dermatitis throughout multiple chemotherapy cycles. Methods: Infants receiving high dose chemotherapy (e.g., doxorubicin, cyclophosphamide, vincristine, prednisone, L-asparaginase, intrathecal therapy, and high-dose methotrexate and cytarabine) and diapered patients receiving methotrexate, alkalinization and hyperhydration, were enrolled upon hospitalization in the IRB approved study. The liquid protectant was applied to the diaper regions upon resolution of open wounds, evaluated daily and reapplied as necessary throughout multiple chemotherapy and recovery cycles. The zinc ointment was applied liberally at every diaper change. The skin was assessed for erythema and rash using a validated scale and standardized digital images taken to quantify area of involvement and erythema. Absolute neutrophil counts, urine and stool output and frequency, and medications were tracked with skin grades and images over time. Results: Twenty patients were enrolled and followed for 7 - 240 days. There was no severe diaper dermatitis and only mild perineal irritation was observed over multiple chemotherapy cycles despite being neutropenic or on multiple antibiotics for fevers. There was no delay in chemotherapy due to severe skin breakdown. Conclusions: The regimen is effective in delaying and lessening skin compromise among infants receiving chemotherapy relative to the hospital standard of care.
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