

The ICAR MEDCOM

Commission for Mountain Medicine
of the International Commission for Alpine Rescue

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ICAR MEDCOM RECOMMENDATION

Nr.	ICAR-MED-REC-0032-2019
Version	2.1
Title	Managing Moderate and Severe Pain in Mountain Rescue
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Originally based on	Managing Moderate and Severe Pain in Mountain Rescue 20131223-MED-REC0032 Alpine Emergency Medicine Commission Recommendation High Alt Bio Med;15;8-14. 2014 DOI: 10.1089/ham.2013.1135
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1. Background

The original paper was reviewed and Medline literature searches using keywords 'analgesia' and 'EMS'/'prehospital', and 'mountain rescue' were carried out to identify relevant new references. Additional references were added by the ICAR Medcom review panel. An ACCP recommendation grade was allocated to the recommendations.

2. Recommendations

Nr.	Recommendation	Grade
1	Assessment scales and treatment protocols should be implemented in mountain rescue services to encourage better management of pain.	1B
2	Specific training in assessing and managing pain is essential for all mountain rescuers. The importance of non-pharmacological methods, including immobilisation and splinting, should not be neglected.	2C
3	Persons administering analgesics, whether a healthcare professional or not, should receive appropriate detailed training.	1C
4	There is no ideal analgesic that will accomplish all that is expected in every situation. A range of drugs and delivery methods will be needed. Thus an 'analgesic module', reflecting its users and the environment should be developed either by the organisation or the individual	1B
5	The number of analgesics carried should be reduced to a minimum by careful selection and, where possible, utilizing drugs with multiple delivery options.	2C
6	A strong opioid is recommended as the core drug for managing moderate or severe pain.	1A
7	A multimodal approach may provide additional benefits. Ketamine, Non-steroidal anti-inflammatories and peripheral nerve blocks may all be appropriate.	1C

New literature 2012- 2018

1. Brokmann JC; Rossaint R; Hirsch F; et al. Analgesia by telemedically supported paramedics compared with physician-administered analgesia: A prospective, interventional, multicentre trial. *Eur J Pain.* 2016 20(7):1176-84,
2. Eidenbenz D; Taffe P; Hugli O; et al. A two-year retrospective review of the determinants of pre-hospital analgesia administration by alpine helicopter emergency medical physicians to patients with isolated limb injury. *Anaesthesia.* 2016; 71(7):779-87
3. Gausche-Hill M; Brown KM; Oliver ZJ; et al. An Evidence-based Guideline for prehospital analgesia in trauma. *Prehospital Emergency Care.* 2014;18 Suppl 1:25-34
4. Gros T; Viel E; Ripart J; Delire V; et al. Prehospital analgesia with femoral nerve block following lower extremity injury. A 107 cases survey]. [French] *Annales Francaises d Anesthesie et de Reanimation.* 2012; 31(11):846-9
5. Russell KW. et al. Wilderness Medical Society Practice Guidelines for the Treatment of Acute Pain in Remote Environments *Wilderness & Environmental Medicine* 2014; 25: 41 – 49

3. Original Recommendations

1. *Many health care providers fail to adequately recognise, assess, and treat pain. Hence, assessment scales and treatment protocols should be implemented in mountain rescue services.*
2. *Specific training in assessing and managing pain is essential for all mountain rescuers. The importance of non-pharmacological methods should not be neglected.*
3. *Persons administering analgesics, whether a healthcare professional or not, should receive appropriate detailed training.*
4. *There is no ideal analgesic that will accomplish all that is expected in every situation. A range of drugs and delivery methods will be needed. Thus an ‘analgesic module’, reflecting its users and the environment should be developed either by the organisation or the individual (Elsensohn et al., 2011).*
5. *The number of drugs carried should be reduced to a minimum by careful selection and, where possible, utilising drugs with multiple delivery options.*
6. *A strong opioid is recommended as the core drug for managing moderate or severe pain; a multimodal drug approach may provide additional benefits.*

Original key literature:

1. Ellerton JA, Greene M, Paal P. The use of analgesia in mountain rescue casualties with moderate or severe pain *Emerg Med J* 2013 doi:10.1136/emmermed-2012-202291
2. CL Park, DE Roberts, DJ Aldington et al. Prehospital Analgesia: Systematic Review of Evidence *J R Army Med Corps* 2010 156 (4 Suppl 1): S295–300

The Grading System of the American College of Chest Physicians

Grade	Description	Benefits vs risks and burdens	Methodological quality of supporting evidence
1A	Strong recommendation, high-quality evidence	Benefits clearly outweigh risks and burdens or vice versa	RCTs without important limitations or overwhelming evidence from observational studies
1B	Strong recommendation, moderate-quality evidence	Benefits clearly outweigh risks and burdens or vice versa	RCTs with important limitations or exceptionally strong evidence from observational studies
1C	Strong recommendation, low-quality or very low-quality evidence	Benefits clearly outweigh risks and burdens or vice versa	Observational studies or case series
2A	Weak recommendation, high-quality evidence	Benefits closely balanced with risks and burdens	RCTs without important limitations or overwhelming evidence from observational studies
2B	Weak recommendation, moderate-quality evidence	Benefits closely balanced with risks and burdens	RCTs with important limitations or exceptionally strong evidence from observational studies
2C	Weak recommendation, low-quality or very low-quality evidence	Uncertainty in the estimates of benefits, risks, and burden; benefits, risk, and burden may be closely balanced	Observational studies or case series

American College of Chest Physicians classification scheme for grading evidence and recommendations in clinical guidelines. RCT, randomized controlled trial.

Source: Guyatt et al. Chest 2006;129:174-81.