

Clinical Practicum Milestone Learning Objectives & Behavioral Markers

	Basic Milestones				Advanced Milestones							
	Phase 1	Phase 2	Phase 3	Phase 4	Cardiothoracic	Critical Care	Obstetrics	Perioperative Surgical Home	Pain Medicine	Pediatric	Neurosurgical	Trauma
Team-Based Direct Patient Care												
Patient Assessment- History												
Identify basic medical and surgical issues and implications for care	x	x										
Discuss basic medical and surgical issues and implications for care		x	x									
Identifies and discuss complex/advanced medical and surgical issues and implications for care			x	x								
Identifies and discusses disease processes and surgical issues related to subspecialty				x								
Identify and discuss advanced medical and surgical issues of complex or critically ill patients				x	x	x	x	x	x	x	x	x
Performs skeletonization of pre-operative examination and basic patient history-taking	x	x										
Performs comprehensive patient history and physical examination			x									
Perform targeted and comprehensive patient optimization through assessment and research			x	x	x	x	x	x	x	x	x	x
Ascertain patient NPO status, weight, drug allergies, confirms signed consent	x	x	x	x	x	x	x	x	x	x	x	x
Identify patient medications or co-morbidities that may have implication for anesthetic care		x	x	x								
Discusses patient medications and co-existing diseases that have implication for anesthetic care			x	x								
Discusses patient co-existing conditions and medical management for the critically ill or specialty care				x	x	x	x	x	x	x	x	x
Performs targeted patient assessment for acute and chronic pain morphologies									x			
Patient Assessment: Physical												
Performs airway assessment and accurate Mallampati classification	x	x	x	x	x	x	x	x	x	x	x	x
Classify patient according to ASA Risk Classification system	x	x	x	x	x	x	x	x	x	x	x	x
Performs appropriate comprehensive physical exam in a professional and culturally-sensitive manner		x	x	x	x	x	x	x	x	x	x	x
Patient Assessment: Laboratory & Functional Testing												
Identifies laboratory testing/functional tests required for patient acuity or case complexity		x	x	x	x	x	x	x	x	x	x	x
Review and discuss all laboratory values and functional tests ordered by surgical or primary care team			x	x	x	x	x	x	x	x	x	x
Communicates any abnormalities in lab tests/consultations/functional testing to preceptor				x	x	x	x	x	x	x	x	x
Patient Assessment: Pathophysiology & Optimization												
Identifies general patient health conditions effecting anesthetic care	x	x										
Discusses general patient health conditions effecting anesthetic care		x	x									
Discusses optimization of non-complex patients for non-complex surgical procedures			x									
Conduct targeted patient optimization plans based on condition, outcome goals and planned procedure			x	x	x	x	x	x	x	x	x	x
Discusses optimization of complex or critically ill patients				x	x	x	x	x	x	x	x	x

Optimizes preparation of patients with complex or critically ill patients				x	x	x	x	x	x	x	x	x
Optimizes preparation of patients requiring specialty care				x	x	x	x	x	x	x	x	x
Patient Assessment: Communication & Education												
Discuss risk/benefits/alternatives of anesthetic choice with preceptor		x	x	x								
Develop appropriate anesthetic plan based on patient assessment, chart review and research		x	x	x	x	x	x	x	x	x	x	x
Discuss risk/benefits/alternatives of anesthetic choice with patient				x	x	x	x	x	x	x	x	x
Inform patient about NPO and pre-op medication guidelines				x	x	x	x	x	x	x	x	x
Discuss risk/benefits/alternatives of all anesthetic choices with preceptor					x	x	x	x	x	x	x	x
Planning & Preparation: Anesthesia Work Station												
Perform thorough workstation set up on time, with appropriate safety checks performed	x	x	x	x	x	x	x	x	x	x	x	x
Checks for adequate suction	x	x	x	x	x	x	x	x	x	x	x	x
Checks central gas supply and cylinders	x	x	x	x	x	x	x	x	x	x	x	x
Checks and fills vaporizers	x	x	x	x	x	x	x	x	x	x	x	x
Checks for appropriate monitors integrity	x	x	x	x	x	x	x	x	x	x	x	x
Calibrates inspired oxygen monitor	x	x	x	x	x	x	x	x	x	x	x	x
Chooses appropriate breathing circuit (mask size, bag size)	x	x	x	x	x	x	x	x	x	x	x	x
Checks breathing circuit before each case	x	x	x	x	x	x	x	x	x	x	x	x
Setup appropriate airway equipment available for each case	x	x	x	x	x	x	x	x	x	x	x	x
Select and arrange appropriate emergency drugs/syringes available for each case	x	x	x	x	x	x	x	x	x	x	x	x
Perform thorough set up for non specialty/non-complex cases with appropriate safety checks performed		x	x									
Perform thorough set up with any advanced monitors/equipment necessary for complex patients				x	x	x	x	x	x	x	x	x
Planning & Preparation: Anesthetic Plan												
Identify medical and surgical considerations and risk factors affecting the choice of anesthetic	x											
Discusses medical and surgical considerations and risk factors affecting the choice of anesthetic		x										
Formulate plan including consideration of underlying medical conditions, history and surgical risk factors		x										
Formulates anesthetic plans for more complex non-specialty procedures/patients			x									
Formulates anesthetic plans for complex or specialty procedures/patients				x	x	x	x	x	x	x	x	x
Implementation & Management: Airway Management												
Perform bag-mask ventilation, recognizes patency and adequacy of ventilation using airway adjuncts	x	x	x									
Performs basic airway management with OETT/supraglottic devices/video laryngoscopy		x	x									
Confirms and recognizes correct/incorrect placement of ET/supraglottic devices		x	x	x	x	x	x	x	x	x	x	x
Applies the ASA difficult airway algorithm for airway management			x	x	x	x	x	x	x	x	x	x
Performs advanced airway techniques including awake FOB/lung isolation/nasal intubations				x	x	x	x	x	x	x	x	x
Manages all airways, including special situations trauma/tracheostomies			x	x	x	x	x	x	x	x	x	x
Implementation & Management: IV Placement & Fluid Management												
Identify most appropriate vein and catheter	x	x	x									
Successfully place patent intravenous line	x	x	x									
Selects appropriate rate for fluid infusion and monitor throughout case	x	x	x									

Utilize good aseptic technique and cleans up workstation afterwards	x	x	x									
Calculate patient fluid deficit, replacement and allowable blood loss	x	x	x	x								
Implementation & Management: Advanced IV Access & Regional Anesthesia												
Identify and describe appropriate anatomic landmarks for procedure		x	x	x	x	x	x	x	x	x	x	x
Maintain sterile technique throughout procedure		x	x	x	x	x	x	x	x	x	x	x
Manipulate tissues appropriately with minimal tissue damage		x	x	x	x	x	x	x	x	x	x	x
Demonstrate economy of movement and efficiency		x	x	x	x	x	x	x	x	x	x	x
Handle instruments appropriately and fluidly		x	x	x	x	x	x	x	x	x	x	x
Familiar with instruments, equipment and nomenclature		x	x	x	x	x	x	x	x	x	x	x
Plan course of procedure with smooth flow from one step to the other		x	x	x	x	x	x	x	x	x	x	x
Strategically use mechanical or personnel assistance when appropriate		x	x	x	x	x	x	x	x	x	x	x
Demonstrate familiarity with procedure		x	x	x	x	x	x	x	x	x	x	x
Implementation & Management: Monitoring & Equipment												
Applies and removes monitors appropriately and in a timely manner	x											
Demonstrates use of standard monitoring devices, including data interpretation		x	x									
Demonstrates use of advanced monitoring devices			x	x								
Demonstrates understanding of advanced equipment (i.e. TEE/ECHMO/IABP)					x							x
Implementation & Management: Anesthetic Management												
Discuss management of routine anesthetics	x											
Conducts routine anesthetic including management of common physiologic alterations		x	x									
Conducts complex anesthetics including management of physiologic alterations				x								
Conducts subspecialty anesthetic and management of physiologic alterations of for specialty procedures					x	x	x	x	x	x	x	x
Implementation & Management: Pain Management												
Recognizes need for intervention in common pain states	x											
Recognizes, discusses and initiates management of common pain states		x										
Manages uncomplicated periprocedural pain			x									
Manages more complex periprocedural pain				x								
Manages complex pain states including those with chronic pain				x	x	x	x	x	x	x	x	x
Implementation & Management: Peri-anesthetic Complication Management												
Discusses common peri-anesthetic complications	x	x										
Assist in management of common peri-anesthetic complications		x	x									
Manages common peri-anesthetic complications				x								
Manages peri-anesthetic complications associated with sub specialty or complex patients				x	x	x	x	x	x	x	x	x
Implementation & Management: Crisis Resource Management												
Recognize acutely ill or medically deteriorating patients		x										
Constructs and discusses prioritized differential diagnoses that include the most likely etiologies			x									
Manages clinical crises and initiates basic medical care for common acute events				x								

Manages clinical crises and assumes increasing responsibility for leadership skills during crisis management				x	x	x	x	x	x	x	x	x
Implementation & Management: Management of Critically Ill Patients												
Observe and discuss evaluation and monitoring of clinical status, acute changes and trends						x						
Evaluate and monitors patient status to identify acute change and trends						x						
Identifies relevant critical disease processes requiring urgent or emergent intervention						x						
Discusses and participate in development and initiation of treatment plan						x						
Develops, implements, and appropriately modifies treatment plan based on patients response						x						
Implementation & Management: Non-Technical Skills												
Situational Awareness												
Continually monitors patient and is attentive to the case		x	x	x	x	x	x	x	x	x	x	x
Promptly recognize changes in patient status		x	x	x	x	x	x	x	x	x	x	x
Understand etiology of underlying changes		x	x	x	x	x	x	x	x	x	x	x
Anticipate likely events		x	x	x	x	x	x	x	x	x	x	x
Reevaluates and reassesses situation		x	x	x	x	x	x	x	x	x	x	x
Problem Solving/Decision Making organized and efficient												
Prioritizes effectively		x	x	x	x	x	x	x	x	x	x	x
Balances risks		x	x	x	x	x	x	x	x	x	x	x
Prompt and firm decision making		x	x	x	x	x	x	x	x	x	x	x
Considers alternatives during crises		x	x	x	x	x	x	x	x	x	x	x
Communication												
Communicates clearly and effectively, using directed verbal and non-verbal communication	x	x	x	x	x	x	x	x	x	x	x	x
Completes anesthetic record neatly, completely and in a timely manner		x	x									
Maintains patient privacy in all environments	x	x	x	x	x	x	x	x	x	x	x	x
Communicates patient status clearly and effectively to preceptors/members of the care team	x	x	x	x	x	x	x	x	x	x	x	x
Communicates relevant patient information during transitions or transfers of care		x	x	x	x	x	x	x	x	x	x	x
Adapts communication to unique situations (i.e. crisis management, subspecialty care)			x	x	x	x	x	x	x	x	x	x
Communicate in contentious situations/conflict resolution (Expert- may be aspirational)				x	x	x	x	x	x	x	x	x
Personal Practice Management and Self-Development												
Identify any areas needing improvement	x	x	x	x	x	x	x	x	x	x	x	x
Set clear daily learning goals for technical skills	x	x	x	x	x	x	x	x	x	x	x	x
Set clear daily learning goals for anesthetic knowledge	x	x	x	x	x	x	x	x	x	x	x	x
Practice truthfulness and transparency related to patients, and practitioners	x	x	x	x	x	x	x	x	x	x	x	x
Demonstrates openness to constructive criticism	x	x	x	x	x	x	x	x	x	x	x	x
Willingness to learn from errors	x	x	x	x	x	x	x	x	x	x	x	x
Identifies critical incidents or potentially harmful events pertaining to one's patients	x	x	x	x	x	x	x	x	x	x	x	x
Identifies critical incidents or potentially harmful events and determines the reason they occurred		x	x	x	x	x	x	x	x	x	x	x
Identifies critical incidents or harmful events and modifies personal practice to mitigate recurrence				x	x	x	x	x	x	x	x	x
Reviews the literature and information relevant to specific clinical assignments	x	x	x	x	x	x	x	x	x	x	x	x

Acknowledges limits and seeks assistance from supervisor	x	x	x	x	x	x	x	x	x	x	x	x	x
Differentiate evidence based information from non-evidence based information			x	x	x	x	x	x	x	x	x	x	x
Continually analyzes personal practice to focus self directed life long learning		x	x	x	x	x	x	x	x	x	x	x	x
Incorporates national standards and guidelines into personal practice		x	x	x	x	x	x	x	x	x	x	x	x

Professionalism

Introduce him/herself as an AA student establishing a true and transparent relationship of care	x	x	x	x	x	x	x	x	x	x	x	x	x
Arrive to training site on time and prepared for learning	x	x	x	x	x	x	x	x	x	x	x	x	x
Eager to gain hands on experience and knowledge	x	x	x	x	x	x	x	x	x	x	x	x	x
Shows respect for all patient care team members	x	x	x	x	x	x	x	x	x	x	x	x	x
Shows respect and compassion for patient	x	x	x	x	x	x	x	x	x	x	x	x	x
Responsive to the needs of the patient/puts pt needs ahead of own	x	x	x	x	x	x	x	x	x	x	x	x	x
Displays dress and demeanor appropriate to a member of the ACT	x	x	x	x	x	x	x	x	x	x	x	x	x
Provides a safe and pleasant peri-operative experience for patient and family	x	x	x	x	x	x	x	x	x	x	x	x	x
Completes routine tasks reliably in uncomplicated circumstances with direct supervision	x	x	x	x	x	x	x	x	x	x	x	x	x
Student inspires trust in patient, staff and clinical preceptor	x	x	x	x	x	x	x	x	x	x	x	x	x
Accepts feedback from faculty members and incorporates suggestions into practice	x	x	x	x	x	x	x	x	x	x	x	x	x
Demonstrates knowledge related to fatigue management, sleep deprivation, and principles of well-being	x	x	x	x	x	x	x	x	x	x	x	x	x
Demonstrates level of integrity appropriate to profession	x	x	x	x	x	x	x	x	x	x	x	x	x

Bodies of Knowledge

Demonstrates understanding of Foundational science		x	x	x	x	x	x	x	x	x	x	x	x
Demonstrates understanding of surgical procedure and pathophysiology of underlying disease states		x	x	x	x	x	x	x	x	x	x	x	x
Demonstrates understanding basic pharmacology of anesthetic drugs	x	x											
Demonstrates understanding of anesthetic drugs and adjuvants			x	x	x	x	x	x	x	x	x	x	x
Demonstrates understanding of basic principles of clinical anesthesia appropriate for phase in the program	x	x	x	x	x	x	x	x	x	x	x	x	x
Demonstrates understanding oxygen delivery systems/anesthesia machine/ventilators/basic monitoring	x	x	x	x	x	x	x	x	x	x	x	x	x
Can discuss professional, safety and ethical standards and guidelines	x												
Applies medical knowledge in a clinical setting		x	x	x	x	x	x	x	x	x	x	x	x