

**Conclusion:** Early treatment with intrapulmonary administration of a corticosteroid with a high anti-inflammatory potency significantly reduced the impairment of respiratory function after chlorine gas exposure. The method has to be evaluated further, but could be a very useful and easily available therapeutic alternative after toxic-gas exposure in mass-casualty situations.

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### Swimming Pool Heater Dysfunction: An Unusual Case of Carbon Monoxide Toxicity

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During a large family gathering, 14 individuals, ages 7 months to 63 years, developed signs and symptoms compatible with carbon monoxide (CO) intoxication. All were evaluated at the referral hospitals, and then transferred for consideration of hyperbaric oxygen therapy (HBO).

At transfer, all were re-evaluated, and definitive criteria for HBO were reviewed. Seven patients underwent such therapy, and all patients recovered without sequelae.

Signs and symptoms of CO intoxication are discussed, criteria for HBO reviewed, and therapy protocols explained through the use of charts and graphs.

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### A Trial for Classifying a Large Number of Burn Victims in Case of Mass-Casualty Incident in France

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During a catastrophe, a large number of burn victims from a mass-casualty incident imposes a problem of classification. When properly conducted, the use of triage criteria may save lives and minimize morbidity.

The main points for immediate evaluation are the following: the age, medical history, and known pathologies; the extent, depth, and site of the burns; inhalation injury; and associated traumatic lesions.

Four groups may be identified: severe burns; major burns; moderate burns; and minor burns.

The evaluation in situ, in most of the cases, generally may permit evacuation under the best conditions toward different medical facilities. These medical facilities already should have been prepared to receive these patients, according to certain modalities that already have been identified.

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### Burn Disasters: Role of the Fire Brigade Health Department in Forest Fires

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**Objective:** To define the role and the tools of the medical personnel in order to ensure the safety of firefighters in forest fires.

**Methods:** 1) Description of the fire engines used in forest; 2) Specific characteristics of forest fires: topography, surface, development, duration, pathology; 3) Medical personnel: number of tools uses; and 4) Operational protocol.

**Results:** Fire of 24 August 1986 in the Alpes-Maritimes district: Surface area: 5,460 Hectares [21 sq mi]; Operational Means: 21 districts involved, 1,474 personnel, 252 fire engines; Pathology: 580 injuries: 171 trauma-related injuries; 29 deep burns, slight burns; 320 ophthalmologic injuries; 32 dehydration; and 26 digestive tract.

**Summary:** The medical department must be activated as soon as the firefighters are called to respond. The medical response must have mobile capability and have the necessary means to treat the variety of injuries encountered (trauma, burns, carbon monoxide, ophthalmologic). The medical response also must provide medical treatment to firefighters to ensure their good health and hygiene. The medical headquarters, in direct contact with the fire headquarters, must manage all medical personnel.

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### Use of Polymyxin-B Immobilized Fabric (PMX-D) for Burn Wound Dressing

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In 1976, Morrison reported the endotoxin neutralizing effect of Polymyxin-B (PMX). In 1982, Kodama et al successfully fixed PMX on  $\alpha$ -chloroacetamide methylated acid polystyrene fiber by covalent bonding. Amino acid analysis revealed that the amount of PMX immobilized on the fiber was 3.7 mg/lg of fiber on average. An elastic fabric was developed (PMX-D) made of PMX immobilized fiber, and the following basic and clinical studies were performed to determine if this fabric could be used as dressing material for burn wound care.

1. SEPARATION OF PMX FROM PMX-D: PMX-D was irrigated by normal saline one to four times, and the concentration of separated PMX in the irrigated solution was measured using bacteriological method. Inhibition of bacterial growth by both irrigated solutions was not recognized.