
LETTER TO THE EDITOR

THE DEVELOPMENT OF A MULTIDISCIPLINARY SPINE CENTER: A NEW SHARED APPROACH FOR PAIN CARE

To the Editor:

We have read with interest the paper by Itz et al.,¹ focusing on a major issue for pain physicians involved in daily clinical practice. In their work, different Dutch scientific societies collaborated to make a declaration of intents and aims, taking into account diagnostic workup and therapeutic approaches adopted by healthcare professionals with different skills and knowledge in the pain field, leading to the development of shared guidelines for the invasive treatment of pain syndromes of the lumbosacral spine.

Although the International Association for the Study of Pain already stated the importance of a multidisciplinary approach to pain disorders,² the common picture often shows the presence of uncoordinated clinicians from different medical disciplines. Several previous pain treatment guidelines hampered the agreement on a collaborative and shared approach, supported by health professionals with different background and scientific terminology. Pain physicians, physical therapists, neurologists, surgeons, and psychologists are actually still working apart, speaking their own languages, making their own diagnosis and treatment choices.

This independent approach shows several pitfalls, especially if applied to pain of the spine, whose pathophysiology may involve mechanical, neurological as well as psychosocial factors, therefore requiring heterogeneous expertise in the pain management.³ Moreover, most of scientific literature is simply prone to compare physical therapy and psychosocial approach vs. surgery.⁴ Progress in minimally invasive interventional and surgical techniques is encouraging, leading us to reconsider the term “multidisciplinarity” in its true meaning.⁵ A shared approach to pain disorders should include common strategies for diagnosis and treatment.

In this regard, we consider the scientific agreement between Dutch orthopedics, neurosurgeons, and anesthesiologists a significant step forward. To improve the chance of reaching the correct diagnosis and treatment, we recently promoted the development of a “Multidisciplinary Spine Center,” where physicians expert in different specialties are encouraged to provide their knowledge toward this main goal. Clinical cases may be discussed within this pain community, exploiting the ability of each specialist and leading to improved results and better patient satisfaction. We used IASP and scientific society guidelines as a starting point for a diagnostic and therapeutic flow chart, taking into account expertise from pain medicine, neurophysiology, surgery, physical therapy, and psychology (Figure 1). The categorization of each patient’s syndrome as acute, subacute, or chronic is not only related to temporal

factors, but also to pathophysiological criteria. Moreover, the mutual relationship between specialists plays an extremely important role during the first approach as well as during the follow-up. Clinical guidelines should help physicians in characterizing pain syndromes, leading toward the correct treatment in agreement with pathophysiology, signs and symptoms, neurophysiological data and imaging rather than merely describing therapeutic tools.

Although this is only a first step, we believe that significant results in pain treatment can only be achieved with the integration of knowledge. Further studies and reports are needed to confirm if this operative model might become the gold standard in pain medicine units.

SOURCE OF FUNDING

This research project was financially supported by the non-profit Advanced Algology Research association.

Gianfranco Sindaco, MD*

*Advanced Algology Research Unit, Multidisciplinary Spine Center, Santa Maria Maddalena Hospital, Occhiobello (RO), Italy
Simone Vigneri, MD**†

*Advanced Algology Research Unit, Multidisciplinary Spine Center, Santa Maria Maddalena Hospital, Occhiobello (RO), Italy

†Department of Experimental Biomedicine and Clinical Neurosciences (BioNeC), University of Palermo, Palermo, Italy

Matteo Zanella, MD*

*Advanced Algology Research Unit, Multidisciplinary Spine Center, Santa Maria Maddalena Hospital, Occhiobello (RO), Italy

Marco La Grua, MD*

*Advanced Algology Research Unit, Multidisciplinary Spine Center, Santa Maria Maddalena Hospital, Occhiobello (RO), Italy

Valentina Paci, MD*

*Advanced Algology Research Unit, Multidisciplinary Spine Center, Santa Maria Maddalena Hospital, Occhiobello (RO), Italy

Laura Ravaioli, PsyD*

*Advanced Algology Research Unit, Multidisciplinary Spine Center, Santa Maria Maddalena Hospital, Occhiobello (RO), Italy

Alessandro Agostini, DPT*

*Advanced Algology Research Unit, Multidisciplinary Spine Center, Santa Maria Maddalena Hospital, Occhiobello (RO), Italy

Artur Laca, DPT*

*Advanced Algology Research Unit, Multidisciplinary Spine Center, Santa Maria Maddalena Hospital, Occhiobello (RO), Italy

Frank Musarra, MSc, DPT*

*Advanced Algology Research Unit, Multidisciplinary Spine Center, Santa Maria Maddalena Hospital, Occhiobello (RO), Italy

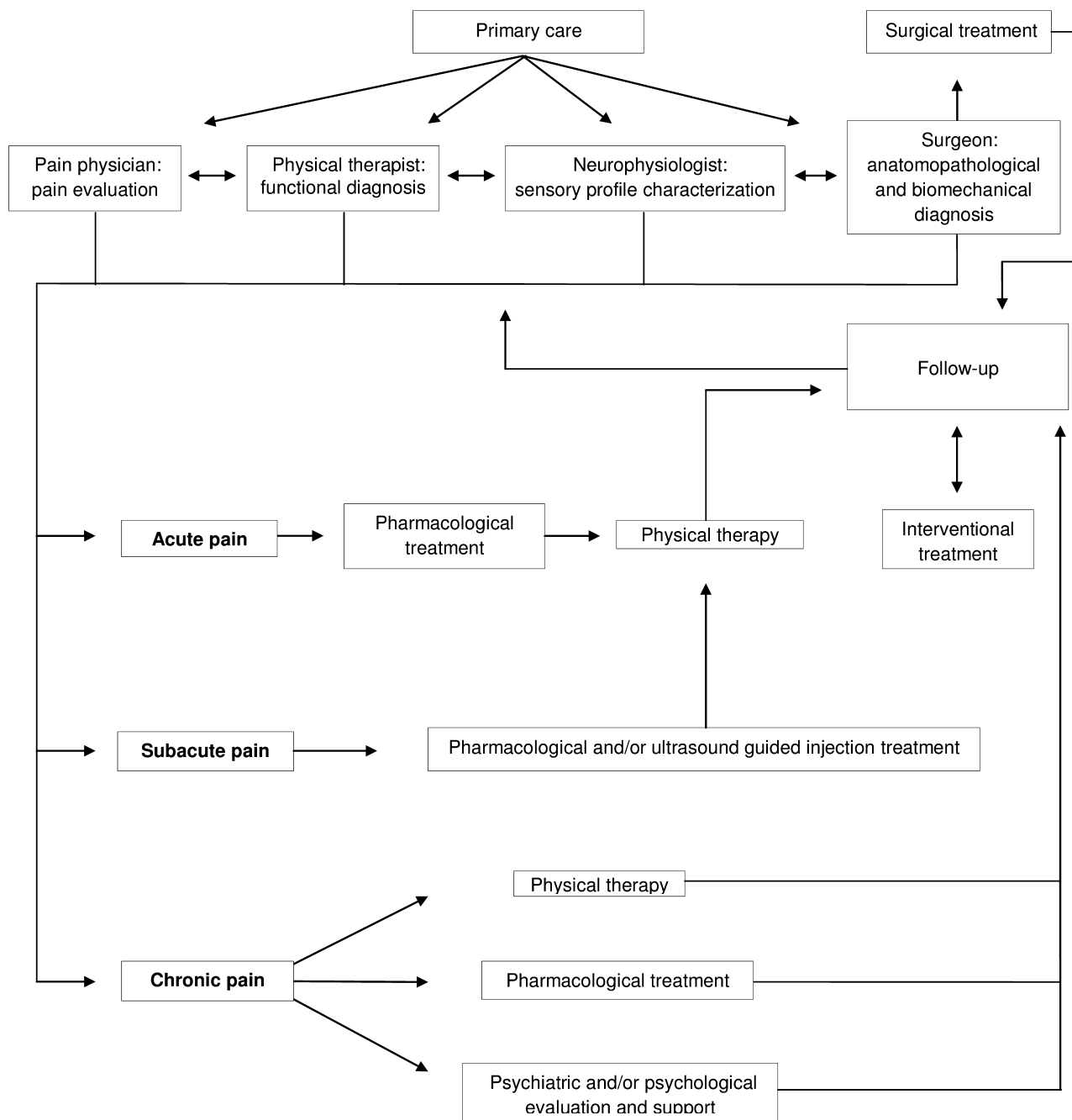
Giuseppe Maida, MD‡

‡Department of Spine Surgery, Multidisciplinary Spine Center, Santa Maria Maddalena Hospital, Occhiobello (RO), Italy

Gilberto Pari, MD*

*Advanced Algology Research Unit, Multidisciplinary Spine Center, Santa Maria Maddalena Hospital, Occhiobello (RO), Italy

Email: simone.vigneri@gmail.com



Acute pain: up to 7 days;

Subacute pain: up to 3 months or > 3 months with no signs of psychosocial involvement (e.g., catastrophizing), central sensitization or allodynia;

Chronic pain: > 3 months with signs of psychosocial impairment, central sensitization or allodynia.

Figure 1. Flow-chart for multidisciplinary pain management in a spine center.

REFERENCES

1. Itz CJ, Willems PC, Zeilstra DJ, Huygen FJ. Dutch multidisciplinary guideline for invasive treatment of pain syndromes of the lumbosacral spine. *Pain Pract.* 2015;16:1–21.
2. IASP website, Education:<http://www.iasp-pain.org/Education/Content.aspx?ItemNumber=1381>.
3. O'Sullivan P. Diagnosis and classification of chronic low back pain disorders: maladaptive movement and motor control impairments as underlying mechanism. *Man Ther.* 2005;10:242–255.
4. Kamper SJ, Apeldoorn AT, Chiarotto A, et al. Multidisciplinary biopsychosocial rehabilitation for chronic low back pain: cochrane systematic review and meta-analysis. *BMJ.* 2015;350:h444.
5. Manchikanti L, Abdi S, Atluri S, et al. An update of comprehensive evidence-based guidelines for interventional techniques in chronic spinal pain. Part II: guidance and recommendations. *Pain Physician.* 2013;16(Suppl 2): S49–S283.