

World First Livestock Pain-Relief Innovation Approved in Ten European Markets for Piglet Castration

Steri-Solfen® Epilesional Solution for Piglets, from Medical Ethics' Solfen-Tech® platform, delivers topical wound anaesthesia and antisepsis during castration

MELBOURNE, Australia, 28 October 2026. Medical Ethics Pty Ltd, the Australian life sciences company behind the Solfen-Tech® platform, today announced the positive conclusion of the European Decentralised Procedure for “Steri-Solfen® Epilesional Solution for Piglets”, a world first topical wound treatment developed to address acute nociceptive pain during surgical castration and other invasive livestock procedures. The procedure was led by the Netherlands as Reference Member State, with Austria, Belgium, Denmark, Spain, France, Croatia, Italy, Poland and Slovenia supporting the approval.

Solfen-Tech® is the only globally approved topical pain relief and antiseptic solution platform technology that addresses acute nociceptive pain for castration in piglets. Applied directly to the wound during surgical castration, it combines two local anaesthetics, lidocaine and bupivacaine, with adrenaline and the antiseptic cetrimide in a single topical solution. It is designed to act on the wound at the moment of the procedure, when pain is most intense and continue after the procedure is performed for a prolonged period.

The problem: a gap in pain relief is resolved

More than 600 million pigs are castrated worldwide every year (Hess et al., 2024). In the European Union alone, it is estimated that over 100 million piglets are still surgically castrated each year. A survey of 24 European countries by the Federation of Veterinarians of Europe found that only 5% of surgically castrated piglets received both anaesthesia and analgesia (De Briyne et al., 2016), clearly highlighting the significant unmet need for Steri-Solfen®.

Currently, where pain relief is provided, it often only relies on administration of a systemic nonsteroidal anti-inflammatory (NSAID) that takes time to reach effect and is not designed to block the acute nociceptive pain of a fresh surgical wound. Other pain relief options such as general anaesthesia can render a piglet unconscious and unaware of pain during the procedure, but this does not by itself address wound pain after recovery. This leaves a window of unmanaged acute pain during or immediately after castration: an “analgesic gap”. Recently, at the 33rd World Buiatrics Congress in Istanbul, Emeritus Professor Peter Windsor discussed advances in pain management in livestock, noting the importance of addressing the ‘analgesic gap’ (Windsor, 2026). Professor Windsor stated, “The use of the Solfen-Tech® technology for providing pain relief for piglets and calves will have an enormous impact on improving animal welfare outcomes in Europe and in other countries where the technology is now approved”.

The evidence

The Solfen-Tech® formulation has been evaluated through a structured programme of field and laboratory studies in several livestock species, including over 40 peer-reviewed and 26 clinical/regulatory studies.

In piglets several studies have demonstrated the following

- In a large, blinded, multi-centre field trial of 173 piglets on commercial farms in Germany and Italy, treated piglets showed significantly lower pain-related movement and vocal responses during castration, and significantly fewer pain-related behaviours after the procedure concluded (Sheil et al., 2021).
- In an independent study at Ludwig-Maximilians University of Munich, researchers measured how piglets' blood pressure rose when the spermatic cord was cut, a direct physiological sign of pain (Deffner et al., 2023). Blood pressure rose by an average of only 13.6% in treated piglets, compared with 35.6% in piglets given a placebo. A rise of more than 20% is commonly used as a sign of significant surgical pain, so the treated piglets remained below that level while placebo piglets rose well above it.
- In a placebo-controlled clinical study, treated piglets had significantly lower wound sensitivity for the first hours after castration (Sheil, Chambers and Sharpe, 2020).
- Target animal safety studies showed the product was well tolerated up to five times the recommended dose.
- In laboratory testing to European Pharmacopoeia standards, the formulation met antiseptic efficacy criteria against four key wound bacteria.

The unique formulation of Steri-Solfen® makes it easy and practical to use and fits into existing on-farm routines.

A unique solution developed by a human paediatrician for animals

Medical Ethics was co-founded by Dr Meredith Sheil, a paediatrician and Australian livestock producer. Drawing on her experience of paediatric pain and medicine, she set out to solve the problem of the analgesic gap in young livestock. The first product developed by Medical Ethics, Tri-Solfen®, has now been used in more than 220 million animals undergoing painful husbandry procedures, and in livestock that suffer other painful lesions caused by diseases such as Foot-and-Mouth Disease and Lumpy Skin Disease.

Comment

Allan Giffard, Co-Founder and Managing Director of Medical Ethics, said:

"This is an important step forward for piglet welfare and for the veterinarians, farmers and producers who have long sought a practical way to better manage and improve pain relief during castration. The response from veterinarians and farmers around the world has shown us how strongly the industry values workable, evidence-based pain relief. The new sterile formulation builds on that experience and reflects a shared commitment to doing better for these animals and paves the way forward for surgical use in companion animals and humans."

"For a company of our size, reaching this stage is nothing short of exceptional. We were told at times that what we were trying to achieve could not be done, but each setback strengthened our resolve and pushed us to find a better solution. We pride ourselves on pursuing innovation, solving difficult problems and persevering when the path is not straightforward. This achievement reflects extraordinary commitment across our small team, particularly from our Director of Product Operations, Ira Jordan, whose expertise, tenacity and dedication have been central to overcoming the technical challenges and bringing us to this point."



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About Medical Ethics and Solfen-Tech®

Medical Ethics Pty Ltd is an Australian life sciences company developing topical anaesthetic and antiseptic wound treatments for animals and people. Its Solfen-Tech® platform includes Tri-Solfen®, Multi-Solfen® and Equi-Solfen®, used in more than 220 million animals for pain relief during husbandry procedures and for the treatment of painful lesions, and now Steri-Solfen®, its sterile formulation for piglets. Solfen-Tech® products are already approved in markets across Australasia, Europe, the Americas, Asia and Africa, with approved species, indications and brand names varying by country. The company was founded by Dr Meredith Sheil and Allan Giffard and is based in Melbourne, Australia. www.medicalethics.me

Notes to editors

1. The Decentralised Procedure was led by the Netherlands (Reference Member State). Concerned Member States: Austria, Belgium, Denmark, Spain, France, Croatia, Italy, Poland and Slovenia.
2. Solfen-Tech® products are approved in Australia, New Zealand, Brazil, Mexico, Canada, the United Kingdom, Portugal, Indonesia, Kenya and Laos. In Australia, approved products cover lambs, calves, piglets and horses, with the equine formulation marketed as Equi-Solfen®. In Portugal, the products are marketed as Multi-Solfen® for piglets and calves, and Equi-Solfen® for horses. Product names, approved species, indications and commercial availability vary by market.
3. Key references:
 - a. De Briyne N, Berg C, Blaha T, Temple D. Pig castration: will the EU manage to ban pig castration by 2018? Porcine health management. 2016 Dec 20;2(1):29.
 - b. Deffner P, Senf S, Saller A, Werner J, Reiser J, Abendschön N, Zablotski Y, Baumgartner C, Ritzmann M, Zöls S. Application of a topical anesthetic reduces pain-associated parameters during spermatic cord transection in piglet castration using a minimal anesthesia model. American Journal of Veterinary Research. 2023 Jul 14;84(9).
 - c. Sheil ML, Chambers M, Sharpe B. Topical wound anaesthesia: Efficacy to mitigate piglet castration pain. Australian Veterinary Journal. 2020 Jun;98(6):256-63.
 - d. Sheil M, De Benedictis GM, Scollo A, Metcalfe S, Innocent G, Polkinghorne A, Gottardo F. Efficacy of intra-operative topical wound anaesthesia to mitigate piglet castration pain—a large, multi-centred field trial. Animals. 2021 Sep 22;11(10):2763.
 - e. Windsor PA. Progressing pain management for improved livestock welfare: delivering for the analgesia gap with AMR-free therapy [poster presentation]. 33rd World Buiatrics Congress; 6–10 September 2026; Istanbul, Türkiye.
4. Castration figures: global, Hess RA, Park CJ, Soto S, Reinacher L, Oh JE, Bunnell M, Ko CJ. Male animal sterilization: history, current practices, and potential methods for replacing castration. Frontiers in Veterinary Science. 2024 Jul 3;11:1409386.) EU, Eurogroup for Animals, Better lives for pigs, based on European Commission 2023 pig slaughter data.
5. Tri-Solfen® usage of more than 220 million animals is based on Medical Ethics internal sales data.
6. The marketing authorization is held by Knoell Germany GmbH, on behalf of Medical Ethics Pty Ltd, the developer of Solfen-Tech® and Steri-Solfen®.