INTERNATIONAL ABSTRACTS

BURNS AND FIRES FROM NON-ELECTRIC DOMESTIC APPLIANCES IN LOW- AND MIDDLE-INCOME COUNTRIES. PART I. THE SCOPE OF THE PROBLEM

A large proportion of burns are related to the nature of domestic appliances used for cooking, heating, and lighting. The developing countries, owing to their comparative poverty, are particularly exposed to the risk of unsafe methods of performing these household chores. The reported number of 322,000 deaths in 2002 is probably an underestimate. In particular, the authors of this joint paper from the USA, South Africa, Sri Lanka, and India conducted a retrospective review of the literature and analysed their own institutional and regional experiences with injuries caused by non-electric domestic appliances. The injuries were mainly due to improper use of stoves and lamps fuelled by kerosene, petroleum, butane, liquid petroleum gas, and alcohol. Other problems came from appliance design and construction, fuel combustion and instability, and mechanical inefficiency, plus ignorance of safe usage techniques. Frequently industry and government regulations and standards were nonexistent or inadequately enforced. This problem can be solved only by improved surveillance, wide-ranging epidemiological studies, and the contributions and collaboration of international governmental and nongovernmental organizations.

Peck MD, Kruger GE, van der Merwe AE, Godakumbura W, Ahuja RB
Burns, 34: 303-11, 2008

BURNS AND FIRES FROM NON-ELECTRIC DOMESTIC APPLIANCES IN LOW- AND MIDDLE-INCOME COUNTRIES. PART II. A STRATEGY FOR INTERVENTION USING THE HADDON MATRIX

This paper further develops the topic dealt with in the immediately preceding article. Here the attention turns to new approaches to the problem, with an evaluation of the strengths and weaknesses of some proposed interventions. The method used was the Haddon Matrix in order to accumulate interventions encompassing a pre-event, event, and post-event timeline. An outline plan for interventions is proposed, based on values that are suited to the problem and the setting, are culturally appropriate, and can be used successfully in the long term. Recommendations are made with regard to the use of alternative energy sources, interdisciplinary solutions, better kerosene containerization, re-engineering of appliance designs, and the enforcement of legislation on health and safety standards.

Peck MD, Kruger GE, van der Merwe AE, Godakumbura W, Oen IMM, Sward D, Ahuja RB
Burns, 34: 312-19, 2008

LA FIBROSCOPIE BRONCHIQUE CHEZ LE BRULE (FIBRE OPTIC BRONCHOSCOPY IN BURN PATIENTS) (in French)

Fibre optic bronchoscopy is an indispensable tool in the everyday diagnostic and therapeutic management of burn patients, for example in the diagnosis of smoke inhalation injury and in the estimation of the degree of mucosal damage. When bronchoalveolar lavage is performed during bronchoscopy it is an effective way of diagnosing ventilator-related pneumonia in burn patients. Fibroscopy permits the diagnosis of late respiratory sequelae and is useful in procedures for treating obstructions due to airway lesions. As there is the risk of fibroscopes causing nosocomial infection, this study from France recommends that the guidelines for their reprocessing should be carefully followed.

Cottez-Gacia C, Bargues I
Brûlures, 7: 188-92, 2007

EVALUATION DE LA PROFONDEUR DE LA BRULURE PAR LASER DOPPLER: ETUDE PRELIMINAIRE (ASSESSMENT OF BURN DEPTH USING LASER DOPPLER – A PRELIMINARY STUDY (in French)

The laser Doppler imaging technique makes it possible to estimate burn depth on the basis of perfusion flow. Over a 4-month period, this prospective study from France set itself two aims: to predict burns evolution by determining the threshold, expressed in perfusion units, between surgical and non-surgical burns, and to study how to incorporate this knowledge in burns management. This was a limited study (22 burn sites in 8 patients) but it was possible to specify a threshold of discrimination which a wider sample could refine. Laser Doppler imaging is a useful aid in deep burns diagnosis and the limitations of the technique, apart from its high cost, do not invalidate its practicality.

Beaume S, Bargues L, Carsin H.
Brûlures, 7: 193-96, 2007

PREVENTION DES TROUBLES DE CROISSANCE CHEZ L'ENFANT BRULE (PREVENTION OF GROWTH DISORDERS IN BURNED CHILDREN) (in French)

This paper, from a French paediatric burns rehabilitation centre, describes the cases of 12 children (mean age, 5 years 7 months; age range, 1 yr 5 mo.-10 yr 8 mo.) suffering from axillary burns treated with split-thickness autograft using thin epithelial skin. The results of the 10-yr follow-up are presented. It is stressed that the prevention of growth disorders in burned children by a specialized surgical and occupational team must begin early (covering, positional bandages) and continue during the phase of scar maturation (posture, successive casts, splints) and then throughout the period of growth (repair surgery). A detailed account is given of the problems that occurred and the counterstrategies adopted.

Descamps H, Zein Adden G
Brûlures, 8: 174-8, 2008