



## 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 2017-2018**  
**Residency Review Committee for Surgery**  
**Report Date: September 19, 2018**

[PAGE 1 ]

Number of Programs in the Nation: 94    Number of Residents in the Nation: 126

		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 Infra renal A-I Aneur, Rupt	2.6	3	2	0.0	0	0	0.0	0	0	0.1	0	0	
	Open Rep Infra renal A-I Aneur, Elect	8.9	6	8	0.1	0	0	0.1	0	0	0.5	1	0	
	Endovas Rep Abd Aort/Iliac Aneur	42.6	17	41	0.3	1	0	0.3	1	0	11.4	16	5	
	Endovas Rep of Iliac Artery	2.2	2	2	0.0	0	0	0.0	0	0	1.1	2	0	
	Rep Supra renal Aortic Aneurysm	2.2	3	1	0.0	0	0	0.0	0	0	0.1	0	0	
	Rep Thoracic Aortic Aneurysm	0.5	1	0	0.0	0	0	0.0	0	0	0.0	0	0	
	Endovas Rep Thora Aortic Aneurysm	16.3	11	16	0.2	1	0	0.1	1	0	3.2	4	2	
	Rep Thoracoabd Aortic Aneurysm	3.1	4	2	0.0	0	0	0.0	0	0	0.0	0	0	
	Rep Femoral Aneurysm	4.6	3	4	0.0	0	0	0.0	0	0	0.7	1	0	
	Rep Popliteal Aneurysm	2.1	2	2	0.0	0	0	0.0	0	0	0.1	0	0	
	Rep Other Aneurysm - Def Cat Credit	0.9	1	1	0.0	0	0	0.0	0	0	0.1	0	0	
	Subtotal - Aneurysm Repair		85.8	30	81	0.8	2	0	0.6	2	0	17.4	19	12
Cerebrovascular	Carotid Endarterectomy	45.5	21	41	0.5	1	0	0.2	1	0	0.5	1	0	
	Reop Carotid Surg (Sec Proc Only)	0.0	0	0	0.0	0	0	0.0	0	0	0.7	1	0	
	Transcath Place Carotid Artery Stent	10.8	8	9	0.1	0	0	0.1	0	0	0.3	1	0	
	Excise Carotid Body Tumor	0.8	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	0.1	0	0	
	Direct Rep Aortic Arch Branches	0.5	1	0	0.0	0	0	0.0	0	0	0.1	0	0	
	Translum Balloon Angio - Brachioceph	1.1	3	0	0.0	0	0	0.0	0	0	0.3	1	0	
	Transcat Place of Intrav Stent, Noncor.	1.8	2	1	0.0	0	0	0.0	0	0	0.3	1	0	
	Cervical Bypass Aortic Arch Branches	5.9	4	5	0.1	0	0	0.1	0	0	1.9	3	1	
	Embolect/thrombec by Neck/Thor Incis	0.2	1	0	0.0	0	0	0.0	0	0	0.1	0	0	
	Other Major Cerebrovas - Def Cat Cred	0.9	1	1	0.0	0	0	0.0	0	0	0.0	0	0	
	Subtotal - Cerebrovascular		67.8	26	62	0.7	2	0	0.5	2	0	4.2	5	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.

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[PAGE 2 ]

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		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	5.5	6	3	0.0	0	0	0.0	0	0	1.4	2	0
	Aorto-ilio/femoral bypass, prosthetic	7.8	5	7	0.0	0	0	0.0	0	0	0.7	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	23.2	11	22	0.2	0	0	0.1	0	0	21.6	19	17
	Translum atherectomy aorta or iliac	0.3	1	0	0.0	0	0	0.0	0	0	0.2	0	0
	Transcath place intravasc stent aorta	7.5	9	4	0.1	1	0	0.1	0	0	3.3	6	1
	Ilio-Iliac/femoral endarterectomy	3.4	4	2	0.0	0	0	0.0	0	0	1.2	4	0
	Excise infected graft, abdomen or chest	1.3	2	1	0.0	0	0	0.0	0	0	0.5	1	0
	Rep graft-enteric/aorto-enteric fistula	0.2	0	0	0.0	0	0	0.0	0	0	0.0	0	0
	Femoral, Profunda Endarterectomy	15.5	8	15	0.2	1	0	0.0	0	0	15.1	15	10
	Femoral-Popliteal Bypass, Vein	10.0	6	9	0.1	1	0	0.0	0	0	0.8	1	0
	Femoral-Popliteal Bypass, Prosth	7.2	5	6	0.1	0	0	0.0	0	0	1.5	2	1
	Translum balloon angio femoral-popl	39.5	22	36	0.4	1	0	0.2	2	0	18.3	14	15
	Translum atherectomy femoral-popliteal	5.8	7	3	0.0	0	0	0.0	0	0	1.5	4	0
	Endarterectomy, superf femoral, popul	2.7	3	2	0.0	0	0	0.0	0	0	3.1	5	1
	Infrapopliteal Bypass, Vein	15.4	9	13	0.2	1	0	0.0	0	0	1.0	3	0
	Infrapopliteal Bypass, Prosthetic	3.7	3	3	0.0	0	0	0.0	0	0	0.4	1	0
	Translum ballon angio, tibioperoneal	16.6	13	15	0.1	0	0	0.1	0	0	8.6	10	5
	Translum atherectomy, tibioperoneal	3.0	5	1	0.0	0	0	0.0	0	0	1.0	3	0
	Transcath place of intravas stent non-cor	2.3	6	1	0.0	0	0	0.0	0	0	1.4	4	0
	Excise infected graft, peripheral	3.6	4	3	0.1	0	0	0.0	0	0	1.3	2	0
	Revise Arterial Bypass	3.7	3	3	0.0	0	0	0.0	0	0	1.2	2	1
	Art embolectomy/thrombect by leg inc	8.9	6	8	0.1	1	0	0.0	0	0	7.7	8	6
	Graft Thrombectomy	1.0	2	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	1.0	2	0
	Harvest Arm Vein (Sec Proc Only)	0.0	0	0	0.0	0	0	0.0	0	0	1.4	2	1
	Composite Leg Bypass Graft (Sec Only)	0.0	0	0	0.0	0	0	0.0	0	0	1.1	2	0
	Re-Do Lower Extrem Bypass (Sec Only)	0.0	0	0	0.0	0	0	0.0	0	0	2.7	4	1
	Other Major Periph - Def Cat Cred	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0
	Subtotal - Periph Obstruct	188.8	51	182	1.9	4	0	0.7	4	0	98.6	69	83

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.

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[PAGE 3]

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RRC Area	RRC Procedure												
Abdominal-Obstruct	Celiac/Sma Endarterect, Bypass	3.7	3	3	0.0	0	0	0.0	0	0	1.2	4	0
	Renal Endarterectomy, Bypass	0.6	1	0	0.0	0	0	0.0	0	0	0.7	2	0
	Embolectomy/thrombect, ren	1.3	2	1	0.0	0	0	0.0	0	0	0.2	0	0
	Translum balloon angio, renal	1.6	2	1	0.0	0	0	0.0	0	0	0.6	1	0
	Translum atherectomy, renal	0.4	1	0	0.0	0	0	0.0	0	0	0.1	0	0
	Transcat place of stent, ren art	6.8	6	5	0.0	0	0	0.0	0	0	4.9	11	1
	Subtotal - Abdominal Obstruct	14.5	8	12	0.1	0	0	0.1	1	0	7.7	13	3
Upper Extremity	Open brachial artery exposure	0.6	1	0	0.0	0	0	0.0	0	0	4.2	8	1
	Arm Bypass,Endarterectomy,Rep	3.3	3	3	0.0	0	0	0.0	0	0	0.4	1	0
	Transcat place of intra stent noncoro	1.8	2	1	0.0	0	0	0.0	0	0	0.5	1	0
	Thoracic Outlet Decomp Proc	5.9	7	4	0.0	0	0	0.0	0	0	0.5	1	0
	Embolect/thrombect, by arm inc	3.4	3	3	0.1	0	0	0.0	0	0	2.0	3	1
	Subtotal - Upper Extremity	14.9	9	13	0.1	0	0	0.1	0	0	7.5	10	4
Extra-Anatomic	Axillo-Femoral Bypass	4.3	3	4	0.1	0	0	0.0	0	0	0.5	1	0
	Axillo-Popliteal-Tibial Bypass	0.1	0	0	0.0	0	0	0.0	0	0	0.0	0	0
	Femoral-Femoral Bypass	5.7	4	5	0.1	0	0	0.0	0	0	1.8	2	1
	Subtotal - Extra-Anatomic	10.1	6	9	0.1	1	0	0.0	0	0	2.3	2	2
Thromb/Mech Thromb	Translum mech thrombect	4.0	5	2	0.0	0	0	0.0	0	0	3.0	6	1
	Thrombolysis, transart, transcat	6.3	7	4	0.0	0	0	0.0	0	0	1.7	2	1
	Exchange of thrombolysis cath	4.0	6	2	0.0	0	0	0.0	0	0	1.6	3	0
	Subtotal - Thrombol/Mech Thrombect	14.3	13	11	0.1	0	0	0.0	0	0	6.3	10	3

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[PAGE 4 ]

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		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	1.6	2	1
	Transcath retr of intravasc foreign	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0
	Transcath art occl or embolization	3.8	3	3	0.0	0	0	0.0	0	0	4.8	8	3
	Transcath place of wireless sensor	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0
	Pressure meas from wireless sensor	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0
	Subtotal - Misc Endovas Therap		3.8	3	3	0.0	0	0	0.0	0	0	6.4	8
Trauma	Repair Thoracic Vessels	0.4	1	0	0.0	0	0	0.0	0	0	0.1	0	0
	Repair Neck Vessels	0.7	1	0	0.0	0	0	0.0	0	0	0.2	1	0
	Repair Abdominal Vessels	3.1	5	1	0.0	0	0	0.0	0	0	0.3	1	0
	Repair Peripheral Vessels	7.8	8	6	0.1	1	0	0.0	0	0	2.5	6	1
	Fasciotomy	2.3	2	2	0.1	0	0	0.0	0	0	5.5	6	3
	Subtotal - Trauma		14.3	11	11	0.2	1	0	0.1	0	0	8.6	10
Total Major	Total Major	414.4	99	400	4.0	9	0	2.1	9	0	159.0	113	132
Venous	Portal-Systemic Shunt	0.2	1	0	0.0	0	0	0.0	0	0	0.0	0	0
	Operation For Varicose Veins	5.3	6	3	0.1	0	0	0.0	0	0	5.0	7	3
	Sclerotherapy, Periph Vein	0.9	5	0	0.0	0	0	0.0	0	0	0.3	2	0
	Embolectomy/Thrombectomy, venous	0.5	1	0	0.0	0	0	0.0	0	0	0.5	1	0
	Endoluminal ablation	9.6	12	5	0.0	0	0	0.0	0	0	0.7	1	0
	Operations For Venous Ulceration	0.1	0	0	0.0	0	0	0.0	0	0	0.0	0	0
	Venous Reconstruction	1.8	2	1	0.0	0	0	0.0	0	0	0.3	1	0
	Translum balloon angio, venous	16.1	16	13	0.1	1	0	0.0	0	0	6.4	10	3
	Translum mech thrombect, venous	2.5	3	2	0.0	0	0	0.0	0	0	1.0	2	0
	Thrombolysis, transven, transcat	2.9	3	2	0.0	0	0	0.0	0	0	0.8	2	0
	Interruption of IVC	13.3	12	11	0.2	1	0	0.0	0	0	0.9	2	0
	Repair A-V Malformation	0.1	0	0	0.0	0	0	0.0	0	0	0.0	0	0
	Subtotal - Venous		53.4	34	45	0.4	1	0	0.1	1	0	15.9	15

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[PAGE 5 ]

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		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	83.5	49	81	0.4	1	0	0.3	1	0	260.2	250	191
	Venography	9.9	14	6	0.2	1	0	0.0	0	0	14.6	23	6
	Angioscopy	0.0	0	0	0.0	0	0	0.0	0	0	1.2	9	0
	Intravascular Ultrasound	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0
	Subtotal - Endo Diagnostic	93.4	54	88	0.6	2	0	0.3	1	0	276.0	262	205
Misc Vascular	Exploration of artery	4.3	7	3	0.0	0	0	0.0	0	0	11.9	25	4
	Postop exp bleed, Thromb Infect	3.9	9	1	0.1	0	0	0.0	0	0	1.0	2	0
	Major Vascular Ligation	5.4	5	4	0.1	1	0	0.0	0	0	1.5	3	0
	Inject pseudoaneurysm	1.4	2	0	0.0	0	0	0.0	0	0	0.1	0	0
	Spine Exposure	4.2	7	1	0.0	0	0	0.1	1	0	1.4	5	0
	Sympathectomy	0.0	0	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	0.9	3	0	0.0	0	0	0.0	0	0	0.3	1	0
	Subtotal - Misc Vascular	20.3	18	15	0.2	1	0	0.1	1	0	16.3	29	7
Vascular Access	A-V Fistula	33.7	26	32	0.5	1	0	0.0	0	0	0.7	2	0
	A-V Graft	12.4	12	9	0.2	1	0	0.0	0	0	0.5	1	0
	Percutaneous-Other Access	2.6	10	0	0.0	0	0	0.0	0	0	1.7	9	0
	Revision, A-V Access	19.0	15	15	0.3	1	0	0.1	0	0	2.7	5	1
	Subtotal - Vascular Access	67.6	48	61	1.0	3	0	0.1	1	0	5.5	12	2

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[PAGE 6 ]

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		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	3.7	5	2	0.4	1	0	0.0	0	0	1.5	3	0
	Amputation, Transmetatarsal	4.9	7	3	0.3	1	0	0.0	0	0	1.0	2	0
	Amputation, Below Knee	13.9	9	13	1.1	2	0	0.0	0	0	0.4	1	0
	Amputation, Above Knee	10.8	8	9	0.8	2	0	0.0	0	0	0.6	1	0
	Amputation, Upper Extremity	0.3	1	0	0.0	0	0	0.0	0	0	0.0	0	0
	Amputation Closure, Revision	1.3	2	1	0.1	1	0	0.0	0	0	0.0	0	0
	Subtotal - Amputations		34.9	21	34	2.7	5	0	0.1	0	0	3.5	5
Total Minor	Total Minor	269.6	121	254	5.0	10	1	0.7	4	0	317.3	282	242
Total Operations	TOTAL	684.0	173	673	9.0	16	1	2.8	13	0	476.3	369	380
Imaging / Diagnostic Studies	Carotid duplex ultrasound	24.0	42	0	0.0	0	0	0.0	0	0	0.0	0	0
	Peripheral arterial physiologic testing	34.0	62	0	0.1	1	0	0.0	0	0	0.0	0	0
	Peripheral arterial duplex ultrasound	33.6	66	0	0.1	1	0	0.0	0	0	0.0	0	0
	Venous duplex ultrasound	36.7	68	0	0.2	1	0	0.0	0	0	0.0	0	0
	Visceral vascular ultrasound	13.5	29	0	0.0	0	0	0.0	0	0	0.0	0	0
	Transcranial doppler	1.3	6	0	0.0	0	0	0.0	0	0	0.0	0	0
	Subtotal - Imaging/Diag		143.1	234	0	0.4	3	0	0.1	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.

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RRC Area	Surgeon Fellow					Secondary Procedures				
	Prog Percentiles					Prog Percentiles				
	10	30	50	70	90	10	30	50	70	90
Aneurysm-Repair	52	69	86	100	130	3	7	12	19	43
Cerebrovascular	43	55	62	74	101	1	2	3	5	9
Periph-Obstruct	128	163	186	212	247	27	60	83	123	187
Abdominal-Obstruct	6	9	12	18	25	0	1	4	7	20
Upper Extremity	7	10	13	17	26	0	2	4	8	19
Extra-Anatomic	5	7	9	12	18	0	1	2	3	5
Thromb/Mech Thromb	2	6	11	17	30	0	2	3	5	18
Misc Endovasc Thera	0	2	3	5	8	0	3	4	8	15
Trauma	5	8	15	18	28	1	3	5	11	21
Total Major	307	369	400	460	542	52	99	140	182	318
Venous	20	38	43	58	99	2	7	14	18	34
Endovas-Diag	35	59	87	111	154	47	136	205	340	657
Misc Vascular	5	10	16	24	41	0	3	7	17	36
Vascular Access	12	32	59	85	130	0	1	2	6	11
Amputations	12	26	33	44	54	0	1	2	4	10
Total Minor	139	190	253	313	419	59	162	244	368	751
Total Operations	502	596	673	761	878	170	266	382	560	1,070
Imaging / Diagnostic Studies	0	0	0	15	518	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.