


Evolution and Current Status of Integrated Vascular Residency: Advantages and Limitations A View From One of the First Such Trainees


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Disclosures

No relevant disclosures

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Applied to the 0-5 Integrated Vascular Residency in 2010-2011 academic year:
22 Integrated vascular surgery programs, 26 positions

4th Graduating Class from 0-5 Integrated Residency Program in 2016

Serving as the Associate Program Director for Mount Sinai from 2019 to Current

EVOLUTION OF THE INTEGRATED VASCULAR RESIDENCY

- Changes in number of programs and positions




EVOLUTION OF THE INTEGRATED VASCULAR RESIDENCY

- Changes in number of programs and positions
- Changes to curriculum
 - Further separation from general surgery
 - Importance / relevance of other specialties
- Where do graduates from 0+5 residency go?

> Ann Vasc Surg. 2014 Oct;28(7):1761-8. doi: 10.1016/j.avsg.2014.02.008. Epub 2014 Mar 22.

The evolving integrated vascular surgery residency curriculum

Brigitte K Smith¹, Jacob A Greenberg², Erica L Mitchell³



Factors considered most important by PDs:

- Building on existing institutional opportunities (96%)
- Avoiding rotations considered unsuccessful by "experienced" programs (92%)
- Maintaining a good working relationship with general surgery (77%)
- Concern over the lack of standardization among the differing programs (58%)

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Structured reviews of
26
 Vascular Residency Programs

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ACGME Educational Program (as of 2023)

18 months of CORE surgical experience

- Gen surg
- Cardiac surgery
- Thoracic surgery
- Congenital cardiac surgery
- CT surgery
- Critical care
- Urology
- Gynecology
- Neurosurgery
- Plastic surgery
- Burn surgery
- Trauma
- Pediatric surgery
- Laparoscopy
- ENT
- Surg Onc
- Transplant

30 months of vascular surgery

12 months of documented educational experiences that can be:

- 6 month max of vascular related rotations: vascular medicine, cardiology, IR
- 6 month max of additional core surgery
- 12 month max of additional vascular surgery
- 6 month max of dedicated research

CURRICULUM @ MOUNT SINAI

Increasing separation from general surgery

- Termination of rotations heavy in "classic" general surgery
- Colorectal, Minimally invasive, general surgery, surgical oncology

Laparoscopy heavy / competition between big residency programs

Introduction of more relevant rotations

- Increasing time on transplant surgery, CT surgery, critical care, IR, neuro-IR
- Exploration for other rotations including cardiology, vascular medicine, ENT, urology

CURRICULUM

Defined Category Minimum Numbers: Vascular Surgery
 Review Committee for Surgery

Defined category minima, and discount cases within each category, are in effect for residents/ fellows graduating in 2024. Beginning with the January 2022 ACGME annual program review, the Review Committee will use these defined minima to assess graduate Case Logs.

- **In an era of endovascular procedures, continued emphasis on open, specifically open aortic numbers**
- **My major gap on graduation:**

| Category | Minimum |
|----------------------------|---------------------------------|
| Open Abdominal | 30 |
| Aortic | 15 |
| Open Peripheral | 50 |
| Open Cerebrovascular | 25 |
| Endovascular | 200 |
| Aortic | 25 |
| Peripheral | 50 |
| Venous | 25 |
| Open Dialysis Access | 15 |
| Other Major | 30 |
| Amputation | 10 |
| Total (Independent) | 250 Major |
| Total (Integrated) | 500, including 250 Major |

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- **In an era of endovascular procedures, continued emphasis on open, specifically open aortic numbers**
- **My major gap on graduation:**
SCLEROTHERAPY
- **Addition of outpatient venous rotation and venous education for in office and ambulatory surgery center procedures**

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WHERE DO GRADUATES OF THE 0+5 RESIDENCY GO?

WHERE DO GRADUATES GO? EVERYWHERE

ACADEMICS:
 Directors of Aortic Surgery
 Program Directors
 Vice Chair of Education
 Chiefs / Chairs of Vascular Surgery
 R-01 Grant Winners
 Society Leaders
 Directors of Limb Salvage Programs




PRIVATE PRACTICE

WHERE DO GRADUATES GO – MOUNT SINAI

First graduates in 2013

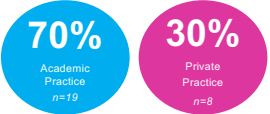
27 Graduates to Date



WHERE DO GRADUATES GO – MOUNT SINAI

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27 Graduates to Date



Since 2021,
 64% Academic
 36% Private practice

Less importance in the distinction between the two-looking for best opportunity to be clinically busy

CONCLUSION

General surgery no longer provides optimal core surgical experience for vascular residents.

Different surgical specialties (ENT, urology, CT surgery) and non-surgical rotations (IR, cardiology, neuro-IR, vascular medicine) may be of better utility and relevance to training our residents.

Open surgical exposure will always be important, but outpatient / ambulatory / venous training is important as this is what our residents will encounter in practice.

The 0-5 Integrated Vascular Surgery Residency training pathway has been highly successful and gives the opportunity to pursue all facets of clinical practice, administrative and societal leadership while shortening training length.

