Updates from Regional Anesthesiology and Acute Pain Medicine

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Disclosures

- None.

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History article

History and evolution of regional anesthesiology and acute pain medicine fellowship training

David Michael Shapiro,[1] Mary J Hargett,[2] Sandra Kopp,[3] Joseph M Neal,[4] Edward R Mariano,[5,6] Gregory Liguori[2]

RAPM 2020;45:311-314

Table 1 Early official RA/APM fellowships by decade

1980s	1990s
Brigham and Women's Hospital	Duke University
Hospital for Special Surgery	University of Alberta
Mayo Clinic Rochester	University of Texas Health Science Center at Houston
Virginia Mason Medical Center	Yale University

Table 2 Evolution of anesthesiology training over time

	Year of training				
	1	2	3	4	5
1969	Clinical base year	Clinical anesthesiology	Clinical anesthesiology		
1973	Clinical base year	Clinical anesthesiology	Clinical anesthesiology	Optional CA-3 year*	
1986	Clinical base year	Clinical anesthesiology	Clinical anesthesiology	Clinical anesthesiology	Fellowship*

*Indicates optional year.
CA-1, third year of anesthesiology training postclinical base year.

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The road to accreditation for fellowship training in regional anesthesiology and acute pain medicine

Edward R. Mariano and Richard W. Rosenquist[b]*

- 2013 (May): Fellowship Directors agreed to pursue ACGME accreditation
- 2013 (Dec): Letter submitted to Dr. Nasca (CEO)
- 2014 (Sept): ACGME approval to develop subspecialty program in RAAPM
- 2015-16: Development and revision of program requirements
- 2016: ACGME opened applications for RAAPM
- 2017-18: Milestones development

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Today (2021)

- >90 RAAPM fellowships in US and Canada
- >200 positions available in the US and Canada

https://www.asra.com/the-asra-family/trainees/fellowship-directory

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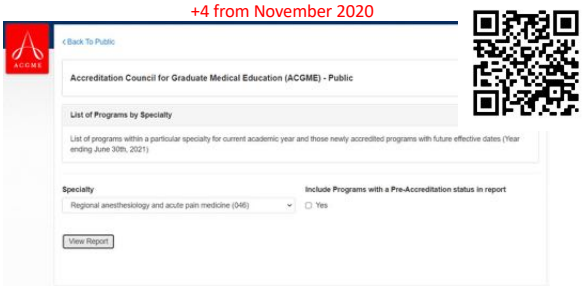
ACGME-Approved Programs (39)

+4 from November 2020



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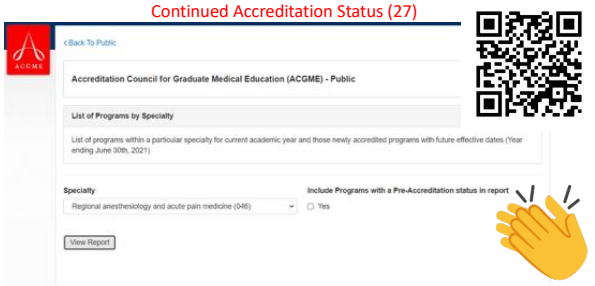
ACGME-Approved Programs (39)

Continued Accreditation Status (27)



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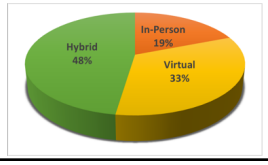
Fellowship Directors Group

- Started in 2002 and has remained informal
- Twice-yearly meetings (ASA and ASRA Spring)
- Initiatives:
  - Development of Fellowship Training Guidelines
  - Knowledge/Practice Sharing
  - Common Application
  - ACGME Accreditation
  - Interviews for 2021-22 (n=21)



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"Regional anesthesia is a vital skill for any anesthesiologist and ultrasound-guided techniques have enhanced our ability to achieve effective and consistent blocks. It is important that we ensure our graduating residents have the requisite skills to perform basic regional techniques in a safe and effective manner in order to disseminate the benefits of regional anesthesia to the broader surgical population."

McCartney & Mariano. RAPM 2016

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Original research

Non-Fellowship regional anesthesia training and assessment: an international Delphi study on a consensus curriculum

Alwin Chuan,[1] Bahaven Jeyaratnam,[1] Shah Fathil,[1] Leonardo HC Ferraro,[1] Aneet Kessow,[4] Yean Chin Lim,[5] Michael J O'Rourke,[6,7] Vrushali Ponde,[8] Julien Raft,[9] Arthur Segurado,[10] Suwimon Tangwiwat,[11] Alexandra Torborg,[12] Lloyd Turbitt,[13] Andrew K Lansdown,[14] Edward R Mariano,[15,16] Colin JL McCartney,[17] Alan JR Macfarlane,[18] Louis YH Mok,[19] Steven L Orebaugh,[20] Amit Pawa,[21] Santhanam Suresh,[22] J Balavenkat Subramanian,[23] Thomas Volk,[24] Glenn Woodworth,[25] Reva Ramlogan,[1] On behalf of Education in Regional Anesthesia Collaboration (ERAC) Group

Table 3 Volume of practice for blocks performed in discrete anatomical regions

Anatomical region	Number of blocks Median (IQR)
Peripheral blocks for shoulder and upper arm surgery	16–20 (16–≥25)
Peripheral blocks for elbow, forearm, wrist and hand surgery	16–20 (15–25)
Peripheral blocks for hip and upper leg surgery	16–20 (15–25)
Peripheral blocks for knee, lower leg, ankle and foot surgery	16–20 (15–25)
Thoracic fascial plane blocks	16–20 (11–21)
Abdominal fascial plane blocks	16–20 (11–21)
Thoracic epidural blocks	16–20 (15–≥25)
Spinal/intrathecal blocks (overlap exposure with obstetric anesthesia)	≥25 (20–≥25)
Lumbar epidural blocks (overlap exposure with obstetric anesthesia)	≥25 (16–≥25)

The highest number that can be chosen was "≥25".

Chuan, et al. RAPM 2021

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Table 2 Final list of items reaching threshold of highest importance (overall median score ≥8) and strong consensus (≥70% of participants scoring ≥8)

Items with highest importance and strong consensus	Median score (percentage of participants scoring ≥8)
Regional anesthesia techniques	
Interscalene brachial plexus block	9 (84)
Axillary brachial plexus block	10 (87)
Femoral nerve block	10 (93)
Popliteal sciatic nerve block	10 (91)
Landmark-guided lumbar spinal block	10 (90)
Landmark-guided lumbar epidural block	10 (93)
Landmark-guided combined spinal-epidural block	10 (77)
Landmark-guided thoracic epidural block	9 (75)
Curriculum training	
Standardized minimum informed consent for epidural/spinal nerve blocks	10 (92)
Standardized minimum informed consent for peripheral nerve blocks	10 (93)
Assessment and managing complications of epidural/spinal regional anesthesia	10 (98)
Assessment and managing complications of peripheral regional anesthesia nerve blocks	10 (96)
Assessment and managing complications of local anesthesia systemic toxicity	10 (98)
Standardized minimum transitional analgesia plan after recession of nerve block	10 (89)
Using multi-source feedback for workplace-based assessment	8 (71)
Competency and learning outcomes	
Able to discuss risks and benefits of regional anesthesia	9 (89)
Able to manage complications of regional anesthesia	10 (91)
Able to discuss and demonstrate relevant anatomy prior to performing a nerve block	10 (92)
Able to demonstrate efficiency and time management of a surgical operating list of patients, for whom regional anesthesia is essential	8 (73)
Able to demonstrate shared decision-making of regional anesthesia with the surgical team	9 (87)
Able to manage sedation and patient comfort during regional anesthesia performance	9 (90)
Formally assess knowledge of ultrasound basics (physics, knobology, ergonomics)	8 (74)
Formally assess non-technical skills (eg, team work, stop-before-block, communication skills)	9 (78)
Formally assess patient follow-up, incorporate into logbooks	9 (80)
Formally assess sterility and infection control practices	9 (88)

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7 Principles of Perioperative Pain Management

1. Conduct a **preoperative evaluation** including assessment of medical and psychological conditions, concomitant medications, history of chronic pain, substance abuse disorder, and previous postoperative treatment regimens and responses, to guide the perioperative pain management plan.
2. Use a **validated pain assessment tool** to track responses to postoperative pain treatments and adjust treatment plans accordingly.
3. Offer **multimodal analgesia**, or the use of a variety of analgesic medications and techniques combined with nonpharmacological interventions, for the treatment of postoperative pain in adults.
4. Provide patient and family-centered, individually **tailored education** to the patient (and/or responsible caregiver), including information on treatment options for managing postoperative pain, and document the plan and goals for postoperative pain management.
5. Provide education to all patients (adult) and primary caregivers on the pain treatment plan, including **proper storage and disposal of opioids** and tapering of analgesics after hospital discharge.
6. **Adjust the pain management plan** based on adequacy of pain relief and presence of adverse events.
7. Have access to **consultation with a pain specialist** for patients who have inadequately controlled postoperative pain or at high risk of inadequately controlled postoperative pain at their facilities (e.g., long-term opioid therapy, history of substance use disorder).

2021 ASA-hosted Pain Summit involving 13 other surgical and medical organizations

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