

MEDIAL BRANCH BLOCKS

These safety practices have been developed to highlight the important elements in the safe performance of interventional pain procedures. Adherence to these practices will help decrease the risk of preventable complications. For additional information about the indications and technical aspects that yield improved treatment outcomes, refer to the *SIS Practice Guidelines for Spinal Diagnostic and Treatment Procedures*.

PERSONNEL

- Only physicians trained in the performance and interpretation of medial branch blocks (MBBs) should perform this procedure.
- Appropriately trained personnel are needed for the operation of the fluoroscopy unit and to assist the physician.

CONTRAINDICATIONS

- An active systemic infection or a localized infection within the procedural field
- Uncooperative patient
- Inability to communicate pain level
- Allergy to a local anesthetic used for the block that cannot safely be mitigated by pre-treatment

SEDATION

- Sedation is not intrinsically necessary for ESIs, but if employed in unique circumstances (e.g. movement disorder, cases of extreme anxiety, previous vasovagal response), the patient should remain able to communicate pain or other adverse sensations or events.
- Use of sedation may alter diagnostic conclusions.
- The decision to use sedation should be made on a case-by-case basis.
- If the physician performing the procedure decides to administer and supervise the sedation, they should be trained and qualified to do so. In these situations, a separate healthcare provider is required to assist with the administration of the medications and monitoring of the patient.
- Resuscitation drugs, monitoring equipment, and oxygen must be available if sedation is utilized.

SAFE, ASEPTIC PRACTICES

- Strict aseptic technique should be followed at all times as they pertain to the facilities, materials, patient preparation, physician preparation, personnel, and injectate/syringe preparation. Examples include, but are not limited to:
 - Skin overlying the target region should be prepared for an aseptic procedure, preferably using chlorhexidine in alcohol. The area should then be draped to create a sterile field.
 - A face mask and sterile gloves must be worn during the procedure.
 - Sterile single-use syringes and needles are required, and single-dose vials should be utilized when available. Centers for Disease Control and Prevention (CDC) guidelines for safe injection practices must be followed.



IMAGING

- Use of image guidance is critical to ensuring appropriate needle placement. Image guidance reduces the risk of complications, allowing the physician to avoid vulnerable vascular or neural structures, as well as the pleural cavity in the case of thoracic MBBs, before any agent is injected or inserted. Image guidance also ensures that injectate is delivered to the target.
- The imaging technique should follow the ALARA protocols (as low as reasonably achievable) to minimize x-ray exposure for both the patient and the healthcare team.
- The safety and validity of fluoroscopically-guided MBBs have been described in the medical literature, while the same rigor of investigation has not occurred for alternative image-guidance modalities. Thus, fluoroscopy is currently the recommended image-guidance modality for MBBs.
- The administration of contrast medium before administering local anesthetics is recommended to rule out vascular uptake.
- Obtain images documenting final needle position and appropriate contrast spread.

INJECTIONS

- The ultimate choice of approach or technique to use should be made by the treating physician by balancing potential risks and benefits with each technique for each patient.
- The ultimate choice of local anesthetic agent (*i.e.* long-acting compound, short-acting compound, placebo agent) should be made by the treating physician.

POST-PROCEDURE MONITORING/FOLLOW-UP

- Patients should be monitored for an appropriate time following the procedure depending upon the nature of the intervention and the agents utilized.
- Provide detailed oral and written discharge instructions to patients:
 - activity restrictions for the immediate post-procedure period (e.g. not to operate a motor vehicle or machinery for the remainder of the day of the procedure),
 - potential expected side effects that may occur immediately post-injection and in the first few days following the procedure (e.g. pain at injection site),
 - symptoms that merit immediate medical attention, and
 - when to resume usual medications and anticoagulants if discontinued for the procedure.
- Ensure patients have a follow-up plan.



SOURCES

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DISCLAIMER

While these Safety Practices are intended to identify elements critical to the safe performance of interventional spine procedures, they are not intended to be inclusive of all proper methods relevant to the safe performance of spine procedures, or exclusive of other methods of care reasonably utilized to obtain the same results. Nothing contained in these documents is intended to be used as a substitute for the care and knowledge of the individual clinician. They are guidelines based on evidence-informed expert consensus. SIS makes no representation and assumes no responsibility for the accuracy of the information contained or available through this website, and such information is subject to change without notice. The clinician's independent medical judgment, given the individual patient's clinical circumstances and preferences, should always determine patient care and treatment. Practitioners are advised to consider management options in the context of their own training and background and institutional capabilities when selecting recommended treatment options. SIS is not responsible nor does it assume any legal liability or responsibility for the accuracy, completeness, clinical efficacy, or value of any such information or any apparatus, product, or process described or referenced through this website or the information contained therein.



SPINE INTERVENTION SOCIETY

SAFETY PRACTICES FOR INTERVENTIONAL PAIN PROCEDURES

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MODULE 2.1 FACET INTERVENTIONS: MEDIAL BRANCH BLOCKS
MODULE 2.2 FACET INTERVENTIONS: INTRA-ARTICULAR (ZYGAPOPHYSIAL) JOINT INJECTIONS
MODULE 2.3 FACET INTERVENTIONS: MEDIAL BRANCH RADIOFREQUENCY NEUROTOMY
MODULE 2.4 FACET INTERVENTIONS: LATERAL ATLANTO-AXIAL JOINT INJECTIONS
MODULE 3.1 SACROILIAC INTERVENTIONS: SACRAL LATERAL BRANCH BLOCKS
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MODULE 4.1 NEUROSTIMULATION: SPINAL CORD AND DORSAL ROOT GANGLION STIMULATION
MODULE 4.2 NEUROSTIMULATION: PERIPHERAL NERVE STIMULATION
MODULE 5 PROVOCATION DISCOGRAPHY
MODULE 6 VERTEBRAL AUGMENTATION

THE INTERVENTIONAL SPECIALISTS' FREE RESOURCE TO HELP DECREASE THE RISK OF PREVENTABLE COMPLICATIONS

For additional information about the indications and technical aspects that yield improved treatment outcomes, refer to the *SIS Practice Guidelines for Spinal Diagnostic and Treatment Procedures*.

