GUIDELINES FOR
COUNTING CLINICAL EXPERIENCES

Council on Accreditation of
Nurse Anesthesia Educational Programs
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The Council on Accreditation of Nurse Anesthesia Educational Programs (COA) recently published revised standards for nurse anesthesia educational programs offering masters and doctoral degrees. These new standards included revisions to the required clinical experiences that each graduate must attain within the program. The COA received feedback indicating a need to provide an authoritative reference for all student registered nurse anesthetists (SRNAs) and program administrators. The document is also available for use by any Certified Registered Nurse Anesthetist (CRNA) advising student nurse anesthetists about recording clinical experiences. While SRNAs are responsible for accurately recording clinical learning experiences, all participants in the process must realize the final authority for quantifying clinical experiences rests with the Program Administrator who must affirm the accuracy of the clinical experience record. The purpose of the *Guidelines for Counting Clinical Experiences* is to enhance consistency in how nurse anesthesia students quantify their clinical learning experiences by providing interpretive guidelines and examples for the clinical experiences. These guidelines cannot anticipate all possible scenarios, nor can they foresee future developments in surgical/procedural care or other emerging technologies. Therefore, students must consult the program administrator when questions arise regarding how clinical experiences should be counted. Program administrators are encouraged to consult the COA regarding these matters, as needed.

<u>General Guidelines on Counting Clinical Experiences:</u>

Nurse anesthesia students must have the opportunity to develop into competent, safe, nurse anesthetists capable of engaging in full scope of practice as defined in the AANA's *Scope of Nurse Anesthesia Practice* and *Standards for Nurse Anesthesia Practice*. To ensure nurse anesthesia students develop the knowledge, skills and abilities for entry into practice, students must participate in all phases of their clinical cases including preoperative, intraoperative and postoperative anesthesia care. While it may not be possible for students to participate in all phases of care on every case, students can only take credit for a case where they personally provide anesthesia for critical portions of the case. A student may only count a procedure (e.g., CVL placement, regional block, etc.) that he or she actually performs. Students can take credit for an anesthetic case only if they are personally involved with the implementation and management of the anesthetic. Students cannot take credit for an anesthetic case in which they observe another anesthesia provider manage a patient's anesthetic care.

The COA published the following definition in the glossary section of both the *Standards for Accreditation of Nurse Anesthesia Programs – Practice Doctorate* and *2004 Standards for Accreditation of Nurse Anesthesia Educational Programs*.

> **Counting clinical experiences**-Students can only take credit for a case where they personally provide anesthesia for critical portions of the case. A student may only count a procedure (e.g., central venous catheter placement, regional block, etc.) that he or she actually performs. Students cannot take credit for an anesthetic case if they are not personally involved with the management of the anesthetic or only observe another anesthesia provider manage a patient's anesthetic care. Two learners should not be assigned to the same case, except when the case provides learning opportunities for 2

students, and 2 anesthesia providers are necessary due to the acuity of the case. The program will need to justify any deviation from this requirement.

Developing comprehensive guidelines addressing all possible situations where programs/students may count clinical learning experiences is difficult. In order to provide clarity, consideration should be given to the following general principles.

1. Clinical learning experiences must provide educational value.
    a. Experiences lacking value might include:
        1) Student provides temporary relief (e.g., morning/lunch breaks) to the primary anesthetist in a case, where the student neither begins nor finishes a case and is only in the case for a short period of time (e.g., ≤30 minutes).
        2) Student is in an observation-only role (e.g., not involved in decision-making processes nor actively engaged in developing or implementing the anesthetic plan).
        3) Student role is limited to recording the anesthetic (i.e., charting only).
        4) Two students share a routine case (e.g., laparoscopic cholecystectomy, orthopedic case).

    b. Experiences with value might include:
        1) Student provides temporary relief (e.g., morning/lunch breaks) and a significant event occurs requiring the student to develop/implement anesthesia management (e.g., air embolus develops, major hemorrhage occurs, aortic clamping/unclamping, new onset myocardial ischemia, cardiac arrest, intense resistant bronchospasm, unintentional extubation, etc.)
        2) Two students share a complex case where there is opportunity for both learners to have significant learning (e.g., liver transplants, rare cases, massive trauma, complicated cases requiring two anesthesia providers)

2. Students cannot count any procedure unless they personally perform the procedure.

3. The program will need to justify any questionable counting of cases by identifying the student's level of participation and learning outcomes achieved.

How to Use This Document:

Students and program administrators are encouraged to read the document in its entirety. The "Interpretive Guidelines" column includes language intended to amplify and clarify the intent of the clinical learning experience. When the Interpretive Guidelines reflect definitions found in the glossary of COA accreditation standards, it will be so indicated. For example, (*see Glossary, "Clinical hours")*.

Examples may be included in more than one Clinical Experience category for increased clarity. For example, information regarding regional techniques used in obstetric management may be found in obstetric management, pain management encounters, and regional techniques. This underscores the need to read the entire document for maximum clarity.

The COA standards no longer include an exhaustive list of anatomical categories. Several anatomic categories were eliminated in the current standards because the experiences are common across all programs. Therefore, some clinical learning experiences will not have an appropriate anatomic category (e.g., extremities, extrathoracic, perineal (e.g., colonoscopy), extracranial (e.g., ECTs), and routine pacemaker insertions. Some cases will appropriately be recorded in two anatomic categories. A single case may be counted in one anatomic category, more than one anatomic category, or no anatomic category at all. All anesthetic cases are considered valuable learning experiences, and therefore should be counted regardless of whether they are assigned to an anatomic category. Therefore, the total number of cases recorded in anatomical categories may not add up to the total number of cases.

Program administrators are encouraged to contact the COA with any questions regarding the appropriateness of students counting specific clinical learning experiences and the NBCRNA regarding the reporting of required clinical learning experiences on the NBCRNA transcript. This will allow the COA and the NBCRNA to promote consistency in how clinical learning experiences are counted and reported respectively, and further develop these guidelines.

CLINICAL EXPERIENCES	Interpretive Guidelines	Examples
Total Clinical Hours **(2000)**	Clinical hours include time spent in the actual administration of anesthesia (i.e., anesthesia time) and other time spent in the clinical area. Total clinical hours are inclusive of total hours of anesthesia time; therefore, this number must be equal to or greater than the total number of hours of anesthesia time. (see *Glossary, "Clinical hours"*)	Examples of other clinical time would include in-house call, preanesthesia assessment, postanesthesia assessment, patient preparation, OR preparation, and time spent participating in clinical rounds.
Patient Physical Status	Each patient must have only one physical status. The Patient Physical Status categories are to be used only for learning experiences where the student administers an anesthetic. They are not to be used for other learning situations that cannot be counted as a case.	Students would not include the Patient Physical Status category for code blue responses, intubations outside the OR, vascular access consultations, and other situations where an actual anesthetic is not being administered.
Class I		
Class II		
Classes III – VI (total of a, b, c & d) **(200)** [300]		
a. Class III **(50)** [100]		
b. Class IV **(10)** [100]		
c. Class V **(0)** [5]		
d. Class VI		
Total Cases **(600)** [700]		
Special Cases		
Geriatric 65+ years **(100)** [200]		
Pediatric		
Pediatric 2 to 12 years **(30)** [75]		

Pediatric (less than 2 years) **(10)** [25]		
Neonate (less than 4 weeks) [5]		
Trauma/Emergency (E) **(30)** [50]	An emergency case allows the student the	An emergency case:

CLINICAL EXPERIENCES	Interpretive Guidelines	Examples
	opportunity to provide anesthesia under one or more of the following conditions: 1) there is an urgency/continued threat to patient well-being; 2) there are fewer resources available then during regular operating hours; and/or 3) there is limited assessment and planning time allowed for the unscheduled case. When a case is deemed an emergency based on the professional opinion of the operating practitioner (i.e., surgeon, proceduralist), the case may be counted as an emergency case.	A student is notified that a case is being brought to the OR on an emergent basis, as deemed by the surgeon. The patient has a newly diagnosed kidney stone and is rapidly moving into a septic state. The patient has not been NPO. Due to time constraints, the preanesthetic evaluation is limited. <u>Not an emergency case</u>: It is 1:40 p.m. Wednesday and the orthopedic surgeon has a patient with a fracture hip who has been in the hospital for 36 hours to stabilize her cardiac and hemodynamic status. The patient is NPO, has been fully assessed, and her physical status optimized. The surgeon wishes to do this case at this time instead of waiting to schedule it for the following day. This would not be considered an emergency case as it meets none of the three conditions that define an emergency case.

CLINICAL EXPERIENCES	Interpretive Guidelines	Examples
Obstetrical management (total of a & b) **(30)** [40]	This category is intended to ensure students have adequate clinical experiences during all stages of labor and delivery. Students may count clinical experiences in this category only if the procedure being performed is intended to facilitate delivery of the fetus.	A student performs an anesthetic for an appendectomy on a patient whose fetus is at 18 weeks gestation. Since the procedure is not intended to result in delivery of the fetus, the procedure cannot be counted as an obstetrical management experience. A student performs an anesthetic for a cervical cerclage on a patient with cervical insufficiency. Since the procedure is not intended to result in delivery of the fetus, the procedure cannot be counted as obstetrical management experience.
	The COA is aware the number of required cesarean deliveries (10) and analgesia for labor cases (10) do not equal the total number of required Obstetrical Management cases (30). Obstetrical patient populations are unpredictable during students' OB rotations. Requiring students to have a greater number of Obstetrical Management experiences assures that the total number of required OB case experiences is greater without being too prescriptive.	A student who has completed sixty (60) OB anesthesia experiences, eight (8) of which are cesarean deliveries. The student would not meet the minimum case requirements for graduation**.** Although the student with sixty (60) obstetrical management experiences far exceeds the minimum number required for obstetrical management, the students fails to meet the minimum number of ten (10) cesarean deliveries. The student would need to administer two (2) additional anesthetics for cesarean deliveries in order to meet the required minimum.
a. Cesarean delivery **(10)** [15]	When anesthesia is delivered for a cesarean delivery, regardless of whether it is a continuation of a labor epidural, it is	A student places an epidural catheter for pain management during labor. Following a trial of labor, the patient proceeds to

CLINICAL EXPERIENCES	Interpretive Guidelines	Examples

	counted in this category.	cesarean delivery. The student records the experience as ONE case, for ONE patient. This case is recorded in the following categories:
		• Pain Management Encounter
		• Obstetrical management
		  o Cesarean delivery
		  o Analgesia for labor
		• Anatomic category-abdominal
		• Regional techniques
		  o Management
		  o Actual Administration
		  ▪ Epidural
		  ◆ Pain Management
		  ◆ Anesthesia
		Anesthesia time for the case should include the patient assessment and preparation, subsequent epidural catheter placement, and any other face-to-face time with the patient. The cumulative anesthesia time would include both the labor epidural face-to-face time and the intra-operative time during the cesarean delivery. If the case proceeds to emergent cesarean delivery, it would also count as an emergency case.

		A student administers a spinal anesthetic for cesarean delivery and remains for the management of the case. This case is recorded in the following categories: • Obstetrical management

CLINICAL EXPERIENCES	Interpretive Guidelines	Examples
		o Cesarean delivery • Anatomic category-abdominal • Regional techniques o Management ▪ Anesthesia o Actual administration ▪ Spinal ◆ Anesthesia If the case is an emergent cesarean delivery, it would also count as an emergency case.
b. Analgesia for labor **(10)** [15]	Students performing a pre-anesthetic assessment, developing a plan of care, performing an intervention (e.g., epidural catheter placement), and providing care following the intervention, should count the experience as a case. The case is counted as a SINGLE case, and a SINGLE pain management encounter even if the student periodically returns to evaluate the patient and adjust the epidural dosing.	A student places an epidural catheter for labor pain management. The student provides care after placing the epidural for a period of time and periodically reassesses the patient, adjusting the dosing as indicated. This case is recorded as ONE case in the following categories: • Obstetrical management o Analgesia for Labor • Pain management encounter • Regional techniques o Management ▪Pain management o Actual administration ▪ Epidural ◆ Pain management
	If the student only performs the intervention (i.e., another provider has performed the assessment and developed the plan of care), the student	A student places an epidural catheter for labor pain management. Another anesthesia provider performed the preanesthetic assessment and patient

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	does not count the experience as a case, but does count the skills performed (e.g., epidural administration).	preparation. The student's involvement was limited to performance of the procedure. The student would count this as neither an anesthetic case nor a pain management encounter, but would take credit for the clinical skills performed. The experience would be recorded in the following categories: • Regional techniques o Actual administration ▪ Epidural ◆ Pain management
	When a student performs a combined spinal/epidural catheter placement, the student counts both procedures (i.e., spinal and epidural).	A student places a combined spinal/epidural catheter for labor pain management. This case is recorded in the following categories: • Obstetrical management o Analgesia for Labor • Pain management encounter • Regional techniques o Management ▪Pain management o Actual administration ▪ Epidural ◆ Pain management o Actual administration ▪ Spinal ◆ Pain management
Pain Management Encounters *(see Glossary "Pain Management Encounters")* **(15)** [50]	Pain management encounters are **individual** one-on-one patient interactions for the express purpose of intervening in	A student is called to labor and delivery to assess a patient for labor pain. The patient has a pre-existing lumbar epidural catheter.

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	an acute pain episode or a chronic pain condition. Pain management encounters must include a patient assessment prior to initiating a therapeutic action. Pain management encounters include, but are not limited to, the following: 1. Initiation of epidural or intrathecal analgesia. 2. Facilitation or initiation of patient controlled analgesia. 3. Initiation of regional analgesia techniques for post-operative pain or other non-surgical pain conditions, including but not limited to, plexus blocks, local anesthetic infiltration of incisions, intercostal blocks, etc. 4. Adjustment of drugs delivered, rates of infusion, concentration or dose parameters for an existing patient controlled analgesia or patient controlled epidural analgesia. 5. Pharmacologic management of an acute pain condition in PACU. 6. Trigger point injections. 7. Electrical nerve stimulation. (see *Glossary, "Pain management encounters"*)	The student formulates a plan that includes increasing the dose of the analgesic being delivered by PCEA (patient-controlled epidural analgesia). The student would not count this as an anesthetic case. The experiences would be recorded in the following categories: • Obstetrical management o Analgesia for labor • Pain management encounter • Regional Techniques o Management ▪ Pain Management
	Administering an epidural for an esophagectomy for postoperative pain management may count as a regional	The student is providing anesthesia for an esophagectomy, and places an epidural catheter for post-op pain management prior

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	technique-pain management and a pain management encounter.	to induction of general anesthesia. Toward the end of the procedure, the student initiates the post-operative analgesia plan utilizing the epidural. The student records all typical case activities for the esophagectomy, and the following categories: • Pain management encounter • Regional Techniques o Actual Administration ▪ Epidural ◆ Pain Management o Management ▪ Pain Management
	Administering a spinal anesthetic for a cesarean delivery does not count as a pain management encounter. If the administration of regional anesthesia is the primary anesthetic technique for a surgical procedure, it does not constitute an acute pain management encounter. If a regional technique is used post-operatively for analgesia/acute pain management, and the student's participation meets the definition of a pain management encounter, then the experience may be counted as both a pain management encounter and a regional management-pain management experience.	The student administers a spinal anesthetic for cesarean delivery. The spinal drugs include a local anesthetic for surgical anesthesia and a long-acting opioid for post-operative analgesia. This would not count as a pain management encounter because it does not meet the definition of a pain management encounter. The long-acting opioid is part of the intraoperative anesthesia plan. However, three hours after the patient is discharged from the PACU, the student performs a post-operative patient assessment for pain management and determines the need for supplemental IV opioid (or any other intervention including no change in the plan). This interaction

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		would be counted as a pain management encounter, but not an anesthetic case.
		A student provides moderate sedation to a patient having a facet joint injection being performed by an anesthesiologist. The student is supervised by a CRNA or another anesthesiologist. This does not count as a pain management encounter. It does count as an anesthetic case.
	The administration of intravenous analgesics as an adjunct to a general or regional anesthesia technique does not constitute a pain management encounter for purposes of meeting minimal COA required clinical experiences. (see *Glossary, "Pain management encounters"*) The administration of analgesics (e.g., fentanyl) upon arrival in the PACU does not constitute a pain management encounter.	The student has transported the patient to the PACU, and is transferring care to the PACU nurse. The student administers an opioid before leaving the bedside in response to the patient's complaints of pain. This <u>does not</u> count as a pain management encounter because the plan for immediate postoperative pain management is integral to all anesthetic plans. The student turns over the care of a patient to the PACU nurse. Following appropriate recovery from the anesthetic, the patient is transferred to the nursing unit. Two hours later, the acute pain service is consulted for pain management. The same student who administered the intraoperative anesthetic is now asked to respond to the acute pain service consult request. The student evaluates the patient, develops a plan of care, and executes the plan. The student

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		does count this as a pain management encounter.
	The administration of regional anesthesia as the primary anesthetic technique for a surgical procedure does not constitute an acute pain management encounter.	The student administers a spinal anesthetic in a patient undergoing a transurethral resection of the prostate. This does not constitute a pain management encounter.
	Placement and/or initiation of a regional technique (e.g., epidural catheter, instillation of intrathecal opioids, peripheral nerve block) not being used as the primary anesthetic is counted as a regional technique, administration (if the student performs the procedure), and pain management (if the student initiates pain management care using a catheter placed by another provider). This would also be counted as a pain management encounter if the postoperative plan for analgesia is different than the intraoperative anesthesia plan.	The student places an epidural catheter for intraoperative anesthesia in a patient undergoing femoral-popliteal bypass. Toward the end of the procedure, the student initiates the post-operative analgesia plan utilizing the epidural by changing the epidural solution to a weak local anesthetic plus an opioid. The experiences would be recorded in the following categories: • Pain management encounter • Vascular • Regional Technique o Actual Administration ▪ Epidural ◆ Anesthesia o Management ▪ Anesthesia ▪ Pain Management This counts as a pain management encounter because the plan for immediate postoperative pain management is different than the intraoperative anesthetic plan. The student assesses the patient's pain

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		throughout the intraoperative phase, and develops the postoperative pain management based on that assessment. The student initiates the postoperative pain management plan, and assesses its effectiveness postoperatively.
Anatomical Categories[9]	The total number cases recorded in anatomical categories will not add up to the total number of cases. Some cases will appropriately be recorded in two anatomic categories where other cases may have no category at all. The list of anatomic categories is not an exhaustive list.	Examples of cases that do not have a designated anatomical category include extremities, extrathoracic, perineal (e.g., colonoscopy), extracranial (e.g., ECTs), and routine pacemaker insertions.
Intra-abdominal **(75)**	Abdominal procedures are defined as cases where the abdomen is entered via open or laparoscopic procedures.	Examples of intra-abdominal cases include total abdominal hysterectomy and radical prostatectomy. ERCP and other intestinal endoscopy cases would not be counted as intra-abdominal.
Intracranial (total of a & b) **(5)** [20]	Intracranial procedures are defined as cases where a procedure occurs within the brain.	An example of a closed case is anesthesia administered for a gamma knife procedure.
a. Open **(3)** [10]	Open intracranial procedures are when the brain is accessed through the skull, or an incision from another anatomical area.	Open procedure examples include: Burr hole decompression and intracranial procedures via transphenoidal approach.
b. Closed	Closed intracranial procedures are when the brain is accessed percutaneously via catheter.	Examples of closed intracranial procedures include gamma knife procedures and percutaneous aneurysm coiling.

[9] Count all that apply.

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Oropharyngeal	**(20)**	Oropharyngeal procedures are defined as any procedure that is performed within or via the oral cavity, including the oropharynx. Programs are expected to ensure students obtain a variety of cases within this category. While a student could technically meet the requirements by providing anesthesia for 20 patients having the same procedure (e.g., bronchoscopy), that would not meet the spirit or intent of this category.	Bronchoscopy, esophagoscopy, ERCP, oral procedures (e.g., orthodontic/dental, tongue, uvea, palate, pharynx, tonsils, adenoids, bony fractures), trans oral cervical spine, odontectomy.
Intrathoracic (total of a, b, & c)	**(15)** [40]	Intrathoracic procedures are defined as a procedure within the thorax where the thorax is surgically open or entered via laparoscope.	

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a. Heart		
1. Open Heart Cases (total of a & b) **(5)** [10]		
a) With Cardiopulmonary Bypass		
b) Without Cardiopulmonary Bypass	Open heart procedures performed without cardiopulmonary bypass	Examples include off-pump coronary artery bypass and minimally invasive direct coronary artery bypass.
2. Closed Heart Cases [10]		Examples of closed heart cases include cardiac ablation, implanted cardioverter-defibrillator, transcatheter aortic valve replacement/implantation, transcatheter pulmonary valve replacement, perivalvular leak closure, percutaneous mitral valve repair, pacemaker lead extraction (lead over 1 year old), pulmonary artery/vein stent, and left atrial appendage closure device, and Lariat procedure. Cases that are not appropriate to count in this category are routine cardiac catheterizations and routine pacemaker insertions.
b. Lung **(5)**	Includes procedures on the lung via open thoracotomy and via thorascope.	Pulmonary artery thrombectomy, Video-assisted thoracic surgery (VATS) involving the lung. Simple insertion of a chest tube to treat pulmonary conditions is not counted as an intrathoracic procedure.
c. Other	Includes intrathoracic procedures performed either via open thoracotomy, thorascope, or percutaneous approaches that are not appropriate to count in other intrathoracic categories.	Examples include: mediastinoscopy; procedures on the esophagus, thymus, and diaphragm; and procedures on great vessels including the thoracic aorta (e.g., thoracic aneurysm repair via open thorax or

CLINICAL EXPERIENCES		Interpretive Guidelines	Examples
			endovascular stent placement) or vena cava (e.g., open repair of vena cava or Greenfield filter placement).
Neck	**(5)** [10]		Tracheostomy
Neuroskeletal	**(20)**		
Vascular	**(10)** [30]		Examples include endovascular aortic stents and other open or percutaneous procedures performed on vascular structures.
Methods of Anesthesia			
General anesthesia	**(400)**		
Inhalation induction	**(25)** [40]		
Mask management[6]	**(25)** [35]	A general anesthetic that is administered by mask, exclusive of induction. Mask management should be counted when it is used for induction and maintenance of anesthesia. Mask management should not be counted when it is just used only for induction.	A student induces general anesthesia and subsequently administers a non-depolarizing muscle relaxant. The student ventilates the patient via facemask awaiting onset of the muscle relaxant. Following onset of the muscle relaxant, the student places an endotracheal tube. This does not count as mask management. A student induces general anesthesia using a total intravenous anesthesia technique for a short procedure (e.g., ECT, cardioversion). The airway is managed via facemask, with or without an oral airway. This does count as mask management.

[6] A general anesthetic that is administered by mask, exclusive of induction.

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Supraglottic airway devices (total of a & b) **(35)** [50]		
a. Laryngeal Mask		A student inserts a laryngeal mask and then performs a laryngeal mask-guided endotracheal intubation. The experiences would be recorded in the following categories. • Supraglottic airway devices o Laryngeal mask • Tracheal intubation o Oral • Alternative tracheal intubation techniques o Other techniques
b. Other		Includes but not limited to: cuffed oropharyngeal tubes with esophageal cuffs, cuffed oropharyngeal tubes without esophageal cuffs, and cuffless anatomically shaped pharyngeal tubes.
Tracheal intubation (total of a & b) **(250)**	Tracheal intubation may only count towards case number requirements if the student is successful at placing the endotracheal tube. Unsuccessful attempts at intubation may not be counted.	
a. Oral		A student performs a direct laryngoscopy and is unable to pass the endotracheal tube, or inadvertently intubates the esophagus. This experience may not be counted as a tracheal intubation. A student successfully places an endotracheal

CLINICAL EXPERIENCES	Interpretive Guidelines	Examples
		tube using an alternative method such as a videolaryngoscope. The experiences would be recorded in the following categories: • Tracheal intubation o Oral • Alternative tracheal intubation techniques Other techniques
b. Nasal [5]		
Alternative tracheal intubation/endoscopic techniques[7] **(25)** [50] (total of a & b) *(see Glossary "Alternative tracheal intubation techniques")*	Alternative tracheal intubation techniques include, but are not limited to fiberoptic intubation, light wand, retrograde tracheal intubation, transtracheal jet ventilation, gum elastic bougie/tracheal tube changer, LMA guided intubation, cricothyroidotomy, video assisted laryngoscopy, etc. .	The student uses a video laryngoscope (e.g., GlideScope, McGrath), to insert an endotracheal tube. Since the GlideScope and McGrath are both rigid, these experiences would be recorded under b. Other Techniques.

[7] Tracheal intubations accomplished via alternative techniques should be counted in both tracheal intubation and the alternative tracheal intubation categories.

CLINICAL EXPERIENCES	Interpretive Guidelines	Examples
a. Endoscopic techniques[8] (total of 1 & 2) **(5)** [15]	Airway endoscopy is the skillful manipulation of a flexible endoscopic instrument into the airway cavity. It requires familiarity with the anatomy of the airway and is performed for purposes of preoperative evaluation or airway management. Devices utilized for airway endoscopy include but are not limited to fiberoptic bronchoscopes, non-fiberoptic bronchoscopes, flexible fiberoptic and non-fiberoptic videoscopes.	
1. Actual tracheal tube placement	Placement of a tracheal tube in a human patient using a flexible endoscope.	
2. Simulated tracheal tube placement	Placement of a tracheal tube in simulated patient (i.e., human patient simulator or task trainer). Simulated experiences may satisfy part, but not all, of the required five (5) experiences in endoscopic techniques.	
3. Airway assessment	Airway assessment via flexible endoscopic bronchoscopy may be performed to evaluate the anatomy of the airway for patency and/or assure optimal ventilatory mechanics. Airway assessment with a flexible endoscope via an *in situ* endotracheal or endobronchial tube does not count toward the required five (5) endoscopic techniques.	Examples of experiences that may be counted in this category include: • Verification of proper placement of an endotracheal tube, endobronchial tube, or bronchial blocker. • Determination of the patency of airway devices and the need for repositioning or replacement. • Airway assessment for:

[8] Simple models and simulated experiences may be used to satisfy part of this requirement. No clinical experiences can be obtained by simulation alone.

CLINICAL EXPERIENCES	Interpretive Guidelines	Examples
		o Vocal cord function o Presence of airway injury or disease (e.g., perforation, stenosis) o Readiness for extubation o Removal of a foreign body or other tracheal debris (e.g., mucous plug)
b. Other techniques **(5)** [25]	The placement of supraglottic airway devices is not included in this category because it is counted in the Supraglottic airway devices category. However, if a tracheal tube is advanced into the trachea via the supraglottic airway device, the experience would be counted in this category.	Examples of experiences that may be counted in this category include; light wand, retrograde tracheal intubation, transtracheal jet ventilation, gum elastic bougie/tracheal tube changer, laryngeal mask airway guided intubation, cricothyroidotomy, and video assisted laryngoscopy.
Emergence from anesthesia **(300)**		
Regional techniques	A minimum number of regional anesthetics is required to ensure all graduates have experience with each regional anesthetic technique. While a minimum number of experiences is required in each regional technique sub-category, the total number of regional techniques can include a variety of combinations provided they meet both the requirement for the subcategory and the total required regional techniques. As long as students administer no fewer than ten (10) spinals, ten (10) epidurals and ten (10) peripheral blocks, the remaining five additional techniques required can be all of one technique or any	A student who administers ten (10) spinals, ten (10) epidurals and fifteen (15) peripheral blocks would meet the required case numbers [10+10+15=35]. A student who administered fourteen (14) spinals, sixteen (16) epidurals and five (5) peripheral blocks would not meet the required case numbers [14+16+5=35]. The student would need 5 more peripheral blocks to meet the required case numbers. A student who administers thirty-eight (38) spinals, 42 epidurals, and 9 peripheral blocks would <u>not</u> meet the required case numbers

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	combination of techniques totaling thirty-five (35).	[38 + 42 + 9 = 89]. The student would need 1 more peripheral block to meet the required case numbers. Remember that simulation can be used to meet some, but not all, of the required peripheral blocks.
Actual Administration (total of a, b, c, & d) **(35)**		
a. Spinal (total of 1 & 2) **(10)** [50]		
1. Anesthesia		
2. Pain management		
b. Epidural (total of 1 & 2) **(10)** [50]		
1. Anesthesia		
2. Pain management		
c. Peripheral[9] (total of 1&2) **(10)** [50]		
1. Anesthesia		
Upper		
Lower		
2. Pain management		
Upper		
Lower		
d. Other[10] (total of 1 & 2)		

[9] Simple models and simulated experiences may be used to satisfy part of this requirement. No clinical experiences can be obtained by simulation alone.

[10] Examples include truncal, cutaneous, head, and neck blocks (e.g., transversus abdominis plane, rectus sheath, ilioinguinal, iliohypogastric, oral, and maxillofacial blocks).

CLINICAL EXPERIENCES	Interpretive Guidelines	Examples
1. Anesthesia		
2. Pain management		
Management (total of 1 & 2) **(35)** [50]		
1. Anesthesia		
2. Pain management		
Moderate/deep sedation **(25)** [50]	**"Monitored Anesthesia Care, or MAC Anesthesia" is not synonymous with moderate/deep sedation.** MAC Anesthesia describes an anesthesia service in which a licensed anesthesia provider participates in the care of a patient undergoing a procedure. The term MAC is not included in the standards because it does not define any particular level of sedation. The American Society of Anesthesiologists, in their "Continuum of Depth of Sedation," publishes the following definitions.	If a student provides anesthesia care (e.g., preanesthetic evaluation, intraoperative monitoring), but does not administer any medications, the experience will count as an anesthetic case, but does not count as moderate/deep sedation.
	Minimal sedation/anxiolysis is a drug-induced state of anxiolysis in which patients are able to respond normally to verbal commands.	If a student administers oral midazolam or perhaps nitrous oxide for IV placement, or intravenous midazolam for removal of external fixation device, and the patient remains able to respond normally to verbal commands. The experience will count as an anesthetic case, but does not count as moderate/deep sedation.
	Moderate sedation/analgesia ("Conscious Sedation") refers to a drug-induced depression of consciousness during which patients respond purposefully to verbal	A student administers a sedative, narcotic and/or anxiolytic medication for an inguinal hernia repair. The patient has decreased level of consciousness, but awakens either to

CLINICAL EXPERIENCES	Interpretive Guidelines	Examples
	commands, either alone or accompanied by minimal tactile stimulation. No interventions are required to maintain a patent airway and spontaneous ventilation is adequate.	voice command or when touched lightly on the shoulder. The patient appropriately follows verbal commands. The airway is patent and ventilation is adequate. This experience is counted in this category. Administering sedative, narcotic and/or anxiolytic medication for a patient receiving a forearm surgery with a regional block in place. The patient has decreased level of consciousness, but awakens either to voice command or when touched lightly on the shoulder. The patient appropriately follows verbal commands. The airway is patent and ventilation is adequate. This experience is counted in this category.
	Deep sedation is a drug-induced depression of consciousness during which patients cannot be easily aroused, but respond purposefully following repeated or painful stimulation. The ability to independently maintain ventilatory function may be impaired. Patients may require assistance in maintaining a patent airway, and spontaneous ventilation may be inadequate. Reflex withdrawal from a painful stimulus is not considered a purposeful response.	A student is administering midazolam and liberal doses of fentanyl in preparation for flexible videoscopic intubation. The patient requires a jaw lift to achieve a respiratory rate of 6 per minute, and responds purposely to deep tactile stimulation (i.e., does not respond to verbal or light tactile stimuli). This experience is counted in this category.
	General Anesthesia is a drug-induced loss of consciousness during which patients are	A student is administering propofol for a colonoscopy. The patient requires a jaw lift

CLINICAL EXPERIENCES	Interpretive Guidelines	Examples
	not arousable, even by painful stimulation. The ability to independently maintain ventilatory function is often impaired. Patients often require assistance in maintaining a patent airway, and positive pressure ventilation may be required because of depressed spontaneous ventilation or drug-induced depression of neuromuscular function. Cardiovascular function may be impaired.	to achieve a patent airway, has a respiratory rate of 6 per minute, and is not responsive to deep painful stimulation. The patient does not respond as the proceduralist performs the colonoscopy. The patient is under general anesthesia. This clinical experience is not counted in the moderate/deep sedation category; rather, it is counted as a general anesthetic.
Arterial Technique		
Arterial puncture/catheter insertion **(25)**		
Intra-arterial blood pressure monitoring **(30)**	This category is used anytime an arterial catheter is used to monitor arterial waveforms and other clinical variables.	Examples include standard arterial lines, as well as newer technologies that employ arterial lines such as FloTrac sensor (with either Vigileo or EV1000 platform), VolumeView sensor (with TruWave transducer and EV1000 platform), LiDCO*plus*, PiCCO.
Central Venous Catheter	Insertion of a central venous catheter is distinctly different from inserting a pulmonary artery catheter. These experiences are recorded in separate categories.	
Placement[11] – Non-PICC (total of a & b) **(10)** [15]		
a. Actual	The placement of an introducer qualifies as	

[11]Simple models and simulated experiences may be used to satisfy this requirement. For students enrolled on or after January 1, 2020, no clinical experiences can be obtained by simulation alone. Insertion of Peripherally-Inserted Central Catheters (PICC) do not meet the requirements for Central Line Placement.

CLINICAL EXPERIENCES	Interpretive Guidelines	Examples
[5]	a central venous catheter insertion. If the student also floats a pulmonary artery catheter, the student would count it as both a central venous catheter insertion and a pulmonary artery catheter insertion. The student should perform the procedure including insertion and directing of the needle. Assistance can be provided, but the procedure must be performed by the student.	
b. Simulated	Simple models and simulated experiences may be used to satisfy this requirement. For students enrolled on or after January 1, 2020, no clinical experiences can be obtained by simulation alone.	
Placement – PICC (total of a & b)	Insertion of a Peripherally-Inserted Central Catheters (PICC) does not meet the requirement for Central Venous Catheter Placement.	
a. Actual		
b. Simulated		
Monitoring **(15)**	This category is used anytime a central venous catheter is used to monitor central venous waveforms and other clinical variables. Monitoring right atrial pressure with a pulmonary artery catheter is counted under pulmonary artery catheter monitoring, not under this category.	Examples include standard central venous catheters, as well as newer technologies that employ central venous lines such as VolumeView sensor (with TruWave transducer and EV1000 platform) and PiCCO. It is anticipated that others will be available in the future.
Pulmonary Artery Catheter		
Placement [5]		

CLINICAL EXPERIENCES	Interpretive Guidelines	Examples
Monitoring [10]	This category includes invasive monitoring using a pulmonary artery catheter.	
Other		
Ultrasound guided techniques (total of a & b) [10]		
a. Regional		
b. Vascular	This includes both central and peripheral vascular structures.	
Intravenous catheter placement **(100)**		If an intravenous catheter is placed using ultrasound, the procedure would be counted in this category, and also in: • Other o Ultrasound guided b. Vascular
Advanced noninvasive hemodynamic monitoring	Newer non-invasive technologies have emerged as reliable methods to monitor cardiac output and other hemodynamic variables. The data derived from the various technologies are useful in determining appropriate patient management.	Examples include the Venus 1000, $NiCO_2$, BioZ CardioProfile, NICOM, ClearSight, and USCOM. It is anticipated that others will be available in the future.