

Rotation Director (email)	Matthew Kynes (j.matt.kynes@vumc.org)
Rotation Name	Regional Anesthesia in Austere Environments (Fellow)

COURSE OVERVIEW

Course Overview (75 – 100 words describing the course)
This rotation is focused on safe and effective performance of regional anesthesia in an austere surgical environment at AIC Kijabe Hospital in Kenya. This includes: 1) Screening of patients for regional anesthesia indications and contraindications. 2) Performance of regional blocks in a safe, effective, and efficient manner. 3) Optimization of anesthetic management to facilitate patient recovery, minimizing pain, nausea and other anesthetic effects. 4) Education of physicians, nurse anesthetists, and various trainees in regional anesthesia. 5) Supervision of junior trainees in the performance of above activities. 6) Performing these tasks in the setting of resource limitations. 7) Evaluating systems of anesthesia care delivery in a resource-limited setting and assisting quality improvement measures.

LEARNING OBJECTIVES

Examples of verbs to be used in stating the learning objectives:

Knowledge	<i>Knowledge Recall</i>	define, repeat, list, name, restate, identify, report
	<i>Knowledge Analysis</i>	distinguish, differentiate, analyze, calculate, compare, relate, categorize
	<i>Knowledge Synthesis</i>	compose, propose, design, formulate, construct, organize
	<i>Knowledge Application</i>	interpret, apply, employ, illustrate
Skills	Demonstrate (a procedure)	
	Perform (a physical exam)	
	Determine the presence of (a finding)	
	Use (lab tests)	
	Point out (a physical finding)	
	Keep track of (lab data)	
Attitudes	Practice (a technique)	
	Show consideration (for patient comfort)	
	Show respect (for colleagues)	
	Pay attention (to patient concerns)	
	Express point of view	
	Express satisfaction in doing a particular activity	

Patient Care: Fellows must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health in austere and remote settings.

	After successful completion of this rotation the fellow will be able to:	Methods of Evaluating Competency
Objective 1.	Conduct a patient assessment in austere settings; specifically the fellow must demonstrate basic physical exam skills as well as the ability to conduct a preoperative evaluation in a low tech environment	<input type="radio"/> Direct observation/Faculty Feedback
		<input type="radio"/> Written test
		<input checked="" type="radio"/> Oral presentation/quiz
		<input type="radio"/> Other (list)
Objective 2.	Demonstrate the ability to prepare for basic regional techniques in resource poor settings to include superficial cervical plexus, interscalene block, axillary brachial plexus block, IV regional anesthesia, wrist block, digital nerve block, intercostal nerve block, saphenous nerve block, ankle block, spinal anesthesia, erector spinae block, PENG block, sciatic block, lumbar epidural, combined spinal-epidural and mandibular nerve block	<input checked="" type="radio"/> Direct observation/Faculty Feedback
		<input type="radio"/> Written test
		<input type="radio"/> Oral presentation/quiz
		<input type="radio"/> Other (list)
Objective 3.	Demonstrate the ability to provide appropriate post-op pain management in remote settings with few available medications	<input checked="" type="radio"/> Direct observation/Faculty Feedback
		<input type="radio"/> Written test
		<input type="radio"/> Oral presentation/quiz
		<input type="radio"/> Other (list)
Objective 4.	Demonstrate effective use of ketamine analgesia and anesthesia	<input checked="" type="radio"/> Direct observation/Faculty Feedback
		<input type="radio"/> Written test
		<input type="radio"/> Oral presentation/quiz
		<input type="radio"/> Other (list)
Objective 5.	Demonstrate the ability to assemble, disassemble and repair basic anesthesia equipment	<input type="radio"/> Direct observation/Faculty Feedback
		<input type="radio"/> Written test
		<input checked="" type="radio"/> Oral presentation/quiz
		<input type="radio"/> Other (list)

Medical Knowledge: Fellows must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences, as well as the application of this knowledge to the safe practice of anesthesia in austere and remote settings.

	After successful completion of this rotation the fellow will be able to:	Methods of Evaluating Competency
Objective 1.	Understand the specific differences in the practice of anesthesia in austere and remote settings without compromising patient safety	<input checked="" type="checkbox"/> Direct observation/Faculty Feedback <input type="checkbox"/> Written test <input type="checkbox"/> Oral presentation/quiz <input type="checkbox"/> Other (list)
Objective 2.	Understand principles of, benefits of, and options for, regional anesthetic procedures and how to safely administer them in austere settings	<input checked="" type="checkbox"/> Direct observation/Faculty Feedback <input type="checkbox"/> Written test <input type="checkbox"/> Oral presentation/quiz <input type="checkbox"/> Other (list)
Objective 3.	Describe the global burden of surgical disease and the global anesthesia crisis	<input checked="" type="checkbox"/> Direct observation/Faculty Feedback <input type="checkbox"/> Written test <input type="checkbox"/> Oral presentation/quiz <input type="checkbox"/> Other (list)
Objective 4.	Explains complications of regional anesthetic techniques	<input checked="" type="checkbox"/> Direct observation/Faculty Feedback <input type="checkbox"/> Written test <input type="checkbox"/> Oral presentation/quiz <input type="checkbox"/> Other (list)
Objective 5.	Describe the options for acute pain management in austere and low-income settings	<input checked="" type="checkbox"/> Direct observation/Faculty Feedback <input type="checkbox"/> Written test <input type="checkbox"/> Oral presentation/quiz <input type="checkbox"/> Other (list)
Objective 6.	Understand the ethical standard for the provision of clinical care, donation policies and expired pharmaceuticals as an expatriate physician.	<input checked="" type="checkbox"/> Direct observation/Faculty Feedback <input type="checkbox"/> Written test <input type="checkbox"/> Oral presentation/quiz <input type="checkbox"/> Other (list)

Practice-based Learning and Improvement: Fellows must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning. Fellows are expected to develop skills and habits to be able to meet the following goals:

- identify strengths, deficiencies, and limits in one’s knowledge and expertise;
- set learning and improvement goals;
- identify and perform appropriate learning activities;
- systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement;
- incorporate formative evaluation feedback into daily practice;
- locate, appraise, and assimilate evidence from scientific studies related to their patients’ health problems;
- use information technology to optimize learning; and,
- participate in the education of patients, families, students, residents and other health professionals.

	After successful completion of this rotation the fellow will be able to:	Methods of Evaluating Competency
Objective 1.	Respond to real-time suggestions and advice for improvement in procedural technique, incorporating these suggestions into current and future performance.	X Direct observation/Faculty Feedback
		○ Written test
		○ Oral presentation/quiz
		○ Other (list): Journal Club
Objective 2.	Identify strengths, deficiencies, and limits in one’s knowledge and expertise. Set learning and improvement goals.	X Direct observation/Faculty Feedback
		○ Written test
		○ Oral presentation/quiz
		○ Other (list)
Objective 3.	Systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement	X Direct observation/Faculty Feedback
		○ Written test
		○ Oral presentation/quiz
		○ Other (list)
Objective 4.	Participate in the education of patients, families, students, residents and other health professionals across cultures in a culturally appropriate and accessible way	X Direct observation/Faculty Feedback
		○ Written test
		○ Oral presentation/quiz
		○ Other (list)

Interpersonal and Communication Skills: Fellows must demonstrate interpersonal and communication

skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals. Fellows are expected to:

- communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds;
- communicate effectively with physicians, other health professionals, and health related agencies;
- work effectively as a member or leader of a health care team or other professional group;
- act in a consultative role to other physicians and health professionals; and,
- maintain comprehensive, timely, and legible medical records, if applicable.

	After successful completion of this rotation the fellow will be able to:	Methods of Evaluating Competency
Objective 1.	Seek and obtain informed consent for regional anesthesia procedures, including providing procedure-specific side effects and risks as well as other relevant information and demonstrate effective use of translators for non-English speakers	X Direct observation/Faculty Feedback
		<input type="radio"/> Written test
		<input type="radio"/> Oral presentation/quiz
		<input type="radio"/> Other (list)
Objective 2.	Communicate clearly in a collegial manner that facilitates the achievement of care goals	X Direct observation/Faculty Feedback
		<input type="radio"/> Written test
		<input type="radio"/> Oral presentation/quiz
		<input type="radio"/> Other (list)
Objective 3.	Formulate care plans that utilize the multidisciplinary team approach, often within challenging medical and logistic settings.	X Direct observation/Faculty Feedback
		<input type="radio"/> Written test
		<input type="radio"/> Oral presentation/quiz
		<input type="radio"/> Other (list)
Objective 4.	Assist other health care team members to enhance delivering important information.	X Direct observation/Faculty Feedback
		<input type="radio"/> Written test
		<input type="radio"/> Oral presentation/quiz
		<input type="radio"/> Other (list)

Professionalism

Fellows must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles. Fellows are expected to demonstrate:

- compassion, integrity, and respect for others;
- responsiveness to patient needs that supersedes self-interest;
- respect for patient privacy and autonomy;
- accountability to patients, society and the profession; and,
- sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation.

	After successful completion of this rotation the fellow will be able to:	Methods of Evaluating Competency
Objective 1.	Demonstrate cross-cultural sensitivity and humility as well as the ability to productively interact with international colleagues and patients	X Direct observation/Faculty Feedback
		<input type="radio"/> Written test
		<input type="radio"/> Oral presentation/quiz
		<input type="radio"/> Other (list)
Objective 2.	Demonstrate sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation	X Direct observation/Faculty Feedback
		<input type="radio"/> Written test
		<input type="radio"/> Oral presentation/quiz
		<input type="radio"/> Other (list)
Objective 3.	Demonstrate compassion, integrity, and respect for others; responsiveness to patient needs that supersedes self-interest	X Direct observation/Faculty Feedback
		<input type="radio"/> Written test
		<input type="radio"/> Oral presentation/quiz
		<input type="radio"/> Other (list)
Objective 4.	Demonstrate respect for patient privacy and autonomy; accountability to patients, society and the profession	X Direct observation/Faculty Feedback
		<input type="radio"/> Written test
		<input type="radio"/> Oral presentation/quiz
		<input type="radio"/> Other (list)

Systems-based Practice

Fellows must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.

Fellows are expected to:

- work effectively in various health care delivery settings and systems relevant to their clinical specialty;
- coordinate patient care within the health care system relevant to their clinical specialty;
- incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population-based care as appropriate;
- advocate for quality patient care and optimal patient care systems;
- work in interprofessional teams to enhance patient safety and improve patient care quality; and
- participate in identifying system errors and implementing potential systems solutions.

	After successful completion of this rotation the fellow will be able to:	Methods of Evaluating Competency
Objective 1.	Demonstrate effective decision making in low-income setting	<input checked="" type="checkbox"/> Direct observation/Faculty Feedback <input type="checkbox"/> Written test <input type="checkbox"/> Oral presentation/quiz <input type="checkbox"/> Other (list)
Objective 2.	Incorporate considerations of cost awareness and risk-benefit analysis in patient-based care.	<input checked="" type="checkbox"/> Direct observation/Faculty Feedback <input type="checkbox"/> Written test <input type="checkbox"/> Oral presentation/quiz <input type="checkbox"/> Other (list)
Objective 3.	Demonstrate patient safety practice in a variety of clinical settings within the limits imposed by low-income/low-technology settings	<input checked="" type="checkbox"/> Direct observation/Faculty Feedback <input type="checkbox"/> Written test <input type="checkbox"/> Oral presentation/quiz <input type="checkbox"/> Other (list)
Objective 4.	Articulate ethical limitations for practice in a country other than the fellow's home country	<input checked="" type="checkbox"/> Direct observation/Faculty Feedback <input type="checkbox"/> Written test <input type="checkbox"/> Oral presentation/quiz <input type="checkbox"/> Other (list)

TEACHING METHODOLOGIES

Students on this rotation will be expected to learn and achieve the learning objectives through the following methodologies and activities:

<input type="radio"/> Lecture <input type="radio"/> Lab <input type="radio"/> Conference <input type="radio"/> Seminar	<input type="radio"/> Clinical Experience <input type="radio"/> Research <input type="radio"/> Small Group <input type="radio"/> Independent Study
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PATIENT ENCOUNTERS

Fellows on this rotation will be expected to work up and/or manage the minimum number of patients/cases per 4 week rotation with the specified conditions as listed below: (e.g., 10 craniotomies, 20 vaginal deliveries with CLE, etc.)

Number	Patient Condition / Case
20	Spinal anesthetics for C-Sections or lower extremity orthopedic surgeries
5	Peripheral nerve blocks for upper extremity orthopedic surgeries
10	General Anesthesia for various surgeries

FEEDBACK

Please identify when and how the student will receive feedback on his/her performance.

Daily <input type="radio"/> Written <input type="radio"/> Verbal	Final <input type="radio"/> Written <input type="radio"/> Verbal
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SUBMITTED BY _____

Today's date _____