

4. SAMU Mondial, SAMU 75 Paris, FRANCE
5. SAMU Mondial, SAMU 93 Bobigny, FRANCE
6. Sécurité Civile DDSC, Asnières/seine, FRANCE

After a violent earthquake occurred in El Salvador (magnitude on the Richter scale, 7.9), the Salvadorian government requested international help. In response to their call for assistance, French and German teams were sent. The poster illustrates the cooperation with many teams in order to give help and assistance to the Salvadorian population.

Key words: assistance; earthquake; El Salvador; French; German; teams

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Disaster and Airport: Boarding Area Sorting Center as an Advanced Medical Post (280 M2)

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A sudden concentration of victims on an airport is not always due to a flying accident; air terminals are high risk areas (Hambourg = fire, Orly = armed attack, Marseille = hostages), and are important mechanisms used for transport during disasters or evacuations of the injured (Furiani = 300 patients in 6 hours). This eventuality justifies the creation of a "ready to use" structure.

In the last 15 years, SAMU and Marseille airport (6 millions passengers, 3rd airport of France) have a Medical Advanced Post or sorting center inside the airport. Its boarding area already is equipped and a new version will be finished in June 2001. It is 280 m², on ground floor, and open on tracks. It contains 12 heavy emergency boxes, a zone for moving 20 to 50 injured, and a small emergency area. From this place, you can directly call police or the authorities. We've got different movable desks with telephone and radiophony.

Next, in this place, a 25 m² tall section for equipment, drugs, water, shower, and everyday instructions. For the airport authorities and SAMU, the problem was to select an area and to foresee, when building, the oxygen/emptyness, and sound protection. However, this type of organization has a lot of advantages. First, for the airport, it is economical, since the area can be used everyday by passengers—it is not unusable space—and walls, equipment, oxygen, etc., are hidden from view. The general operation of the airport includes the maintenance of this area by employees and technical agents. For SAMU, it provides adapted and clean quarters near the tracks and terminals. Management requires doctors and nurses to verify all of the equipment once a month. In case of disaster, we will add to this equipment, one more PMA batch.

During last 10 years, we have managed eight serious incidents, and have conducted several simulations. It improves our concept and also encourages, if necessary, collaboration between airport direction and SAMU 13.

Key words: airport; cost; disasters; equipment; planning; preparedness; SAMU
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Clinical Evaluation of New Ways of Administration of Oxygen: Tusk Mask II and Double Trunk Mask

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Objectives: Administration of oxygen in the emergency department or in the intensive care unit can be provided in different ways: (1) nasal oxygen cannula, (2) oxygen catheter, (3) normal mask, or (4) non-rebreathing mask(NRM). We compared the efficiency of each of these ways in relation to new systems: the Tusk Mask (TM II), and Double Trunk Mask (DTM)

Method: The TM II is a modification of the Tusk Mask described by Hnatiuk.¹ It is composed of a normal mask in which a lateral hole of 22 mm is made on each side. A ringed tube, 19 cm long and 22 mm in diameter, is attached to each side. Thirty patients requiring the administration of oxygen in the intensive care unit were studied. Oxygen was given first through an oxygen catheter. Thereafter, oxygen was delivered by oxygen catheter and normal mask.

This then was replaced by a TM II. The data measured are the PaO₂, the PaCO₂, and the breathing rate. Oxygen was given at the rate of 3 litres per minute. The DTM is the same system with a ringed tube of 38 cm. The oxygen was given first through NRM and replaced by a DTM. Fifty patients were studied. The data measured are the same. Oxygen was given at the rate of 8 litres per minute.

Results:

| First part | Oxygen catheter | Normal mask | TM II |
|---------------------------|---------------------|---------------|--------------|
| PaO ₂ (mm Hg) | 75.1 | 83.6 (+11%) | 116 (+54%) |
| PaCO ₂ (mm Hg) | 36.0 | 33.1(-8%) | 33.7 (-7%) |
| Breathing rate | 19 | 24 | 22 |
| Second part | Oxygen nasa cannula | Normal mask | TM II |
| PaO ₂ (mm Hg) | 88.8 | 104.8 (+18%) | 154.2 (+74%) |
| PaCO ₂ (mm Hg) | 41.1 | 40.9(-1%) | 42.6 (+4%) |
| Breathing rate | 20 | 19 | 20 |
| Third part | NRM | DTM | |
| PaO ₂ (mm Hg) | 171.48 | 278.05 (+62%) | |
| PaCO ₂ (mm Hg) | 39.28 | 41.15 (+5%) | |
| Breathing rate | 17 | 17.5 | |

Conclusion: The TM II and the DTM appear to be very efficient in increasing the PaO₂ in patients without noticing any rise of the PaCO₂.

References

1. Hnatiuk OW, Moores LK, Thompson JC, Jones MD. Delivery of high concentrations of inspired oxygen via tusk mask. *Crit Care Med* 1998;1032-1035.

Key words: administration; cannula; catheter; efficiency; masks; oxygen; double trunk mask; tusk mask

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