

The APS Position Statement on the role of, and Standards for, Interventional Pain Management Procedures:

“Interventional Pain Management Procedures when performed consistent with best-practice standards can contribute meaningful pain relief to individuals.

The APS recommends that firstly they be undertaken in the context of assessing for, or undertaking, a broad interdisciplinary approach to pain management and secondly that the patient understands that different procedural interventions have different degrees of scientific support and that some interventions may only give partial benefit for a limited period of time, and some may provide no pain relief at all.”

This Statement reflects the commitment of the APS to support and promulgate the best available standards of care for Australians with persistent spinal (and other) pain. To support the application of the Statement the APS encourages the use of procedural guidelines, but with two important provisos: firstly, that there is due recognition by all parties concerned of the limited application of procedures in reducing the overall burden of spinal pain in the community, and secondly, that the procedures may be one component of a comprehensive inter-disciplinary hospital- or community-based pain management strategy.

Educational resources for Interventional Pain Management Procedures that are currently available, and updated whenever appropriate, should define the minimal acceptable standards that APS members can expect of these procedures^{1, 2}. This general principle is not unique to Interventional Pain Management Procedures.

Definitions (for the purpose of this Statement)

Spinal diagnostic and therapeutic interventions or procedures generally refer to invasive ‘medical’ procedures undertaken on patients by needle techniques through the skin (‘percutaneous’) in contrast to more invasive surgical procedures involving skin incision in order to gain open access to deeper bodily structures or organs.

An example of a spinal diagnostic procedure is local anaesthetic injection of a zygapophysial joint, whereas an example of a spinal therapeutic procedure is percutaneous medial branch neurotomy to denervate primarily the zygapophysial joint (also known as the “facet” joint) and also fibres of multifidus or semispinalis capitis muscle.

It is arguable whether placement of a permanent spinal cord stimulator is a medical procedure, or a surgical procedure not requiring open access to the target organ (the spinal cord dura mater).

Background

This APS position statement is designed to endorse best-practice interventional guidelines developed by peer review process within the overall context of an inter-disciplinary approach for assisting a person with persistent pain.

The APS recognizes that resources and patient-complexity differ between the variety of publicly-funded, private-paying, monotherapeutic and multi-therapy locales of pain management as currently extant and thus there is no ready-availability of uniformity of services across all locales.

Spinal and peripheral interventions of many forms have been employed in pain management over the last several decades. Importantly, studies have demonstrated a high level of clinical utility of some procedures, failed to show utility in others, and some have as yet a paucity of scientific evidence. This has strengthened the case for the use of some procedures, but weakened (or perhaps provided a more realistic appraisal) for the use of others (1).

The principal aim of this Statement is to encourage the technical performance and comprehensive evaluation of medical procedures to best-known standards of practice as already published. Adherence will minimize the current confusion and controversy that has dogged the use of a range of medical procedures. Such controversy can lead treating pain practitioners of any discipline to doubt the veracity of the evidence for the correctly performed procedure, or to the other extreme be overly optimistic of their potential and real outcomes.

These perceptions have persisted despite the ready availability to practitioners of detailed technical information about such procedures. Sources of quality information on Interventions include the International Neuromodulation Society, World Institute of Pain, and International Spine Intervention Society (ISIS). ISIS has produced the most comprehensive review of both technique and outcomes using all available scientific evidence as of its publication in 2002 of Practice Guidelines (2) which is currently under review. The International Association for the Study of Pain does not publish extensively on medical procedures.

Provisos to the APS Recommendations

In any APS-endorsed Position Statement, a focus on an inter-disciplinary assessment and management plan in a patient-focused milieu forms the context such as written for the Position Statement on Pharmacological Management of Neuropathic Pain.

It is recognized that precision diagnostic and precision therapeutic percutaneous techniques can make a valuable contribution to the management of individuals suffering persistent spinal and other pain. The psychological impact of Interventions should always be considered- both of undertaking procedures and of not undertaking procedures with reasonable indications in that person's condition, as part of the process of informed consent consistent with a patient accessing any other form of pain management strategy.

In general, these Interventional Pain Management procedures should be considered in the context of:

- availability to the patient of a multi-modal/multidisciplinary/interdisciplinary

management plan so that any potential therapeutic window opened by a procedure can be fully utilized (although clinical experience suggests that a successful procedure can result in the patient not being so burdened by physical, psychological and occupational issues).

- The patient is properly appraised of the risks, benefits, expectations and costs of the Intervention and associated multi-modal therapies.

From the viewpoint of the person in pain, these procedures should always be offered along with current information on NNT (numbers need to treat in order to produce 50% or more pain reduction because of the intervention), NNH (numbers need to harm because of the intervention), ideally the results of that practitioner; and likely duration of effect.

The current published numbers are that the best procedure we have is cervical RF medial branch neurotomy (Number Needed to Treat of 2³), next is Transforminal Epidural Steroid Injections (NNT 2.7⁴), then Lumbar Neurotomies (NNT 4.2⁵) whilst Facet Joint Injections (intra-articular steroid) have a NNT of 10-12^{6,7}, Direct epidurals for radicular pain (imaging process not described) was 10-12⁸ (1-2 days relief compared with normal saline) .

These are similar to pharmacological options (NNT range from 2.4 to 4-5).

The APS recommends that spinal interventional procedures be incorporated into an ongoing scrutiny of standards and outcomes of all forms of pain management strategies in common use. Such independently obtained scrutiny would be available to interested and relevant consumer organisations and compared to the cost/benefits of other treatment modalities through a peer-reviewed publication process.

The APS therefore fully supports audit of outcomes of all interventional procedures, as outlined by the Research Committee of ISIS⁹.

The APS is not responsible for training of its members and this includes spinal interventional practitioners, nor for ensuring the maintenance of clinical competence. These tasks may be the responsibility of training bodies such as the Faculty of Pain Medicine. The APS through this Position Statement would encourage such development.

There are some further concerns.....

1. As with all other pain management strategies educational resources must be easily accessible to consumers, health professionals, and funding bodies.
2. In the context of interdisciplinary assessment and management of chronic and persistent pain, the APS supports the collation of scientific literature, as has recently been undertaken and published by the American Pain Society¹⁰, is currently being published by World Institute of Pain, and previously by International Spine Intervention Society² to maintain best standards for such interventions.
3. The readily accessible published evidence does not substantiate cost-effectiveness for many of the commonly utilised spinal diagnostic and interventional procedures, either to the individual patient or to the community. There may be two reasons for this. Firstly, the Public Health community perspective is different to the perspective of the individual and this may be a source of the differing opinions expressed on the issue,

and secondly there appear to be differing standards and outcomes in published papers describing what is purportedly the same procedure. A purpose of this Position Statement is to encourage the dissemination of best-practice for any procedure.

4. Clinical audit would assist in clarifying the role of interventional procedures in the current schemata of multi-disciplinary pain management, as there is a common recommendation for exhausting all reasonable medical treatment options before exposing an individual to often lengthy components of multidisciplinary pain management. Similarly there is a rationale for addressing depression, anxiety, physical restrictions etc for an individual suffering chronic pain and undertaking pain-relieving interventions.
5. The relevant literature would be enhanced by continued placebo-controlled trials on untested procedures (where approved by Ethics Committees), and expansion of currently published decay curves for duration of treatment effects to include large numbers of community-based outcomes of such procedures.
6. The availability of more data would allow the calculation of Number Needed to Treat (NNT) and Number Needed to Harm (NNH) as well as cost-benefit analysis.
7. It should be more widely understood that diagnostic interventional procedures differ from therapeutic in both technique and intent. Consideration could be given to an additional concept of 'Number-needed-to-Diagnose' (NND) comparison with current conventional 'diagnostic' imaging whereby radiological descriptors are given to Imaging findings which impute painful pathology without verification.
8. There is uncertainty about anatomical knowledge and procedural practice amongst interventionists and thus this Position Statement may provide some support for developing uniform standards of practice through training based on best known scientific evidence. This emphasises the need for endorsed Guidelines for procedures developed by consensus of peers, which would facilitate their peer-reviewed publication and implementation in training, and then clinical utilisation. Adoption of best-practice Interventions would allow considered study of the impact of other variables such as central sensitisation and neuroplasticity on the application of such Interventions.
9. In principle, endorsement of any proposed guidelines for spinal interventional procedures by a national peak training body such as Faculty of Pain Medicine, Australian and New Zealand College of Anaesthetists (FPMANZCA) is desirable. However the independence of such bodies from the APS is recognised and each should develop their own Position Statements from their own perspective, with cross-referencing.
10. The APS recommends that those practitioners who offer interventional procedures, such as spinal implants, declare to consumers all possible conflicts of interest that might arise between themselves and the suppliers of such implanted materials.

References:

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