their preparedness was surprising. Despite the observation that the answering person had not even seen most of the listed emergency procedures, s/he believed s/he was (or excellent) prepared to perform the necessary skills. The possibility to freely express their personal opinions and 2.

quality of teaching and inadequacy of training. The relatively low percentage of returned questionaires is a sign of low interest for emergency medicine among medical students. The feelings of preparedness despite the knowledge that the person had not seen or performed some of the therapeutic procedure shows that students' practical skills are not tested or evaluated by teachers.

views was used mostly for negative expressions of the

Conclusion: There is an urgent need to increase the partition of emergency medicine in medical curriculum. The use of simulators could be a solution to those deficit in training, because there are not enough patients whose treatment should provide sufficient opportunities for practical and guided training. Simulation programs also could offer possibilities for testing the real preparedness in emergency care.

Key words: emergency medicine; medical curriculum; perceived abilities; self assessment; simulations; training

## Transdermal Application of Ketamine:

A Pilot Study Larni HM,<sup>1,2</sup> Pohjola J,<sup>3</sup>Levænen J,<sup>1,2</sup> Saarelainen I, Kiistala U<sup>2</sup>

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We performed our first experiments to investigate the local anesthetic effects of ketamine applied to denuded suction blister bases in 1995.<sup>1,2,3</sup> The pin prick test was used to demonstrate the effectiveness the local anesthesia. In a later experiment, a topically applied mixture of ketamine (Ketalar, Parke-Davis) and the ointment base (Aqualan7, Orion Pharmaceuticals) under occlusion was tested, and it also was found to have a local anesthetic effect, thus making minor laser surgery possible.

In all of our previous experiments, the one common observation has been extrapyramidal side-effects of short duration. This systemic effect was present even after the administration of minimal doses. This prompted us to attempt transdermal application of ketamine through intact skin to produce analgesia.

In in-field and disaster medicine, the relief of pain in the wounded or in traumatized patients is an integral part of emergency treatment. In this respect, ketamine is accepted widely as the first-choice analgesic. Parenteral administration of an analgesic requires training and experience, whereas transdermal application of an efficient analgesic, such as ketamine, can be performed even without previous experience or even can be self-administered

by a conscious patient.

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Key words: amnesic effects; analgesia; anticovulsant therapy; bronchodilator; disaster; disaster medicine field anesthesia; local anesthetics agents; ketamine; pain; sedative; training

## Drying of Foot and Hand-Wear: Preliminary **Results with a New Drying Device**

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In all circumstances, moisture accumulation into and wetness of foot-wear causes discomfort, increases the risk of bacterial and fungal infections, predisposes the skin of the feet to march blisters, and last but not least, destroys and shortens the life of foot-wear.<sup>1</sup> In warm weather, moisture causes objective changes in the skin of the foot that are compatible with the warm-water immersion foot syndrome.<sup>2</sup> Its symptoms include soreness of the feet, erythema, and pain. Especially during the cold season, moist foot-wear accelerates cooling of the organism, e.g., during halts and rests. The risk for frostbite becomes a reality when the skin temperature falls to about 10°C. Also, moist and wet gloves and mittens cause discomfort and during the cold season increase the risk of frostbite. Furthermore, cold-induces significant decreases in the function and dexterity of the hand.<sup>3</sup> Only adequate and dry foot- and hand-wear provide optimal protection. This is important especially in field conditions.

We have performed preliminary testing of a new drying device, APuhuri<sup>®</sup>, intended for simultaneous drying of 18 pairs of foot- and/or hand-wear in an ambient temperature of 0° to 45°C. The test results are promising and will be presented.

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