

IMEG

First Report published 19 January 2011 (Topic 3) –
Non Freezing Cold Injury



TOPIC 3 - Non Freezing Cold Injury

BACKGROUND

Non-freezing cold injury (NFCI), especially of the lower limbs, has been a military concern for UK troops since the Napoleonic and Crimean Wars. It occurs more frequently among those previously affected and in Afro-Caribbean troops. There is now substantial evidence, particularly from Scandinavia, that NFCI can cause damage to nerve fibres which, although usually reversible, may also be permanent. The affected limb (usually the foot) goes through various stages of vasoconstriction, with associated paresthesiae and pain. In most cases these symptoms improve with time; some suffer continuing cold sensitivity but not pain. However much remains unknown about the pathogenesis and mechanism of continuing disease.

Since the Falklands conflict, when about 100 cases were reported in total, there has been a steady decline in numbers of cases, until the winter of 2005 when there was a sudden increase to over 200 cases. This was mainly associated with army winter training in damp cold conditions in the UK. Following investigation, a number of measures and reminder actions, including a Joint Service Publication and a Surgeon General's Policy Letter, were introduced to increase awareness and vigilance amongst medical staff, the chain of command and troops themselves.

AFCS Current Approach

About 100 AFCS awards have been made between 1 April 2005 and 31 March 2010. These are for the two current cold injury descriptors in Table 2. These are:

Z Item 66 - "Cold injury which has caused or is expected to cause symptoms and significant functional limitation and restriction at 6 weeks with substantial recovery beyond that time."
Level 15

Z And Item 62 - "Cold injury with persisting symptoms and significant functional limitation and restriction."
Level 14

Argument

There is relatively little reliable information in the literature on prognosis of non-freezing cold injury, primarily because of a lack of follow-up of those affected. The majority of cases tend to improve spontaneously, usually within six months, and would not meet the criteria for severe injury. A small number of more serious cases are likely to have observable changes from the outset, with blistering and early gangrene in the worst cases. In such cases there is likely to be an adverse impact on civilian employability.

Where claims are made for cases with continuing symptoms 6 months after exposure, it is recommended an interim award is made. Where symptoms persist at review, objective thermal threshold testing should be undertaken in a specialist neurological laboratory to confirm impairment of function in small sensory nerve fibres.

Recommendations

I. It is recommended that the current Table 2 descriptors are deleted and replaced by three items as follows:

“Non-freezing cold injury which has caused or is expected to cause neuropathic pain and significant functional limitation and restriction at 6 weeks with substantial recovery beyond that time”
Level 14

“Non-freezing cold injury which has caused or is expected to cause neuropathic pain and significant functional limitation and restriction at 6 months with substantial recovery beyond that time.”
Level 13

“Non-freezing cold injury with persistent neuropathic pain and severe compromise of mobility or dexterity, and evidence of permanent nerve damage on thermal threshold testing.”
Level 10

II. It is only the most severe type of injury, which can impact on civilian employability, which attracts a GIP.

III. For the criteria for the Level 10 descriptor to be met, there must be evidence of permanent nerve damage on objective testing of thermal threshold testing and expert neurological assessment.

IV. The recommendations and suggested tariff awards apply to bilateral damage to upper or lower extremities and there should be an appropriate note; where both hands and feet are affected two awards may be payable.

V. Non-freezing cold injury, the most common climate related injury in the armed forces context, is distinct from, but overlaps with freezing cold injury. Cold injury will be the topic of future separate consideration.