



## Accreditation Council for Graduate Medical Education

### Vascular Surgery Case Logs

#### National Data Report

Prepared by: Department of Applications and Data Analysis

- I. National Resident Statistics Report
  - A. The main table provides a national picture of educational experiences. The report is ideal for establishing and assessing national policy related to resident practical experiences. Data are broken out by role (surgeon, assistant, etc).
  - B. Descriptive statistics have been carefully chosen to provide the most useful information for judging performance at the program level.
    - i. "Natl Res AVE" - The average describes the mean number of procedures performed per resident in the nation.
    - ii. "Natl Res STD" - The standard deviation indicates how tightly the scores are clustered around the mean in a set of data.
    - iii. "Natl Res MED" - This statistic represents the median or middle value of procedure counts.
- II. National Benchmark Report for Program Statistics

The table displays selected percentile and standard deviation benchmarks of program averages. For example, a score at the 10th percentile indicates that 10% of residents achieved less than the value while the remaining 90% achieved more than the value.

The information on the following pages has been created using specialty specific categories. These data should not be used for comparison across specialties as the definition of the categories will vary among the specialties. In addition, care should be exercised when comparing data from year to year as the definition of certain categories may be revised from time to time.

**VASCULAR SURGERY : NATIONAL RESIDENT REPORT (Main Table)**  
**Reporting Period: Total Experience of Residents Completing Programs in 2016-2017**  
**Residency Review Committee for Surgery**  
**Report Date: August 8, 2017**

[PAGE 1 ]

Number of Programs in the Nation: 90    Number of Residents in the Nation: 114

		Surgeon Fellow			Teaching Assistant			First Assistant			Secondary Procedures			
		Natl Res AVE	Natl Res STD	Natl Res MED	Natl Res AVE	Natl Res STD	Natl Res MED	Natl Res AVE	Natl Res STD	Natl Res MED	Natl Res AVE	Natl Res STD	Natl Res MED	
RRC Area	RRC Procedure													
Aneurysm-Repair	Open Rep Infrarenal A-I Aneur, Rupt	2.3	2	2	0.0	0	0	0.0	0	0	0.1	0	0	
	Open Rep Infrarenal A-I Aneur, Elect	8.7	6	7	0.1	0	0	0.1	0	0	0.4	1	0	
	Endovas Rep Abd Aort/Iliac Aneur	42.5	17	41	0.2	1	0	0.6	3	0	13.3	18	7	
	Endovas Rep of Iliac Artery	2.0	2	2	0.0	0	0	0.0	0	0	0.9	1	0	
	Rep Suprarenal Aortic Aneurysm	2.4	3	1	0.0	0	0	0.0	0	0	0.0	0	0	
	Rep Thoracic Aortic Aneurysm	0.4	1	0	0.0	0	0	0.0	0	0	0.0	0	0	
	Endovas Rep Thora Aortic Aneurysm	16.1	10	15	0.0	0	0	0.1	0	0	2.9	4	2	
	Rep Thoracoabd Aortic Aneurysm	3.8	8	2	0.0	0	0	0.1	1	0	0.1	0	0	
	Rep Femoral Aneurysm	3.9	3	3	0.0	0	0	0.0	0	0	0.6	1	0	
	Rep Popliteal Aneurysm	2.1	2	1	0.0	0	0	0.0	0	0	0.1	0	0	
	Rep Other Aneurysm - Def Cat Credit	0.8	1	0	0.0	0	0	0.0	0	0	0.0	0	0	
	Subtotal - Aneurysm Repair		85.0	28	84	0.4	1	0	1.0	3	0	18.5	20	13
Cerebrovascular	Carotid Endarterectomy	46.1	20	41	0.2	1	0	0.1	0	0	0.7	1	0	
	Reop Carotid Surg (Sec Proc Only)	0.0	0	0	0.0	0	0	0.0	0	0	0.6	1	0	
	Transcath Place Carotid Artery Stent	9.1	8	7	0.1	0	0	0.2	1	0	0.3	1	0	
	Excise Carotid Body Tumor	0.7	1	0	0.0	0	0	0.0	0	0	0.0	0	0	
	Vert Bypass or Reimplant/transpos	0.3	1	0	0.0	0	0	0.0	0	0	0.0	0	0	
	Direct Rep Aortic Arch Branches	0.5	1	0	0.0	0	0	0.0	0	0	0.2	1	0	
	Translum Balloon Angio - Brachioceph	1.7	3	1	0.0	0	0	0.0	0	0	0.2	1	0	
	Transcat Place of Intrav Stent, Noncor.	1.2	2	1	0.0	0	0	0.0	0	0	0.2	1	0	
	Cervical Bypass Aortic Arch Branches	6.5	5	5	0.0	0	0	0.0	0	0	1.6	2	1	
	Embolect/thrombec by Neck/Thor Incis	0.4	1	0	0.0	0	0	0.0	0	0	0.1	0	0	
	Other Major Cerebrovas - Def Cat Cred	0.7	1	1	0.0	0	0	0.0	0	0	0.1	0	0	
	Subtotal - Cerebrovascular		67.2	24	61	0.3	1	0	0.3	1	0	3.9	3	3

Statistics for each role (surgeon fellow, teaching assistant, and first assistant) include only procedures for primary credit. Secondary procedures are shown separately and include all roles.

**VASCULAR SURGERY : NATIONAL RESIDENT REPORT (Main Table)**  
**Reporting Period: Total Experience of Residents Completing Programs in 2016-2017**  
**Residency Review Committee for Surgery**  
**Report Date: August 8, 2017**

[PAGE 2 ]

Number of Programs in the Nation: 90    Number of Residents in the Nation: 114

		Surgeon Fellow			Teaching Assistant			First Assistant			Secondary Procedures		
		Natl Res AVE	Natl Res STD	Natl Res MED	Natl Res AVE	Natl Res STD	Natl Res MED	Natl Res AVE	Natl Res STD	Natl Res MED	Natl Res AVE	Natl Res STD	Natl Res MED
RRC Area	RRC Procedure												
Periph-Obstruct	Aorto-Ilio/femoral endarterectomy	5.2	6	3	0.0	0	0	0.0	0	0	1.9	3	1
	Aorto-ilio/femoral bypass, prosthetic	9.0	6	7	0.1	0	0	0.1	0	0	0.8	1	0
	Aorto-ilio/femoral bypass, vein	0.5	1	0	0.0	0	0	0.0	0	0	0.1	0	0
	Translum balloon angio aorta or iliac	23.4	10	22	0.1	0	0	0.1	0	0	23.8	18	20
	Translum atherectomy aorta or iliac	0.3	1	0	0.0	0	0	0.0	0	0	0.2	1	0
	Transcath place intravasc stent aorta	7.5	8	5	0.0	0	0	0.1	1	0	2.6	8	1
	Ilio-Iliac/femoral endarterectomy	3.7	4	3	0.0	0	0	0.0	0	0	1.5	2	0
	Excise infected graft, abdomen or chest	1.1	1	1	0.0	0	0	0.0	0	0	0.5	1	0
	Rep graft-enteric/aorto-enteric fistula	0.2	1	0	0.0	0	0	0.0	0	0	0.0	0	0
	Femoral, Profunda Endarterectomy	15.2	9	14	0.0	0	0	0.0	0	0	13.9	11	13
	Femoral-Popliteal Bypass, Vein	10.5	6	9	0.1	0	0	0.1	0	0	1.0	1	1
	Femoral-Popliteal Bypass, Prosth	7.0	6	6	0.0	0	0	0.0	0	0	1.5	2	1
	Translum balloon angio femoral-popl	40.5	22	38	0.2	1	0	0.1	0	0	19.3	15	15
	Translum atherectomy femoral-popliteal	4.6	6	2	0.0	0	0	0.0	0	0	1.3	3	0
	Endarterectomy, superf femoral, popul	2.6	3	2	0.0	0	0	0.0	0	0	2.9	5	1
	Infrapopliteal Bypass, Vein	15.9	10	14	0.0	0	0	0.1	0	0	0.8	1	0
	Infrapopliteal Bypass, Prosthetic	4.2	4	3	0.1	1	0	0.0	0	0	0.4	1	0
	Translum ballon angio, tibioperoneal	17.8	12	15	0.1	0	0	0.0	0	0	7.9	9	5
	Translum atherectomy, tibioperoneal	3.0	5	1	0.0	0	0	0.0	0	0	0.8	2	0
	Transcath place of intravas stent non-cor	1.2	3	0	0.0	0	0	0.0	0	0	0.7	2	0
	Excise infected graft, peripheral	3.6	4	2	0.0	0	0	0.0	0	0	1.3	2	1
	Revise Arterial Bypass	3.8	4	3	0.0	0	0	0.0	0	0	1.0	1	1
	Art embolectomy/thrombect by leg inc	8.5	6	7	0.1	0	0	0.0	0	0	8.1	7	6
	Graft Thrombectomy	0.7	1	0	0.0	0	0	0.0	0	0	0.8	1	0
	Adjunct vein cuff or AVF (Sec Only)	0.0	0	0	0.0	0	0	0.0	0	0	0.6	1	0
	Harvest Arm Vein (Sec Proc Only)	0.0	0	0	0.0	0	0	0.0	0	0	1.1	2	0
	Composite Leg Bypass Graft (Sec Only)	0.0	0	0	0.0	0	0	0.0	0	0	1.0	2	0
	Re-Do Lower Extrem Bypass (Sec Only)	0.0	0	0	0.0	0	0	0.0	0	0	2.7	5	1
	Subtotal - Periph Obstruct	189.8	56	184	0.9	3	0	0.7	2	0	98.5	57	94

Statistics for each role (surgeon fellow, teaching assistant, and first assistant) include only procedures for primary credit. Secondary procedures are shown separately and include all roles.

**VASCULAR SURGERY : NATIONAL RESIDENT REPORT (Main Table)**  
**Reporting Period: Total Experience of Residents Completing Programs in 2016-2017**  
**Residency Review Committee for Surgery**  
**Report Date: August 8, 2017**

[PAGE 3]

Number of Programs in the Nation: 90    Number of Residents in the Nation: 114

		Surgeon Fellow			Teaching Assistant			First Assistant			Secondary Procedures		
		Natl Res AVE	Natl Res STD	Natl Res MED	Natl Res AVE	Natl Res STD	Natl Res MED	Natl Res AVE	Natl Res STD	Natl Res MED	Natl Res AVE	Natl Res STD	Natl Res MED
RRC Area	RRC Procedure												
Abdominal-Obstruct	Celiac/Sma Endarterect, Bypass	3.4	3	3	0.0	0	0	0.0	0	0	1.4	4	0
	Renal Endarterectomy, Bypass	0.7	1	0	0.0	0	0	0.0	0	0	1.1	3	0
	Embolectomy/thrombect, ren	1.2	1	1	0.0	0	0	0.0	0	0	0.2	1	0
	Translum balloon angio, renal	3.3	3	2	0.0	0	0	0.0	0	0	1.9	3	1
	Translum atherectomy, renal	0.3	1	0	0.0	0	0	0.0	0	0	0.1	0	0
	Transcat place of stent, ren art	6.2	5	5	0.0	0	0	0.0	0	0	3.8	6	1
	Subtotal - Abdominal Obstruct	15.0	7	14	0.0	0	0	0.1	0	0	8.5	11	5
Upper Extremity	Open brachial artery exposure	0.7	1	0	0.0	0	0	0.0	0	0	3.9	7	1
	Arm Bypass,Endarterectomy,Rep	3.9	3	3	0.0	0	0	0.0	0	0	0.2	1	0
	Transcat place of intra stent noncoro	1.6	2	1	0.0	0	0	0.0	0	0	0.5	1	0
	Thoracic Outlet Decomp Proc	5.1	5	3	0.0	0	0	0.0	0	0	0.5	1	0
	Embolect/thrombect, by arm inc	2.9	2	2	0.0	0	0	0.0	0	0	1.5	2	1
	Subtotal - Upper Extremity	14.3	7	14	0.1	0	0	0.0	0	0	6.6	8	4
Extra-Anatomic	Axillo-Femoral Bypass	4.0	3	3	0.1	0	0	0.0	0	0	0.5	1	0
	Axillo-Popliteal-Tibial Bypass	0.2	1	0	0.0	0	0	0.0	0	0	0.0	0	0
	Femoral-Femoral Bypass	5.6	4	5	0.0	0	0	0.0	0	0	2.2	3	1
	Subtotal - Extra-Anatomic	9.8	6	9	0.1	0	0	0.0	0	0	2.8	3	2
Thromb/Mech Thromb	Translum mech thrombect	4.3	5	3	0.0	0	0	0.0	0	0	2.8	4	1
	Thrombolysis, transart, transcat	6.2	6	4	0.0	0	0	0.0	0	0	1.4	2	1
	Exchange of thrombolysis cath	3.8	7	2	0.0	0	0	0.0	0	0	1.9	4	0
	Subtotal - Thrombol/Mech Thrombect	14.3	14	11	0.0	0	0	0.0	0	0	6.1	9	3

Statistics for each role (surgeon fellow, teaching assistant, and first assistant) include only procedures for primary credit. Secondary procedures are shown separately and include all roles.

**VASCULAR SURGERY : NATIONAL RESIDENT REPORT (Main Table)**  
**Reporting Period: Total Experience of Residents Completing Programs in 2016-2017**  
**Residency Review Committee for Surgery**  
**Report Date: August 8, 2017**

[PAGE 4 ]

Number of Programs in the Nation: 90    Number of Residents in the Nation: 114

		Surgeon Fellow			Teaching Assistant			First Assistant			Secondary Procedures		
		Natl Res AVE	Natl Res STD	Natl Res MED	Natl Res AVE	Natl Res STD	Natl Res MED	Natl Res AVE	Natl Res STD	Natl Res MED	Natl Res AVE	Natl Res STD	Natl Res MED
RRC Area	RRC Procedure												
Misc Endovasc Thera	Endo place iliac art occ dev(Sec Only)	0.0	0	0	0.0	0	0	0.0	0	0	1.5	3	0
	Transcath thera, infusion non thromb	0.1	0	0	0.0	0	0	0.0	0	0	0.2	1	0
	Transcath art occl or embolization	3.6	4	2	0.0	0	0	0.0	0	0	4.8	7	3
	Subtotal - Misc Endovas Therap	3.6	4	3	0.0	0	0	0.0	0	0	6.6	9	4
Trauma	Repair Thoracic Vessels	0.5	1	0	0.0	0	0	0.0	0	0	0.1	0	0
	Repair Neck Vessels	0.8	1	0	0.0	0	0	0.0	0	0	0.1	0	0
	Repair Abdominal Vessels	3.0	4	2	0.0	0	0	0.0	0	0	0.4	1	0
	Repair Peripheral Vessels	7.5	6	6	0.0	0	0	0.0	0	0	1.8	4	1
	Fasciotomy	2.5	2	2	0.1	0	0	0.0	0	0	5.1	5	4
	Subtotal - Trauma	14.2	10	12	0.1	0	0	0.0	0	0	7.5	7	6
<b>Total Major</b>	<b>Total Major</b>	<b>413.2</b>	<b>102</b>	<b>405</b>	<b>1.9</b>	<b>5</b>	<b>0</b>	<b>2.2</b>	<b>7</b>	<b>0</b>	<b>158.9</b>	<b>93</b>	<b>147</b>
Venous	Portal-Systemic Shunt	0.3	1	0	0.0	0	0	0.0	0	0	0.0	0	0
	Operation For Varicose Veins	5.3	7	3	0.0	0	0	0.0	0	0	6.1	10	2
	Sclerotherapy, Periph Vein	0.5	1	0	0.0	0	0	0.0	0	0	0.7	5	0
	Embolectomy/Thrombectomy, venous	0.5	1	0	0.0	0	0	0.0	0	0	0.5	1	0
	Endoluminal ablation	10.9	13	6	0.1	0	0	0.0	0	0	0.9	2	0
	Operations For Venous Ulceration	0.2	1	0	0.0	0	0	0.0	0	0	0.0	0	0
	Venous Reconstruction	1.9	3	1	0.0	0	0	0.0	0	0	0.2	1	0
	Translum balloon angio, venous	25.2	27	16	0.1	1	0	0.0	0	0	11.6	23	5
	Translum mech thrombect, venous	2.5	3	2	0.0	0	0	0.0	0	0	0.9	2	0
	Thrombolysis, transven, transcat	3.1	4	2	0.0	0	0	0.0	0	0	0.6	1	0
	Interruption of IVC	15.9	14	12	0.2	1	0	0.0	0	0	1.0	1	1
	Repair A-V Malformation	0.1	0	0	0.0	0	0	0.0	0	0	0.0	0	0
	Subtotal - Venous		66.4	41	59	0.4	1	0	0.1	0	0	22.6	28

Statistics for each role (surgeon fellow, teaching assistant, and first assistant) include only procedures for primary credit. Secondary procedures are shown separately and include all roles.

**VASCULAR SURGERY : NATIONAL RESIDENT REPORT (Main Table)**  
**Reporting Period: Total Experience of Residents Completing Programs in 2016-2017**  
**Residency Review Committee for Surgery**  
**Report Date: August 8, 2017**

[PAGE 5 ]

Number of Programs in the Nation: 90    Number of Residents in the Nation: 114

		Surgeon Fellow			Teaching Assistant			First Assistant			Secondary Procedures		
		Natl Res AVE	Natl Res STD	Natl Res MED	Natl Res AVE	Natl Res STD	Natl Res MED	Natl Res AVE	Natl Res STD	Natl Res MED	Natl Res AVE	Natl Res STD	Natl Res MED
RRC Area	RRC Procedure												
Endovas-Diag	Arteriography	82.7	44	76	0.5	2	0	0.1	1	0	249.4	209	206
	Venography	11.9	18	7	0.1	1	0	0.0	0	0	17.7	23	8
	Angioscopy	0.0	0	0	0.0	0	0	0.0	0	0	0.6	2	0
	Intravascular Ultrasound	0.3	1	0	0.0	0	0	0.0	0	0	3.4	9	0
	Subtotal - Endo Diagnostic	94.9	50	88	0.6	3	0	0.2	1	0	271.1	221	232
Misc Vascular	Exploration of artery	3.7	4	3	0.0	0	0	0.0	0	0	11.3	16	3
	Postop exp bleed, Thromb Infect	3.1	6	1	0.0	0	0	0.0	0	0	0.6	2	0
	Major Vascular Ligation	4.6	5	3	0.0	0	0	0.0	0	0	1.3	2	1
	Inject pseudoaneurysm	1.1	2	0	0.0	0	0	0.0	0	0	0.1	0	0
	Spine Exposure	4.0	6	1	0.0	0	0	0.0	0	0	1.0	3	0
	Sympathectomy	0.1	1	0	0.0	0	0	0.0	0	0	0.0	0	0
	Lymphatic Procedure	0.1	0	0	0.0	0	0	0.0	0	0	0.0	0	0
	Other misc vascular proc	0.6	2	0	0.0	0	0	0.0	0	0	0.4	1	0
	Subtotal - Misc Vascular	17.3	13	15	0.0	0	0	0.0	0	0	14.6	18	7
Vascular Access	A-V Fistula	33.4	26	29	0.6	2	0	0.0	0	0	0.9	4	0
	A-V Graft	12.0	11	9	0.2	1	0	0.0	0	0	0.8	2	0
	Percutaneous-Other Access	2.4	6	0	0.0	0	0	0.0	0	0	1.7	6	0
	Revision, A-V Access	17.4	16	13	0.2	1	0	0.0	0	0	4.6	12	1
	Subtotal - Vascular Access	65.2	48	55	1.0	3	0	0.1	0	0	8.1	19	2

Statistics for each role (surgeon fellow, teaching assistant, and first assistant) include only procedures for primary credit. Secondary procedures are shown separately and include all roles.

**VASCULAR SURGERY : NATIONAL RESIDENT REPORT (Main Table)**  
**Reporting Period: Total Experience of Residents Completing Programs in 2016-2017**  
**Residency Review Committee for Surgery**  
**Report Date: August 8, 2017**

[PAGE 6 ]

Number of Programs in the Nation: 90    Number of Residents in the Nation: 114

		Surgeon Fellow			Teaching Assistant			First Assistant			Secondary Procedures		
		Natl Res AVE	Natl Res STD	Natl Res MED	Natl Res AVE	Natl Res STD	Natl Res MED	Natl Res AVE	Natl Res STD	Natl Res MED	Natl Res AVE	Natl Res STD	Natl Res MED
RRC Area	RRC Procedure												
Amputations	Amputation, Digit	3.5	4	2	0.1	1	0	0.0	0	0	1.3	3	0
	Amputation, Transmetatarsal	4.3	5	2	0.1	1	0	0.0	0	0	1.0	2	0
	Amputation, Below Knee	13.0	10	12	0.4	1	0	0.0	0	0	0.4	1	0
	Amputation, Above Knee	10.7	7	10	0.5	1	0	0.0	0	0	0.6	1	0
	Amputation, Upper Extremity	0.1	1	0	0.0	0	0	0.0	0	0	0.1	0	0
	Amputation Closure, Revision	1.3	2	1	0.0	0	0	0.0	0	0	0.0	0	0
	Subtotal - Amputations		32.9	20	32	1.2	3	0	0.1	0	0	3.4	5
Total Minor	Total Minor	276.6	116	268	3.3	7	0	0.5	1	0	319.8	246	279
Total Operations	TOTAL	689.9	182	689	5.2	12	0	2.7	8	0	478.7	307	453
Imaging / Diagnostic Studies	Carotid duplex ultrasound	32.5	57	0	0.0	0	0	0.1	0	0	0.0	0	0
	Peripheral arterial physiologic testing	36.2	70	0	0.2	1	0	0.0	0	0	0.0	0	0
	Peripheral arterial duplex ultrasound	52.5	104	0	0.0	0	0	0.1	1	0	0.0	0	0
	Venous duplex ultrasound	47.3	85	0	0.0	0	0	0.1	1	0	0.0	0	0
	Visceral vascular ultrasound	14.7	35	0	0.0	0	0	0.0	0	0	0.0	0	0
	Transcranial doppler	0.5	4	0	0.0	0	0	0.0	0	0	0.0	0	0
	Subtotal - Imaging/Diag		183.7	311	1	0.3	2	0	0.3	2	0	0.0	0

Statistics for each role (surgeon fellow, teaching assistant, and first assistant) include only procedures for primary credit. Secondary procedures are shown separately and include all roles.

**VASCULAR SURGERY : NATIONAL PROGRAM STATISTICS REPORT (Benchmarks Table)**  
**Reporting Period: Total Experience of Residents Completing Programs in 2016-2017**  
**Residency Review Committee for Surgery**  
**Report Date: August 8, 2017**

[PAGE 7 ]      Number of Programs in the Nation: 90    Number of Residents in the Nation: 114										
RRC Area	Surgeon Fellow					Secondary Procedures				
	Prog Percentiles					Prog Percentiles				
	10	30	50	70	90	10	30	50	70	90
Aneurysm-Repair	54	64	84	101	124	2	7	12	21	46
Cerebrovascular	44	52	62	77	105	1	2	3	5	8
Periph-Obstruct	120	154	183	215	261	32	66	90	122	167
Abdominal-Obstruct	7	11	14	18	26	0	3	5	8	23
Upper Extremity	6	10	14	17	24	0	2	4	7	17
Extra-Anatomic	3	6	10	13	19	0	1	2	3	7
Thromb/Mech Thromb	3	8	11	17	26	0	1	3	7	15
Misc Endovasc Thera	0	2	2	5	8	1	2	4	7	18
Trauma	5	8	14	19	27	1	4	6	9	16
Total Major	294	349	410	463	539	53	106	148	202	269
Venous	25	41	56	76	116	4	10	15	24	39
Endovas-Diag	36	63	93	118	155	47	143	220	310	562
Misc Vascular	4	10	15	22	33	0	4	7	18	39
Vascular Access	14	29	54	80	130	0	1	2	4	17
Amputations	11	20	34	40	58	0	1	2	4	8
Total Minor	147	197	261	320	435	62	167	278	364	659
Total Operations	441	591	687	777	913	154	301	442	550	937
Imaging / Diagnostic Studies	0	0	0	255	527	0	0	0	0	0

Statistics for each role (surgeon fellow, teaching assistant, and first assistant) include only procedures for primary credit. Secondary procedures are shown separately and include all roles.