

Review Article

# Guideline summary review: an evidence-based clinical guideline for the diagnosis and treatment of degenerative lumbar spondylolisthesis

Paul G. Matz, MD<sup>a,\*</sup>, R. J. Meagher, MD<sup>b</sup>, Tim Lamer, MD<sup>c</sup>, William L. Tontz, Jr, MD<sup>d</sup>, Thiru M. Annaswamy, MD<sup>e</sup>, R. Carter Cassidy, MD<sup>f</sup>, Charles H. Cho, MD, MBA<sup>g</sup>, Paul Dougherty, DC<sup>h</sup>, John E. Easa, MD<sup>i</sup>, Dennis E. Enix, DC, MBA<sup>j</sup>, Bryan A. Gunnoe, MD<sup>k</sup>, Jack Jallo, MD, PhD, FACS<sup>l</sup>, Terrence D. Julien, MD<sup>m</sup>, Matthew B. Maserati, MD<sup>n</sup>, Robert C. Nucci, MD<sup>o</sup>, John E. O'Toole, MD, MS<sup>p</sup>, Karie Rosolowski, MPH<sup>q</sup>, Jonathan N. Sembrano, MD<sup>r</sup>, Alan T. Villavicencio, MD<sup>s</sup>, Jens-Peter Witt, MD<sup>t</sup>

<sup>a</sup>Brain and Spine Center, 232 S. Woods Mill Rd., Ste. 400E, Chesterfield, MO 63017-3417, USA

<sup>b</sup>The Spine Institute of Southern New Jersey, Marlton, NJ 08053, USA

<sup>c</sup>Mayo Clinic Rochester, Rochester, MN 55905, USA

<sup>d</sup>California Orthopaedic Institute, San Diego, CA 92108, USA

<sup>e</sup>VA North Texas Health Care System, UT Southwestern Medical Center, Bonham, TX 75418, USA

<sup>f</sup>Department of Orthopaedic Surgery, University of Kentucky, Lexington, KY 40508, USA

<sup>g</sup>Brigham and Women's Hospital, Harvard Medical School, Boston, MA 02115, USA

<sup>h</sup>Rochester VA Clinic, Rochester, NY 14620, USA

<sup>i</sup>College of Human Medicine, Michigan State University, East Lansing, MI 48824, USA

<sup>j</sup>Logan University, Chesterfield, MO 63017, USA

<sup>k</sup>San Joaquin General Hospital, French Camp, CA 95231, USA

<sup>l</sup>Thomas Jefferson University Hospital, Philadelphia, PA 19107, USA

<sup>m</sup>Marshall University, Huntington, WV 25755, USA

<sup>n</sup>Allegheny Brain & Spine Surgeons, Altoona, PA 16601, USA

<sup>o</sup>Nucci Medical Clinic, Tampa, FL 33625, USA

<sup>p</sup>Rush University Medical Center, Chicago, IL 60612, USA

<sup>q</sup>North American Spine Society, Burr Ridge, IL 60527, USA

<sup>r</sup>Department of Orthopaedic Surgery, University of Minnesota, Minneapolis, MN 55455, USA

<sup>s</sup>Boulder Neurosurgical & Spine Associates, Boulder, CO 80302, USA

<sup>t</sup>University of Colorado Health Sciences Center, Denver, CO 80204, USA

Received 18 September 2015; accepted 19 November 2015

FDA device/drug status: Not applicable.

Author disclosures: **PGM**: Speaking and/or Teaching Arrangements: AO Spine North America (B, Honoraria for Faculty at AO Advance Concepts Courses and AO Aging Bone Symposium); Trips/Travel: NASS (A, Remuneration for Hotel Expenses one night for participation as course faculty member), outside the submitted work. **RJM**: Nothing to disclose. **TL**: Board of Directors: American Academy of Pain Medicine Board of Directors (Non-financial), outside the submitted work. **WLT**: Stock Ownership: Phygen (1 share, 0.6%, Physician-owned implant company involved in development and distribution of spinal implants, Paid directly to institution/employer); Consulting: Medtronic (C, Paid directly to institution/employer); Speaking and/or Teaching Arrangements: SpineArt (B); Trips/Travel: Medtronic (B); Scientific Advisory Board/Other Office: Medtronic (No additional payment; see prior payments through Medtronic), outside the submitted work. **TMA**: Consulting: Dane Street (Peer reviews for clinical reviews of patients (usually worker's comp). Remunerated on a per-case basis (usually Level A/case). Average peer reviews done per month = 8); Scientific Advisory Board/Other Office: Committee Chair of the Evidence Committee at American Academy of Physical Medicine and Rehabilitation (Nonfinancial); Grants: National Science Foundation (NSF) (C, Subcontract award for research on developing a virtual reality-based tele-rehabilitation system. PI: Dr

Prabhakaran, UT Dallas, Paid directly to institution/employer), PCORI-Via University of Washington; LESSER study (A, Subcontract award for research on long-term follow-up of the BOLD-LESS study. PI: Dr Friedly, University of Washington, Seattle, Payment of per patient per follow-up visit completed, Paid directly to institution/employer), outside the submitted work. **RCC**: Trips/Travel: AAOS, Member of Evidenced-Based Quality and Value Committee (A, Cost of travel for meetings), outside the submitted work. **CHC**: Board of Directors: NASS Board of Directors (appointed after completion of guideline) (Nonfinancial), outside the submitted work. **PD**: Grants: Relationships Outside the One Year Requirement: Foot Leveler's Inc (F, Paid directly to institution/employer), outside the submitted work. **JEE**: Stock Ownership: Janus Biotherapeutics, an auto-immunity company (E, Paid directly to institution/employer), outside the submitted work. **DEE**: Research Support (Investigator Salary, Staff/Materials): HRSA Chiropractic Demonstration Projects Grant Number 1R18HP15125-01-00 (D, % of salary amount is paid from HRSA Chiropractic Demonstration Projects Grant to Logan University, Paid directly to institution/employer), Standard Process (C, % of salary is paid from a grant from Standard Process to Logan University, Paid directly to institution/employer), outside the submitted work. **BAG**: Nothing to disclose. **JJ**: Nothing to disclose. **TDJ**: Consulting: Stryker Spine (B),

**Abstract**

**BACKGROUND CONTEXT:** The North American Spine Society's (NASS) Evidence-Based Clinical Guideline for the Diagnosis and Treatment of Degenerative Lumbar Spondylolisthesis features evidence-based recommendations for diagnosing and treating degenerative lumbar spondylolisthesis. The guideline updates the 2008 guideline on this topic and is intended to reflect contemporary treatment concepts for symptomatic degenerative lumbar spondylolisthesis as reflected in the highest quality clinical literature available on this subject as of May 2013. The NASS guideline on this topic is the only guideline on degenerative lumbar spondylolisthesis included in the Agency for Healthcare Research and Quality's National Guideline Clearinghouse (NGC).

**PURPOSE:** The purpose of this guideline is to provide an evidence-based educational tool to assist spine specialists when making clinical decisions for patients with degenerative lumbar spondylolisthesis. This article provides a brief summary of the evidence-based guideline recommendations for diagnosing and treating patients with this condition.

**STUDY DESIGN:** A systematic review of clinical studies relevant to degenerative spondylolisthesis was carried out.

**METHODS:** This NASS spondylolisthesis guideline is the product of the Degenerative Lumbar Spondylolisthesis Work Group of NASS' Evidence-Based Guideline Development Committee. The methods used to develop this guideline are detailed in the complete guideline and technical report available on the NASS website. In brief, a multidisciplinary work group of spine care specialists convened to identify clinical questions to address in the guideline. The literature search strategy was developed in consultation with medical librarians. Upon completion of the systematic literature search, evidence relevant to the clinical questions posed in the guideline was reviewed. Work group members used the NASS evidentiary table templates to summarize study conclusions, identify study strengths and weaknesses, and assign levels of evidence. Work group members participated in webcasts and in-person recommendation meetings to update and formulate evidence-based recommendations and incorporate expert opinion when necessary. The draft guidelines were submitted to an internal peer review process and ultimately approved by the NASS Board of Directors. Upon publication, the Degenerative Lumbar Spondylolisthesis guideline was accepted into the NGC and will be updated approximately every 5 years.

**RESULTS:** Twenty-seven clinical questions were addressed in this guideline update, including 15 clinical questions from the original guideline and 12 new clinical questions. The respective recommendations were graded by strength of the supporting literature, which was stratified by levels of evidence. Twenty-one new or updated recommendations or consensus statements were issued and 13 recommendations or consensus statements were maintained from the original guideline.

**CONCLUSIONS:** The clinical guideline was created using the techniques of evidence-based medicine and best available evidence to aid practitioners in the care of patients with degenerative lumbar spondylolisthesis. The entire guideline document, including the evidentiary tables, literature search parameters, literature attrition flow chart, suggestions for future research, and all of the references, is available electronically on the NASS website at <https://www.spine.org/Pages/ResearchClinicalCare/QualityImprovement/ClinicalGuidelines.aspx> and will remain updated on a timely schedule. © 2016 Elsevier Inc. All rights reserved.

**Keywords:**

Clinical practice guideline; Degenerative spondylolisthesis; Degenerative lumbar spondylolisthesis; Evidence-based guideline; Spondylolisthesis; Systematic review

Exactech (B), Spinewave (A), Biomet Spine (A); Speaking and/or Teaching Arrangements: Stryker Spine (A), Spinewave (A), Exactech (A), Alphatec (B); Scientific Advisory Board/Other Office: Alphatec (B), Exactech (B), outside the submitted work. **MBM:** Nothing to disclose. **RCN:** Nothing to disclose. **JEO:** Royalties: Globus Medical, Inc (A), Pioneer Surgical (B); Consulting: Globus Medical, Inc (B), Pioneer Surgical (A), outside the submitted work. **KR:** Nothing to disclose. **JNS:** Speaking and/or Teaching Arrangements: Broadwater (A, as honorarium for giving a lecture at Sacroiliac Joint pain symposium 10/6/2014); Trips/Travel: Society of Lateral Access Surgeons (SOLAS) (A, Travel expenses to attend SOLAS Board of Directors Meeting (April 2014); Board of Directors: Society of Lateral Access Surgeons (SOLAS) (Nonfinancial), Philippine Minnesota Medical Association (PMMA) (Nonfinancial), University of the Philippines Alumni of Minnesota (UPAM) (Nonfinancial); Research Support (Investigator Salary, Staff/Materials): NuVasive, Inc (C, Study site for a multicenter RCT of XLIF vs. MIS TLIF for

degenerative spondylolisthesis. Approved January 2010. Enrollment ended 12/31/12. Nine patients enrolled from our site. Patients will be followed for 2 years postop. Study sponsor compensates for study coordinator efforts (paid directly to institution), but not for the investigator, outside the submitted work. **ATV:** Physician-Owned Distributorship: Leading Edge Spinal Implants (A, Brand new entity); Board of Directors: Justin Parker Neurological Institute (Nonfinancial); Scientific Advisory Board/Other Office: Boulder Neurosurgical Associates, LLC (Nonfinancial/Managing Partner); Research Support (Investigator Salary, Staff/Materials): Profibrix, Medtronic (F, Paid directly to institution/employer), outside the submitted work. **JPW:** Nothing to disclose.

The disclosure key can be found on the Table of Contents and at [www.TheSpineJournalOnline.com](http://www.TheSpineJournalOnline.com).

\* Corresponding author. Brain and Spine Center, 232 S. Woods Mill Rd, Ste. 400E, Chesterfield, MO 63017-3417, USA. Tel.: 314-878-2888.

E-mail address: [matzpg@yahoo.com](mailto:matzpg@yahoo.com) (P.G. Matz)

Download English Version:

<https://daneshyari.com/en/article/4096305>

Download Persian Version:

<https://daneshyari.com/article/4096305>

[Daneshyari.com](https://daneshyari.com)