



**American Association of Nurse Anesthesiology (AANA)
Continuing Education (CE) Content Codes**

9/2/2025

Content Code	Category/Topic	Engagement in an activity or the successful completion of a course/program related <i>but not limited to:</i>
00.00 – Miscellaneous/Other		
00.01	Break	
00.02	Miscellaneous/Other	
01.00 – Professional Aspects		
01.01	History of Anesthesiology and Nurse Anesthesiology	The discipline of nurse anesthesiology developed in response to surgeons seeking a solution to the high morbidity and mortality attributed to anesthesia at that time. Serving as pioneers in anesthesia for a full range of specialty surgical procedures and refining anesthesia techniques and equipment.
01.02	Ethics of Anesthesia	Moral principles that govern a person's or group's behavior. The Code of Ethics for the CRNA sets forth the ethical values and responsibilities of the individual CRNA/nurse anesthesiologist and the profession of nurse anesthesia as expressed in broad principles of conduct and professional integrity.
01.03	Leadership	
01.03.01	Development of Leadership Skills	Holding a leadership role in the anesthesia group, healthcare organization, or community, and improving efficacy in leadership roles.

01.03.02	Association Representation and Governance	Responsibilities of a governing body, officers, volunteers, and key employees in defining and upholding the organization's mission, vision, and values, while providing leadership and strategic direction.
01.03.03	Organizational/Facility/Department Representation and Governance	A leadership position within the respective department or organization where the CRNA upholds the organization's mission, vision, and values addressing the needs of stakeholders.
01.03.04	Local, State and Federal Representation and Governance	Advocating at the local, state, and federal levels for CRNA practice autonomy through legislative engagement, service on regulatory and advisory boards, and active participation in shaping nursing policy and professional standards.
01.03.05	Public Relations	Specific education or experiences related to effective public communication skills on behalf of an entity larger than the individual alone.
01.04	Practice Management	The expansive knowledge and skills for successful leadership, including business operations, reimbursement, credentialing and privileging, facility accreditation, contracting, and human resources.
01.04.01	Billing and Insurance Reimbursement	Education on coding, documentation, and collections processes from individuals, public or private insurers, other corporate entities, and state or federal government bodies.
01.04.02	Non-Personnel Logistics	Comprehensive knowledge of equipment, supplies, medications, and capital expenditures regarding budget management.
01.04.03	Personnel Logistics	Scheduling programs, recruitment, onboarding, and retention of staff.
01.04.04	Staff Development	Ongoing professional development using formal and informal educational content to develop and evaluate new and existing competencies, discuss evidence-based practice, performance improvement, and additional topics as identified. Includes all In-services, Morbidity & Mortality, Journal Club, Case

		Conference, Quality Improvement, and Infection Control activities.
01.04.05	Quality Improvement Systems	A systematic, formal approach to the analysis of practice performance and efforts to improve performance.
01.04.06	Regulatory Compliance	Training, education, implementation and monitoring of policies and procedures to meet the standards and regulations of facility accreditation organizations (e.g., The Joint Commission, QUAD A, AAAHC) and government regulators (e.g., Centers for Medicare & Medicaid Services (CMS), Occupational Safety and Health Administration (OSHA).
01.04.07	Marketing	Promotion of anesthesia practice to stakeholders, clinics, ambulatory surgery centers (ASCs), hospitals, and healthcare systems.
01.05	Credentialing	<p>Credentialing involves obtaining and verifying evidence of the qualifications of the healthcare professional to provide care or services. These qualifications or credentials include licensure, education, training, experience, professional and technical competence, or other qualifications.</p> <p>Credentialing includes knowledge of initial certification and maintenance of certification issues as administered by the National Board of Certification and Recertification of Nurse Anesthetists (NBCRNA).</p>
01.05.01	Initial Certification	
01.05.02	Maintenance of Certification	
01.05.03	Licensure	
01.06	Government Relations	Federal and state government relations, healthcare reform, and legal aspects including scope of practice, supervision, opt-out, and prescriptive authority.

01.06.01	Federal Level	Healthcare reform, legal aspects of scope of practice, supervision, opt-out, and advocating at the federal level.
01.06.02	State Level	Healthcare reform, legal aspects of scope of practice, supervision, opt-out, and advocating at the state/local level.
01.06.03	Military and Veterans Affairs	Issues and regulations that affect CRNA scope of practice and role in military treatment facilities and with the Veterans Health Administration.
01.06.04	Indigenous Affairs	Healthcare reform, legal aspects of scope of practice, and affairs involving the Indian Health Service, and Native American and Alaskan Native tribes.
01.07	Diversity, Equity, and Inclusion	Providing holistic, patient centered anesthesia care, analgesia and pain management services for patients from diverse backgrounds while identifying and being sensitive to the unique needs of each patient.
01.07.01	Cultural Awareness	Being cognizant, observant, and conscious of similarities and differences among and between cultural groups.
01.07.02	Cultural Humility	A process of openness, self-awareness, being egoless, and incorporating self-reflection and critique after willingly interacting with diverse individuals.
01.07.03	Diversity	Understanding the background of employees and patients being served, including culture, gender, sexual orientation, religious beliefs, and socioeconomic status. Also, hiring and retaining a workforce that is representative of the patient population served.
01.07.04	Equity & Inclusion	Giving both employees and patients a voice to help provide/receive high-quality care and encouraging the presence of a diverse healthcare staff in the treatment experience of patients.

01.08	Education	
01.08.01	Council on Accreditation of Nurse Anesthesia Educational Programs	The process for directors, assistant directors, and all other members involved in the granting of public recognition to nurse anesthesia educational programs and institutions awarding degrees that meet nationally established standards of academic quality.
01.08.02	Nurse Anesthesiology Programs	Curricular design, implementation, and evaluation.
01.08.03	Simulation	Designing, implementing, or participating in experiential learning. Simulation is a structured, experiential learning strategy where learners engage in realistic clinical scenarios to practice and apply their knowledge and skills in a safe and relevant environment.
01.08.04	Clinical Preceptorship	Educational programs for CRNA clinical preceptors to bridge the gap in knowledge of adult education techniques to become proficient clinical educators.
01.08.05	Mentorship	Education related to mentorship of CRNAs, residents, and new hires in the clinical setting.
01.09	Scientific Foundation: Research, Quality Improvement, and Evidence Based Practice	
01.09.01	Research	Research is a systematic and methodical scientific process used to generate, validate, and refine knowledge. Research produces evidence that informs best practices, enhances patient care, and drives continuous improvement in nursing practice and health systems.
01.09.02	Evidence-Based Practice	Problem-solving approach that integrates a systematic search for an official appraisal of the most relevant evidence (may or may not be research based) to answer a clinical, educational, or administrative question. This

		approach then applies current best available evidence, clinical expertise and unique circumstances, and preferences of patients in the practice setting.
01.09.03	Quality Improvement	Data-driven systematic approach by which individuals work together to improve specific internal systems, processes, costs, productivity, and quality outcomes within an organization.
01.09.04	Dissemination of Findings	Knowledge dissemination within an institution/organization, system, regionally, nationally, or internationally including but not limited to poster or podium presentation or publication in books or professional journals.
01.09.05	Peer Review of Manuscripts for Publication	The review process for submission of manuscripts written in various formats including but not limited to American Medical Association (AMA) and American Psychological Association (APA) or education related to becoming a peer reviewer.
01.10	Interprofessional Collaboration	Including but not limited to interprofessional teams working on quality improvement, research, scholarship, and other related activities.
01.11	Public Health	
01.11.01	Advocacy and Service as a Clinical Expert	Providing exceptional care, advocating for patient well-being, and contributing positively to the healthcare community.
01.11.02	Advance Directives	Legally binding document recognized under state law that allows patients to provide directions to family, friends and healthcare professionals about the healthcare they wish to receive if they become incapacitated or unable to communicate or make decisions regarding their own care.
01.11.03	Emergency Planning and Response	Scenarios that include, but are not limited to active shooter events, natural disasters, mass casualty events, and pandemic readiness.

01.11.04	Strategies to Limit and Treat Tobacco Abuse	Various modalities to prevent or cease tobacco abuse (e.g. cigarette smoking, cigars, chewing tobacco, and vaping) or information on cessation strategies (nicotine patch, nicotine gum, Chantix, and mental strategies).
01.11.05	Strategies to Limit and Treat Alcohol Abuse	AANA's Helpline, wellness program, and public health initiatives.
01.11.06	Strategies to Limit and Treat Prescribed and Over-the-Counter Medication Abuse	AANA's Helpline, wellness program, and public health initiatives.
01.11.07	Strategies to Limit and Treat Illicit Drug/Substance Abuse	AANA's Helpline, wellness program, and public health initiatives.
01.11.08	Strategies to Limit and Treat Environmental Exposure to Contaminants	Environmental exposures leading to an increase in adverse medical conditions such as: Airborne silicone, asbestos, coal and anesthetic gas waste.
01.12	Practitioner Health and Wellness	Activities and strategies which promote a positive state of mind, body, and spirit reflecting a balance of effective adaptation, resilience, and coping mechanisms in personal and professional environments that enhance quality of life.
01.12.01	Strategies and Interventions to Promote Practitioner Health	Improving comprehensive and holistic wellness practices for healthcare practitioners.
01.12.02	Strategies to Limit and Manage Practitioner Stress	Stress management and coping strategies for healthcare practitioners.
01.12.03	Drug Diversion and Substance Abuse	AANA's Helpline, wellness program, and public health initiatives.
01.13	Promotion of a Culture of Safety	Awareness of safety and identification of unsafe environments in the workplace (i.e. bullying and harassment) and reporting responsibilities.

01.14	Medicolegal Anesthesia	Malpractice issues for the CRNA (anatomy of a lawsuit, depositions, case analysis, risk analysis, and liability concerns).
01.15	The Future of Nurse Anesthesiology	Planning and discussion surrounding the projected growth of the nurse anesthesiology profession, working to full extent of knowledge, training, and scope of practice.
02.00 – Fundamentals of Anesthesia Practice		
02.01	Standards of Nurse Anesthesia Practice	
02.01.01	Patient Rights	The rights of patients, and those in their support system, within an organization.
02.01.02	Hemodynamic Monitoring	Measuring and assessing the cardiovascular system's function to ensure adequate tissue perfusion and oxygenation.
02.01.03	Transfer of Care	The transfer of patient care among individuals within the care team, among interprofessional services, and between healthcare organizations.
02.01.04	Principles of Anesthesia Safety	Safety concerns specific to anesthetic practice including perioperative and interdisciplinary time-outs, communication and teamwork, personal protective equipment, airway fires, and evacuation routes.
02.02	Anatomy, Physiology, and Pathophysiology	
02.02.01	The Cardiovascular System and Effects of Anesthesia	
02.02.02	The Respiratory System and Effects of Anesthesia	
02.02.03	The Neurological System and Effects of Anesthesia	

02.02.04	The Renal System and Effects of Anesthesia	
02.02.05	The Hepatobiliary System and Effects of Anesthesia	
02.02.06	The Gastrointestinal System and Effects of Anesthesia	
02.02.07	The Musculoskeletal System and Effects of Anesthesia	
02.02.08	The Gynecological System and Effects of Anesthesia	
02.02.09	Genitourinary System and Effects of Anesthesia	
02.02.10	The Endocrine System and Effects of Anesthesia	
02.03	Pharmacology, Pharmacokinetics, and Pharmacodynamics	General principles, pharmacokinetics, pharmacodynamics, and drug receptor concepts, including drug metabolism and excretion.
02.03.01	Inhalational Anesthetics	The administration of anesthesia via inhalation of volatile anesthetics and medical gases.
02.03.02	Intravenous Anesthetics and Induction Agents	The administration of anesthesia using intravenous anesthetics.
02.03.03	Local Anesthetics	Anesthetic drugs that produce anesthesia by acting on ion channels.
02.03.04	Analgesics and Reversal Agents	Drugs used primarily to treat pain, including but not limited to opioids and non-opioids.

02.03.05	Neuromuscular Blocking Agents and Reversal Agents	Drugs that interact with the neuromuscular junction (including neuromuscular blocking and reversal agents) and their monitoring.
02.03.06	Pharmacology for Medical Management of the Anesthetized Patient	
02.03.07	Implications of Herbal Supplements, Alternative Therapies, and Illicit Substances	Includes but not limited to alcohol, prescription drugs, illicit drugs, vitamins, and herbal supplements.
02.04	Perioperative Considerations for Specific Patient Populations	
02.04.01	Neonatal Anesthesia	
02.04.02	Pediatric Anesthesia	
02.04.03	Adult Anesthesia	
02.04.04	Obstetric Anesthesia	
02.04.05	Geriatric Anesthesia	
02.04.06	Transgender Anesthesia	
02.04.07	Opiate-Sparing Techniques	Anesthetic techniques that limit the use of intraoperative systemic, neuraxial or intracavitary opioids.
02.04.08	Enhanced Recovery After Surgery (ERAS) Strategies	Patient-centered, evidence based, multidisciplinary team developed pathways for a surgical specialty and facility culture to reduce the patient's surgical stress response, optimize their physiologic function, and facilitate recovery. These care pathways form an integrated continuum, as the patient moves from home through the pre-hospital/pre-admission, preoperative, intraoperative, and postoperative phases of surgery and return to home.

02.05	Positioning of the Anesthetized Patient	Appropriate patient positioning for all types of surgical procedures and avoidance of nerve injury and skin breakdown.
02.06	Infection Control and Prevention	Practices and procedures that, when applied consistently, prevent or reduce the risk of transmission of microorganisms to health care providers, patients, and visitors.
02.07	Fluid Management	Fluids, electrolytes, and blood component therapy including anticoagulation and fibrinolytic therapy management, as well as goal-directed fluid therapy.
02.07.01	Crystalloid Therapies	Use of crystalloid solutions, such as saline or lactated ringers, to manage fluid balance, maintain blood pressure, and support organ perfusion during anesthesia, ensuring appropriate fluid management in perioperative care.
02.07.02	Blood Component Therapies	Administration of blood products, such as red blood cells, plasma, platelets, and cryoprecipitate, to manage blood loss, improve oxygen delivery, and correct coagulopathies during surgery, ensuring safe and effective perioperative transfusion management.
02.07.03	Other Colloid Therapies	Use of colloid solutions, such as albumin or hydroxyethyl starch, to maintain intravascular volume, support blood pressure, and improve tissue perfusion during anesthesia, ensuring appropriate fluid resuscitation and management in perioperative care.
02.07.04	Fluid Management Strategies	Calculating a patient's fluid deficit and intraoperative needs.
02.08	Life Sustaining and Resuscitation Interventions	Techniques and protocols for providing critical interventions, airway management, defibrillation, and medication administration, to stabilize and revive patients during life-threatening emergencies in the perioperative or clinical setting.

02.08.01	Life Support Protocols [Basic life support (BLS)/Advanced Cardiac Life Support (ACLS)/Pediatric Life Support (PALS)/Neonatal Resuscitation Program (NRP)/Neonatal Life Support (NALS)/Advanced Trauma Life Support (ATLS)]	Knowledge and skills necessary for emergent patient resuscitation using evidence-based protocols for any stage of the human lifespan.
02.08.02	Difficult Airway Management	Education/training designed to enhance knowledge and skills in managing the difficult airway utilizing assistive personnel, algorithms, and specialized equipment.
02.08.03	Malignant Hyperthermia	Recognition, prevention, and management of this rare, life-threatening reaction to certain anesthetic agents, including early identification of symptoms like hypermetabolism, muscle rigidity, and hyperthermia, and administering prompt treatment such as dantrolene to prevent severe complications.
02.08.04	Local Anesthetic Systemic Toxicity (LAST)	Recognition, prevention, and management of toxic reactions to local anesthetics, including symptoms like central nervous system excitation and cardiovascular collapse, and implementing prompt treatment, such as lipid emulsion therapy, to prevent severe complications.
02.08.05	Massive Transfusion Protocol	Skills to rapidly and safely administer large volumes of blood products in emergencies, ensuring proper ratios, timely intervention, and complication management.
02.09	Monitored Anesthesia Care	Monitored Anesthesia Care (MAC) is defined by CMS. It's a specific anesthesia service for a diagnostic or therapeutic procedure where a patient's condition necessitates the presence of qualified anesthesia personnel to monitor and manage their physiological functions. It's not just about sedation, but includes the pre-procedure assessment, intra-procedure care, and post-procedure management by a qualified anesthesia provider.
02.10	General Anesthesia	Safe administration of anesthetic agents, airway

		management, and continuous monitoring of vital signs to ensure patients remain unconscious, pain-free, and stable throughout surgical procedures.
02.10.01	Induction of General Anesthesia	The process of administering anesthetic agents to smoothly transition a patient from consciousness to unconsciousness, ensuring airway control, hemodynamic stability, and patient safety during the initiation of anesthesia.
02.10.02	Maintenance of General Anesthesia	Managing anesthetic depth, monitoring vital signs, and adjusting medications to ensure the patient remains unconscious, stable, and pain-free throughout the duration of the surgical procedure.
02.10.03	Emergence from General Anesthesia	Safely reversing anesthesia, restoring consciousness, and ensuring stable vital signs while managing pain, airway protection, and potential complications as the patient awakens after surgery.
02.10.04	Total Intravenous Anesthesia	Administering anesthesia solely through intravenous agents, requiring careful dosing, continuous monitoring of depth of anesthesia, and ensuring patient stability without the use of inhaled anesthetics.
02.11	Regional Anesthesia	
02.11.01	Intravenous Regional Anesthesia	Including but not limited to intravenous (IV) regional anesthetic blocks (i.e. Bier Blocks).
02.11.02	Peripheral Nerve Blockade: Upper Extremities	Peripheral nerve blocks of the upper extremity including, but not limited to cervical plexus, suprascapular, axillary (circumflex), interscalene, supraclavicular, infraclavicular, axillary, and terminal branch blocks.
02.11.03	Peripheral Nerve Blockade: Lower Extremities	Peripheral nerve blocks of the lower extremity including, but not limited to sciatic (popliteal, sub gluteal, and anterior approaches), fascia iliaca compartment, femoral, lateral femoral cutaneous, obturator, saphenous (adductor canal), and ankle

		blocks.
02.11.04	Truncal Nerve/Plexus Blockade	Peripheral nerve blocks of the trunk including but not limited to transversus abdominis plane (subcostal-oblique and classic posterior), thoracic and lumbar paravertebral, paraspinous, intercostal, quadratus lumborum, rectus sheath, ilioinguinal, iliohypogastric, genitofemoral, pectoralis nerve (PEC I/II), and serratus anterior blocks.
02.11.05	Neuraxial Anesthesia: Spinal	Administering anesthetic agents into the subarachnoid space in the spinal cord to produce rapid, temporary loss of sensation and motor function below the injection site, ensuring proper technique, patient monitoring, and management of potential complications.
02.11.06	Neuraxial Anesthesia: Epidural, Caudal, Combined Spinal Epidural (CSE)	Administration of anesthetic agents into the epidural and subarachnoid space of the spine, providing continuous pain relief while allowing variable control over sensory and motor block, with an emphasis on proper technique, dosing, and patient safety during and after the procedure.
02.12	Vascular Access	
02.12.01	Peripheral Venous Access (with or without ultrasound)	Techniques for safely inserting IV catheters into peripheral veins to allow for the administration of fluids, medications, and blood products, while ensuring proper site selection, insertion technique, and monitoring for complications.
02.12.02	Central Venous Access	Techniques for placing catheters into large central veins for the administration of medications, fluids, and monitoring central venous pressure, with an emphasis on ultrasound guidance, aseptic technique, and complication management.
02.12.03	Pulmonary Artery Catheter Placement	Insertion and management of a catheter into the pulmonary artery to monitor hemodynamic parameters such as cardiac output (CO), pulmonary artery pressures, and mixed venous oxygen saturation, emphasizing proper technique, interpretation of data, and management of

		potential complications.
02.12.04	Peripheral Arterial Access (with or without ultrasound)	Safe insertion of catheters into peripheral arteries to monitor blood pressure continuously and obtain arterial blood gas samples, emphasizing proper technique, aseptic protocols, and monitoring for complications such as bleeding or thrombosis.
03.00 – Technology & Equipment		
03.01	Anesthesia Delivery Equipment	Understanding the operation, maintenance, and safety of essential anesthesia devices, such as anesthesia machines, ventilators, monitors, and drug delivery systems, ensuring their proper use to support patient safety and effective anesthesia management during procedures.
03.01.01	Anesthesia Gas Machine	Maintenance and functioning, methods of troubleshooting, modes of ventilation, and unique characteristics of different models.
03.01.02	Other Volatile Agent Delivery Systems	Delivery systems used in austere/remote locations (i.e. mission trips, deployed military units).
03.01.03	Intravenous Delivery Systems	Safe and effective use of IV equipment, such as infusion pumps and tubing systems, for the administration of fluids, medications, and blood products, ensuring accurate dosing, flow control, and monitoring to avoid complications.
03.02	Airway Management	Skills performed to achieve and maintain airway patency. This is accomplished by clearing or preventing airway obstructions caused by the tongue, the airways adjuncts themselves, foreign bodies, or materials from the body itself, such as blood or stomach content, the latter resulting in aspiration.
03.02.01	Non-invasive Equipment	Involving nasal cannula, face masks, continuous positive airway pressure (CPAP)/bilevel positive airway pressure (BiPAP)

03.02.02	Endotracheal Devices	Devices used in the trachea to deliver medical gases (oxygen, air, inhalational anesthetics).
03.02.03	Supraglottic Devices	Devices used to support ventilation that is positioned proximal to the vocal cords.
03.02.04	Video Laryngoscopy	Equipment utilizing a video display during laryngoscopy.
03.02.05	Fiberoscopy	Procedures involving a flexible fiber-optic instrument used to view an object or area, such as body cavity, that would otherwise be inaccessible (including simulation for demonstration and practice of skills).
03.02.06	Emergency Intervention	Methods of ventilation in the difficult airway algorithm (i.e. jet ventilation, surgical/percutaneous airway, retrograde intubation, light wand, intubating stylets/tube changers).
03.03	Cardiovascular System	
03.03.01	Cardiac Rhythm and Rate Monitoring and Interpretation	Use of electrocardiograms (ECGs) and other monitoring systems to track heart rate and rhythm, emphasizing the identification of normal and abnormal patterns, arrhythmias, and conduction abnormalities to guide clinical decision-making and ensure patient safety during anesthesia and surgery.
03.03.02	Noninvasive Blood Pressure Monitoring and Interpretation	Use of cuff-based devices to measure blood pressure, emphasizing proper technique, accurate interpretation of readings, and the ability to recognize abnormal values and trends to ensure safe perioperative care and timely intervention.
03.03.03	Invasive Blood Pressure Monitoring and Interpretation	Placement and use of arterial catheters to continuously measure blood pressure in real time, emphasizing proper insertion techniques, waveform analysis, and interpretation of data to detect hemodynamic changes and ensure precise blood pressure management during surgery or critical care.
03.03.04	Invasive Cardiac Output Monitoring	Invasive measurements of CO, stroke volume (SV),

	and Interpretation	fluid status, ejection fraction (EF).
03.03.05	Noninvasive Cardiac Output Monitoring and Interpretation	Noninvasive measurements of CO, SV, fluid status, EF.
03.03.06	Transesophageal/Transthoracic Echocardiogram Measurement and Interpretation	Use of ultrasound imaging to assess heart structure and function, with emphasis on acquiring and interpreting real-time images to evaluate cardiac output, valve function, and overall cardiac health, aiding in perioperative decision-making and management of hemodynamic stability.
03.03.07	Cardiopulmonary Bypass, Intra-Aortic Balloon Pump (IABP), or veno-venous (VV) or veno-atrial (VA) Extracorporeal Membrane Oxygenation (ECMO) Management	Ensuring hemodynamic stability, appropriate anesthetic depth, anticoagulation management, and optimal perfusion and oxygenation during bypass, while adapting techniques to physiological changes. Proficient operation of the IABP, including precise timing, hemodynamic monitoring, and complication management. Comprehensive ECMO management, covering patient selection, cannulation, monitoring, and complication resolution for critically ill patients.
03.04	Respiratory and Metabolic Systems	Content referring to the respiratory system and the effects of anesthesia. Includes various types of ventilators including jet ventilation and ECMO. Providing both cardiac and respiratory support to patients whose heart or lungs are unable to provide an adequate amount of gas exchange to sustain life.
03.04.01	Ventilator Management	Including intraoperative and critical care ventilation strategies.
03.04.02	End-Tidal Carbon Dioxide (ETCO ₂) Monitoring and Interpretation/Capnography	Measuring the concentration of carbon dioxide at the end of exhalation, emphasizing its use in assessing ventilation, airway integrity, and metabolic status, as well as interpreting ETCO ₂ waveforms to guide clinical decisions during anesthesia and resuscitation.

03.04.03	Oximetry	Use of pulse oximeters to measure blood oxygen saturation levels, emphasizing proper placement, troubleshooting, and interpretation of readings to assess respiratory function and ensure adequate oxygenation during anesthesia and in critical care settings.
03.05	Neurological and Neuromuscular Systems	Content referring to the nervous system (including the central and peripheral nervous system) and the musculoskeletal system and the effects of anesthesia.
03.05.01	Invasive Intracranial Pressure Monitoring and Interpretation	Use of intracranial devices to measure pressure within the skull, emphasizing proper placement, continuous monitoring, and interpretation of intracranial pressure (ICP) values to detect and manage elevated intracranial pressure, guiding interventions to prevent brain injury in critically ill or neurosurgical patients.
03.05.02	Noninvasive Intracranial Pressure Monitoring and Interpretation	Using noninvasive techniques to estimate intracranial pressure, emphasizing the interpretation of these assessments to monitor for increased ICP and guide clinical management in patients at risk for brain injury.
03.05.03	Cerebral Oximetry Monitoring and Interpretation	Use of near-infrared spectroscopy (NIRS) to measure regional cerebral oxygen saturation, emphasizing the interpretation of these readings to assess brain oxygenation and detect cerebral hypoxia, guiding interventions to prevent neurological injury during surgery or critical care.
03.05.04	Evoked Potential Monitoring and Interpretation	Measuring the electrical activity in the brain, spinal cord, or peripheral nerves in response to stimuli, emphasizing the interpretation of these signals to assess neural pathway integrity and detect potential neurological damage during surgeries or in critical care settings.
03.05.05	Electroencephalogram Monitoring and Interpretation	"Processed electroencephalography" (pEEG), a method of monitoring brain activity during procedures like anesthesia.
03.05.06	Peripheral Nerve Stimulation	Train four (TOF) monitoring (quantitative and

	Monitoring and Interpretation	qualitative monitors), motor evoked potentials (MEPs), somatosensory evoked potentials (SSEPs), electromyography (EMG), and auditory brain response (ABR).
03.06	Temperature Management	
03.06.01	Temperature Monitoring Equipment	Proper use and interpretation of devices such as thermistors, tympanic probes, esophageal and bladder temperature monitors to accurately measure and track patient body temperature during anesthesia and critical care, ensuring timely interventions to maintain normothermia and prevent complications.
03.06.02	Thermoregulation Equipment	Use of devices such as warming blankets, forced-air warming systems, and cooling blankets to manage and maintain a patient's body temperature during surgery and anesthesia, emphasizing proper application, monitoring, and understanding the effects of temperature regulation on patient outcomes.
03.07	Point-of-Care Laboratory Testing	Lab work necessary to safely care for various patients and the interpretation or meaning of the results and subsequent treatment at the point of care.
03.07.01	Blood Chemistry Measurement and Interpretation	Analysis of blood samples to assess various biochemical parameters, emphasizing the interpretation of these values to guide clinical decision-making and monitor patient status during anesthesia and critical care.
03.07.02	Hematology Measurement and Interpretation	Analysis of blood components, including red blood cells, white blood cells, hemoglobin, and platelets, emphasizing the interpretation of complete blood count (CBC) and other hematological tests to guide diagnosis, monitor treatment, and ensure safe perioperative management during anesthesia and critical care.
03.07.03	Coagulation Factors Measurement and Interpretation	Thromboelastography (TEG) and rotational thromboelastometry (ROTEM).

03.07.04	Arterial Blood Gas (ABG) Measurement and Interpretation	Obtaining and analyzing arterial blood samples to assess oxygenation, ventilation, and acid-base balance, emphasizing the interpretation of ABG results to guide clinical decision-making and manage respiratory and metabolic conditions during anesthesia and critical care.
03.07.05	Other (Non-Blood) Bodily Fluid Testing	Urinalysis, gastric content.
03.08	Radiation Safety and Principles of Fluoroscopy	Fundamentals of radiologic principles and various techniques, topographic anatomy, contrast agents, radiation safety, basic evaluation of normal and abnormal radiographs of the chest, evaluation of proper positioning of various tubes (e.g., endotracheal tubes, chest tubes) and lines (e.g., central venous catheters), and proper techniques of safe fluoroscopic equipment use.
03.09	Principles of Ultrasonography	Ultrasonography in anesthesia care or point of care ultrasound (POCUS) refers to the use of portable ultrasonography at a patient's bedside for therapeutic, procedural, and diagnostic purposes.
03.09.01	Point-of-Care Ultrasound use for Therapeutic or Procedural Applications	Guidance of regional and neuraxial techniques, or of central and peripheral vascular access, arterial access, pain management (acute and chronic pain procedures), needle decompression for pneumothorax.
03.09.02	Point-of-Care Ultrasound use for Diagnostic Applications	Airway, pulmonary, gastric, abdominal, or bladder evaluation. Use of transthoracic echocardiography (TTE) and transesophageal echocardiography (TEE).
03.10	Laser Safety	Understanding the principles of laser operation, the potential hazards associated with laser use in surgical environments, and the necessary precautions to ensure patient and staff safety, emphasizing appropriate protective equipment, protocols for managing laser-related injuries, and the integration of anesthesia care with laser procedures.

03.11	Telecommunications	Use of telecommunication technologies to enhance communication, consultation, and monitoring in anesthesia practice, emphasizing secure data transmission, remote patient assessments, and the integration of telehealth into perioperative care to improve access and outcomes while ensuring patient confidentiality and safety.
03.11.01	Electronic Medical Record Systems	Electronic documentation systems, appropriate use, security, cloud-based, and embedded storage.
03.11.02	Telemedicine Systems	Technologies, such as video conferencing, used to assess and consult from a distance.
04.00 – Preanesthetic Preparation and Management		
04.01	History and Physical Assessment	Systematically gathering a patient's medical history and performing a thorough physical examination to identify preexisting conditions, risk factors, and anesthetic considerations, ensuring informed decision-making and individualized care in the perioperative setting.
04.02	Diagnostic Testing and Interpretation	Understanding the various laboratory and imaging tests relevant to anesthesia practice, including blood tests, imaging studies, and cardiac evaluations, emphasizing the interpretation of results to assess patient risk, guide anesthetic management, and ensure optimal patient safety.
04.03	Diagnostic Imaging and Interpretation	High-energy electromagnetic radiation (X-ray), CT, fluoroscopy, POCUS, echocardiogram, and cardiac testing to guide decision making.
04.04	Medical Optimization for Anesthesia and Procedure	Systematically gathering information about patient's medical history to identify preexisting conditions, risk factors, and anesthetic

		considerations, and ensuring individualized optimization for care in the perioperative setting.
04.05	Development of a Patient-Centered Anesthetic Plan of Care	The ability to review, discuss, and produce a detailed assessment that includes the patient's medical history, preferences, and specific concerns regarding anesthesia to develop a mutually acceptable anesthetic plan of care.
04.05.01	Informed Consent	Knowledge and skills to effectively communicate risks, benefits, and alternatives to patients. This ensures shared decision-making, enhances patient understanding, and upholds ethical and legal standards in perioperative care.
04.05.04	Discharge Planning	Discharge planning best practices, covering topics like patient assessment, resource allocation, and interdisciplinary communication.
05.00 – Postanesthetic Management		
05.01	Post-anesthesia Care	
05.01.01	Postoperative Nausea and Vomiting Management	Techniques for preventing and treating postoperative nausea and vomiting (PONV), including its causes, risk factors, and management strategies.
05.01.02	Postoperative Pain Management	Acute surgical pain management modalities in the postoperative setting for patients across the lifespan who are undergoing inpatient or outpatient surgical procedures.
05.01.03	Postoperative Respiratory Management	Planning and treatment for recurarization, reintubation after planned extubation, and need for noninvasive forms of ventilation such as CPAP/BiPAP.
05.01.04	Postoperative Behavioral Management	Postoperative cognitive dysfunction (POCD) and postoperative delirium/agitation.

05.01.05	Management of Anesthetic Complications	Management of anesthetic complications throughout the perioperative period as well as discussion/interaction with family and patient.
05.02	Readiness for Discharge	
05.02.01	Discharge Instructions	Best practices regarding post-anesthesia care unit (PACU) discharge instructions including, but not limited to, guidance on medications, activity restrictions, dietary recommendations, and signs of complications that require immediate attention.
05.02.02	Transition of Responsibility of Care	Patient handoff in the intensive care unit (ICU), PACU, recovery room/same day surgery unit.
06.00 – Anesthesia for Specific Procedures		
06.01	Anesthesia for Intracranial Procedures	
06.02	Anesthesia for Extracranial Procedures	
06.02.01	Ophthalmic Procedures	
06.02.02	Ears, Nose, and Throat (ENT) Procedures	
06.03	Anesthesia for Neck Surgeries	
06.04	Anesthesia for Intrathoracic Procedures	
06.04.01	Cardiac Surgeries	
06.04.02	Lung Surgeries	
06.04.03	Mediastinal Surgeries	
06.05	Anesthesia for Intra-abdominal Procedures	
06.06	Anesthesia for Neuroskeletal Procedures	

06.07	Anesthesia for Vascular Procedures	
06.08	Anesthesia for Gynecologic Procedures	
06.09	Anesthesia for Obstetric Procedures	
06.10	Anesthesia for Genitourinary Procedures	
06.11	Anesthesia for Orthopedic and Podiatry Procedures	
06.12	Anesthesia for Plastic Surgery	
06.12.01	Reconstructive Procedures	
06.12.02	Cosmetic Procedures	
06.13	Anesthesia for Organ Transplants/Procurement	
06.13.01	Heart Transplantation	
06.13.02	Lung Transplantation	
06.13.03	Liver Transplantation	
06.13.04	Kidney Transplantation	
06.13.05	Pancreas Transplantation	
06.13.06	Intestinal Transplantation	
06.13.07	Tissue Transplantation	
06.13.08	Corneal Transplantation	
06.13.09	Organ Procurement	

06.14	Anesthesia for Therapeutic or Diagnostic Procedures	TEE, nonsurgical pain management (NSPM), magnetic resonance imaging (MRI), computed tomography (CT) guided procedures.
06.15	Anesthesia for Laparoscopic Procedures	
06.16	Anesthesia for Robotic-Assisted Procedures	
06.17	Anesthesia for Trans-Vascular Procedures	Transcatheter aortic valve replacement (TAVR), thrombectomies, embolization, aneurysm repairs.
06.18	Anesthesia for Endoscopic Procedures	
06.19	Trauma Anesthesia and Crisis Management	
07.00 – Non-Operating Room Anesthesia Care		
07.01	Considerations for Out-of-Department Anesthesia	Interventional radiology, radiation oncology, cardiac interventions, endoscopy, CT scan, nuclear medicine, MRI, emergency room interventions.
07.02	Considerations for Free-Standing Surgical Centers	Appropriate patient selection, necessary equipment, and necessary personnel, and transport resources/protocols to address all potential safety considerations.
07.03	Considerations for Office-Based Dental Anesthesia	Appropriate patient selection, necessary equipment, billing, and needed personnel to address all potential safety considerations. Legal considerations working with dentist's dependent upon the state.
07.04	Considerations for Office-Based Plastic Surgery Anesthesia	Appropriate patient selection, necessary equipment, billing, and needed personnel to address all potential safety considerations.
07.05	Considerations for Office-Based	Appropriate patient selection, necessary

	Dermatological Procedures and Aesthetics	equipment, billing, and needed personnel to address all potential safety considerations. Mastering techniques for administering botulinum toxin (BOTOX), dermal fillers, and platelet-rich plasma (PRP) therapy. This specialized training emphasizes advanced knowledge of facial anatomy, injection techniques, patient safety, and the art of achieving natural, balanced results.
07.06	Considerations for other Office-Based Anesthesia Services	Appropriate patient selection, necessary equipment, billing, and needed personnel to address all potential safety considerations, including for office-based fertility and office-based podiatry procedures and legal considerations.
07.07	Considerations for Outpatient Infusion Services	Appropriate patient selection, necessary equipment, billing, and needed personnel to address all potential safety considerations.
07.07.01	Ketamine Infusion and Psychedelic Therapy	Administration of psychedelic medications, a single ketamine infusion, or a series of ketamine infusions for the management of psychiatric disorders or chronic pain. Includes appropriate patient selection, current treatment interventions, and resources required for safe administration.
07.07.02	Fluid Management Therapy	Appropriate dosing and administration of a single infusion or series of infusions of colloid or crystalloid fluids. Indications for fluid administration and the choice of fluid replacement including appropriate patient selection, current treatment interventions, and resources required for safe administration.
07.08	Pain Management Services	Acute surgical pain management modalities in the perioperative setting for patients across the lifespan who are undergoing inpatient or outpatient surgical procedures.

07.08.01	Anatomy, Physiology, and Pathophysiology of Pain	Nociception, factors influencing pain, cellular response to pain, pain classification, and anatomical pain pathways.
07.08.02	Acute Surgical Pain Management	Continued assessment and management of surgical pain in the acute setting utilizing any variety of medications and/or techniques.
07.08.03	Nonsurgical Pain Management (NSPM)	Administration of neural or neuraxial blockade, physiological, pharmacological, and psychological techniques, and modalities for the management of acute and chronic pain outside the obstetrical and operating room areas.
07.08.04	Interventional Pain Strategies	Neuraxial principles/techniques, peripheral nerve block principles/techniques, neuroablative principles/techniques, regenerative treatment principles, neuromodulation principles, prevention identification and management of interventional complications, and palliative/end of life management.
07.08.05	Nonsurgical Pain Management Specific Radiation Principles and Safety	Fundamentals of radiologic principles and various techniques, use of and interpretation for diagnostic evaluation using MRI, CT, EMG/nerve conduction velocity (NCV), laboratory tests and other diagnostic studies, and proper techniques of safe fluoroscopic equipment use.
07.09	Non-Operating Room Anesthesia (NORA)	The anesthesia provider facilitates a therapeutic and diagnostic environment where anesthesia is performed that is familiar, well equipped, and as safe as it is in the operating room.

07.10	Anesthesia for Humanitarian Missions	Review and discussion of key considerations include assessing available equipment, medications, and monitoring tools to ensure safety standards are met in addition to adapting techniques and protocols based on the specific conditions and limitations of the mission site.
07.11	Military and Emergency Anesthesia Including Disasters and Weapons of Mass Destruction	Austere locations, Chemical, Biological, Radiological, Nuclear, and Explosive (CBRNE)
07.12	Complementary and Alternative Medicines (CAM)	This practice recognizes the totality of the human being - the interconnectedness of body, mind, emotion, spirit, social/cultural dynamics, relationships, context, and environment. Holistic nurse anesthesia practice may integrate CAM into clinical practice to treat people's physiological, psychological, and spiritual needs.
07.12.01	Acupuncture and Acupressure	The use of acupuncture or acupressure as an adjunct for pain management.
07.12.02	Hypnosis and Reiki	The art and science behind hypnosis and/or reiki and how these therapies can serve as adjuncts to manage stress, anxiety, and pain.
07.12.03	Audio/Visual Stimulation	Including but not limited to the utilization of music/movies/television (TV)/lights/games for distraction and management of surgical anxiety or pain.

See Appendix A for Abbreviations Key

AANA CE Content Codes – 9/2/2025

Appendix A

Abbreviations Key: AANA CE Content Codes

AANA American Association of Nurse Anesthesiology

ABG Arterial Blood Gas

ABR Auditory Brain Response

ACLS Advanced Cardiac Life Support

ASCs Ambulatory Surgery Centers

AMA American Medical Association

APA American Psychological Association

ATLS Advanced Trauma Life Support

BiPAP Bilevel Positive Airway Pressure

BLS Basic Life Support

BOTOX Botulinum Toxin

CAM Complementary and Alternative Medicines

CBC Complete Blood Count

CBRNE Chemical, Biological, Radiological, Nuclear, and Explosive

CE Continuing Education

CO Cardiac Output

CPAP Continuous Positive Airway Pressure

CRNA Certified Registered Nurse Anesthetist

CSE Combined Spinal Epidural

CT Computed Tomography

ECG Electrocardiograms

ECMO Extracorporeal membrane oxygenation

EF Ejection Fraction

EMG Electromyography

ENT Eyes, Ears, Nose, Throat

ERAS Enhanced Recovery After Surgery

ETCO2 End-Tidal Carbon Dioxide

IABP Intra-aortic Balloon Pump

ICP Intracranial Pressure

ICU Intensive Care Unit

IV Intravenous

LAST Local Anesthetic Systemic Toxicity

MEPs Motor Evoked Potentials

MRI Magnetic Resonance Imaging

NALS Neonatal Life Support

NBCRNA National Board of Certification and Recertification of Nurse Anesthetists

NCV Nerve Conduction Velocity

NIRS Near-infrared spectroscopy

NORA Non-Operating Room Anesthesia

NRP Neonatal Resuscitation Program

NSPM Nonsurgical Pain Management

OSHA Occupational Safety and Health

PACU Post Anesthesia Care Unit

PALS Pediatric Life Support

PEC Pectoralis nerve

pEEG Processed electroencephalography

POCUS Point of Care Ultrasound

PODC Postoperative Cognitive Dysfunction

PONV Postoperative Nausea and Vomiting

PRP Platelet-Rich Plasma

ROTEM Rotational Thromboelastometry

SSEPs Somatosensory Evoked Potentials

SV Stroke Volume

TAVR Transcatheter Aortic Valve Replacement

TEE Transesophageal Echocardiography

TEG Thromboelastography

TOF Train of Four

TTE Transthoracic Echocardiography

TV Television

VA Veno-atrial

VV Veno-venous

X-ray High-energy Electromagnetic Radiation