

tially, to both the habit of general practitioners in Italy to treat pneumonias with penicillin-amoxicillin (73% of cases), together with the high frequency of serious, chronically ill patients, leading to selection of unusual and emerging pathogens. In fact, the incidence of *C. pneumoniae* infection was not related to any particular associated pre-existing disease. These results point-out the importance of *C. pneumoniae* infection even in critical hospital settings.

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Trauma Care in Accident and Emergency Departments—A Critical Analysis

Brismar B

Soder Hospital, Karolinska Institute
Stockholm, Sweden

In most European accident and emergency (A&E) departments, more than 70% of the patients can be discharged home after treatment, and only 5% are major trauma victims or seriously sick in need of qualified emergency care.

Despite vigorous efforts to guide patients with slighter conditions to attend their general practitioners, they still queue-up for treatment. Another group of patients attending A&E departments are those with complaints related to alcoholism, drug addiction, battering, and other types of social misadjustment. The wide spectrum of patients at the A&E departments, with complaints varying from non-urgent banalities to life-threatening conditions, constitutes a great problem.

To handle this situation and to increase the quality of care in the A&E departments, Emergency Medicine was created as a new specialty. Doctors recruited to this specialty were specially trained in handling a variety of emergency conditions.

In several studies, however, avoidable deaths still were noticed among seriously injured after attending emergency hospitals. These deaths most often were due to bad management with a delay in diagnostics and definitive treatment. When trauma centers first were established, it was hoped that better results could be achieved.

To improve emergency care, it has to be centralized to fewer specialized hospitals, where the organization is adjusted to manage a great number of casualties. Thereby, those with major injuries requiring advanced trauma life support, as well as patients with sociomedical problems in need of fast and skillful care by emergency medicine physicians, can be properly handled.

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Hyperbaric Oxygen Treatment of Smoke Inhalation and Other Acute Carbon Monoxide Poisonings

Lind F, Handell S, Ansjon R, Gherardini G, Palmer B, Hannerz J

Karolinska Hospital
Stockholm, Sweden

Introduction: This is a preliminary report from an ongoing study based on 70 consecutive patients referred to the Karolinska Hospital for hyperbaric oxygen (HBO) treatment of acute

carbon monoxide (CO) poisoning. Hyperbaric oxygen (HBO), i.e., 100% O₂ breathing at 2.5–2.8 times normal barometric pressure reoxygenates ischemic tissues, hastens the elimination of CO from heme proteins such as hemoglobin, myoglobin, and cytochrome systems, and reduces cerebral edema.

In animal experiments, HBO antagonizes co-mediated brain lipid peroxidation, speeds up the recovery of energy metabolism and ameliorates the prolonged intracellular acidosis in the brain after CO-induced hypoxia.

Methods: Twenty-one women and 58 men were treated with one or repetitive (mean = 2.8) HBO sessions in multi- or mono-place chambers. No patients were excluded. Mean age was 42 years (range 3–88 years). Forty-two (53%) of the 70 cases were accidental CO exposures, 36 were due to smoke inhalations (15 with burns). Thirty-seven (47%) cases were attempted suicides, in 33 cases from automobile exhaust (3 women, 30 men).

Results: History of unconsciousness at the scene was reported in 73 patients and 41 still were unconscious on admission to the emergency department of the nearest hospital. Mechanically assisted ventilation was given to 47 patients. The delay from rescue to start of HBO averaged 7.7 hours. Four deaths (5%) occurred due to anoxic encephalopathy. Three of these were due to smoke inhalation, of which two were burned severely and required initial CPR. Four patients (5%) had evidence of brain damage on discharge.

Conclusion: These data are in agreement with many previous reports from the past 30 years, and indicate that HBO reduces mortality and morbidity beyond that expected with pure normobaric oxygen. The history of CO intoxication/smoke inhalation and unconsciousness (even transient) in a patient justifies rapid transfer to the nearest hyperbaric center with facilities for critical care and suitably qualified personnel. Any delay to await laboratory results is inappropriate. During transport to such a facility, the patient should receive 100% oxygen. The argument that normobaric oxygen always is satisfactory for severe CO poisoning no longer can be sustained.

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Carbon Monoxide and Jogging in the City

Marion E, Seeman C, El Gariani A, Meert P, Reynaert MS

Department of Emergency Medicine,
University Hospital, St. Luc Louvain
Bruxelles, Belgium

Aim of the Study: Taking into account the increase of the minute volume of ventilation during the effort and the carbon monoxide (CO) content of air in the cities, does city jogging result in a rise of blood CO?

Joggers and methods: Twenty-seven, non-smoking, well-trained joggers (age 37.0–7.6 years) participating in the "20 km de Bruxelles" (20,000 runners) had a determination of venous CO the day before the race and just after completion of the run. The CO concentration in the environment was measured every kilometer and more often in the tunnels.

Results: CO content was 2 ppm up to km 7 and between 0 and 1 ppm afterward. Only in the tunnels was the content much higher (between 10 and 20 ppm). Venous CO content before