

Neuromodulation Society of Australia and New Zealand  
9th ANNUAL SCIENTIFIC MEETING



**Neuromodulation** 'Over the Horizon'

Hotel Grand Chancellor, Hobart  
Sunday 13th April 2014  
Grand Ballroom 3

A series of horizontal dotted lines for writing notes.



Welcome everyone.

**It is once again an incredible pleasure to be able to host the Neuromodulation Society of Australia & New Zealand Scientific Meeting as a pre-conference workshop to the Australian Pain Society Meeting.**

The theme “Neuromodulation-Over the Horizon” was selected to highlight the role that our region plays in neuromodulation and for us to consider how things may yet evolve.

It is a privilege also to be able to welcome nine esteemed overseas speakers from around the globe who will be helping us take the scientific content and merit of our Scientific Meeting to yet a new level.

This is also the first time that we have co-ordinated a concurrent workshop for nurses and ancillary staff in neuromodulation and I applaud all of the physicians who have assisted their team members join us for this Meeting.

We will have a number of interesting panel discussions and, in particular, I am looking forward to challenging the paradigm that neuromodulation may not work as well in compensable patients.

A Conference like this could not be co-ordinated without the incredible support that we have had from industry and, in particular, I would like to thank our platinum sponsors – Medtronic, Boston Scientific, St Jude Medical, Nevro Corporation and Spinal Modulation Incorporated. Each of these companies has supported us as a Society with both sponsorship and helping us to bring together the speakers for this program.

Finally, I would like to offer my personal thanks to Carmel Bateman who, as the Business Operations Manager at Metro Spinal Clinic, has worked tirelessly with me in facilitating and co-ordinating the Meeting and the Society Dinner.

*Warm regards,*

**Dr Paul Verrills**

President

NSANZ



### **Dr G Baranidharan FRCA, FFPMRCA, PG Dip Anaesthesia Bio Data**

Dr Baranidharan is a Consultant in Anaesthesia and Pain Medicine (Aug 2009) at Leeds Teaching Hospital NHS Trust.

His training includes an undergraduate position at Madras Medical College, India; basic and higher anaesthesia training at Yorkshire Deanery; and Fellowship in Pain Management at McMaster University, Hamilton, Canada. He has been involved in the annual cadaver course since September 2008, follows ISIS guidelines with a special interest in managing visceral pain, and belongs to the Pallium Research Group in Leeds which is actively involved in research on neuromodulation, interventional pain management and neuropathic pain.

Dr Baranidharan is Secretary IPM SIG – British Pain Society and Secretary of the Neuromodulation Society of UK and Ireland (UK chapter of INS). His special interests are anaesthesia (thoracic anaesthesia and spinal surgery) and research (neuromodulation and devices used in chronic pain). His hobbies are cricket, badminton and tennis.



### **Stuart Bruce**

Stuart Bruce is responsible for Boston Scientific Neuromodulation Global Reimbursement and is based in Valencia, California. He joined Boston Scientific in July 2006 and has taken on a diverse range of responsibilities in Australia including reimbursement and government affairs, regulatory and corporate agreements. More recently, Stuart was the Director of Health Economics and Government Affairs in the Asia-Pacific Region and worked with Endoscopy Reimbursement in the European Union before transferring to the United States to take on Global Reimbursement for the Neuromodulation Division.

Prior to joining Boston Scientific, Stuart worked as the Health Advisor to the Minister of Health in New Zealand, as well as working in the personal office of the then Prime Minister of New Zealand, the Rt Hon Helen Clark. After leaving this parliamentary office, Stuart was Corporate Manager and Acting Chief Executive of PHARMAC, the New Zealand Government's pharmaceutical subsidy agency. He has also worked as a consultant for Government Departments in Australia and New Zealand.

Stuart has a Masters Degree in politics and is an avid Porsche enthusiast.



### **Professor Eric Buchser**

Professor Eric Buchser is currently the head of Anaesthesia and Pain Management Services at the Neuromodulation Centre at the Hôpital de Morges, Switzerland, and a consultant in anaesthesia at the University Hospital, Lausanne, Switzerland. Professor Buchser specialised in anaesthesia in 1983 after obtaining a Federal Diploma in Medicine and a Doctorate in Medicine. His postgraduate training included Clinical Fellowships at the Pain Clinic at the University of Washington in the United States and in the Anaesthesia Department at McGill University in Montreal, Canada.

He is well published in the area of pain management and neuromodulation and has written several book chapters. Professor Buchser is a reviewer for the European Journal of Anaesthesia and the European Journal of Cardiothoracic Surgery and has multiple teaching duties, including being an examiner at the Swiss Examination of Anaesthesiology. He is a member of several national and international societies and a founding member of the Swiss Society of Palliative Care Medicine.



### **Dr David Caraway**

Dr David Caraway is the CEO of The Center for Pain Relief, Tri-State, PLLC in partnership with St. Mary's Regional Medical Center in Huntington, West Virginia in US. He received his MD from the University of Virginia School of Medicine and his PhD from the University of Virginia Graduate School of Arts and Sciences.

He has served as an advisor, lecturer and committee member to the North American Neuromodulation Society and is a member of and frequent lecturer at the national meetings of the American Academy of Pain Medicine and American Society of Anesthesiologists.

Dr. Caraway has served on the board of directors for both the West Virginia Society of Interventional Pain Physicians (WVSIPP) and the American Society of Interventional Pain Physicians (ASIPP).



### **Dr John Chae MD**

Dr John Chae is Professor and Chair of Physical Medicine and Rehabilitation (PM&R) and Professor of Biomedical Engineering (BME) at Case Western Reserve University. He received his Bachelor of Science (1984) and Mastersin (1986) in BME from Duke University and Dartmouth College, respectively. He received his MD (1990) from New Jersey Medical School and residency training in PM&R (1994) from New Jersey Medical School and Kessler Institute for Rehabilitation. He completed the National Institutes of Health (NIH) Rehabilitation Medicine Scientist Training Program Fellowship (1998) at Case Western Reserve University. His clinical expertise is in stroke rehabilitation.

Dr. Chae's research is funded by the NIH and focuses on the application of functional electrical stimulation for neuroprostheses, neural plasticity and shoulder dysfunction in hemiplegia. He recently completed service as member of the Advisory Council of NIH-NICHHD, chair of the Advisory Board of the National Center for Medical Rehabilitation Research at NIH-NICHHD, and co-chair of the Blue Ribbon Panel on Rehabilitation Research at the NIH. He also recently completed service on the Editorial Boards of the field's top two peer-reviewed journals, Archives of PM&R and Neurorehabilitation and Neural Repair.

Dr. Chae received the 2007 Braddom Research Award from the Association of Academic Physiatrists, which "recognizes an individual who over the previous decade has...had the most significant impact on the science and practice of rehabilitation medicine." He is a member of the Institute of Medicine of the National Academy of Sciences, the College of Fellows of the American Institute for Medical and Biological Engineering and the Alpha Omega Alpha Medical Honor Society.



### **Dr Robert Gorman PhD, BE**

Robert Gorman is currently a Senior Clinical Project Manager at Saluda Medical in Sydney.

Robert is an Electrical Engineer with a PhD in Neurophysiology from the University of NSW. Robert's early research at the Prince of Wales Medical Research Institute (now NeuRA) in Sydney was involved with the neural control of movement and respiration, recording and stimulating nerves and muscles to understand mechanisms of fatigue and the mechanics of breathing. With this engineering and neurophysiology background Robert transitioned into a role as Principal Field Clinical Engineer with Boston Scientific Neuromodulation in the USA and then Australia. In this role he was tasked with providing technical and clinical advice, education and support for patients, physicians and sales staff. In addition, he also provided expert advice to engineers improving and developing new devices.



### **Dr Ho Kok Yuen MBBS, MMed (Anaes), FIPP, DAAPM**

Dr. 'KY' Ho is the Clinical Director for Pain Management Service at Raffles Hospital and the current President of the Pain Association of Singapore. He is a Fellow of Interventional Pain Practice (FIPP) with the World Institute of Pain (WIP) and also an examiner for the WIP FIPP pain examination. His other affiliations include Diplomate of the American Academy of Pain Management (DAAPM), and immediate past Vice-President of the Association of South-East Asian Pain Societies (ASEAPS) from 2011-2013.

Dr Ho's clinical and research interests include adjuvant therapy for prevention and treatment of chronic postsurgical pain, interventional therapies for neuropathic pain, and implantable therapies for failed back surgery syndrome.

He has published more than 50 peer-reviewed articles, abstracts and book chapters in the fields of anaesthesia and pain. He has also lectured at several regional and international conferences and teaches frequently at interventional pain cadaver workshops. In addition, he is a reviewer and editorial board member for numerous scientific journals and the National Medical Research Council Local Grant Committee.

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### **Associate Professor Brendan Moore**

Dr Brendan Moore is Dean of the Faculty of Pain Medicine and Associate Professor of the Centre for Integrated Preclinical Drug Development at the University of Queensland. He is a consultant anaesthetist and pain medicine specialist at Greenslopes Private Hospital, Brisbane Private Hospital and St Vincent's Hospital in Brisbane, Australia. He has been an elected Board member of the Faculty of Pain Medicine since 2005. He is a member of the Research and Education Committees, previous Chairman of the Training Unit Accreditation Committee, Board member of the Australian Pain Relief Association and is involved in collaborative research in association with the University of Queensland School of Pharmacy.

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### **Professor Dirk De Ridder MD, PhD**

Professor Dirk De Ridder, MD, PhD, is the Neurological Foundation Professor of Neurosurgery at the Dunedin School of Medicine, University of Otago in New Zealand. He is founder and director of the BRAI<sup>2</sup>N (Brain Research consortium for Advanced, Innovative & Interdisciplinary Neuromodulation). His main interest is the understanding and treatment of phantom perceptions (sound, pain), especially by use of functional imaging navigated non-invasive (TMS, tDCS, tACS, tRNS, LORETA neurofeedback) and invasive (implants) neuromodulation techniques. He has developed "burst" and "noise" stimulation as novel stimulation designs for implants, and is working on other stimulation designs.

He has published 30 book chapters, co-edited the Textbook of Tinnitus, and has authored or co-authored more than 140 pubmed listed papers, 100 of which deal with phantom sound perception. He is reviewer for 57 journals.



### **Dr Tom Smith**

Dr Tom Smith is a Consultant at the renowned Guy's and St Thomas' Pain and Neuromodulation Centre in London. His clinical work covers a full spectrum of pain medicine, from spinal cord stimulation through to multidisciplinary pain management programs. Tom's research interests include many Phase 2 and 3 projects – including exploring and developing high-frequency spinal cord stimulation.



### **Professor Peter Teddy MA, DPhil, FRACS, FFPMANZCA**

Professor Peter Teddy is a neurosurgeon based at The Royal Melbourne Hospital and within the Department of Surgery, University of Melbourne.

He qualified in Medicine and obtained a DPhil at the University of Oxford, UK. He has been practising in the field of neuromodulation for over 30 years, having been involved in early UK work in spinal cord stimulation and intrathecal drug delivery, as well as sacral anterior nerve root stimulation with Professor Sir Giles Brindley. He has been a Supervisor of Training in the Faculty of Pain Medicine, ANZCA and a member of the Advisory Committee on patient selection for spinal cord stimulation in Australasia.



### **Dr Thomas Yearwood MD, PhD**

Dr Thomas Yearwood gained his BS, MS, and PhD at Tulane University, New Orleans, LA and LSU School of Medicine, New Orleans, LA. His internship & surgical residency was at University of Washington, Affiliated Hospitals, Seattle, WA. and anesthesiology residency at University of Texas Medical Branch, Galveston, TX.

Thomas's academic appointments are Clinical Associate and Professor of Neurology University of South Alabama, Mobile, AL. His Certification and Licensure is from the State of Alabama, State of Mississippi, State of Louisiana, American Board of Anesthesiology, American Board of Pain Medicine.

## OFFICIAL OPENING

08.20 – 08.30 Welcome and Introduction **Dr Paul Verrills, President**

### SESSION 1 New Options – Chair: Dr Richard Sullivan

08.30 – 08.50 HF10 – The UK Experience **Dr Ganesan ‘Barani’ Baranidhran**

08.50 – 09.10 Dorsal Root Ganglion Stimulation:  
A review of current clinical evidence **Dr Marc Russo**

09.10 – 09.30 Feedback Loops – Where to from here? **Dr Robert Gorman**

09.30 – 10.00 Intrathecal Therapy – A Focused Review **Prof Eric Buchser**

10.00 – 10.30 Matching Therapies to Patients:  
Pump v SCS v Analgesics **Dr David Caraway**

## Morning Tea

*Browse corporate displays and poster abstracts*

### SESSION 2 The Future is Near – Chair: Professor Peter Teddy

11.00 – 11.20 MRI and Neuromodulation – An Update **Prof Peter Teddy**

11.20 – 11.40 Wireless Technology – Implications for Neuromodulation **Dr Thomas Yearwood**

11.40 – 12.10 Motor Stimulation – The Next Frontier **Prof John Chae**

12.10 – 12.30 Neuromodulation in Asia **Dr Kok Yuen ‘KY’ Ho**

12.30 - 12.45 Neuromodulation in 2020 – A Thought Experiment **Prof Dirk De Ridder**

## Lunch

*Browse corporate displays and poster abstracts*

### Nursing/Ancillary Staff Workshop

Concurrent Session for Nurses and Ancillary Staff – *Facilitator: Gena Lantry*

**Chancellor Room 4**

13.30 – 15.10 Advanced Pain Therapies

**Please refer to the following pages for more information**



**SESSION 3** Workers Compensation and Health Economics – *Chair: Dr Marc Russo*

13.45 – 14.00	Workers Compensation versus the rest – Is there a difference?	<b>Dr Paul Verrills</b>
14.00 – 14.20	Compensable Neuromodulation – Is it cheap or expensive?	<b>Stuart Bruce</b>
14.20 – 14.40	Cost/effectiveness of a Novel 10kHz HF spinal cord stimulation in patients with FBSS	<b>Dr Tom Smith</b>
14.40 – 14.50	The Workcover Challenges	<b>Dr Steve Jensen</b>
14.50 – 15.10	Q & A	

**Afternoon Tea**

*Browse corporate displays and poster abstracts*

**SESSION 4** Outcomes – *Chair: Dr David Vivian*

15.40 – 16.00	The UK Experience on Outcomes	<b>Dr Ganesan ‘Barani’ Baranidhran</b>
16.00 – 16.30	Update on Registries for Neuromodulation: How, When and Why	<b>A/Prof Brendan Moore</b>
16.30 – 16.50	Real Life Problems associated with Data Collection	<b>Panel: Dr Baranidhran A/Prof Brendan Moore Dr David Caraway Prof Dirk De Ridder</b>
17.00 – 17.20	Annual General Meeting of the NSANZ	
19.15	<b>Neuromodulation Society Dinner</b> Smolt Restaurant, 2 Salamanca Square, Hobart	

Delegates are invited to attend the Australian Pain Society Welcome Reception, held from 6pm at the Hotel Grand Chancellor.

13.30 – 13.35

**Welcome and Introduction**

**Gena Lantry**  
Facilitator

13.35 – 14.00

**Advanced Pain Therapies –  
A Comprehensive Overview**

**Sandra Tutt**

- Overview of pain pathways and the neuroscience underpinning SCS and intrathecal therapy, including the potential for these modalities to improve patient outcomes.

14.00 – 14.40

**Partnering with Patients embarking on  
Advanced Pain Therapies – The Nursing Role**

**Amal Helou**

- Working patients up for trial implantation (education-what patients' need to know; assessing patients' suitability for implant- the nursing assessment and being part of the multidisciplinary team).
- Working with patients as they progress to permanent implant (assisting informed proactive patients; introducing concepts of motivational interviewing, helping patients identify realistic treatment outcome goals).
- Working with patients over the life course of APT management (the ongoing role re monitoring and managing patients with APT's; introducing the notion of a case management approach to providing ongoing care for these patients; monitoring outcomes, adverse events, side effects, helping patients maximize treatment approaches).
- Appreciation of the appropriate selection of patient's for advanced pain therapies, that is, which patient, what conditions, what device, and how to recognize potential 'red flags'.

14.40 – 15.10

**Audience Discussion – Panel of experts and  
representatives from each product company**

**Chair: Gena Lantry**

- Have an opportunity to network with peers currently working in the specialty.
- Collate a network/database of interested nurses working in the area for the purpose of peer support, education and professional affiliation.
- To meet the representatives from the advanced pain therapy companies.
- To establish online forums for further communication.

**Afternoon Tea**

*Browse corporate displays and poster abstracts*

Rejoin the main program, **Session 4** at 15.40



### **Amal Helou**

**Nurse Practitioner Pain Management  
Royal Prince Alfred Hospital**

Amal has over 30 years experience in pain management, she has been employed as a nurse practitioner since 2002 in Pain Management at Royal Prince Alfred Hospital.

She has particular interest in patient and family education. At RPA she was instrumental in developing and teaching Cognitive Behavioral Therapy patient education programs. She is actively involved in the evaluation and treatment with neuromodulation therapies including intrathecal pumps and spinal cord stimulation. She has actively worked and advocated for pain management in the older person in hospital and community settings. Amal is also interested in exploring patient narrative as a therapeutic intervention and the impact persistent pain has on the whole individual.

Amal was past president of the Australian Pain Society and continues her involvement on their scientific program committee. She is Honorary Secretary and chair of the Scientific Program Committee for the Australian College of Nurse Practitioners. She has a Master of Science in Medicine Pain Management from University of Sydney.



### **Gena Lantry**

**Consultant Nurse Pain Management  
Conjoint Lecturer, The University of Newcastle**

Gena Lantry is a registered nurse with an acute care background. Gena spent the first decade of her nursing career working in the Intensive Care Unit at the John Hunter Hospital. In 1993 Gena establish the John Hunter Hospitals Acute Pain Service before going onto lead the development and implementation of the Hunter Integrated Pain Service, a multidisciplinary pain management service chartered with providing specialist services for people suffering with acute, sub-acute, persistent and cancer related pain. For the past twenty years Gena has continued to work in the field of pain management, and is most recognized for her work, related to the advanced nursing role in the specialist field of pain management. She has a Masters of Science in Medicine Pain Management from University of Sydney and has recently completed her Doctoral Studies in persistent pain at The University of Newcastle. Her research interests are in the area of early identification of patients at risk of progressing from acute to persistent pain states, as well as in the area of clinical service redesign to improve the health care journeys of patients with pain.



### **Sandra Tutt**

**Clinical Nurse Consultant Pain Management  
Concord Repatriation Hospital**

Sandra has over 35 years working as a registered nurse working in various specialty fields. In the last 17 years she has been working in Pain Management and has had the opportunity to work in multidisciplinary pain teams at Royal North Shore, Liverpool, Royal Prince Alfred and now Concord Hospital.

As a clinical nurse consultant in pain management since 2000, Sandra has extensive experience in the planning and management of patients with Acute and Chronic (Persistent) pain. This experience includes post operative ward patients, outpatient clinics, and cognitive programs.

Sandra is very active in the Nurses Pain Interest Group and is currently the newsletter editor. She is also a regular guest lecturer in colleges and universities and has on several occasions been asked to speak interstate and to nurses in China and Thailand.

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<sup>1</sup> Al-Kaisy A, et al. Sustained Effectiveness of 10 kHz High-Frequency Spinal Cord Stimulation for Patients with Chronic, Low Back Pain: 24-Month Results of a Prospective Multicenter Study. *Pain Medicine* 2013.

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1. Neuromodulation MRI Standard Letter, Spinal Cord Stimulation Systems, 2011.
2. Risk Management Report for SureScan (MRI compatible) Implantable Neurostimulation System and 1x8 Vectris Percutaneous Leads. NDHF1173-126742.
3. Medtronic data on file, NRP1041-34805, 2012.
4. MRI Guidelines.

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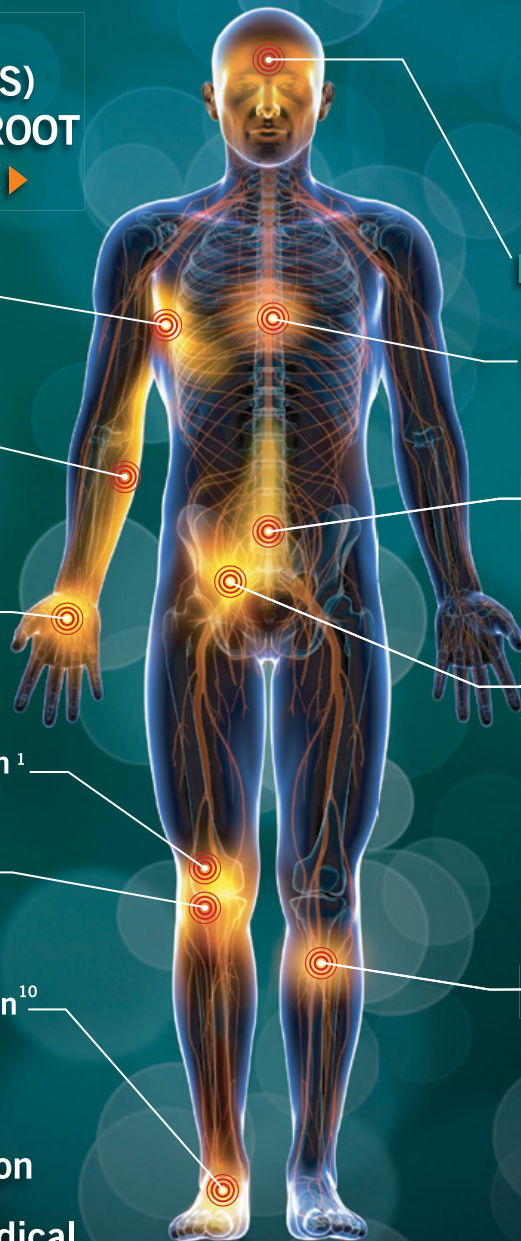
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- ▶ Peripheral Neuropathies<sup>1,5,7</sup>
- ▶ CRPS of the Hand<sup>5</sup>
- ▶ Post-Amputation Pain<sup>1</sup>
- ▶ CRPS of the Knee<sup>9</sup>
- ▶ Neuropathic Foot Pain<sup>10</sup>
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- Intractable Chronic Migraine<sup>2,8</sup>
- ▶ Refractory Angina Pectoris (RAP)
- ▶ Failed Back Surgery Syndrome (FBSS) with or without prior surgery<sup>6</sup>
- ▶ Neuropathic Groin Pain<sup>7</sup>
  - Post-herniorrhaphy
  - Femoral Vascular Access
  - Nerve Entrapment
  - Peripheral nerve lesion
  - Testicular Torsion/Scrotal pain
- ▶ Peripheral Vascular Disease (PVD)<sup>4</sup>

### PERIPHERAL NERVE STIMULATION (PNS) OF THE OCCIPITAL NERVE ■



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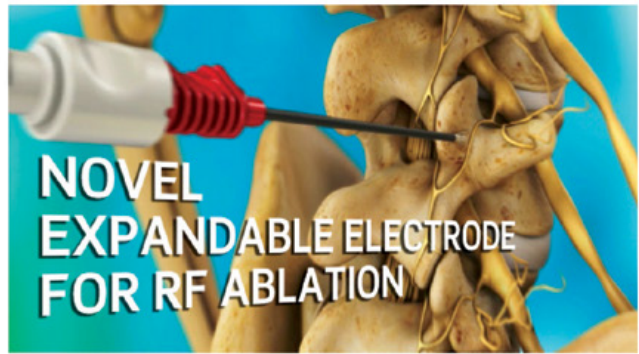
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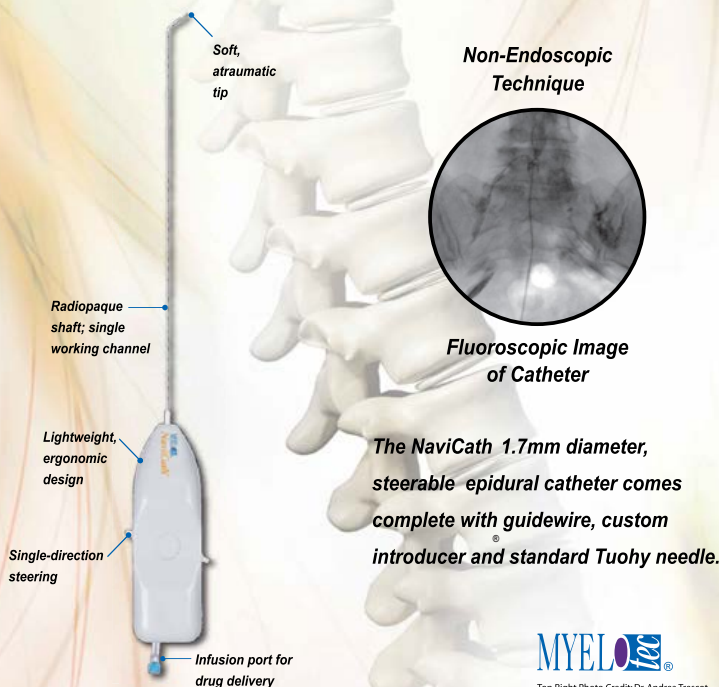
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