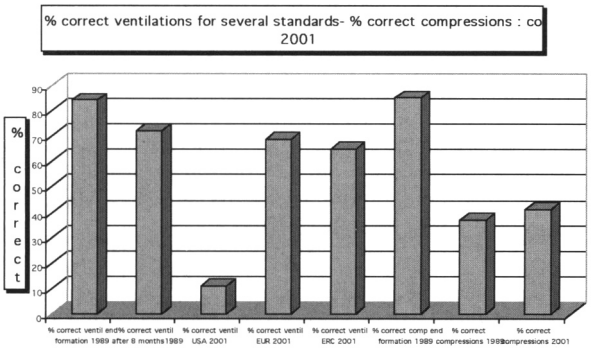

Conclusions: The percentage of correct compressions can be considered as similar between 1989 and 2001 for nurses trained for CPR for more than eight months. Percentage of correct ventilations also is similar if we considered old European standards or actual standards. We can explain this by the fact than nurses tested are young and CPR was learned with standards of 2001 or more recent European standards and not 1989 standards. The same conclusion than in 1989 can be made: the efficiency of CPR performance quickly decreases when they don't train frequently.

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Key words: cardiopulmonary resuscitation; criteria; deterioration; nurses; skill; standards
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Comparative Study of Cardiopulmonary Resuscitation Efficiency

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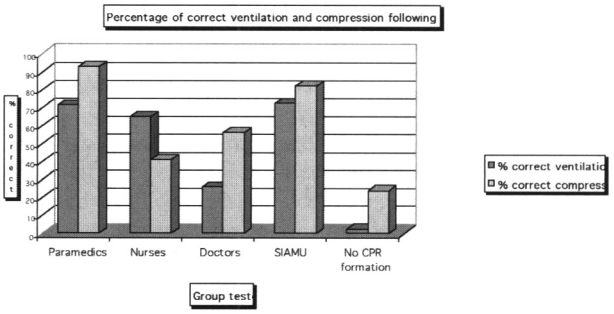
Introduction: During cardiopulmonary resuscitation (CPR), different people (nurse, paramedics, doctors) perform CPR. We compared their efficiency.
Method: We used Resusci-Anne Skill reporter mannequin (Laerdal, Stavanger, Norway). We recorded tidal volume, ventilation rate, minute volume, percentage of correct ventilation, deepness of compression, and percentage of external cardiac compressions that were correct during CPR performed by paramedics, emergency service's nurses and doctors, nurses following special course for acute medicine (SIAMU), and finally people with no CPR training. Each group contained 18 people. Data were analysed following the last European Resuscitation Council recommendations.
Results:



Conclusions: Paramedics, by daily experience, have better results. SIAMU nurses have more of a habit of training on mannequins during their year of training. Nurses have the worst score for compression due to of insufficient compression. Doctors generally perform less CPR, and so, have relatively bad results.

Key words: Cardiopulmonary resuscitation (CPR); doctors; experience; nurses; paramedics; performance
Prehosp Disast Med 2001;16(2):s79.

Evaluation of Analgesia for Outpatients

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Objectives: Minor traumatic injuries handled by the casualty department usually are treated on an outpatient basis, often without being reexamined in the hospital. Analgesics are prescribed often without receiving feedback on their effectiveness. The purpose of this small exercise was to see whether the analgesic prescribed was sufficient, and if the method for collecting the information is practical.
Method: We evaluated inpatients with minor injuries (ATLS classification, I), using a visual analog scale (VAS). Consequently, we have a baseline without any analgesic intake. Three groups were formed: Group I received 6 tablets of piroxicam, 20 mg in the form of lyophilised pills (2 pills taken the day of the consultation at the casualty department, 2 pills the next day and 1 pill for each of the next 2 days). Group 2 received 12 paracetamol tablets (4 each day);. And Group 3 received both drugs. We asked the patients for consent to our contacting them by telephone once each day during the 3 days following the day of consultation at the casualty department. During the phone call, we ask the patient to refer to the VAS provided at the casualty department and to tell us the actual corresponding degree of discomfort. We also 1 enquired about any secondary effects that may have occurred.
Results: 150 patients were evaluated (50 in each group): 13 Patients (8.67%) did not answer any of the telephone calls and 34 patients (22.67%) did not reply to either 1 or 2 of the 3 calls.

The average VAS evolution is shown in the following table:

Day	Group 1		Group 2		Group 3	
	n	VAS (mean)	n	VAS (mean)	n	VAS (mean)
D 0	50	4.9	50	5.1	50	5.2
D 1	46	3.0	45	3.5	48	2.6
D 2	43	1.8	44	2.8	45	1.7
D 3	42	1.6	41	2.3	42	1.5

Conclusions: The analgesic levels in the 3 groups appear satisfactory (the group piroxicam + paracetamol is logically slightly better). The method for collecting the information figures seems practical despite the loss of 31.3% of the patients.

References

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Key words: analgesics; paracetamol; piroxicam; visual analog scale

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Experimental Model allowing Comparison between Different Ways of Oxygen Administration

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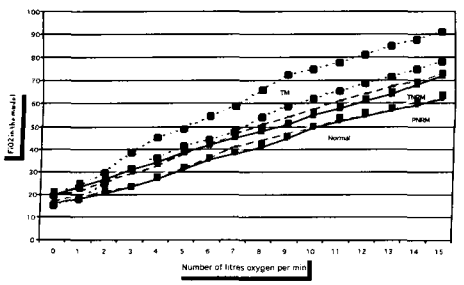
Objectives: We compared the FiO_2 available in a normal mask, a partial non-rebreathing mask (PNRM), a total non-rebreathing mask (TNRM), and a new way of administering oxygen, the Tusk Mask II (TM II).

Method: The Tusk Mask II is made up of a normal mask in which a lateral 22 mm hole is made on each side. A fixed a ringed tube 18 cm long and 22 mm in diameter is attached to each side. The experimental model consists of tightly sealing the four types of masks successively onto a board. A hole made in the board allows an oxygen monitor, the OM-100, to be fixed tightly into a T form.

Ten healthy volunteers breathed normally into the apparatus. The FiO_2 are measured at the end of the breathing-out phase and at the end of the breathing-in phase for an intake of oxygen increasing successively from 0 to 15 litres per minute. A 20-minute stabilisation period between each measure was necessary at each change in the number of litres of oxygen administered.

Results: The results for administration of oxygen for the four types of masks were:



Conclusion: The FiO_2 always is higher when oxygen is given by the Tusk Mask II. In this example, there are no significant differences of FiO_2 between the normal mask and the non-rebreathing mask.

References

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; masks; oxygen; Tusk Mask II

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Theoretical Saving of Oxygen in Disaster Situations Using a New Oxygen Administration Mode: The Tusk Mask II

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Objectives: The aim is to calculate possible savings in using a new oxygen administration mode in a disaster situation—the Tusk Mask II (TM II).

Method: We start with a concrete example, a carbon-monoxide intoxication of 20 patients. All of them received 6 litres of oxygen per minute during 45 minutes, the time required for their evaluation, triage, and evacuation to hospitals for their admission. We calculated the quantity of carboys of 2.8 litres necessary to provide such oxygenation. The administration of 6 litres per minute generates a certain FiO_2 within the mask (measured in a reproducible experimental model). To obtain the same value of FiO_2, we identified which oxygen output should be administered by the TM II. The latter is constituted by a normal mask in which one would pierce a lateral hole of 22 mm of diameter on each side joined by an annulated pipe of 18 cm long and 22 mm diameter.

Result: 6 litres per minute x 45 minutes x 20 patients = 5,400 litres and a carboy of 2.8 litres contains 2.8 x 150 bars = 420 litres. Therefore, the need with classic masks will be 5400/420 = 13 carboys. The following table taking the measures done on experimental model allows to compare the FiO_2 in a classic mask and in a TM II.

Litres/min	0	1	2	3	4	5	6	7
FiO_2 in classic mask	19.2	21.1	25.0	28.7	32.3	37.4	41.6	46.6
FiO_2 in TM II	19.6	23.0	29.5	38.6	45.0	49.0	54.6	58.8

Litres/min	8	9	10	11	12	13	14	15
FiO_2 in classic mask	50.6	54.1	57.4	61.1	63.8	67.2	69.9	73.0
FiO_2 in TM II	66.1	72.4	75.0	77.7	80.9	84.8	87.8	91.2

This table allows prediction of the same FiO_2 administered to the patient, we will need a theoretical flow of 3.5 litres per minute. Using the same computation used above: 3.5 litres per minute X 45 minutes X 20 patients = 3,150 litres of oxygen; A carboy of 2.8 litres contains 2.8 X 150 bars = 420 litres; The need with TM II will be 3,150/420 = 8 carboys.