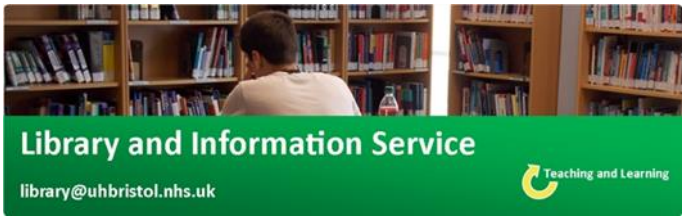
University Hospitals Bristol NHS
NHS Foundation Trust

Burns

Current Awareness Newsletter

February 2017 (Quarterly)

Respecting everyone
Embracing change
Recognising success
Working together
Our hospitals.



Training Calendar 2017

All sessions are 1 hour

February (12pm - 1pm)

Fri 3rd **Literature searching**
Mon 6th **Critical Appraisal**
Tues 14th **Interpreting Statistics**
Weds 22nd **Literature Searching**

March (1pm - 2pm)

Thurs 2nd **Critical Appraisal**
Fri 10th **Interpreting Statistics**
Mon 13th **Literature Searching**
Tues 21st **Critical Appraisal**
Weds 29th **Interpreting Statistics**

April (12pm - 1pm)

Thurs 6th **Literature Searching**
Mon 10th **Critical Appraisal**
Tues 18th **Interpreting Statistics**
Thurs 27th **Literature Searching**

Your Outreach Librarian: Jo Hooper

Whatever your information needs, the library is here to help. Just email us at library@uhbristol.nhs.uk

Outreach: Your Outreach Librarian can help facilitate evidence-based practice for all in the team, as well as assisting with academic study and research. We also offer one-to-one or small group training in **literature searching, critical appraisal and medical statistics**. Get in touch: library@uhbristol.nhs.uk

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. Please email requests to library@uhbristol.nhs.uk

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Updates

NICE National Institute for Health and Care Excellence

Signal: Young children from deprived areas are more at risk of serious burns and scalds

Source: NIHR Dissemination Centre - 24 January 2017

Read Summary

- **More:** Evidence Summaries

Cochrane Library

No relevant evidence.

UpToDate®

OpenAthens login required. Register here: https://openathens.nice.org.uk/

Overview of the management of the severely burned patient

- Severe burn injury
- Summary and recommendations

Emergency care of moderate and severe thermal burns in children

- Evaluation of burn injury
- Summary and recommendations

Burn pain: Principles of pharmacologic and nonpharmacologic management

- Children
- Adults
- Summary and recommendations

Overview of nutritional support for moderate to severe burn patients

- Children
- Summary and recommendations

Principles of burn reconstruction: Overview of surgical procedures

- Burn reconstruction procedures
- Summary and recommendations

Management principles for burns resulting from mass disasters and war casualties

- Management principles of the burn disaster plan
- Application to civilian, non-mass casualty, burns
- Summary and recommendations

Overview and management strategies for the combined burn trauma patient

- Immediate burn wound management
- Summary and recommendations

BBA:British Burn Association info@britishburnassociation.org

Meetings and Conferences

Royal College of Emergency Medicine Annual CPD Conference 2017

To be held on 3 - 5 April 2017

Venue: etc.venues, 155 Bishopsgate, London - #RCEMCPD17

For further information and booking details, please go to: **https://www.rcem.ac.uk/cpdconference2017**

Study Days

BBA Education Day: Making Simulation Stimulating - How to Set Up a Simulation Workshop in Burns

10th March 2017

To be held on 10th March 2017 at the Wytenshawe Hospital, Manchester

The Education Day has been awarded 5 CPD credits

Registration fees:
Early Bird - £45 for BBA Members; £75 for non-BBA Members
After 20th January 2017 - £75 for BBA Members; £105 for non-BBA Members

The Education Day flyer and application form are available below:

BBA Education Day Flyer - 10.3.17.pdf
Education Day Burn Simulation 10.3.17 - Application Form.doc

BBA Annual Meeting 2017

3 - 5 May 2017

The 50th Annual Scientific Meeting is entitled "New Burn Technologies for Better Burn Care" and will be held at the Royal College of Surgeons of England, London.

The meeting will include a Scientific Programme and an Exhibition.

Networking Opportunities include a Welcome Reception and a Networking Dinner.

The Annual Conference has been awarded 18.5 CME points.

For further details and to register, please go to: **http://www.convenus.com/bba**

A MILLION DECISIONS

Every day more than a million decisions are made across the NHS and healthcare sector

Under the Health and Social Care Act 2012 there is a responsibility for health services to ensure use of evidence obtained from research, with the aim of improving quality of care, patient experience and cost effectiveness.

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- Fast and free access to thousands of articles.
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NHS
Health Education England

Journal Tables of Contents

Click on the hyperlinked journal title (+Ctrl) for the most recent tables of contents. If you would like any of the papers in full text then please email the library: library@uhbristol.nhs.uk

Burns (Elsevier)
February 2017, Volume 43, Issue 1

Journal of Burn Care & Research
January/ February 2017, Volume 38, Issue 1

Injury Prevention (BMJ)
February 2017, Volume 23, Issue 1

Plastic and Reconstructive Surgery
January 2017, Volume 139, Issue 1

Journal of Plastic, Reconstructive & Aesthetic Surgery (Elsevier)
February 2017, Volume 70, Issue 2

Archives of Disease in Childhood (BMJ)
February 2017, Volume 102, Issue 2

Pediatrics (HighWire)
January 2017, Volume 139, Issue 1

Injury (Elsevier)
January 2017, Volume 48, Issue 1

Trauma (Sage)
January 2017, Volume 19, Issue 1

Current Awareness Database Articles

Below are a selection of articles on burns recently added to the healthcare databases. If you would like any of the following articles in full text, or if you would like a more focused search on your own topic, then get in touch: library@uhbristol.nhs.uk

Variations in guideline use and practice relating to diagnosis and management of infection in paediatric burns services in England and Wales: A national survey.

Author(s): Davies, Anna; Spickett-Jones, Francesca; Brock, Paula; Coy, Karen; Young, Amber

Source: Burns : journal of the International Society for Burn Injuries; Feb 2017; vol. 43 (no. 1); p. 215-222

Publication Type(s): Journal Article

Abstract: Wound infection causes morbidity and mortality in burns. UK National Burns Care Standards state that guidance should be used to diagnose and treat burn wound infection. However, surveys of senior staff about standard operating procedures or guidance in UK burns services indicate that they are infrequently available (Papini et al., 1995; Lymperopoulos et al., 2015). Staff may have differing views and experiences of guidance use according to their role. This survey investigated the extent to which guidance is available, and current practices used for diagnosis and treatment of burn wound infection, both within and between paediatric burns services. Staff from paediatric burns services in England and Wales were individually interviewed by two nurses about guidance and practices around antibiotic prophylaxis, diagnosis and management of burn wound infection and toxic shock syndrome, and antibiotic use. In each service staff from three categories were interviewed: lead consultant/burns specialist nurse, junior doctor/senior nurse, ward based nurse. Data were subjected to content analysis and reliably coded by two researchers using a coding frame. Guidance documents were also requested. Thirteen services took part. Staff in fewer than half of services reported that they had guidance for antibiotic prophylaxis, diagnosis, and management of burn wound infection. In nine services at least one staff member reported that they had guidance for antibiotic use. Guidance was available for diagnosis and management of toxic shock syndrome in ten services, and staff in five were consistently aware of it. One service routinely used antibiotic prophylaxis, but had no written guidance for it. In five services where at least one member of staff reported that they had guidance for diagnosing infection, at least one interviewed staff member was unaware of it. Swabbing practice varied between and within services, with 10 staff across six services cleaning before swabbing, and four staff in three services cleaning after swabbing. Staff from fewer than half of burns services report that they have guidance for diagnosing and managing burn wound infection, and there is variation between and within services relating to staff awareness of available guidance. There are some consistencies in practice; the majority of services do not use antibiotic prophylaxis, and there is consistent prescribing

for suspected infection and tests used for infection diagnosis. Swabbing practices are less consistent. This survey indicates a need for evidence-based guidelines to be developed in order to meet national burns care standards, and for staff to be made aware of them and trained in their use. Guidelines do not need to replace clinical judgement and should be developed with the involvement of those who will implement them

Burn-associated bloodstream infections in pediatric burn patients: Time distribution of etiologic agents.

Author(s): Devrim, İlker; Kara, Ahu; Düzgöl, Mine; Karkıner, Aytaç; Bayram, Nuri; Temir, Günyüz; Şencan, Arzu; Sorguç, Yelda; Gülfidan, Gamze; Hoşgör, Münevver

Source: Burns : journal of the International Society for Burn Injuries; Feb 2017; vol. 43 (no. 1); p. 144-148

Publication Type(s): Journal Article

Abstract: Infections are the leading cause of morbidity and mortality in patients with burns in burn units. Bloodstream infections (BSIs) in patients with burns may result from burn wound infection, use of invasive devices such as central venous catheters, and translocation of the gastrointestinal flora. In this study, we investigated the distribution and antimicrobial drug resistance of causative pathogens in children with burns and the durational changes of microorganisms in the distribution of BSIs in children. This study was conducted at the Pediatric Burn Unit (PBU) of Dr. Behçet Uz Children Research and Training Hospital during the period of November 2008-April 2015. The study subjects were all the patients admitted to the PBU, in whom microorganisms were isolated at least from one of the cultures, including blood and catheter cultures. Gram-positive bacteria were the most common causative agents of BSI in patients with burns (66.4%), followed by gram-negative bacteria (22.1%) and fungi (11.5%). The median duration of development of BSIs caused by gram-positive bacteria from the time of burn was 5 days (ranging from 2 to 54 days of burn), which was significantly shorter than that of BSIs caused by gram-negative bacteria (12 days) and fungal pathogens (13 days). The etiologic agents of BSIs in children may differ from those in adults. Gram-negative drug-resistant bacteria such as multidrug-resistant Pseudomonas aeruginosa and Acinetobacter baumannii were important agents of BSI in patients with burns, especially in the long term; however, gram-positive bacteria should also be considered while deciding the antimicrobial therapy, especially in the early periods of burn.

A survey of the use of propranolol in burn centers: Who, what, when, why.

Author(s): LeCompte, Michael Thomas; Rae, Lisa; Kahn, Steven Alexander

Source: Burns : journal of the International Society for Burn Injuries; Feb 2017; vol. 43 (no. 1); p. 121-126

Publication Type(s): Journal Article

Abstract: Many burn centers utilize propranolol in both adult and pediatric burn patients to attenuate the hypermetabolic response related to thermal injury despite the relative paucity of data in adults compared to children. The purpose of this study was to identify

practice patterns related to propranolol, for which groups it is being used, length of use, and the intended benefit. A 17 question survey regarding the use of propranolol was distributed to burn centers listed in the ABA website with a link to provide anonymous responses. A 31% response rate was achieved. Results demonstrated 60.5% use propranolol while 39.5% do not. Use in both adult and pediatric patients was reported in 82% of centers. The majority of centers (60.8%) initiate propranolol in patients with >20% TBSA burns. The drug is continued while inpatient for most adults (43%) with only 10% continuing treatment up to 6 months vs. rates of 17.6% long term outpatient use in pediatric patients. Drug dosing ranged from 10 to 40mg in adults and 0.1mg/kg to 5mg/kg in pediatric patients dosed twice daily to four times daily with 25% and 40% titrating the dose to a reduced heart rate respectively. Propranolol was felt to improve outcomes in 56% of responses while 39% were "unsure". The majority of centers use propranolol for both adult and pediatric patients despise the lack of randomized studies in adult populations. A wide variation of practice patterns highlights the need for further study in regard to patient outcomes, duration of therapy, and dosing to drive consensus guidelines.

Evaluation of nurse accuracy in rating procedural pain among pediatric burn patients using the Face, Legs, Activity, Cry, Consolability (FLACC) Scale.

Author(s): Shen, Jiabin; Giles, Sheila A; Kurtovic, Kelli; Fabia, Renata; Besner, Gail E; Wheeler, Krista K; Xiang, Huiyun; Groner, Jonathan I

Source: Burns : journal of the International Society for Burn Injuries; Feb 2017; vol. 43 (no. 1); p. 114-120

Publication Type(s): Journal Article

Abstract: Accurate pain assessment is essential for proper analgesia during medical procedures in pediatric patients. The Faces, Legs, Activity, Cry, and Consolability (FLACC) scale has previously been shown to be a valid and reliable tool for assessing pediatric procedural pain in research labs. However, no study has investigated how rater factors (gender, number of dressing changes performed/week, burn history, having children, nursing experience, stress at home/work) and patient factors (pain intensity) affect the accuracy of FLACC ratings for procedural pain when implemented by bedside care providers. Twenty-four nurses in an ABA verified Pediatric Burn Center watched four videos of dressing changes for pediatric burn patients in random order three times and rated the children's procedural pain using the FLACC scale. The four videos had standard FLACC scores established by an interdisciplinary panel. Descriptive and mixed modeling analysis was conducted to explore nurse rating accuracy and to evaluate the rater and patient factors that influenced the rating accuracy. The highest accuracy was reached when rating high procedural pain (with a FLACC of 6). Nurses underrated both mild and severe procedural pain. Nurses who had less nursing experience demonstrated significantly higher accuracy than those with more experience. The present study is the first study in the literature to systematically examine the factors influencing the accuracy of FLACC rating for pediatric procedural pain among bedside care providers. The findings suggest that nurse clinical experience and patient pain intensity are two significant contributors to rating accuracy

The Hand Burn Severity (HABS) score: A simple tool for stratifying severity of hand burns.

Author(s): Bache, Sarah E; Fitzgerald O'Connor, Edmund; Theodorakopoulou, Evgenia; Frew, Quentin; Philp, Bruce; Dziewulski, Peter

Source: Burns : journal of the International Society for Burn Injuries; Feb 2017; vol. 43 (no. 1); p. 93-99

Publication Type(s): Journal Article

Abstract: Hand burns represent a unique challenge to the burns team due to the intricate structure and unrivalled functional importance of the hand. The initial assessment and prognosis relies on consideration of the specific site involved as well as depth of the burn. We created a simple severity score that could be used by referring non-specialists and researchers alike. The Hand Burn Severity (HABS) score stratifies hand burns according to severity with a numerical value of between 0 (no burn) and 18 (most severe) per hand. Three independent assessors scored the photographs of 121 burned hands of 106 adult and paediatric patients, demonstrating excellent inter-rater reliability ($r=0.91$, $p<0.0001$ on testing with Lin's correlation coefficient). A significant relationship was shown between the HABS score and a reliable binary outcome of the requirement for surgical excision on Mann-Whitney U testing ($U=152$; $Z=9.8$; $p=0.0001$). A receiver operator characteristic (ROC) curve analysis found a cut off score of 5.5, indicating that those with a HABS score below 6 did not require an operation, whereas those with a score above 6 did. The HABS score was shown to be more sensitive and specific that assessment of burn depth alone. The HABS score is a simple to use tool to stratify severity at initial presentation of hand burns which will be useful when referring, and when reporting outcomes

Prevalence of scar contractures after burn: A systematic review.

Author(s): Oosterwijk, Anouk M; Mouton, Leonora J; Schouten, Hennie; Disseldorp, Laurien M; van der Schans, Cees P; Nieuwenhuis, Marianne K

Source: Burns : journal of the International Society for Burn Injuries; Feb 2017; vol. 43 (no. 1); p. 41-49

Publication Type(s): Journal Article Review

Abstract: Burn scar contractures are the pathological outcome of excessive scarring and ongoing scar contraction. Impairment of joint range of motion is a threat to performing activities in daily living. To direct treatment strategies to prevent and/or correct such contractures, insight into the prevalence, course, and determinants is essential. A literature search was conducted including Pubmed, Cochrane library, CINAHL, and PEDro. Articles were included if they provided burn scar contracture data to calculate the point prevalence. The quality of the articles was scored. Data were extracted regarding study, subject and burn characteristics, method of scar contracture assessment, point prevalence, and possible determinants. Nine articles and one abstract could be included for data extraction. The prevalence at discharge was 38-54%, but with a longer time after burn, the prevalence was lower. Contractures were more likely to occur in more severe burns, flame burns, children, female, the cervical spine, and the upper extremity. The prevalence of burn scar contractures varies considerably between studies. When prevalence is unclear, it is also

difficult to investigate potential determinants and evaluate changes in interventions. There is a need for extensive, well-designed longitudinal (inter)national studies that investigate prevalence of scar contractures, their evolvement over time, and risk factors

Laryngotracheal edema due to thermal injury: A complication after thyroidectomy in children.

Author(s): Kendigelen, Pinar; Tutuncu, Ayse C; Ashyralyyeva, Gulruh; Emreb, Senol; Urkmez, Seval; Utkua, Tughan; Kaya, Guner

Source: Archivos argentinos de pediatria; Feb 2017; vol. 115 (no. 1); p. e31

Publication Type(s): Case Reports

Abstract: Postoperative respiratory insufficiency is a serious complication of total thyroidectomies which can be multifactorial, especially in children. We report two siblings who had undergone thyroidectomy with subsequent respiratory distress. Electrothermal bipolar and harmonic scalpel were used during thyroid dissections. Both patients had early postoperative respiratory problems. The older one suffered from mild respiratory distress for 24 hours and then he spontaneously recovered. The younger one was extubated but then she had serious stridor accompanied with abdominal and intercostal retractions. She was re-intubated and admitted to ICU for mechanical ventilatory support, where she stayed for 14 days due to multiple failed extubation attempts. The symptoms were more severe in the younger child probably due to softer tracheal wall and weaker tracheal cartilages. We should keep in mind the probable postoperative respiratory complications due to thermal injury or inappropriate surgical technique after thyroid surgeries.

Use of Essential Oils Following Traumatic Burn Injury: A Case Study.

Author(s): Jopke, Kathleen; Sanders, Heather; White-Traut, Rosemary

Source: Journal of pediatric nursing; Jan 2017

Publication Type(s): Journal Article

Abstract: Hospital admissions related to burn injury reach 40,000 annually. Patients who experience extensive burns require longer hospital stays and are at increased risk for infection and hospital acquired conditions. This comparative case study is a two patient matched case control design that follows the hospital course of two children who experienced burn injuries. For one of these patients, with the consent of the child's parents, the grandmother treated her granddaughter with essential oils. Essential oils have the potential to inhibit microbial growth, support treatment of wounds, and facilitate healing. However, there have been no large scale studies on essential oils. Data for the two cases were retrieved from the electronic medical record at a Midwestern Pediatric Hospital. Retrieved data included burn site description, treatment for burns, number of days on the ventilator, white blood cell count, length of hospital stay, number of ICU days, infections diagnosed by positive culture and pain ratings. While the goals for treatment were the same for both children, the child who received only standard care was diagnosed with two blood stream infections and four hospital acquired conditions while the child who received supplemental treatment with essential oils did not develop any blood stream infections, was

diagnosed with one hospital acquired condition, was in the PICU one day less, and had a four day shorter length of hospital stay. While these case findings are intriguing, research is needed to expand understanding of the role of essential oils in the treatment of burns

β-adrenergic blockade does not impair the skin blood flow sensitivity to local heating in burned and non-burned skin under neutral and hot environments in children.

Author(s): Rivas, Eric; McEntire, Serina J; Herndon, David N; Mlcak, Ronald P; Suman, Oscar E

Source: Microcirculation (New York, N.Y. : 1994); Jan 2017

Publication Type(s): Journal Article

Abstract: Tested the hypothesis that propranolol, a drug given to burn patients to reduce hypermetabolism/cardiac stress, may inhibit heat dissipation by changing the sensitivity of skin blood flow (SkBF) to local heating under neutral and hot conditions. In a randomized double-blind study, a placebo was given to 8 burned children while propranolol was given to 13 burned children with similar characteristics (mean ±SD: 11.9±3y, 147±20cm, 45±23kg, 56±12% TBSA). Non-burned children (n=13, 11.4±3y, 152±15cm, 52±13kg) served as healthy controls. A progressive local heating protocol characterized SkBF responses in burned and unburned skin and non-burned control skin under the two environmental conditions (23°C and 34°C) via laser-Doppler flowmetry. Resting SkBF was greater in burned and unburned skin compared to the non-burned control (main effect: skin, P0.05) under either condition. Therapeutic propranolol does not negatively affect SkBF under neutral or hot environmental conditions and further compromise temperature regulation in burned children.

Randomized, Paired-Site Comparison of Autologous Engineered Skin Substitutes and Split-Thickness Skin Graft for Closure of Extensive, Full-Thickness Burns.

Author(s): Boyce, Steven T; Simpson, Peggy S; Rieman, Mary T; Warner, Petra M; Yakuboff, Kevin P; Bailey, J Kevin; Nelson, Judith K; Fowler, Laura A; Kagan, Richard J

Source: Journal of burn care & research : official publication of the American Burn Association; Jan 2017

Publication Type(s): Journal Article

Abstract: Stable closure of full-thickness burn wounds remains a limitation to recovery from burns of greater than 50% of the total body surface area (TBSA). Hypothetically, engineered skin substitutes (ESS) consisting of autologous keratinocytes and fibroblasts attached to collagen-based scaffolds may reduce requirements for donor skin, and decrease mortality. ESS were prepared from split-thickness skin biopsies collected after enrollment of 16 pediatric burn patients into an approved study protocol. ESS and split-thickness autograft (AG) were applied to 15 subjects with full-thickness burns involving a mean of 76.9% TBSA. Data consisted of photographs, tracings of donor skin and healed wounds, comparison of

mortality with the National Burn Repository, correlation of TBSA closed wounds with TBSA full-thickness burn, frequencies of regrafting, and immunoreactivity to the biopolymer scaffold. One subject expired before ESS application, and 15 subjects received 2056 ESS grafts. The ratio of closed wound to donor areas was 108.7 ± 9.7 for ESS compared with a maximum of 4.0 ± 0.0 for AG. Mortality for enrolled subjects was 6.25%, and 30.3% for a comparable population from the National Burn Repository ($P < .05$). Engraftment was 83.5 ± 2.0% for ESS and 96.5 ± 0.9% for AG. Percentage TBSA closed was 29.9 ± 3.3% for ESS, and 47.0 ± 2.0% for AG. These values were significantly different between the graft types. Correlation of % TBSA closed with ESS with % TBSA full-thickness burn generated an R value of 0.65 ($P < .001$). These results indicate that autologous ESS reduce mortality and requirements for donor skin harvesting, for grafting of full-thickness burns of greater than 50% TBSA.

Avoiding Chlorhexidine Burns in Preterm Infants.

Author(s): Paternoster, Mariano; Niola, Massimo; Graziano, Vincenzo

Source: Journal of obstetric, gynecologic, and neonatal nursing : JOGNN; Jan 2017

Publication Type(s): Journal Article

Abstract: Chlorhexidine is a skin antiseptic agent frequently used for off-label indications in NICUs. Changes to the safety labeling of chlorhexidine products for use in preterm infants were recently made because of the risk of severe chemical burns. We provide tips for a safer use of chlorhexidine to prevent injury in newborns and to help health care professionals protect themselves against burn injury claims.

The impact of an international initiative on exposures to liquid laundry detergent capsules reported to the United Kingdom National Poisons Information Service between 2008 and 2015.

Author(s): Day, Rachael; Eddleston, Michael; Thomas, Simon H L; Thompson, John P; Vale, J Allister

Source: Clinical toxicology (Philadelphia, Pa.); Jan 2017 ; p. 1-4

Publication Type(s): Journal Article

Abstract: Although the majority of those exposed to liquid laundry detergent capsules remain asymptomatic or suffer only minor clinical features after exposure, a small proportion develop central nervous system depression, stridor, pulmonary aspiration and/or airway burns following ingestion or conjunctivitis and corneal ulceration following eye exposure. As a consequence, the International Association for Soaps, Detergents and Maintenance Products (AISE) established a Product Stewardship Programme in Europe, requiring that safety measures be implemented to reduce the visibility of, and restrict access to, these detergent capsules by small children. Implementation occurred in the United Kingdom over several months during the first half of 2013. This study investigated whether the AISE Programme had an impact on the number and severity of exposures reported to the United Kingdom National Poisons Information Service. Telephone enquiries to the National Poisons Information Service relating to liquid laundry detergent

capsules were analysed for the period January 2008 to December 2015. While there was a significant difference (p = 0.0002) between the mean number of annual exposures (469.4) reported between 2008 and 2012 and the mean number reported between 2014 and 2015 (403.5), the number of exposures was decreasing steadily prior to implementation of the Programme in 2013, which did not impact this fall from 2013 onwards. In addition, the number of exposures per million units sold was not impacted by the Programme. There was no significant difference (p = 0.68) between the mean number of exposures (11.8) with PSS ≥2 reported between 2008 and 2012 and the mean number (13.0) reported between 2014 and 2015. Although there was a 28.7% decrease between 2010-2012 and 2014-2015 in the number of exposures with PSS ≥2 per million units sold, this decrease was not statistically significant (p = 0.18). There is no evidence that the Product Stewardship Programme had a beneficial impact on the number of exposures reported to the National Poisons Information Service or their severity.

Dressing changes in a burns unit for children under the age of five: A qualitative study of mothers' experiences.

Author(s): Morley, Jessica; Holman, Natalie; Murray, Craig D

Source: Burns : journal of the International Society for Burn Injuries; Jan 2017

Publication Type(s): Journal Article

Abstract: This study aimed to investigate the experiences of mothers who had attended their child's burn dressing changes. Participants were recruited from a burns unit based within a children's hospital. Face-to-face interviews were conducted with five mothers of children under the age of five who had undergone a series of dressing changes taking place on the burns unit. The interview guide explored parents' experience of initial and subsequent dressing changes. Participants were prompted to explore their expectations, thoughts, feelings and behaviours associated with these experiences. The interviews were recorded and transcribed verbatim. Transcripts were analysed using interpretative phenomenological analysis. The analysis identified four themes: 'needing to fulfil the responsibilities associated with being a mother'; 'emotional synchrony between mother and child'; 'being informed and knowing what to expect'; and 'the importance of establishing rapport with nurses performing dressing changes'. Findings from this research can inform services to help optimise mothers' experiences of dressing changes in this stage of pediatric burn care.

A Child With a Burn-Related Foot and Ankle Contracture Treated With Multiple Modalities.

Author(s): Yelvington, Miranda; Scoggins, Michelle; White, Leslie

Source: Pediatric physical therapy : the official publication of the Section on Pediatrics of the American Physical Therapy Association; Jan 2017; vol. 29 (no. 1); p. 90-94

Publication Type(s): Journal Article

Abstract: The presence of hypertrophic scars, which cross lower extremity joints, can often result in decreased range of motion, limitations in functional mobility, and gait deviations.

This article reviews a case and describes a multimodal treatment approach. A 6-year-old girl developed aggressive hypertrophic scars following a burn injury. A multimodal treatment approach, including splinting, elastomers, and physical therapy, was developed. Rapid improvements were demonstrated in measured objective outcomes. Early multimodal intervention, in addition to range of motion, stretching, massage, and compression garments, is recommended when treating hypertrophic scars. This case suggests that further study into a multimodal treatment approach may be beneficial to develop a standardized protocol for more efficient scar management.

Extensive Chest Wall Tissue Loss and its Management by Vertical Rectus Abdominis Myocutaneous Flap.

Author(s): Basu, Sandip Kanti; Bain, Jayanta; Chattopadhyay, Debarati; Majumdar, Bijay Kumar

Source: Journal of Indian Association of Pediatric Surgeons; 2017; vol. 22 (no. 1); p. 43-45

Publication Type(s): Journal Article

Available in full text at Journal of Indian Association of Pediatric Surgeons - from ProQuest

Abstract: Extensive electric burn around the chest in children is rare and this type of injury always poses a great challenge for its management. A 12-year-old male child with extensive electric burn of the chest wall was admitted to hospital. It was a neglected case of 9 days old burn; the young boy was in critical condition having systemic features of toxemia with widespread necrosis of the skin, subcutaneous tissues, and muscles along with exposed bones (ribs and sternum) with the risk of impending rupture of pleura through the exposed intercostal spaces. After initial resuscitation, a thorough debridement of all necrotic tissues was done. Thereafter, a superiorly based vertical rectus abdominis myocutaneous flap was harvested to cover the exposed bones and intercostal spaces. The remaining raw areas were skin grafted. The child made an excellent recovery with good outcome.

Epidemiology and Outcome of Patients With Burns Treated With Cerium Nitrate Silversulfadiazine.

Author(s): Scholten-Jaegers, Sonja M H J; Nieuwenhuis, Marianne K; van Baar, Magriet E; Niemeijer, Anuschka S; Hiddingh, Jakob; Beerthuizen, Gerard I J M; and the Dutch Burn Repository group, Martini Hospital

Source: Journal of burn care & research : official publication of the American Burn Association; ; vol. 38 (no. 1); p. e432

Publication Type(s): Journal Article

Abstract: In this study, the outcome of treatment with Flammacerium in burn patients is studied. The retrospective study involved patients with acute burns admitted to the Burn Centre of Martini Hospital, Groningen, The Netherlands, between 2009 and 2014. The outcome parameters were mortality, complications (noninfectious and infectious), need of surgery, and length of stay. The group of patients consisted of 853 patients, of which 554 were male (64.9%). There were 23 patients with a total burn size of 40% TBSA or more

(2.7%). In total, 13 of the 853 patients (1.5%) died, and none of them were children (40% TBSA was 30.4%. In the elderly group (>70 years), the mortality rate was 6.3%. Treatment with Flammacerium is applicable in all thermal burn patients. Especially children, elderly patients, and patients with severe burns can benefit from a more conservative treatment with Flammacerium whereby the first operation can be postponed until the patient is stabilized and in which the wounds can be covered directly with skin transplants.

Burn Shock and Resuscitation: Proceedings of a Symposium Conducted at the Meeting of the American Burn Association, Chicago, IL, 21 April 2015.

Author(s): Serio-Melvin, Maria L; Salinas, José; Chung, Kevin K; Collins, Clayton; Graybill, John C; Harrington, David T; Herndon, David N; Greenhalgh, David G; Kramer, George C; Lintner, Alicia; Mosier, Michael J; Nagpal, Ashish; Cancio, Leopoldo C

Source: Journal of burn care & research : official publication of the American Burn Association; ; vol. 38 (no. 1); p. e423

Publication Type(s): Journal Article

Abstract: The Special Interest Groups of the American Burn Association provide a forum for interested members of the multidisciplinary burn team to congregate and discuss matters of mutual interest. At the 47th Annual Meeting of the American Burn Association in Chicago, IL, the Fluid Resuscitation Special Interest Group sponsored a special symposium on burn resuscitation. The purpose of the symposium was to review the history, current status, and future direction of fluid resuscitation of patients with burn shock. The reader will note several themes running through the following presentations. One is the perennial question of the proper role for albumin or other fluid-sparing strategies. Another is the unique characteristics of the pediatric burn patient. A third is the need for multicenter trials of burn resuscitation, while recognizing the obstacles to conducting randomized controlled trials in this setting.

Posttraumatic Stress Disorder Diagnosis in Young Children With Burns.

Author(s): Stoddard, Frederick J; Sorrentino, Erica; Drake, Jennifer E; Murphy, J Michael; Kim, Abigail J; Romo, Stephanie; Kagan, Jerome; Snidman, Nancy; Saxe, Glenn; Sheridan, Robert L

Source: Journal of burn care & research : official publication of the American Burn Association; ; vol. 38 (no. 1); p. e343

Publication Type(s): Journal Article

Abstract: The primary aim of this study was to assess the prevalence of posttraumatic stress disorder (PTSD) in young children hospitalized for burns. A secondary aim was to assess partial PTSD in this population. PTSD diagnosis and symptoms were evaluated utilizing both the diagnostic interview for children and adolescents (DICA-P) module and the PTSD semistructured interview and observational report (PTSDSSI). PTSD symptomatology was assessed from parent interviews at 1 month after discharge from a major pediatric burn center. Four of the 42 participants who completed the DICA-P met full criteria for a diagnosis of PTSD (10%).Of the 39 who also completed the PTSDSSI, 1 (3%) met full criteria

for PTSD diagnosis on that measure. Twenty-seven percentage of subjects met partial criteria on the DICA-P vs 16% on the PTSDSSI, without impairment. Furthermore, 67% of subjects met DICA-P criteria for the re-experiencing cluster and 54% met the PTSDSSI re-experiencing criteria. Although only a small percentage met full PTSD diagnostic criteria by either measure, a high percentage of young children with burns manifested some posttraumatic symptoms 1 month after discharge. Because PTSDSSI diagnosis is strongly linked to the diagnostic and statistical manual-5 (DSM-5) criteria for "PTSD in children 6 years and younger," these results may offer clues to current diagnoses of PTSD in young children. Future research is needed to improve care by determining the risk factors and course of PTSD to further refine the diagnostic criteria for identifying children most in need of intervention, such as those hospitalized for burn injuries.

An Examination of a Yoga Intervention With Pediatric Burn Survivors.

Author(s): Conn, Amy S; Hall, Morgan S; Quinn, Kristen; Wiggins, Bradley; Memmott, Carolyn; Brusseau, Timothy A

Source: Journal of burn care & research : official publication of the American Burn Association; ; vol. 38 (no. 1); p. e337

Publication Type(s): Journal Article

Abstract: Burn injuries have a major influence on the survivors' physical and psychological functioning. In pediatric burns, the consequences persist long after the injury. The objective of this study is to evaluate an existing yoga kids program to gain better understanding of the physical and psychosocial effects of a yoga practice among children with burn injuries. Thirty campers participated in a series of four (1 hour) yoga sessions during the summer of 2014. Nationally trained Instructors had taught children's yoga in the Southwestern United States for at least 10 years. A Yoga Evaluation Questionnaire, designed for children, was used to evaluate perceptions of somatic and cognitive anxiety before and after each Yoga session. Camper's age ranged from 6 to 12 years old with burn severities ranging from 5 to 75%. A dependent samples t-test was used to test for differences between composite pre- and postintervention scores for both somatic and cognitive anxiety. Significant effects emerged for somatic anxiety $t(29) = -4.24$, $P < .001$, $d = 0.77$, and cognitive anxiety $t(29) = -4.188$, $P < .001$, $d = 0.76$. For both cognitive and somatic anxiety, the postintervention composite mean scores were significantly higher, indicating a decrease in somatic and cognitive anxiety. This study suggests that participation in a Yoga program may lower perceptions of cognitive and somatic anxiety in pediatric burn survivors. Further, Yoga is one technique that may compliment the short- and long-term treatment of burn injuries.

The Epidemiology of Emergency Department-Treated Burn Injuries Associated with Portable Heaters in the United States, 2003-2013.

Author(s): Brooks, Raina D; McGwin, Gerald

Source: Journal of burn care & research : official publication of the American Burn Association; ; vol. 38 (no. 1); p. e306

Publication Type(s): Journal Article

Abstract: The purpose of this study is to examine the epidemiology of portable space heater-related burn injuries among an emergency department nationally representative population of the United States. The data analyzed in this study were collected from the Consumer Products Safety Commission's 2003-2013 National Electronic Injury Surveillance System. There were approximately 53,636 space heater-related thermal burn injuries attributed to portable space heaters from 2003 to 2013. The rate of injuries was relatively constant during the 10-year span. The number of burn injuries was highest during winter months. Young children, older adults, males, and Blacks had the highest rates of injury. The body part most commonly injured was the hand, which accounted for 33.3% of all burn injuries. It is important to understand the characteristics of persons who have an increased risk of portable space heater burn and trip/fall injuries, so that preventative methods and awareness strategies can be used to help reduce the number of annual portable space heater injuries.

Accuracy of Currently Used Paper Burn Diagram vs a Three-Dimensional Computerized Model.

Author(s): Benjamin, Nicole C; Lee, Jong O; Norbury, William B; Branski, Ludwik K; Wurzer, Paul; Jimenez, Carlos J; Benjamin, Debra A; Herndon, David N

Source: Journal of burn care & research : official publication of the American Burn Association; ; vol. 38 (no. 1); p. e254

Publication Type(s): Journal Article

Abstract: Burn units have historically used paper diagrams to estimate percent burn; however, unintentional errors can occur. The use of a computer program that incorporates wound mapping from photographs onto a three-dimensional (3D) human diagram could decrease subjectivity in preparing burn diagrams and subsequent calculations of TBSA burned. Analyses were done on 19 burned patients who had an estimated TBSA burned of ≥20%. The patients were admitted to Shriners Hospitals for Children or the University of Texas Medical Branch in Galveston, Texas, from July 2012 to September 2013 for treatment. Digital photographs were collected before the patient's first surgery. Using BurnCase 3D (RISC Software GmbH, Hagenberg, Austria), a burn mapping software, the user traced partial- and full-thickness burns from photographs. The program then superimposed tracings onto a 3D model and calculated percent burned. The results were compared with the Lund and Browder diagrams completed after the first operation. A two-tailed t-test was used to calculate statistical differences. For partial-thickness burns, burn sizes calculated using Lund and Browder diagrams were significantly larger than those calculated using BurnCase 3D (15% difference, $P < .01$). The opposite was found for full-thickness burns, with burn sizes being smaller when calculated using Lund and Browder diagrams (11% difference, $P < .05$). In conclusion, substantial differences exist in percent burn estimations derived from BurnCase 3D and paper diagrams. In our studied cohort, paper diagrams were associated with overestimation of partial-thickness burn size and underestimation of full-thickness burn size. Additional studies comparing BurnCase 3D with other commonly used methods are warranted.

Pediatric Contractures in Burn Injury: A Burn Model System National Database Study.

Author(s): Goverman, Jeremy; Mathews, Katie; Goldstein, Richard; Holavanahalli, Radha; Kowalske, Karen; Esselman, Peter; Gibran, Nicole; Suman, Oscar; Herndon, David; Ryan, Colleen M; Schneider, Jeffrey C

Source: Journal of burn care & research : official publication of the American Burn Association; ; vol. 38 (no. 1); p. e192

Publication Type(s): Journal Article

Abstract: Joint contractures are a major cause of morbidity and functional deficit. The incidence of postburn contractures and their associated risk factors in the pediatric population has not yet been reported. This study examines the incidence and severity of contractures in a large, multicenter, pediatric burn population. Associated risk factors for the development of contractures are determined. Data from the National Institute on Disability and Rehabilitation Research Burn Model System database, for pediatric (younger than 18 years) burn survivors from 1994 to 2003, were analyzed. Demographic and medical data were collected on each subject. The primary outcome measures included the presence of contractures, number of contractures per patient, and severity of contractures at each of nine locations (shoulder, elbow, hip, knee, ankle, wrist, neck, lumbar, and thoracic) at time of hospital discharge. Regression analysis was performed to determine predictors of the presence, severity, and numbers of contractures, with $P < .05$ used for statistical significance. Of the 1031 study patients, 237 (23%) developed at least 1 contracture at hospital discharge. Among those with at least one contracture, the mean was three (3.3) contractures per person. The shoulder was the most frequently contracted joint (27.9%), followed by the elbow (17.6%), wrist (14.2%), knee (13.3%), and ankle (11.9%). Most contractures were mild (38.5%) or moderate (36.3%) in severity. The statistically significant predictors of contracture development were age and intensive care unit (ICU) length of stay. The statistically significant predictors of severity of contracture were age, ICU length of stay, presence of amputation, and black race. Predictors of the number of contractures included total age, length of stay, length of ICU stay, presence of amputation, TBSA burned, and TBSA grafted. This is the first study to report the epidemiology of postburn contractures in the pediatric population. Approximately one quarter of children with a major burn injury developed a contracture at hospital discharge, and this could potentially increase as the child grows. Contractures develop despite early therapeutic interventions such as positioning and splinting; therefore, it is essential that we identify novel and more effective prevention strategies.

A 6-Year Case-Control Study of the Presentation and Clinical Sequelae for Noninflicted, Negligent, and Inflicted Pediatric Burns.

Author(s): Collier, Zachary J; Ramaiah, Veena; Glick, Jill C; Gottlieb, Lawrence J

Source: Journal of burn care & research : official publication of the American Burn Association; ; vol. 38 (no. 1); p. e101

Publication Type(s): Journal Article

Abstract: Inflicted burns are one of the leading causes of abuse-related fatalities in children. Between 30 and 60% of children accidentally returned to abusive homes suffer reabuse. Given the high chance for abuse recurrence and the associated morbidity/mortality, it is critical that inflicted burns are promptly identified to guide appropriate medical and child welfare management. Although previous studies proposed historical and mechanistic features using noncomparative or poorly powered data, this study utilized comparative data from a 6-year period (2009-2014) at a certified burn center along with expert analysis from Child Advocacy and Protective Services (CAPS) to provide higher level evidence supporting classical findings while elucidating new features with respect to burn severity and required interventions. A retrospective chart review of 408 pediatric burns was cross-referenced with the respective CAPS consultations to construct a multidisciplinary, deidentified database. The average age was 2.9 years (0.04-17 years) with 232 (57%) males and 330 (81%) African-Americans. CAPS investigations confirmed burn etiologies: noninflicted (346 [85%]), negligent (30 [7%]), and inflicted (32 [8%]). In comparing the three etiologies, statistical significance ($P < .05$) was observed for numerous variables including historical inconsistency, burn age, child welfare history, burn size and depth, distribution, concomitant injury rates, number of surgical interventions, infectious complications, and hospital length of stay. In addition to reaffirming classical features of abusive burns to fortify etiologic diagnoses, this study elucidated appreciable differences in burn severity, interventional sequelae, and burn-related complications, which will help guide medical and surgical interventions for future pediatric burn patients.

Effect of Fireworks Laws on Pediatric Fireworks-Related Burn Injuries.

Author(s): Myers, John; Lehna, Carlee

Source: Journal of burn care & research : official publication of the American Burn Association; ; vol. 38 (no. 1); p. e79

Publication Type(s): Journal Article

Abstract: Changes in U.S. fireworks laws have allowed younger children to purchase fireworks. In addition, the changes have allowed individuals to purchase more powerful fireworks. The purpose of this study is to examine the epidemiology of pediatric firework-related burn injuries among a nationally representative sample of the United States for the years 2006 to 2012. We examined inpatient admissions for pediatric firework-related burn patients from 2006 to 2012 using the nationwide inpatient sample and examined emergency department admissions using the nationwide emergency department sample. Both data sources are part of the Healthcare Cost and Utilization Project. Trajectories over time were evaluated. A total of 3193 injuries represented an estimated 90,257 firework-related injuries treated in the United States from 2006 to 2012. A majority of injuries were managed in the emergency department (n = 2008, 62.9%). The incidence generally increased over time; increasing from 4.28 per 100,000 population in 2006 to 5.12 per 100,000 population in 2012, $P = .019$. However, the proportion of injuries requiring inpatient admission (28.9% in 2006 to 50.0% in 2012, $P < .001$) and mean length of stay in the hospital (3.12 days in 2006 to 7.35 days in 2012, $P < .001$) significantly increased over time, while the mean age decreased over time (12.1-year-old in 2006 to 11.4-year-old in 2012, $P = .006$). The relaxing of U.S. fireworks laws may have had a modest effect on incidence of related injuries and the age of purchaser. However, it has had a dramatic effect

on the severity of the related injuries, resulting in more inpatient admissions and longer length of stay in the hospital. Preventative methods should be taken to reduce the rate and severity of firework-related injuries among U.S. youths.

Sedation and Analgesia for Dressing Change: A Survey of American Burn Association Burn Centers.

Author(s): Myers, Rachel; Lozenski, Jeanette; Wyatt, Matthew; Peña, Maria; Northrop, Kayla; Bhavsar, Dhaval; Kovac, Anthony

Source: Journal of burn care & research : official publication of the American Burn Association; ; vol. 38 (no. 1); p. e48

Publication Type(s): Journal Article

Abstract: Pain and sedation management for patients undergoing burn dressing change can be challenging. Variations appear to exist in the selection of medications before and during burn dressing change. To determine if institutional variations exist in pain and sedation management for burn dressing change, an online survey was sent to ABA Burn Center nurses and physicians. Three hundred seventy-eight anonymous responses were received from nurses (72%), nurse practitioners (10%), and physicians (18%). Burn centers had adult (22%), pediatric (12%), or pediatric and adult (66%) patients. Eighty percentage of centers had >200 patients/year. Sixty-eight percentage always used a premedication. Oxycodone and morphine or fentanyl was the most frequently used per oral (PO) and intravenous (IV) opioid premedication, respectively. The most common IV premedication anxiolytic were benzodiazepines. Sixty-eight percentage always used a long-acting opioid. Anesthetic regimen was decided case-by-case (47%) or specific protocol (24%). Protocol was followed always (18%) or mostly (55%). Patients' procedural pain could be better controlled 20% of the time. Pain regimen was altered most of the time (25%). Providers differed rarely (39%) and sometimes (44%) regarding preferred regimen. Ketamine was the most common deep sedative. A dedicated anesthesiologist was rarely (33%) consulted, determined case-by-case (33%) or prior failure/excess pain (19%). Acute pain service was never (51%) or rarely (35%) consulted. Pain and sedation management for burn dressing change is difficult and variations in approach exist among burn centers. Such management needs individualized care. Providers must be responsive to pain alterations. Consultation with anesthesia providers may be needed in specific cases. Further studies need to be completed to demonstrate the most effective means of controlling burn pain and evaluating patient outcomes.

Anesthetic Practices for Laser Rehabilitation of Pediatric Hypertrophic Burn Scars.

Author(s): Wong, Brendan M; Keilman, Jeffrey; Zuccaro, Jennifer; Kelly, Charis; Maynes, Jason T; Fish, Joel S

Source: Journal of burn care & research : official publication of the American Burn Association; ; vol. 38 (no. 1); p. e36

Publication Type(s): Journal Article

Abstract: The use of ablative fractional carbon dioxide laser therapy and pulsed dye laser therapy has led to significant improvements in the rehabilitation of hypertrophic burn scars. However, laser procedures are associated with appreciable pain among pediatric patients. Clinical consensus suggests using general anesthesia for pediatric laser procedures; however, guidelines for perioperative care are lacking. The objective of this quality improvement study is to determine whether a difference exists in postoperative pain outcomes in pediatric patients who receive intraoperative opioid regimens compared with patients who receive opioid-sparing regimens for laser therapy of hypertrophic burn scars. A retrospective review of patients who received laser therapy at a pediatric burn center from April 2014 to May 2015 was performed. Overall, 88 of the 92 procedures reviewed were included. A statistically significant difference was not found between the likelihood of postoperative pain when intraoperative opioid regimens (n = 63) were given compared with opioid-sparing regimens (n = 25) X (1, n = 88) = 2.870, P = .0902. There was also no difference between short-acting (n = 48), long-acting (n = 9), or combination (n = 6) intraoperative opioids compared with opioid-sparing regimens (n = 25) in the likelihood of postoperative pain. Despite the small sample size, the low number of postoperative pain cases is encouraging. Ultimately, these data provide a foundation for developing anesthetic guidelines for pediatric laser procedures. Specifically, clinicians should consider the potential to deliver adequate perioperative care via an opioid-sparing regimen ± adjuvant.

The Psychological Impact of First Burn Camp in Nicaragua.

Author(s): Tropez-Arceneaux, Lisa L; Castillo Alaniz, Arlen Tatiana; Lucia Icaza, Ivette; Alejandra Murillo, Evelyn

Source: Journal of burn care & research : official publication of the American Burn Association; ; vol. 38 (no. 1); p. e1

Publication Type(s): Journal Article

Abstract: Asociacion Pro-Ninos Quemados de Nicaragua (APROQUEN) is a comprehensive burn center that provides a holistic and integrated approach to treating burns. APROQUEN has set the standards internationally with acute treatment for burns, intensive care, reconstructive surgeries, nutritional care, rehabilitation, occupational therapy, and psychological treatment. APROQUEN is excelling within Central and South America with life-saving techniques and quality of care. It is imperative that burn centers in Central America recognize that the treatment of a child with a burn injury surpasses physical care to include psychological treatment for the complete well-being of the child. It is necessary to provide the tools necessary to reintegrate the child back into their environment. APROQUEN developed and implemented the first burn camp in Latin America, "Confio en Mi" (I trust myself). The camp theme focused on self-esteem. The camp program included theory (educational) and practice (applied) components where the campers through "classroom type" activities had the opportunity to reflect and share with other campers and camp staff on self-esteem, depression, and anxiety. Participants were children who survived major burns (N = 33; 58% women; ages 12-25; 61% <18) and were shown to have difficulty socializing. Comprehensive interviews were conducted to ensure fit for camp. Forty-two percent of the campers had not slept away from home since the burn injury. Mean TBSA = 20% and mean age at time of burn injury was 13. The majority of campers (46%) endured flame burn injuries, with 24% having scald injuries. Mean years postburn = 4.8 + 3.2. Most

campers (40%) were enrolled in secondary school, 30% in elementary school, and 21% in college. Standardized measures (CDI-2 Parent Form and Child Form, Rosenberg Scale, APROQUEN Burn Camp Measure Parent and Child Form, Beck Anxiety Inventory, and Beck Depression Inventory) were given to all campers prior to attending camp. The same measures were given 2 weeks after the camp and again at 6 months. Paired samples' t-tests were conducted and significance was set at P <.05. The results indicate that Camp Confio en Mi had a significant impact on campers' level of anxiety, depression, and self-esteem. Future burn camps are an important part of the continued advancement of postpediatric burn care in Nicaragua. This study reveals the importance of future researches necessity to focus on generalizing the results of this study to other children who have experienced similar burn injuries.

Importance of Scar Prevention and Treatment-An Approach From Wound Care Principles.

Author(s): Marini, Leonardo; Odendaal, Derek; Smirnyi, Sergey

Source: Dermatologic surgery : official publication for American Society for Dermatologic Surgery [et al.]; Jan 2017; vol. 43

Publication Date: Jan 2017

Publication Type(s): Journal Article

Abstract: The increased number of cosmetic surgical and nonsurgical procedures has led to a greater demand to achieve aesthetically acceptable scars. Silicone gel (SG) dressings were evaluated in these cases following the principles of wound care and also minimizing abnormal scar formation. A newly developed solution in wound care in the form of a SG has proven to be a highly effective treatment for a series of 4 clinically challenging cases presented in this article: postprocedure healing after a laser treatment, nonhealing scalp wounds, chronic relapsing xerotic eczematous cheilitis, and the treatment of scars caused by third degree burns. A standard SG was applied to improve the scar outcome of severe burns of a young child. Silicone gels offer excellent clinical results in these 4 cases. In terms of wound care and scar management, they provide a user friendly, convenient application form and increase patient comfort and compliance. To pursue these results, further studies need to be conducted but as of now, there is strong suggestive evidence that SGs indicate beneficial properties for wound care management and scar prevention.

A prospective study of time to healing and hypertrophic scarring in paediatric burns: every day counts.

Author(s): Chipp, Elizabeth; Charles, Lisa; Thomas, Clare; Whiting, Kate; Moiemen, Naiem; Wilson, Yvonne

Source: Burns & trauma; 2017; vol. 5 ; p. 3

Publication Date: 2017

Publication Type(s): Journal Article

Abstract: It is commonly accepted that burns taking longer than 3 weeks to heal have a much higher rate of hypertrophic scarring than those which heal more quickly. However, some of our patients develop hypertrophic scars despite healing within this 3-week period. We performed a prospective study of 383 paediatric burns treated non-operatively at a regional burns centre over a 2-year period from May 2011 to April 2013. Scar assessment was performed by a senior burns therapist using the Vancouver Scar Scale. Overall rates of hypertrophic scarring were 17.2%. Time to healing was the strongest predictor of developing hypertrophic scarring, and the earliest hypertrophic scar developed in a patient who was healed after 8 days. The risk of hypertrophic scarring was multiplied by 1.138 for every additional day taken for the burn wound to heal. There was a trend towards higher rates of hypertrophic scarring in non-white skin types but this did not reach statistical significance. The risk of hypertrophic scarring increases with every day and, therefore, every effort should be made to get the wound healed as quickly as possible, even within the traditional 3-week period usually allowed for healing. We believe that the traditional dogma of aiming for healing within 3 weeks is overly simplistic and should be abandoned: in paediatric burns, every day counts. Not applicable.

Importance of scar prevention and treatment - An approach from wound care principles

Author(s): Marini L.; Odendaal D.; Smirnyi S.

Source: Dermatologic Surgery; 2017; vol. 43

Publication Date: 2017

Publication Type(s): Journal: Article

Abstract: Background: The increased number of cosmetic surgical and nonsurgical procedures has led to a greater demand to achieve aesthetically acceptable scars. Silicone gel (SG) dressings were evaluated in these cases following the principles of wound care and also minimizing abnormal scar formation. Patients and methods: A newly developed solution in wound care in the form of a SG has proven to be a highly effective treatment for a series of 4 clinically challenging cases presented in this article: postprocedure healing after a laser treatment, nonhealing scalp wounds, chronic relapsing xerotic eczematous cheilitis, and the treatment of scars caused by third degree burns. A standard SG was applied to improve the scar outcome of severe burns of a young child. Results: Silicone gels offer excellent clinical results in these 4 cases. In terms of wound care and scar management, they provide a user friendly, convenient application form and increase patient comfort and compliance. Conclusion: To pursue these results, further studies need to be conducted but as of now, there is strong suggestive evidence that SGs indicate beneficial properties for wound care management and scar prevention.

Scalp soft tissue expansion combined with follicular unit extraction for postburn cicatricial alopecia: A single center experience of 48 patients

Author(s): Chen H.; Cheng H.; Shen H.; Li J.; Jia M.; Wang Y.; Zhang J.

Source: International Journal of Clinical and Experimental Medicine; Jan 2017; vol. 10 (no. 1); p. 774-780

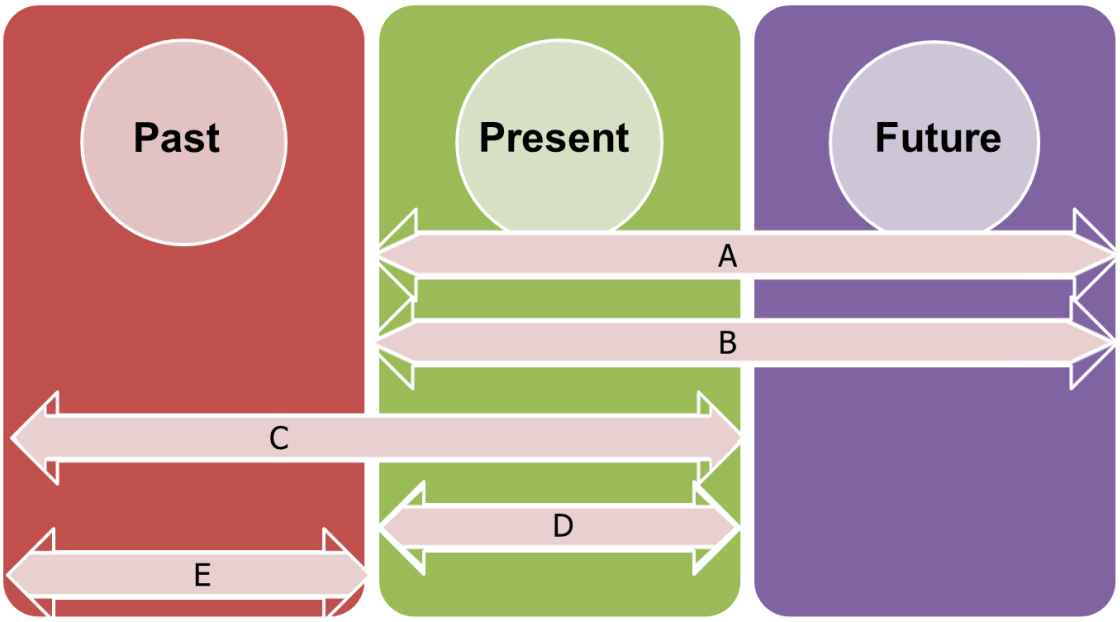
Publication Date: Jan 2017

Publication Type(s): Journal: Article

Abstract: Purpose: This case series aimed to evaluate the efficacy of a composite reconstructive surgery combining scalp soft tissue expansion (SSTE) with follicular unit extraction (FUE) in the treatment of post-burn cicatricial alopecia. Methods: From June 2006 to July 2010, 48 patients (32 males and 16 females, mean age 23 years, including 3 pediatric patients) with postburn cicatricial alopecia who were treated by scalp alopecia reconstruction (SSTE and FUE) were enrolled. The procedure was divided into three stages. Stage I involves the insertion of the expander into the scalp and its expansion to at least 2 fold of the original scarred area. In stage II, the original scarred tissues were excised and local flaps transfer repair (LFTR) was conducted to cover the defect. In stage III, FUE was applied to cover the unmulched scars, hairline or the residual defect. Results: A total of 38 patients participated in the stage III of the scalp alopecia reconstruction. During the follow-up of 2-5 years, the outcomes were described as excellent in 23 patients (60.5%) and good in 14 patients (36.8%), whereas one patient (2.6%) was lost to followed-up. Three patients (6.25%) developed complications in scalp soft tissues expansion, including 1 case of infection and 2 cases of wound dehiscence. Conclusion: The combination of SSTE and FUE was a powerful and effective approach for post-burn cicatricial alopecia.

Exercise: Study Design Timeframes

Match the study design with the timeframe it covers.



1. **Randomised Controlled Trial**
2. **Cross-Sectional Study**
3. **Case-control Study**
4. **Cohort Study**
5. **Case Report**

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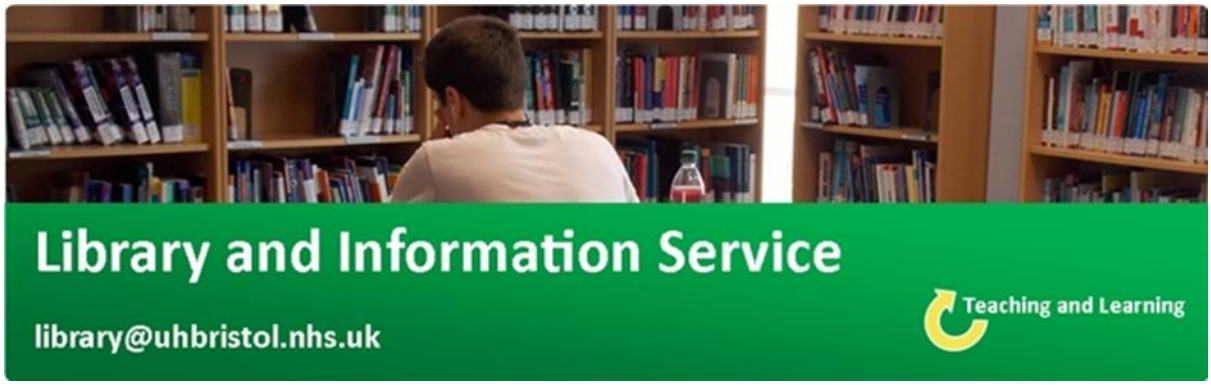
Answers: 1A/B; 2D; 3C; 4A/B; 5E



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