

SACROILIAC JOINT INJECTIONS

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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 sacroiliac joint (SIJ) injections 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
- Allergy to medication(s) that cannot safely be mitigated by pre-treatment
- Pregnancy (for fluoroscopically and CT-guided injections)

SEDATION

- Sedation is not intrinsically necessary for SIJ injections, 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:
 - o 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.
 - o A face mask and sterile gloves must be worn during the procedure.
 - o 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.



- o Acquisition, storage, and utilization of medications should be in accordance with relevant governmental guidelines such as those of the CDC in the United States.

IMAGING

- Use of image guidance is critical to ensuring appropriate needle placement and monitoring injectate flow patterns.
- 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.
- Fluoroscopic guidance has been used in the primary literature validating the safety and efficacy of sacroiliac joint injections, while the same rigor of investigation has not occurred for alternative image-guidance (e.g. CT or US). Fluoroscopy is currently the recommended image-guidance modality for sacroiliac joint injections.
- If using fluoroscopy, multiplanar views should be used to avoid placement too far inferior, which risks going through the greater sciatic foramen into the pelvic cavity.
- Obtain images documenting final needle position and satisfactory contrast spread.

GADOLINIUM-BASED CONTRAST AGENTS

- Gadolinium is a drug that should be used with caution in interventional pain procedures. It should be administered only when necessary. It is prudent to consider the clinical benefit of the interventional pain treatment against the unknown potential risk of gadolinium deposition in the brain for each individual patient.
- If it is deemed that gadolinium is necessary for an interventional pain procedure where there is a very low risk of possible unintentional intrathecal administration, then the low risk of intrathecal gadolinium administration should be adequately explained to the patient.

PROCEDURE TECHNIQUE

- The total volume of all medications injected into the joint (including contrast medium) should not exceed 2.5 ml. Physicians injecting a higher volume should be aware of the possibility of injectate spreading to unintended areas.

POST-PROCEDURE MONITORING/FOLLOW-UP

- A certain percentage of patients will have a ventral capsular defect in the joint capsule, which "if present" may allow for medication spread onto the lumbosacral plexus. Therefore, physicians should consider observing patients for 30-60 minutes post-procedure to ensure normal neurologic function of the lower extremities.
- The patient should be instructed not to drive or operate machinery for the remainder of the day.
- Provide detailed oral and written discharge instructions to patients that outline:
 - o restrictions and recommendations for the immediate post-injection period,
 - o 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, increased blood glucose level), and
 - o symptoms that merit immediate medical attention (including but not limited to fever, severe worsening of pain, purulent discharge, and new or worsening neurologic deficits), and
 - o when to resume usual medications and anticoagulants if discontinued for the procedure.
- Ensure patients have a follow-up plan.



SOURCES

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DISCLOSURES

Schneider, Byron J.:

Service as a consultant, expert witness, speaker, or author with a commercial interest: Professional Disabilities Associates.

Advisory committees or review panels: Tennessee Advisory Group - Spine Episodes of Care.

Any position in a healthcare, medical, or physician society/association (committee, board, workgroup/taskforce, etc.): NASS RIMS committee, NASS healthcare policy committee.

Travel Expenses: NASS travel expenses, SIS travel expenses.

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No Financial Relationships to Disclose.

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Travel Expenses: World Institute of Pain - FIPP Exam Travel Expenses.

Other: Pain Practice Journal - Editorial Work Reimbursement.

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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*.



PRACTICE GUIDELINES FOR SPINAL DIAGNOSTIC AND TREATMENT PROCEDURES

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