Summary

In the veterinary market Tri-Solfen® has been available in the Southern Hemisphere for many years. It provides topical multi-modal anaesthesia for animals with wounds. It contains a mixture of short acting (lidocaine) and long acting (bupivacaine) local anaesthetics, adrenaline (to reduce bleeding) and cetrimide (an antiseptic). It is designed to 'spray and stay' *ie* stick to the wound once sprayed on, providing a barrier over the exposed nerve endings and prolonged contact with the local anaesthetics. Only a little is required to give instant, long-lasting pain relief.

Abstract body

Pain following combat injury is usually treated with opioid analgesia, via injection, or by the use of an oral transmucosal fentanyl citrate (OTFC) lozenge, issued to deployed soldiers. Side effects of opioids include respiratory depression (which may lead to an increased reliance on airway support), and pupillary constriction, resulting in visual impairment, interfering with the diagnosis of a concomitant head injury, and interfering with the ability to continue fighting.

Work is ongoing to bring this concept to the human market. Currently first-in-man trials are underway ensuring that the safety and levels of efficacy of the product meet the appropriate regulatory requirement.

If early trials are successful, it is envisaged that this product could allow for safe, fast acting and long-lasting pain relief in large numbers of casualties, and / or have an opiate-sparing action. Deployed military personnel could be issued with a small ruggedized canister containing the solution instead of / as well as the OTFC.

Other potential benefits from the early application of the antiseptic agent are also being studied. Patents have also been obtained for a dressing application impregnated with the solution.

Conclusions

We aim to describe progress with our research strategy and look for partners to help bring this innovative and effective product to market for human use.