

FEATURE COMMENTARY**An Overview of the 13th International MDT Conference: Supporting Clinical Observations***Kimberly Greene, PT, Dip. MDT*

The 13th International MDT Conference in Copenhagen, Denmark was packed full of the most recent and relevant MDT-related research presented by world class speakers. The conference kicked off with speakers emphasizing the importance of identifying psychosocial risk factors when classifying patients in the OTHER/Chronic Pain category. Professor Tamar Pincus discussed the barrier of depression and the "yes, but" phrase frequently encountered with the depressed patient. Her research supports the importance of referring to a specialist for addressing psychological orange flags such as depression, personality disorders, and post-traumatic stress disorder. She also emphasized the importance of cognitive reassurance rather than affective reassurance by providing education rather than empathy. Jonathan Hill further highlighted the importance of identifying prognostic indicators using the STarT Back Tool by differentiating matched treatment provisions for those patients that are high-risk (Appendix A). His research found 12% of patients are high risk and benefit by implementing biopsychosocial treatment. Birgitta Oberg discussed the factors associated with a work injury (black flags). She determined that the patient's view about need for adjustments at work are important consideration for determining return to work, and the therapist plays an important role in working with the employer to address the concerns. Adri Apeldoorn discussed the reliability and validity of questionnaires used for psychological screening and the need for specific behavioral management with chronic pain patients. MDT faculty, Georg Supp, assessed a high risk lumbar patient using STarT Back questionnaire and Fear Avoidance Beliefs Questionnaire (FABQ) (Appendix B). Supp's assessment highlighted the importance of considering biopsychosocial factors when classifying patients and emphasized the importance of implementing a measurement tool for patients with yellow flags so that treatment can include strategies discussed by the above researchers.

Later afternoon sessions involved Hanne Albert presenting data on Modic Type 1 changes (vertebral bone edema). Her research indicates a high degree of disability is associated with the pathological changes. Albert reported that 6% of the chronic LBP population has Modic changes resulting in disability. For Modic Type 1 changes, Albert supports a multi-week antibiotic treatment resulting in marked improvement within six to eight weeks. Jaro Karppinen added that Modic Type 1 changes and disc extrusions often have clinical relevance, but degenerative radiological findings are frequent among asymptomatic individuals, and radiological findings increase with age. Karppinen reinforced the importance of downgrading radiological reports as an integral part of treatment to prevent fear avoidance behaviors.

Albert also presented her research on the benefits of active conservative rehabilitation, reinforcing that symptom-guided exercises are effective for radiculopathy in patients that qualify for surgery. Her advice for treatment included suggestions to remain active while avoiding activity that worsened leg symptoms. Oberg presented a similar study on the benefits of physiotherapy compared to cervical fusion. There was no functional improvement between the surgical and nonsurgical groups at two year follow-up suggesting that physical therapy should be the first line of treatment for cervical radiculopathy.

Ron Schenk, Hans van Helvoirt and Gunilla Svensson discussed the most recent research on centralization. Similar to the lumbar spine, Schenk's study supports centralization as a good predictor of positive outcomes of the cervical spine. In addition, his study supports greater improvement in patient perceived level of function for patients that centralize. Svensson's study reveals 50% of patients with herniated discs centralize using MDT. Van Helvoirt's study supports immediate improvement in the following clinical signs when lumbar patients centralize: aberrant lumbar movements, SLR, Trendelenburg test and prone instability test. A second study by van Helvoirt supports better outcomes for non-centralizers with MDT following a transforaminal epidural steroid injection (TESI).

Jeremy Lewis presented his shoulder research comparing exercise to passive treatments. He also reviewed the management of rotator cuff pathology, challenging the evidence for surgical intervention. Similar to MDT, he supports the use of using a shoulder algorithm with emphasis on symptomatic responses to determine the appropriate treatment. He emphasizes that Orthopedic Special Tests (OST) are not tissue-specific allowing multiple structures to be stressed; therefore, supporting the lack of

reliability and validity with OSTs. Dr. Lewis emphasized that poor prognosis is associated with shoulder symptoms lasting a year in duration. He describes neovascular changes at the musculoskeletal junction with chronic tendinopathy (contractile dysfunction) and suggests tissue loading using exercise two to three times per week.

Richard Rosedale and Afshin Abady presented their recent studies applying MDT to shoulder pain. Their research also supports that Orthopedic Special Tests (OST) have limited reliability and validity in determining the pathoanatomical structure. Their study demonstrated that OST (Hawkins-Kennedy, Speed's, and Empty Can) have the ability to rapidly change in the presence of a derangement. The research suggests that approximately one third of patients referred for shoulder pain have a cervical component. This study also demonstrates that classification of shoulder pain is helpful for predicting outcome and discharge rate. To support their research, Grant Watson assessed a live patient referred for shoulder pain suffering from a cervical derangement; thus, depicting the high percentage of spinal derangements in the shoulder population.

Mark Miller presented the economic benefits of a precise mechanical diagnosis linked to specific care using a negotiated case rate in comparison to standard community care using fee-for-service. This study highlighted a 40% savings by lowering the use of MRI, injections, and surgeries, resulting in quicker recovery rates and higher patient satisfaction. This is the first study highlighting the cost effectiveness of MDT compared to standard of care and will likely attract the attention of the responsible payer.

Finally, Helen Clare did a great job summarizing the most recent research using MDT evaluation as a screening tool. The areas that were discussed included screening for serious pathology, prognosis, necessity for surgery, psychological barriers, treatment indicators and the presence of spinal involvement in extremity conditions (Appendix C).

The conference also featured several social highlights including the first ever International MDT Research Foundation (IMDTRF) Fun Run on Saturday morning, with over sixty participants. Runners gathered to enjoy a 5K run or walk through the city while enjoying the company of like-minded colleagues. IMDTRF plans to hold a Fun Run at the 2016 MDT Conference of the Americas in Miami, so be sure to bring your running shoes! The gala dinner was yet another opportunity for colleagues to connect and unwind. The evening started with a canal boat tour which delivered conference goers to Moltkes Palace where wonderful food and wine was served in a unique environment.

On Sunday evening, the Conference Committee recognized the Bronze Lady Awards for outstanding service to the Institute for the past three years. The recipients were:

- 2013: Antoine Gemayel, PT, Dip MDT (Italy), Mary Sheid, PT, Cert. MDT (USA)
- 2014: Richard Rosedale, PT, Dip MDT (Canada)
- 2015: Lawrence Dott, Chief Executive Officer, McKenzie Institute International

As with all MDT Conferences, much knowledge was shared, many memories were created and friendships formed. While we await word from MII on our next international conference location for 2018, we hope to see many of you for the America Region event next August 2016!

References

1. Hill JC, Whitehurst DGT, Hay EM. (2011). Comparison of Stratified Primary Care Management for Low Back Pain with Current Best Practice (STarT): a RTC. *The Lancet*; Vol.378: 9802.
2. Wahlin C, Ekberg K, Peterson J, Bemfort L, Oberg B. (2012). Association between clinical and work-related interventions and return-to-work for patients with musculoskeletal or mental disorders. *J Rehabilitation Med*; 44(4):355-62.
3. Albert HB, Sorensen JC, Christensen BS, Manniche C. (2013). Antibiotic Treatment in Patients with Chronic Low Back Pain and Vertebral Bone Edema (Modic Type 1 Changes): a double-blind RTC of efficacy. *Eur Spine J*; 22:697-707.
4. Albert HB, Lambert P, Rollason J, Sorensen JS, Worthington T, Pedersen MB, Norgaard HS, Vervallis A, Busch F, Manniche S, Elliot T. (2013). Is nuclear tissue infected with bacteria following disc herniations which leads to Modic changes in the adjacent vertebra? *Eur Spine J*; 22:690-6/.
5. Brinjikji et al. Systematic Literature Review of imaging features of Spinal Degeneration in Asymptomatic Populations. (2015). *AJNR Am J Neuroradiol*; 36: 811-6.
6. Albert HB, Manniche C. The Efficacy of Systematic Active Conservative Treatment for Patients with Severe Sciatica (2012). A single-blind clinical controlled trial. *Spine*; 37: 531-42.
7. Albert HB, Hauge E, Manniche C. (2012). Centralization in Patients with Sciatica: are pain responses to repeated movement and positioning associated with outcome r types of disc lesions? *Eur Spine*; 21:630-6.
8. Peolsson A¹, Söderlund A, Engquist M, Lind B, Löfgren H, Vavruch L, Holtz A, Winström-Christersson A, Isaksson I, Öberg B. (2013). Physical function outcome in cervical radiculopathy patients after physiotherapy alone compared with anterior surgery followed by physiotherapy: a prospective randomized study with a 2-year follow-up. *Spine*; 15;38(4):300-7.
9. Svensson L, Wendt K, Thomee R. (2015). The Occurrence of Centralisation of Pain after McKenzie Therapy for Patients with MRI-verified Lumbar Disc Herniation and Long-standing Pain. *Physiotherapy*.
10. Van Helvoirt H, Apeldoorn AT, Ostelo RW, Knot DL, Arts MP, Kamper SJ, van Tulder MW. (2014). Transforminal epidural steroid injections followed by Mechanical Diagnosis and Therapy to prevent surgery for lumbar disc herniation. *Pain Med.*; 15:(7).
11. Ainsworth R, Lewis JS, Conboy V. (2009). A prospective randomized placebo controlled clinical trial of a rehabilitation programme for patients with a diagnosis of massive rotator cuff tears of the shoulder. *Shoulder & Elbow*; 1 (1):55-60.
12. Cook JL, Rio E, Lewis JS. (2015). Managing tendinopathies. *Grieve's Modern Musculoskeletal Physiotherapy* (4th edition). Jull G, Moore A, Fall D, Lewis JS, McCarthy C, Sterling M (eds) Elsevier, London.
13. Lewis, JS. (2011). Subacromial Impingement Syndrome: A Musculoskeletal Condition or a Clinical Illusion? *Physical Therapy Reviews*; 16(5): 388-398.
14. Heidar A, Rosedale R, Overend T, Chesworth BM, Rotondi M. Association of the Orthopaedic Special Tests (OSTs), commonly used in the assessment of shoulder joint disorders, with the McKenzie System of Mechanical Diagnosis and Therapy (MDT) classifications. *In press*.
15. Heidar A, Rosedale R, Overend T, Chesworth BM, Rotondi M. Application of the McKenzie System of Mechanical Diagnosis and Therapy (MDT) in patients with Shoulder Pain. *In press*.