

# Procedural Sedation Competencies

as advocated by the *International Committee for the Advancement of Procedural Sedation*

For full details see: Leroy, Krauss, et al: *British Journal of Anaesthesia* 2025, in press



**ICAPS**  
**International Committee**  
**for the Advancement of**  
**Procedural Sedation**

[www.proceduralsedation.org](http://www.proceduralsedation.org)

Clinical Core Competencies			Deliberate Practice Core Competencies
<p>The competencies outlined below are indicative of procedural sedation competence, i.e., the minimum required knowledge, skill, and attitudes to perform procedural sedation effectively and safely. These competencies must be demonstrably present during the performance of procedural sedation and encompassed by the sedation team, and need not necessarily be covered by a single practitioner. In many circumstances, the sedation practitioner assuming responsibility for oversight of the sedation encounter will be assisted by a second practitioner whose primary duty is continuous patient monitoring and documentation. When the primary practitioner delegates some of their duties to an assisting practitioner, they remain responsible for ensuring that all necessary competencies are present during the full sedation encounter. Assisting professionals should possess all necessary competencies required for the tasks to which they are entrusted.</p>			<p>The competencies outlined below are indicative of deliberate practice, i.e. knowledge, skills and attitudes for ongoing learning and improving.</p>
<b>KNOWLEDGE</b>	Physical Safety	Effectiveness	Psychological Safety
	Avoiding physical harm and minimizing sedation-related risk	Procedural success, patient comfort, and time efficiency	Patient emotional and psychological well-being
	<p><b>Must demonstrate the understanding of:</b></p> <ul style="list-style-type: none"> <li>the principles of pre-sedation evaluation and risk assessment</li> <li>the procedure to be performed and how it might impact the course of sedation or risk</li> <li>the scope of procedural sedation and when referral for care by an anaesthesia practitioner is appropriate</li> <li>airway, respiratory, and cardiovascular physiology and pathophysiology</li> <li>the function and interpretation of continuous monitoring of cardiac rhythm*, oxygenation (pulse oximetry), and ventilation (capnography*)</li> <li>Opioid and sedative agonist and antagonist pharmacology (pharmacokinetics, pharmacodynamics, dosing, administration, contraindications, adverse event profiles, drug interactions)</li> <li>recognition of adverse events and when intervention is required</li> <li>the principles of post-sedation recovery, discharge criteria, and outcome evaluation and documentation</li> <li>principles of ongoing quality improvement audit in accordance with local and national recommendations</li> </ul>	<p><b>Must demonstrate the understanding of:</b></p> <ul style="list-style-type: none"> <li>the correct indication for a procedure and the balance between indication and risks</li> <li>the procedure to be performed and how it impacts the sedation strategy, resources, and personnel</li> <li>how individual patient characteristics impact the sedation strategy</li> <li>principles and safe application of procedural analgesia (topical, local, regional and systemic)</li> </ul>	<p><b>Must demonstrate the understanding of:</b></p> <ul style="list-style-type: none"> <li>the patient's fundamental right to be involved in medical decision-making and to be treated respectfully and according to personal preferences and choices</li> <li>a patient's preprocedural/anticipatory fear/anxiety and expectations and how they impact sedation needs</li> <li>short- and long term adverse events (e.g. awareness, agitation, delirium, nausea, vomiting, behavioral changes, sleep disturbance)</li> <li>importance of parental, family or caregiver presence for children, highly anxious patients, and patients with special needs or psychiatric conditions</li> <li>the meaning of establishing trust, and modes of communication for creating positive or negative expectations</li> </ul>
			Deliberate Practice
			Continual improvement of skills to develop and maintain competence
			<p><b>Must demonstrate the understanding of:</b></p> <ul style="list-style-type: none"> <li>how personal performance is enhanced by repeated practice that is used for ongoing learning and improvement</li> <li>the importance of repeated self and peer-assessment for learning</li> <li>the importance of keeping up to date knowledge of new drugs and techniques</li> </ul>

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	Physical Safety	Effectiveness	Psychological Safety	Deliberate Practice
	Avoiding physical harm and minimizing sedation-related risk	Procedural success, patient comfort, and time efficiency	Patient emotional and psychological well-being	Continual improvement of skills to develop and maintain competence
SKILLS	<p><b>Must be able to:</b></p> <ul style="list-style-type: none"> <li>perform a structured risk assessment, taking patient and procedural characteristics into account</li> <li>perform an assessment of airway and fasting status</li> <li>monitor airway patency and recognize abnormal ventilatory patterns including: respiratory depression, partial and complete airway obstruction, central apnea, and appropriate use of continuous observation of chest wall motion supplemented with pulse oximetry and capnography*</li> <li>monitor cardiovascular stability using cardiac rhythm* and, when appropriate, blood pressure monitoring*</li> <li>manage adverse events such as nausea, vomiting, agitation, delirium</li> <li>manage airway obstruction through appropriate application of airway alignment maneuvers (head tilt, chin lift, jaw thrust) or placement of nasal or oral airway, or a supraglottic airway device*</li> <li>distinguish central and obstructive apnea*</li> <li>assemble a self-inflating or free-flow inflating bag, and perform bag-mask ventilation*</li> <li>recognize and manage a patient who is over sedated, with or without intervention as appropriate</li> <li>identify and manage hypoxia, hypotension, bradycardia, anaphylaxis, seizure, and cardiac arrest*</li> <li>summon additional resuscitation assistance, if required</li> <li>decide when a patient is ready and safe for discharge from monitored recovery</li> </ul>	<p><b>Must be able to:</b></p> <ul style="list-style-type: none"> <li>apply a sedation strategy (drug regimen, depth, and duration) that matches procedure-specific requirements, procedural timing, and individual patient needs</li> <li>recognize when a patient is inadequately sedated</li> <li>anticipate, recognize, and effectively manage procedural pain</li> </ul>	<p><b>Must be able to:</b></p> <ul style="list-style-type: none"> <li>recognize and respect a patient's emotional or psychological needs and personal preferences</li> <li>establish a trusting relationship with a patient</li> <li>employ effective comfort measures (e.g. distraction, comfort-directed suggestive language)</li> <li>create a comfortable and calm environment throughout the sedation process</li> </ul>	<p><b>Must be able to:</b></p> <ul style="list-style-type: none"> <li>Use deliberate practice as part of ongoing medical education</li> <li>participate in ongoing medical education including ideally observed performance and peer feedback (in-person or simulated)</li> </ul>
ATTITUDES	<p><b>Must show:</b></p> <ul style="list-style-type: none"> <li>vigilance and commitment to safety throughout the sedation process</li> <li>effective team communication and interprofessional collaboration</li> <li>commitment to clear documentation of sedation outcomes, including adverse events and complications</li> <li>accountability for ongoing quality improvement by engaging in an audit program, including discussing safety outcomes, analyzing critical incidents, and participating in formal safety audits</li> </ul>	<p><b>Must show:</b></p> <ul style="list-style-type: none"> <li>commitment to choosing individualized sedation strategies that result in procedural success, patient comfort and time-efficiency</li> <li>effective team communication and interprofessional collaboration</li> <li>commitment to documentation of sedation effectiveness</li> <li>accountability for ongoing quality improvement by engaging in an audit program, including discussing procedural success, patient comfort, and time efficiency</li> </ul>	<p><b>Must show:</b></p> <ul style="list-style-type: none"> <li>commitment to assuring patient emotional and psychological well-being throughout the sedation process</li> <li>effective team communication and interprofessional collaboration</li> <li>commitment to documentation of the impact of the sedation on patients emotional and psychological well-being</li> <li>accountability for ongoing quality improvement by engaging in an audit program, including discussing outcomes related to patient's emotional and psychological well-being</li> </ul>	<p><b>Must show:</b></p> <ul style="list-style-type: none"> <li>commitment to ongoing improvement of practitioner and team performance</li> </ul>

\*Competencies indicated with an asterisk are less relevant for practitioners performing minimal sedation in low risk patients.