UNIVERSITY OF CALGARY REGIONAL ANESTHESIA AND ACUTE PAIN FELLOWSHIP PROGRAM MANUAL

UPDATED SEPTEMBER 2021

INTRODUCTION

Preamble

The University of Calgary (U of C) offers a one-year fellowship-training program in Regional Anesthesia and Acute Pain Medicine.

Training occurs primarily at South Health Campus (SHC), but may include rotations at other sites, both inside and outside of the Calgary region. Our goal is to optimize the learning experience of our fellows and create an environment that fosters development of both clinical and academic skills.

Teaching takes place primarily in the regional anesthesia block area, where fellows will work one-on-one with faculty fellowship-trained and experienced anesthesiologists in regional anesthesia. The regional anesthesia block area relies on teamwork. Fellows train within this team and includes communication and cooperation with surgeons, block area nurses, PACU nurses, OR Nurses, acute pain service nurses, anesthesia assistants, anesthesia residents and many other members of the healthcare team. The fellows will also work on the acute pain service with our attending acute pain physicians and acute pain nurses. Additional learning opportunities include elective rotations, lecture and tutorial series, regional anesthesia and acute pain fellowship knowledge test, regional anesthesia and acute pain reading list, Calgary regional anesthesia cadaver course, SHC simulation sessions, anesthesia grand rounds, attending educational conferences and workshops as well as undertaking research activities.

Clinical Opportunities

South Health Campus is the primary fellowship training site. We perform over 3500 cases per year involving neuraxial and peripheral regional anesthetic techniques including ultrasound (US) guided single shot and continuous peripheral nerve blocks. This includes regional anesthesia for orthopedics surgery involving hand, wrist, elbow, shoulder, knee, hip, foot and ankle surgery. We also perform regional anesthesia for plastic surgery involving hand, wrist and elbow, as well as breast and reconstructive surgery. We have basic general surgery, including ERAS programs involving laparoscopic bowel surgery and bariatric surgery, obstetrics, gynecology, interventional radiology, and ENT programs which receive regional anesthesia where appropriate. All inpatients who have regional anesthesia procedures are followed on the acute pain service, along with other surgical patients who have significant post-operative pain or have complicated pre-existing pain pathology. Additionally, the acute pain service provides care for medical patients with acute and complex pain. We also have a home peripheral nerve block catheter program for care of acute pain patients as outpatients and our center now hosts an outpatient transitional pain program. Our department is committed to the concept of the perioperative surgical home (PSH) which has led to the implementation of a number of PSH initiatives for specific surgical populations. The PSH is guided by evidence-based principles aligned with enhanced recovery after surgery (ERAS), as well as multimodal analgesia and

opioid reduction strategies. Ongoing quality assurance and improvement projects ensure optimal functioning of these PSH care-paths.

ROTATIONS AND SCHEDULES

The fellowship generally begins in the middle of July each year, however an alternative start date may be considered in special circumstances. A standard fellowship year would involve the following rotations:

1. Regional Anesthesia Block Area and Acute Pain Service
2. Elective Rotation

For the regional anesthesia and acute pain service rotations, time is generally spent between regional anesthesia and acute pain. There is flexibility in this arrangement, so that more time could be spent either doing regional anesthesia or acute pain; depending on the academic needs and goals of the fellow. The goal of the program is to best match the fellowship training experience with the educational goals and future practice needs of each trainee. Opportunities for the elective rotation include: the SHC transitional pain service, the Calgary chronic pain clinic (Richmond Road), simulation, point of care ultrasound (POCUS), global health regional anesthesia, pediatric regional anesthesia, and regional anesthesia rotations at other centers. The actual elective rotation is subject to availability and arrangements must be made in advance. Elective rotations may also be spaced out throughout the course of the fellowship year depending on the availability of cases and preceptors. All elective requests must be reviewed by the fellowship program supervisor, the acute pain service director, the chief of anesthesia at SHC, the head scheduler at SHC, and any other directors whose departments/divisions/programs may be affected.

FORMAL EDUCATIONAL OPPORTUNITIES

In addition to teaching that takes place in the setting of direct patient care, there is also a formal educational component to the program.

1. Regional anesthesia and acute pain fellowship lecture and tutorial series: This teaching will take place during the first 3 months of the fellowship year. Exact time/dates vary year to year. Additional academic days will be given as needed (see section on scheduling & educational polices). The topics include the physics of ultrasound, ultrasound “knobology”, needling techniques, upper extremity blocks, lower extremity blocks, truncal block, and spinal ultrasound. This lecture and tutorial series may also include volunteer scanning, depending on availability, to assist and augment learning. Acute and chronic pain lectures on specialized topics will be available upon request.
2. Regional anesthesia and acute pain fellowship knowledge test. A series of 88 regional anesthesia and acute pain questions are available to fellows via either text or e-mail.

Correct answers are given along with references for reading around the questions. These questions are a learning tool and are not used for evaluation of the fellow.

3. Regional anesthesia and acute pain reading list. This is a selection of important regional anesthesia and acute pain papers curated by regional anesthesia and acute pain fellowship directors/supervisors belonging to the American Society of Regional Anesthesia Fellowship Directors/Supervisors Group.
4. Calgary regional anesthesia cadaver course: Every year a regional anesthesia cadaver course is organized for anesthesia residents and staff in Calgary. In addition to acting as an instructor for residents and staff, the fellow will receive one-on-one instruction with expert regional anesthesia staff in a special "fellows' course", which focuses on advanced ultrasound guided regional anesthesia. With the COVID-19 Pandemic this course is subject to provincial regulations and restrictions regarding in person small group learning. Thus, in certain years given these types of circumstances the course may not be offered.
5. Simulation sessions at SHC: The fellow will be given the opportunity, if interested, to partake in simulation sessions related regional anesthesia complications, such as local anesthetic toxicity, failed neuraxial/regional technique, and high spinal. These sessions will be supervised by our Royal College Simulation Educator Training (SET) trained staff at SHC. The fellows also will be given the opportunity to assist our Royal College SET trained staff in running simulations for other anesthesia staff, residents, surgeons and nursing staff related to regional anesthesia complications or other scenarios, if interested. Opportunity for the fellow to attend the Royal College SET course will be allotted to interested fellows. Academic time will be allotted for the attendance of the course. Registration costs will be subsidized by the fellowship program. Travel costs may be subsidized at the discretion of the fellowship program supervisor. Subsidization may not cover the entire cost of registration and travel and is at the discretion of the fellowship program supervisor.
6. University Calgary department of anesthesia grand rounds or South Health Campus department of anesthesia grand rounds (location variable). These rounds take place Friday mornings, during the academic year, before the start of the OR.
7. The fellow will have the option to attend either in person or virtually a minimum of one of:
    1) The American Society of Regional Anesthesia (ASRA) spring meeting on regional anesthesia and acute pain medicine
    2) The International Society of Ultrasound Regional Anesthesia (ISURA) annual meeting
    3) Regional Anesthesia and Pain Medicine Conference held in Ontario.

   Academic time will be allotted for these or other major regional anesthesia-related conferences. Presentation of academic research at one of these meetings is strongly encouraged. If academic work is accepted, the fellow's registration and travel costs will be subsidized by the fellowship program. Subsidization may not cover the entire cost of registration and travel and is at the discretion of the fellowship program supervisor.
8. Online and in-person regional anesthesia and perioperative ultrasound courses: The fellow will also be afforded the opportunity to take approved online or in-person regional anesthesia and perioperative ultrasound courses. Approved courses include the Society of Cardiovascular Anesthesia On Cue Level 1 (http://www.iteachu.com/courses/oncuel1/)

or ultrasound courses offered by USabcd (http://usabcd.org). Each course needs to be approved by the fellowship program supervisor and preference will be given to courses containing regional anesthesia content, such as the SCA On Cue Level 1, or the basic, advanced or expert ultrasound guided regional anesthesia courses. Course costs will be subsidized by the fellowship program at the completion of the course. Proof of completion of the course will be required to obtain a subsidy. Subsidization may not cover the entire cost of registration and travel and is at the discretion of the fellowship program supervisor.

TEACHING OPPORTUNITIES

The regional anesthesia and acute pain fellow will be expected to be involved in teaching and supervising a variety of learners ranging from anesthesia and non-anesthesia residents and medical students. The fellows may also be given the opportunity to formally teach in the University of Calgary anesthesia residency regional core program ("hands on workshops" with standardized patients, as well as potentially in the residency "half-day" lecture series) and in the Calgary regional anesthesia cadaver course. With the COVID-19 Pandemic these teaching opportunities are subject to provincial regulations and restrictions regarding in person group learning. Thus, in certain years given these types of circumstances the some of these teaching opportunities may not be offered.

SCHEDULING & EDUCATIONAL POLICIES

Block Area and Acute Pain Assignments

Fellows will have access to the OR surgical schedule. The fellow is expected to select cases from the OR surgical schedule that would be appropriate for regional anesthesia and contact the attending scheduled in that room. If an anesthesiologist is assigned to the block area, then the fellow will discuss cases appropriate for regional anesthesia with them. Preferably the fellow will contact the attending the day before the cases in order to plan their day and decide on learning topics in advance. If there are residents or other fellows assigned to the block area during the same time, all learners must coordinate with each other to decide on case assignments, again this discussion preferably being done the day before surgery. The fellows must ensure that the resident learners get acceptable exposure to a wide range of cases and regional anesthesia modalities. Should there be a rare complex regional anesthesia or acute pain case, fellows should strive to be involved in that case, as well as try and include residents, as rare cases present unique learning opportunities. Fellows should select cases that provide the broadest clinical exposure to all regional anesthesia modalities and acute pain cases.

To ensure adequate acute pain medicine exposure, the fellow is expected to round with the acute pain service attending anesthesiologists and acute pain clinical nurse or nurse practitioner. The focus of these rounds should be on interesting, unique and challenging acute pain cases, as well as follow up of regional anesthesia procedures performed on patients, to ensure quality assurance and continuity of care. Similarly, outpatients should be followed until the regional anesthetic block has resolved and pain is adequately controlled. Finally, continuous peripheral nerve block catheter patients represent an essential and unique learning opportunity and the fellow should make it a priority to become involved in most, if not all of these cases. For these cases, patients should be followed until their peripheral nerve block catheter is removed, the nerve block has resolved, and pain is adequately controlled.

Academic Day

Fellows will have the equivalent of one dedicated academic day each week while on their regional anesthesia and acute pain medicine blocks. These days can be chosen by the fellow but need to be approved by the Fellowship Program Supervisor and Scheduler. Scheduling issues may necessitate those academic days be rearranged, and this may result in fewer or more than one academic day per week. The fellow will be guaranteed all of their academic time over the course of the year. The purpose of the academic days is to allow time for reading around regional anesthesia and acute pain topics, as well as time for research, knowledge translation, quality improvement, curriculum development, and teaching.

Fellows' Block Schedule

Fellows will be assigned their schedule in advance as soon as it is made available by the SHC scheduler. Typically, this would involve on average one academic day and 2-3 clinical fellowship days per week. Between 1-3 days of the week on average will be spent doing locum work at SHC involving elective OR list and On Call assignments in the Main OR or Obstetrical Call. Opportunities will be available during locum work for exposure to Regional Anesthesia and Acute Pain medicine due to the nature of the on-call case mix at SHC. On average a fellow could expect 3 clinical fellowship days per week, 1 academic day and 1 locum workday. Practically locum work is usually scheduled in one-week intervals, however. Efforts will be made with scheduling to accommodate the academic and education needs of the fellow (ex. attendance at conferences the fellow is presenting at, research project needs, resident/fellow teaching days etc.) Elective rotation schedules will need to be organized with the Fellowship Program Supervisor.

LEARNING OBJECTIVES

Medical Expert

The role relates to the clinical expertise of each physician and incorporates all of the CanMEDS roles applying medical knowledge and clinical skills for patient-centered care. This role is central to all of the other CanMEDS roles and central to the function of physicians.

Please refer to American Society of Regional Anesthesia (ASRA) Guidelines For Fellowship Training in Regional Anesthesiology and Acute Pain Medicine Third Edition 2014. Section II. The Educational Program. Medical Knowledge. Regional Anesthesia and Pain Medicine. Volume 40, Number 3, May-June 2015. Pages 213-217.

1. Nerve Anatomy
    a. Discuss the anatomy of neurons
    b. Describe the differences between motor and sensory nerves
    c. Describe the microanatomy of the nerve cell
2. Local Anesthetics
    a. Describe the pharmacology of local anesthetics, including new liposomal formulations with respect to mechanism of action, physicochemical properties, comparative attributes, and appropriate dosing for single injection or continuous infusion
    b. Determine the selection and dose of local anesthetics as indicated for specific medical conditions
    c. Compare the dosing, advantages, and disadvantages of local anesthetic adjuvants
    d. Understand signs, symptoms, and treatment of local anesthetic systemic toxicity or neurotoxicity of local anesthetics
3. Neuraxial and Systemic Opioids, Nonsteroidal, Anti-inflammatory Medications, and Nonopioid Adjuvants for Analgesia
    a. Neuraxial Opioids
        i. Describe indications/contraindications, mechanism of action, physicochemical properties, effective dosing, and duration of action of neuraxial opioids
        ii. Recognize complications and adverse effects, including related monitoring, prevention, and therapy
        iii. Differentiate intrathecal versus epidural administration relative to dose, effect, and adverse effects
    b. Systemic Opioids
        i. Discuss the pharmacokinetics of opioid analgesics: bioavailability, absorption, distribution, metabolism, and excretion
        ii. Discuss the site and mechanism of action of opioids
        iii. Discuss the differences in chemical structure of the various opioids
        iv. Describe the mechanisms, uses, and contraindications for opioid agonists, opioid antagonists, and mixed agents
        v. Describe challenges of post procedure analgesic management in the patient with chronic pain and/or opioid-induced hyperalgesia
        vi. Describe how to manage acute or chronic pain in the opioid-tolerant patient
    c. Nonopioid Analgesics

i. Describe the concept of multimodal analgesia and its impact on recovery after surgery
ii. Differentiate the pharmacology of acetaminophen, nonsteroidal anti-inflammatory drugs, cyclooxygenase 2 inhibitors ,N-methyl-D-aspartic acid antagonists, α2agonists,andγ-aminobutyricacid–pentanoid agents with respect to optimizing postoperative analgesia

4. Regional Anesthesia Techniques
   a. Nerve Localization Techniques
   b. Explain principles, operation, advantages, and limitations of the peripheral nerve stimulator to localize and anesthetize peripheral nerves
   c. Describe principles of paresthesia-seeking perivascular or transvascular approaches to nerve localization
   d. Explain principles, operation, advantages, and limitations of ultrasound to localize and anesthetize peripheral nerves
5. Spinal Anesthesia
   a. Describe the anatomy of the neuraxis
   b. Describe the indications, contraindications, adverse effects, complications, and management of spinal anesthesia
   c. Recognize the cardiovascular and pulmonary physiologic effects of spinal anesthesia
   d. Describe common mechanisms for failed spinal anesthetics
   e. Compare local anesthetics for intrathecal use: agents, dosage, surgical and total duration of action, and adjuvants
   f. Explain the relative importance of factors affecting intensity, extent, and duration of block such as patient position, dose, volume, and baricity of injectate
   g. Define meningeal puncture headache and describe symptoms, etiology, risk factors, and treatment
   h. Differentiate advantages and disadvantages of continuous spinal anesthesia
6. Epidural Anesthesia (Lumbar and Thoracic)
   a. Describe the indications, contraindications, adverse effects, complications, and management of epidural anesthesia and analgesia
   b. Compare the local anesthetics available for epidural use: agents, dosage, adjuvants, and duration of action
   c. c. Differentiate between spinal and epidural anesthesia with regard to reliability, latency, duration, and segmental limitations
   d. Explain the value and techniques of test dosing to minimize certain complications of epidural anesthesia and analgesia
   e. Interpret the volume-segment relationship and the effect of patient age, pregnancy, position, and site of injection on resultant block
   f. Differentiate combined spinal-epidural anesthesia from lumbar epidural anesthesia or analgesia, including advantages/disadvantages, dose requirements, complications, indications and contraindications

g. Categorize outcome benefits of thoracic epidural analgesia for thoracic and abdominal surgery and thoracic trauma
h. Differentiate thoracic epidural anesthesia/analgesia from lumbar epidural anesthesia/analgesia, including advantages/disadvantages, dose requirements, complications, indications and contraindications
i. Explain the impact of antithrombotic and thrombolytic medications on neuraxial and peripheral anesthesia/analgesia with specific reference to the American Society of Regional Anesthesia and Pain Medicine guidelines: "Regional Anesthesia in the Patient Receiving Antithrombotic or Thrombolytic Therapy"

7. Upper-Extremity Nerve Block
    a. Describe the anatomy and sonoanatomy of the brachial plexus in relation to sensory and motor innervation
    b. Compare local anesthetics for brachial plexus block: agents, dose, duration of action, and adjuvants
    c. Explain the value and techniques of intravascular test dosing to minimize local anesthetic systemic toxicity associated with peripheral nerve block
    d. Differentiate the various brachial plexus (or terminal nerve) block sites including indications/ contraindications, advantages/disadvantages, complications, and management specific to each
    e. Contrast the indications and technique for cervical plexus, suprascapular, or intercostobrachial block as unique blocks or supplements to brachial plexus block
    f. Discuss the technical and nontechnical aspects unique to brachial plexus perineural catheter placement and management
8. Lower-Extremity Nerve Block
    a. Describe anatomy and sonoanatomy of the lower extremity: sciatic, femoral, lateral femoral cutaneous, and obturator nerves, as well as the adductor canal and options for saphenous nerve blockade
    b. Compare local anesthetics for lower-extremity block: agents, dose, duration of action, and adjuvants
    c. Explain the value and techniques of intravascular test dosing to minimize local anesthetic systemic toxicity associated with peripheral nerve block
    d. Differentiate the various approaches to lower-extremity blockade, including indications/contraindications, side effects, complications, and management specific to each
    e. Discuss the technical and nontechnical aspects unique to lower-extremity perineural catheter placement and management
9. Truncal Block
    a. Describe the relevant anatomy for intercostal, paravertebral, ilioinguinal-hypogastric, rectus sheath and transversus abdominis plane blocks
    b. Compare local anesthetics for truncal blockade: agents, dose, and duration of action

c. Summarize the indications, contraindications, side effects, complications, and management of truncal blockade
d. Discuss the technical and nontechnical aspects unique to continuous truncal catheter placement and management

10. Intravenous Regional Anesthesia
    a. Review the mechanism of action, indications, contraindications, advantages and disadvantages, adverse effects, complications, and management of intravenous regional anesthesia
    b. Compare agents for intravenous regional anesthesia: local anesthetic choice, dosage, and use of adjuvants
11. Complications of Regional Anesthesia and Acute Pain Medicine
    a. Discuss, recognize, and know how to manage complications specific to regional anesthesia and acute pain medicine practice. A partial list of these complications includes:
        i. Hemorrhagic complications in the patient receiving antithrombotic or thrombolytic agents
        ii. Infectious complications of neuraxial and peripheral blockade
        iii. Neurological complications of regional anesthesia and acute pain medicine
        iv. Knowledge and basic interpretation of tests recommended after plexus/nerve lesion such as electromyography, nerve conduction studies, somatosensory evoked potentials, and motor evoked potentials
        v. Local anesthetic systemic toxicity
        vi. Opioid-induced respiratory depression

Communicator

The role relates to physicians being effective at establishing rapport through patient-centered therapeutic relationships. Further, being effective in developing relationships with patients, families, other professionals and individuals is central to this role.

1. Demonstrate understanding and compassion in communicating with patients
2. Demonstrate an ability to explain a patient’s options in a clear and complete manner
3. Demonstrate an ability to deal with a patient’s family in a compassionate manner
4. Demonstrate an ability to communicate clearly and respectfully with other members of the surgical team
5. Demonstrate accurate, timely, and legible documentation

Collaborator

This role is central to conflict management and forming partnerships with others who are involved in patient care. This role is integral to working with multi-disciplinary teams as well as

patients and families. Being an effective collaborator leads to the provision of optimal care as well as education.

1. Demonstrate effective interactions with other health care personnel and acknowledge their roles and expertise
2. Demonstrate an ability to delegate effectively and use other team members to the fullness of their abilities

Manager

This role relates to the everyday practice activities which involve co-workers, resources, and policies. Integral to this role is the ability engage in effective operation of the healthcare system.

1. Demonstrate an appreciation for the cost-effective use of health care resources, including operating rooms
2. Demonstrate realistic priorities and good time management
3. Understand and apply principles of quality and safety

Health Advocate

This role relates to the determinants of health, ensuring patient safety and the ability to improve the overall health of patients and communities. Physicians must be able to appropriately influence public health and policy.

1. Intervene or speak on behalf of individual patients, when indicated
2. Recognize and respond to needs for general patient safety advocacy
3. Understand and apply the guidelines for anesthesia practice and equipment in Canada

Scholar

This role is central to physicians' mastering their domain of expertise and furthering knowledge. They must be able to facilitate education as well as create, disseminate and apply medical knowledge. As Scholars physicians are expected to engage in lifelong learning.

1. Demonstrate an ongoing and effective personal learning strategy
2. Accesses and critically appraises medical information
3. Uses evidence in clinical decision-making appropriately
4. Gives guidance and teaching to others
5. Gives feedback effectively

Professional

This role is guided by the code of ethics and high professional standards of behavior. Through this role, physicians must demonstrate commitment to their patients, profession and society through ethical practice.

1. Demonstrates integrity, honestly, compassion, and a respect for diversity
2. Meets medical, legal, and professional obligations of a specialist
3. Is reliable and conscientious
4. Is aware of own limitations, is able to seek advice when needed, and engages in accurate self-appraisal
5. Compares own performance to standards

CALL REQUIREMENTS

Fellows may be required to perform on call duties to generate necessary income for their fellowship. These duties will be in the form of locum assignments as either main OR call or obstetrical anesthesia call. Call will be arranged between the fellow, fellowship program supervisor and South Health Campus scheduler to balance achieving the education objectives of the fellowship with the necessary service components to finance the fellowship.

EVALUATION POLICY

1. Verbal feedback during the course of each day while working with preceptors.
2. A formal electronic evaluation will then be provided using the University of Calgary One45 online system. These are to be submitted by the fellow and will be completed by the preceptor. It is acceptable to fellows to submit one evaluation for a block of days but they must have the approval of the regional anesthesia and acute pain attending with whom they worked during this time.
3. At least quarterly during the fellowship an in training evaluation report (ITER) will be produced by the fellowship program supervisor for the fellow. This ITER will be based on the daily evaluations, as well as any other formal feedback received by the fellowship program supervisor.
4. Elective rotation evaluations will be completed by the supervisor of that rotation. These will be sent to and reviewed by the regional anesthesia and acute pain fellowship program supervisor.
5. The fellow will be required to maintain a case log of the regional anesthesia case performed during the year. The log-book will be provided to the fellow by the program.
6. The fellow will meet quarterly to review his/her progress in the training program. This review will include the ITERs, logbook, and any other feedback received by the Fellowship Program Supervisor.

REMUNERATION/LOCUM

The fellow's income for the training year is generated through locum main OR assignments, main OR call and obstetrical anesthesia call and billing for regional anesthesia procedures not billed for by the staff anesthesiologist. The fellow will bill locum days, on call duties and regional anesthesia procedures as an independent practitioner. The locum assignments will be at the SHC. If a fellow is interested in locum opportunities at other Calgary hospitals, this option can be explored. The SHC locum shifts are assigned by the SHC anesthesia scheduler and can be in any SHC OR or certain non-hospital surgical facilities. The fellows can be assigned up to approximately 65 weekday and 6-8 weekend locum call shifts during the year.

The locum shifts will be distributed in a fashion that will 1) minimize interruption of elective or regional anesthesia and acute pain blocks, and 2) provide additional OR coverage during time periods where the schedulers are traditionally short-staffed.

Locum assignments will usually be in one-week intervals spread out throughout the course of their fellowship. Fellows will need to be available for room assignments (though may not actually be booked) for 2 of the 4 high demand vacation periods: Thanksgiving, Christmas, New Year and Spring Break. At the start of the fellowship year, the fellows are expected to choose which 2 periods they will be available for potential scheduling. If scheduled on a STAT, the fellow may choose any other day to have as an "in-lieu". The choice of in-lieu day can be made by 1) emailing the fellowship program supervisor (same as vacation requests), as well as 2) booking them on Scheduleworks as an "Academic Day" with a note to the schedulers.

Billing

Fellows are responsible to obtain billing codes from the surgeon they are working with as well as entering appropriate modifiers. Billing slips will be submitted for 3rd party billing (provided by MediCom) to be submitted to Alberta Health & Wellness. Billing will be paid by Alberta Health and Wellness into an account reserved exclusively for anesthesia fellows. Fellows will then be paid out of this account on a monthly basis. Expenses for the billing service for the fellow will also be paid out of this account. Billings and the fellowship accounts are maintained by our program. Individual fellow billing summaries and statements can be made available upon request.

Billing slips are submitted to MediCom by placing a sealed envelope in the mail slot marked "CAS" or "Medi-Com" in the 3rd floor anesthesia mail room. Slips are picked up Wednesday morning. If possible, all billings for each rotation should be submitted on the last Tuesday prior to the start of the next rotation.

Any WBC payments will come to the account directly. In the rare event that you bill an international patient that payment will be sent directly to you from MediCom and will not be counted in your annual stipend or annual bonus calculated from your AHS earnings (IE if and when you get paid it will be "bonus" money).

For any "split-cases", where the case has been split between a fellow and another attending, the following procedure will need to be followed.

• Scenario 1: You are billing the "split-case". You need to write down on the billing slip that it is a split case, the name of the other anesthesiologist, and the times each person was involved in the case. This is in addition to the regular billing info. Submit this slip. The other anesthesiologist will be paid their portion directly from the fellowship program.

• Scenario 2: The other anesthesiologist is billing the "split-case." You must still fill in a complete billing slip as described above. The difference will be to note clearly that it is the other anesthesiologist submitting to AH&W. Once that anesthesiologist has been paid, they will arrange to transfer the appropriate funds to the fellowship program account directed to your fellowship. These funds will then be accounted for when the annual bonus is calculated.

• Please do not arrange to have any billings paid to you directly from another attending, for a split-case or otherwise. Doing so will be considered an unprofessional action and may result in loss of the end-of-year bonus.

Fellowship Stipend

NOTE: No tax will be withheld by AHS so please plan to set aside an appropriate amount of your stipend and bonus payments to account for income tax payment. In addition, any professional membership/registration fees, CMPA dues, and supplemental health care insurance are NOT provided by the Fellowship Program.

Fellows will be paid a yearly stipend of $95 000.00. This stipend will be paid out monthly at the end of each month. Fellows' billings will be reviewed quarterly. A 50% proportion of billings above a calculated rate of $95 000/year will be paid to the fellows as a bonus after the completion of their fellowship year. It takes several weeks to ensure all billings have been received and the accounting is complete. Therefore, fellows can expect to receive their bonus 2-3 months after completion of their fellowship. The remaining 50% of the billing income ('Excess funds') in excess of the $95,000 stipend will remain in the fellowship program account designated to your fellowship. Expenditures from the 'excess funds' of the fellowship account will be decided by a committee and approved by the fellowship program supervisor. These 'excess funds' will be used to enhance the academic experience for the fellows and as a result can only be used on requests which are directly related to fellowship academics. There will be fellow representation on this committee.

This includes, but is not limited to the following:

1. Equipment/statistical assistance/administrative help for research projects
2. Equipment used for fellowship education
3. Reimbursement of travel for conference presentations
4. Honorariums for selected visiting speakers extra locum assignments

Fellows may elect to request additional locum assignments during their vacation time.

All billings generated by the fellow while working anywhere in Alberta during the fellowship will still be subjected to the arrangement specified above (IE 50% retention above $95 000.00). Fellows may also elect to use vacation time to work at a hospital outside of Alberta. The specifics of such an arrangement (privileges, CMPA, etc.) is to be set-up by the fellow and that

particular hospital. Any income generated outside of Alberta would not go through the AHS Fellowship Account and would not be subjected to any retention of funds.

ABSENCE FROM CLINICAL WORK

Vacation

Fellows are allotted up to 4 weeks (including weekends) of vacation time during the fellowship year. Vacation requests during regional anesthesia and acute pain medicine blocks can be submitted to the fellowship program supervisor. Any requests during elective blocks should be directed to the director of that rotation, in addition to informing the fellowship program supervisor.

Conferences

Fellows are encouraged to attend relevant conferences/educational meetings. Attendance to these events will be allowed without requiring the use of vacation time, for up to 5 weekdays or 3 events. Additional time off will be possible should the fellow be presenting a poster, teaching a workshop, and/or speaking at a conference. These additional conference requests will be assessed on a case-by-case basis.

Leaves of Absence (LOA)

The PGME LOA policy can be found at: http://wcm.ucalgary.ca/pgme/currenttrainees/residency-training-policies under the tab 'Leaves of Absence'. Special leave will be granted by the fellowship program supervisor in accordance with PGME/AHS/RCPSC policies. The general rule is that any LOA over two (2) weeks duration (accumulative) will require extension of training.

Early Termination the Fellowship Program

Requests for early termination of the fellowship program should be made to the fellowship program supervisor as soon as possible to facilitate the required paperwork and scheduling changes.

The fellow will be excused from all educational activities immediately. Attempts will be made to cover any locum shifts that have already been assigned. If no coverage is possible, the fellow will be asked to complete the assignment so that patient care is not negatively affected.

If there has been insufficient locum work to cover the fellow's monthly stipend payments, the fellow will be required to reimburse the Fellowship Program for the difference.

Bonus amounts are calculated for the fellow once the fellowship is completed, all billings have been received from Alberta Health and all split cases are accounted for. If the fellow does not

complete the entire fellowship as set out in the fellowship contract, the fellow accepts that they will not be eligible for any of the bonus that might have accumulated during the time spent in the fellowship.

CODE OF CONDUCT

All fellows should be aware of the PGME policies on code of conduct expected of residents and fellows. This information can be found at http://wcm.ucalgary.ca/pgme/current-trainees/residency- training policies under 'Code of Conduct'. In particular, fellows should review the "CPSA advice to the profession" on social media. In recognition of the large amount of time and other resources spent at SHC, the fellow must review the SHC anesthesia orientation manual and behave in accordance with the department's core values and mission statement. Electronic charting and general educational contribution (participation in intraoperative teaching of students and residents) are mandatory

FELLOW WELLBEING

Fellow well-being is given a high priority in our program. For health, personal, and career concerns, fellows are encouraged to seek assistance early. In addition to the resources available within the department, excellent support is available through the University Health Services at the U of C (https://www.ucalgary.ca/wellnesscentre/services/health/medical) and the Physician and Family Support Program (PFSP) of the Alberta Medical Association (AMA) (https://www.albertadoctors.org/services/physicians/pfsp).

Personal and Professional Responsibilities

Be aware of escalating health problems, sleep deprivation, stress, worries and doubts, and promptly discuss these issues with the fellowship program supervisor or other faculty member. Be aware of signs of drug misuse in your colleagues and seek advice if you have concerns.

Harassment and Bullying, Ombudsman

Any fellow who feels that they are being harassed or bullied should notify either: a faculty member or the fellowship program supervisor. All allegations of harassment and bulling are taken seriously and will be investigated and addressed. In the event that the fellow is not comfortable addressing the matter with any member of the department of anesthesia, the fellow should contact the program's ombudsman, Dr. John Graham (john.graham@ahs.ca) to have the matter addressed.

Fellow Safety Policy

All fellows should be aware of the PGME policy on resident safety. This information can be found at http://wcm.ucalgary.ca/pgme/current-trainees/residency-training-policies under 'Resident Safety'. These same policies apply to fellows. The regional anesthesia and acute pain fellowship program wishes to act promptly to address identified safety concerns and incidents, and to be proactive in providing a safe learning environment.

Tax and Health Insurance

No income tax will be paid or held by AHS or the regional anesthesia and acute pain fellowship program. As a result, please plan to set aside an appropriate amount of your stipend and bonus payments to account for this. No health insurance is provided by AHS or the regional anesthesia and acute pain fellowship program. We Strongly encourage you to organize a health insurance plan to cover health care costs not covered by Alberta Health during the course of your fellowship.

FELLOWSHIP PROGRAM SUPERVISOR

The fellowship program supervisor is responsible for the overall conduct of the fellowship program and is accountable to the South Health Campus (SHC) department of anesthesia, the chief of the department of anesthesia at SHC, the anesthesia fellowship director, the head of the department of anesthesia, the associate dean for PGME, and the RCPSC. Specific duties include:

1. The development and operation of the program to meet general and specific standards of accreditation;
2. Selection of candidates for admission to the program, including the organization and conduct of interviews;
3. Evaluation in accordance with appropriate policies and stated educational objectives;
4. Maintenance of an appeal mechanism;
5. Facilitation of career planning;
6. Counseling fellows as required and dealing with professional and personal problems
7. Ongoing program review to include:
    a. The educational experience (including the curriculum as it relates to goals and objectives);
    b. Optimal use of available resources and facilities;
    c. Opinions of the fellows;
    d. Teaching and teachers.

The Fellowship program supervisor will ensure that the formal teaching in the program is organized, relevant, and continually updated. Assistance and resources will be provided to faculty involved in educational programs. The fellowship program supervisor acts as a liaison between the fellows and faculty, frequently in the role of fellow advocate. Fellows' specific needs and requests are to be dealt with compassionately and rationally. With the assistance of

faculty, the fellowship program supervisor is required to have an ongoing awareness of fellow's performance. Performance (or other) concerns will be addressed with the fellow and South Health Campus department of anesthesia in a timely and appropriate fashion.

The fellowship program supervisor will ensure that program documents are current and widely available. The current fellowship program supervisors are Dr. Ryan Endersby and Dr. Shaylyn Montgomery. The current anesthesia fellowship director is D. Joel Fox.

FELLOWSHIP SELECTION PROCESS

Applications for fellowship training in regional anesthesia and acute pain medicine will be submitted directly to the fellowship program supervisor. All applicants must have received FRCPC designation or equivalent and qualify for licensing from the College of Physicians and Surgeons of Alberta. A complete application includes: cover letter, current CV and three (3) letters of reference.

Candidate files are reviewed, and selected candidates are invited for an interview. The date for Calgary interviews is determined based on availability of Faculty for interviews, as well as the schedule of the fellowship applicant. If the applicant is unable to travel for an in-person interview, then a series of phone or videoconference interviews will be arranged. This alternative arrangement will not be harmful to the success of an applicant in securing a fellowship position.

During the selection process, consideration is given to academic record, clinical performance record, suitability for training in regional anesthesia and acute pain medicine, letters of reference, cover letter, and the interviews. The interview is conducted by a selection committee. Application decisions made by the selection committee are final.

RESOURCES FOR FELLOWS

Agencies

The AMA offers a variety of services (https://www.albertadoctors.org/), including emergency support. The AMA Physician and Family Support Program (https://www.albertadoctors.org/services/physicians/pfsp) manages a hotline at 1-877- SOS-4MDS (767-4637) (https://www.albertadoctors.org/services/physicians/pfsp/i- needhelp-now). Up to six one-hour counseling sessions per family member per year are available free of charge.

AHS also has an Employee and Family Assistance Program that can be reached at 1-877- 273-3134 or http://insite.albertahealthservices.ca/Files/hr-whs-fact-sheet-shepellfgionline-access.pdf.

The main campus of the U of C offers a variety of services, including a bookstore, recreational facilities, The Chaplains' Association, Student Rights Advisor, and Academic Counseling.

Personal Health Care

All fellows are urged to have a family physician throughout their training. Self-medication, prescription-writing without formal medical consultation, and removal of pharmaceuticals from the OR are not supported. While it is reasonable to keep a limited number of labeled syringes/vials to be taken to patient care areas while on call, keeping narcotic boxes in the on-call room is absolutely prohibited.

CMPA

If you think you might be, or are faced with, a serious complaint or a threat of a lawsuit, then you should notify the CMPA by telephone 1-800-267-6522 at once. Send complete, concise information. Do not contact the CMPA by e-mail. Wait for a reply from the CMPA before taking any further steps or making any statements. Be sure your clinical records are secure. Do not consult a lawyer without instructions from the CMPA. The CMPA does not accept responsibility for the payment of legal expenses incurred without its prior approval. Do not answer any letters of complaint from patients, lawyers or others without first receiving the CMPA's advice.

Experts from Outside the Specialty

Experts in the areas of law, practice management, accounting, lifestyle, time management, addiction, learning problems, exam-writing anxiety, multiple choice answering strategies, sleep disorders, and a variety of other areas of potential interest to residents and fellows are frequently invited to present at academic half-day and CARR. The fellowship program supervisor will facilitate arrangements for individual fellows to get help in these areas, if interested.

Ombudsman

The role of the ombudsman is to assist fellows who perceive that they have been offended or treated unfairly and feel that they are not being adequately supported within their own program. The ombudsman for the anesthesia residency training program is Dr. John Graham (john.graham@ahs.ca) from the division of General Surgery at the Rockyview General Hospital.