

## **Completing an Anesthesiology Based Internship and Comfort Levels in Anesthesia Related Competencies as a CA-1 Resident**

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**Introduction:** The University of Pittsburgh Residency in Anesthesiology has a four-year curriculum incorporating a PGY-1 clinical base year (CBY). This year is administered by the anesthesiology residency program and incorporates rotations that we believe better prepare trainees for an anesthesiology residency when compared to classical internships. Our hypothesis was that CA-1 residents who completed our CBY year would be more comfortable with anesthesia related competencies than our CA-1 residents who completed a traditional internship outside of our department.

**Methods:** After IRB approval, we surveyed our 15 CA-1 residents on the first day of their residency, third month of their residency, and sixth month of their residency. Each resident completed a nine question survey which assessed their level of comfort with anesthesia related competencies. Each was assigned a nine point Likert scale (1= Very Uncomfortable, 9=Very Comfortable) as shown in Figure 1.

**Results:** Individual comfort levels for each question were compared between the groups at each time point using the Mann-Whitney Rank Test (Figure 2). Although not statistically significant, there was a trend toward a greater comfort level in all of the areas that we surveyed in the group having completed a CBY in our department.

**Discussion:** Based on our survey, there was trend that CA-1 residents entering our program were more comfortable with several anesthesia related competencies if they had completed our integrated anesthesia based internship. It appears that these differences persisted six months into the residency. We believe that the trend in the data did not reach statistical significance due to the relatively small sample size of our CA-1 class. These results suggest that training in a four-year anesthesia program offers advantages that may persist beyond the orientation period traditionally experienced by CA-1 residents. Further study of other performance criteria such as Anesthesia Knowledge Test scores, In-training exam scores, and clinical evaluations may help to further define the benefits of this new trend in anesthesiology training.

**Figure 1. Survey Administered to CA-1 Residents**  
CA-1 Survey

Directions: Please Complete both part A & B

A. Please circle one of the following:

1. I completed my PGY-1 year with the University of Pittsburgh  
Department of Anesthesiology's Clinical Base Year Program
2. I completed my PGY-1 year elsewhere

B. Please rate the following on the 1-9 scale below. Please only use whole numbers  
(i.e., do not use "4.5")

Uncomfortable  
1-2-3

Somewhat comfortable  
4-5-6

Very comfortable  
7-8-9

1. Setting up an operating room for an anesthetic \_\_\_\_\_
2. Performing an anesthetic induction \_\_\_\_\_
3. Management of the airway \_\_\_\_\_
4. Maintenance of a general anesthetic \_\_\_\_\_
5. Managing emergence from a general anesthetic \_\_\_\_\_
6. Pharmacology and physiologic effects of common anesthetic agents \_\_\_\_\_
7. Indications for and placement of invasive monitors \_\_\_\_\_
8. Indications for and application of neuraxial anesthesia \_\_\_\_\_
9. Management of acute pain \_\_\_\_\_

**Figure 2. Results**

	<b>Question</b>	<b>CA-1 with CBY Mean Comfort</b>	<b>CA-1 without CBY Mean Comfort</b>	<b>P Value</b>
<b>Baseline</b>	1: Room set-up	4	3	0.06
	2: Induction	5	3.5	0.06
	3: Airway management	5	5	0.06
	4: Maintenance of GA	5.5	3.5	0.06
	5: Emergence from GA	5.5	3.5	0.06
	6: Anesthetic agents	6	3	0.06
	7: Monitors	6	4.5	0.06
	8: Neuraxial anesthesia	4	4	0.06
	9: Pain management	4	3.5	0.06
<b>One month</b>	1: Room set-up	8	8	0.06
	2: Induction	8	7	0.06
	3: Airway management	7.5	6	0.06
	4: Maintenance of GA	8	7	0.06
	5: Emergence from GA	7	6	0.06
	6: Anesthetic agents	6.5	6	0.06
	7: Monitors	6.5	5	0.06
	8: Neuraxial anesthesia	6	4.5	0.06
	9: Pain management	6	3.5	0.06
<b>Six months</b>	1: Room set-up	9	8	0.06
	2: Induction	9	6.5	0.06
	3: Airway management	8	6.5	0.06
	4: Maintenance of GA	8	6	0.06
	5: Emergence from GA	8	7	0.06
	6: Anesthetic agents	7	5.5	0.06
	7: Monitors	8	5.5	0.06
	8: Neuraxial anesthesia	8	5	0.06
	9: Pain management	7	5	0.06