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Teaching and Implementing a Regional Anesthesiology Fellowship Curriculum

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Learner Audience: Residency and Fellowship Program Directors

Background: Important barriers for the implementation of a Regional Anesthesiology Fellowship Program (RAFP) include limited (1) financial support (2) number of blocks performed and (3) expertise in regional anesthesia. We started a RAFP in 2004 with one fellow at one clinical site. For 2010-11 our RAFP includes 9 fellowship positions and 7 clinical sites.

Hypothesis: Teaching Regional Anesthesia at a postgraduate level requires a combination of didactic programs and clinical experiences, anatomy and ultrasound workshops as well as digital and electronic media. It is also requires that fellows be educated on how to be able to continuously update their knowledge.

Curriculum Design: Our current RAFP is approved by the Graduate Medical Education Committee (GMEC), as a 1-year Special Institutional Educational Program. Our curriculum involves a series of weekly didactic lectures, free access to a library of regional anesthesia resources, at least 2 formal ultrasound workshops and one fresh cadaver dissection to help the fellows acquire the necessary knowledge of anatomy, physiology and pharmacology. In addition, each fellow is required to take an advanced training workshop in Difficult Airway Management. Monthly journal clubs highlight present articles selected for their relevance in the field of regional anesthesia and acute pain. Finally, each fellow is required to be involved with research under the supervision of a mentor. At each clinical site, 3-10 regional anesthesiologists provide the necessary clinical supervision. In addition to mostly performing blocks preoperatively the fellows are also actively involved with the in-patient postoperative pain management until the perineural catheter is removed. The evaluation system includes monthly evaluations of the fellows and the faculty. Additionally, at the end of the academic year, a final fellow evaluation by a group of faculty is conducted to determine individual theoretical and practical knowledge and whether each one has met the graduation criteria, with either honor or excellence. From the administrative and financial perspective, a separate cost center has been established, allowing the monitoring of expenses and revenues generated by the Division of Regional Anesthesia and AIPPS.

Outcome: Since we established the RAFP, 10 fellows have graduated, 4 have joined the faculty, and 5 more are scheduled to graduate in June 2010. For the first 7 months, each fellow has performed a greater number of blocks than the number of blocks recommended in the guidelines for the regional anesthesia training (1). In 2008-09, the total number of blocks performed was 17,478 blocks (+10% from 2007-08) including over 3,000 ultrasound guided blocks (+ 36% from 2007-08). The fellows performed between 30-40% of the blocks. Table 1 presents the blocks performed by 4/5 of our 2009-2010 class from July 1 to January 31.

References:

1. Hargett MJ, Beckman JD, Liguori GA et al.. Guidelines for regional anesthesia fellowship training. Reg Anesth Pain Med. 2005 ;30:218-25.

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Table 1: Blocks performed by 4/5 of our 2009-2010 class from July 1 to January 31

Interscalene blocks	22	55	46*	49
Supraclavicular blocks	49	80	62	44
Infraclavicular blocks		12	5	13
Axillary blocks	30	42	36	20
Lumbar plexus blocks	45	52	27	94
Femoral blocks	65	116	46	114
Sciatic blocks	77	112	59	108
Popliteal sciatic blocks	35	77	64	40
Paravertebral blocks	378	376	319	393
Saphenous blocks	13	80	64	37
Ankle blocks	1	2	1	2
Wrist blocks				28
Total # of blocks	715	1004	729	942

* This fellow started August1