

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.

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		Su	rgeon Fel	low	Teac	hing Ass	istant	Fir	st Assist	ant	Second	dary Proc	edures
		Natl Res AVE	Natl Res STD	Natl Res MED									
RRC Area	RRC Procedure												
Aneurysm-Repair	Open Rep Infrarenal A-I Aneur, Rupt	3.0	2	2	0.0	0	0	0.0	0	0	0.0	0	0
	Open Rep Infrarenal A-I Aneur, Elect	9.7	6	9	0.1	0	0	0.1	0	0	0.5	1	0
	Endovas Rep Abd Aort/Iliac Aneur	46.3	18	43	0.4	2	0	0.2	1	0	13.5	24	5
	Endovas Rep of Iliac Artery	1.7	2	1	0.0	0	0	0.0	0	0	0.6	1	0
	Rep Suprarenal Aortic Aneurysm	2.5	4	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	13.8	10	11	0.1	0	0	0.1	1	0	2.7	5	1
	Rep Thoracoabd Aortic Aneurysm	3.9	5	2	0.0	0	0	0.1	0	0	0.1	0	0
	Rep Femoral Aneurysm	3.8	3	3	0.1	0	0	0.0	0	0	0.6	1	0
	Rep Popliteal Aneurysm	2.7	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	88.9	30	84	0.7	3	0	0.7	2	0	18.2	27	9
Cerebrovascular	Carotid Endarterectomy	49.0	19	45	0.3	1	0	0.2	1	0	0.6	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	10.0	8	8	0.1	1	0	0.1	0	0	0.2	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	0.1	0	0
	Direct Rep Aortic Arch Branches	0.5	1	0	0.0	0	0	0.0	0	0	0.1	1	0
	Translum Balloon Angio - Brachioceph	1.8	2	1	0.0	0	0	0.0	0	0	1.0	2	0
	Translum Atherectomy - Brachiocephalic	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0
	Transcat Place of Intrav Stent, Noncor.	1.6	2	1	0.0	0	0	0.0	0	0	0.1	0	0
	Cervical Bypass Aortic Arch Branches	5.1	4	4	0.0	0	0	0.0	0	0	1.4	2	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	0.6	1	0	0.0	0	0	0.0	0	0	0.1	0	0
	Subtotal - Cerebrovascular	69.9	23	67	0.4	1	0	0.3	1	0	4.5	4	3

		Su	geon Fel	low	Teac	hing Ass	istant	Fir	st Assist	ant	Second	dary Proc	edures
		Natl Res AVE	Natl Res STD	Natl Res MED									
RRC Area	RRC Procedure												
Periph-Obstruct	Aorto-Ilio/femoral endarterectomy	4.1	6	2	0.0	0	0	0.0	0	0	1.8	5	0
	Aorto-ilio/femoral bypass, prosthetic	8.6	5	8	0.0	0	0	0.1	0	0	1.0	2	0
	Aorto-ilio/femoral bypass, vein	0.7	1	0	0.0	0	0	0.0	0	0	0.1	0	0
	Translum balloon angio aorta or iliac	9.3	9	6	0.0	0	0	0.0	0	0	12.5	16	7
	Translum atherectomy aorta or iliac	0.3	1	0	0.0	0	0	0.0	0	0	0.3	1	0
	Transcath place intravasc stent aorta	4.6	6	3	0.0	0	0	0.0	0	0	5.8	13	3
	Ilio-Iliac/femoral endarterectomy	3.1	3	2	0.0	0	0	0.0	0	0	1.4	3	1
	Excise infected graft, abdomen or chest	1.3	2	1	0.0	0	0	0.0	0	0	0.6	2	0
	Rep graft-enteric/aorto-enteric fistula	0.3	1	0	0.0	0	0	0.0	0	0	0.1	0	0
	Femoral, Profunda Endarterectomy	11.7	7	11	0.2	1	0	0.0	0	0	12.0	13	9
	Femoral-Popliteal Bypass, Vein	10.8	6	9	0.2	1	0	0.0	0	0	1.0	1	1
	Femoral-Popliteal Bypass, Prosth	7.5	5	7	0.1	1	0	0.0	0	0	1.6	2	1
	Translum balloon angio femoral-popl	20.4	14	18	0.1	1	0	0.0	0	0	16.8	13	14
	Translum atherectomy femoral-popliteal	5.2	8	3	0.0	0	0	0.0	0	0	1.7	4	0
	Endarterectomy, superf femoral, popl	2.9	3	2	0.0	0	0	0.0	0	0	2.3	3	1
	Infrapopliteal Bypass, Vein	16.3	10	14	0.2	1	0	0.0	0	0	1.2	2	0
	Infrapopliteal Bypass, Prosthetic	3.6	3	3	0.0	0	0	0.0	0	0	0.5	1	0
	Translum ballon angio, tibioperoneal	11.5	9	9	0.0	0	0	0.0	0	0	5.6	6	4
	Translum atherectomy, tibioperoneal	2.1	3	1	0.0	0	0	0.0	0	0	0.3	1	0
	Transcath place of intravas stent non-cor	21.9	18	19	0.1	1	0	0.1	0	0	18.7	20	13
	Excise infected graft, peripheral	2.9	3	2	0.1	0	0	0.0	0	0	1.2	2	1
	Revise Arterial Bypass	4.0	4	3	0.0	0	0	0.0	0	0	1.2	2	1
	Art embolectomy/thrombect by leg inc	8.5	6	8	0.1	0	0	0.0	0	0	6.3	7	5
	Graft Thrombectomy	1.2	1	1	0.0	0	0	0.0	0	0	1.0	2	0
	Adjunct vein cuff or AVF (Sec Only)	0.0	0	0	0.0	0	0	0.0	0	0	0.7	2	0
	Harvest Arm Vein (Sec Proc Only)	0.0	0	0	0.0	0	0	0.0	0	0	1.5	2	0
	Composite Leg Bypass Graft (Sec Only)	0.0	0	0	0.0	0	0	0.0	0	0	1.2	2	0
	Re-Do Lower Extrem Bypass (Sec Only)	0.0	0	0	0.0	0	0	0.0	0	0	2.9	4	1
	Subtotal - Periph Obstruct	163.1	44	162	1.4	5	0	0.4	1	0	101.2	68	87

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		Sui	rgeon Fel	low	Teac	hing Ass	istant	Fir	st Assist	ant	Second	dary Proc	eaures
		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	Nati Res MED
RRC Area	RRC Procedure												
Abdominal-Obstruct	Celiac/Sma Endarterect, Bypass	3.9	4	3	0.0	0	0	0.0	0	0	1.2	3	0
	Renal Endarterectomy, Bypass	1.1	1	1	0.0	0	0	0.0	0	0	0.8	2	0
	Embolectomy/thrombect, ren	1.2	1	1	0.0	0	0	0.0	0	0	0.4	1	0
	Translum balloon angio, renal	3.4	4	2	0.0	0	0	0.0	0	0	3.2	4	2
	Translum atherectomy, renal	0.1	1	0	0.0	0	0	0.0	0	0	0.1	0	0
	Transcat place of stent, ren art	7.4	6	6	0.1	0	0	0.0	0	0	9.5	17	4
	Subtotal - Abdominal Obstruct	17.1	10	15	0.1	0	0	0.1	1	0	15.1	22	8
Upper Extremity	Open brachial artery exposure	0.3	1	0	0.0	0	0	0.0	0	0	2.4	5	0
	Arm Bypass, Endarterectomy, Rep	3.1	3	3	0.0	0	0	0.0	0	0	0.2	0	0
	Transcat place of intra stent noncoro	3.3	4	3	0.0	0	0	0.0	0	0	1.0	1	0
	Thoracic Outlet Decomp Proc	5.6	7	3	0.1	1	0	0.0	0	0	0.4	2	0
	Embolect/thrombect, by arm inc	3.3	3	2	0.0	0	0	0.0	0	0	1.5	2	1
	Subtotal - Upper Extremity	15.6	9	14	0.1	1	0	0.0	0	0	5.5	7	3
Extra-Anatomic	Axillo-Femoral Bypass	4.4	3	3	0.0	0	0	0.0	0	0	0.6	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	5.5	4	5	0.1	0	0	0.0	0	0	2.3	3	2
	Subtotal - Extra-Anatomic	10.0	5	9	0.1	0	0	0.0	0	0	2.9	3	2
Thromb/Mech Thromb	Translum mech thrombect	3.4	3	3	0.0	0	0	0.0	0	0	1.4	2	1
	Thrombolysis, transart, transcat	6.3	7	5	0.0	0	0	0.0	0	0	1.8	2	1
	Exchange of thrombolysis cath	1.3	3	0	0.0	0	0	0.0	0	0	0.6	1	0
	Subtotal - Thrombol/Mech Thrombect	11.0	10	9	0.1	0	0	0.0	0	0	3.7	4	2

		Su	rgeon Fel	low	Teac	hing Ass	istant	Fir	st Assist	ant	Secon	dary Proc	edures
		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	Nati 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	1.9	3	1
	Transcath thera, infusion non thromb	0.1	0	0	0.0	0	0	0.0	0	0	0.2	1	0
	Transcath retr of intravasc foreign	1.6	5	0	0.0	0	0	0.0	0	0	0.5	2	0
	Transcath art occl or embolization	5.7	5	4	0.0	0	0	0.2	1	0	3.1	4	2
	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	7.5	8	5	0.1	1	0	0.2	1	0	5.7	6	4
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	0.1	0	0
	Repair Abdominal Vessels	2.9	4	2	0.0	0	0	0.0	0	0	0.3	1	0
	Repair Peripheral Vessels	8.2	6	7	0.1	0	0	0.0	0	0	1.3	2	1
	Fasciotomy	2.3	2	2	0.0	0	0	0.0	0	0	4.5	5	3
	Subtotal - Trauma	14.5	9	13	0.2	1	0	0.1	0	0	6.3	7	4
Total Major	Total Major	397.7	89	399	3.2	11	0	1.8	6	0	163.1	117	142
Venous	Portal-Systemic Shunt	0.1	0	0	0.0	0	0	0.0	0	0	0.0	0	0
	Operation For Varicose Veins	6.1	8	3	0.1	0	0	0.0	0	0	6.1	8	3
	Sclerotherapy, Periph Vein	1.8	6	0	0.0	0	0	0.2	2	0	0.4	1	0
	Embolectomy/Thrombectomy, venous	0.5	1	0	0.0	0	0	0.0	0	0	0.4	1	0
	Endoluminal ablation	13.9	14	11	0.0	0	0	0.1	0	0	1.4	2	0
	Operations For Venous Ulceration	0.1	0	0	0.0	0	0	0.0	0	0	0.0	0	0
	Venous Reconstruction	1.7	2	1	0.0	0	0	0.0	0	0	0.2	1	0
	Translum balloon angio, venous	19.9	20	13	0.1	0	0	0.0	0	0	8.1	12	4
	Translum mech thrombect, venous	2.4	3	1	0.0	0	0	0.0	0	0	0.9	2	0
	Thrombolysis, transven, transcat	2.2	3	1	0.0	0	0	0.0	0	0	0.9	1	0
	Exch of thromb cath (Sec Only)	0.0	0	0	0.0	0	0	0.0	0	0	0.3	1	0
	Interruption of IVC	10.3	13	5	0.3	1	0	0.1	0	0	1.4	4	0
	Repair A-V Malformation	0.2	1	0	0.0	0	0	0.0	0	0	0.0	0	0
	Subtotal - Venous	59.3	37	48	0.5	1	0	0.4	2	0	20.2	18	15

		Su	geon Fel	low	Teac	hing Ass	istant	Fi	rst Assist	ant	Secon	dary Proc	edures
		Natl Res AVE	Natl Res STD	Natl Res MED	Natl Res AVE	Natl Res STD	Natl Res MED	Nati Res AVE	Natl Res STD	Nati Res MED	Natl Res AVE	Natl Res STD	Nati Res MED
RRC Area	RRC Procedure												
Endovas-Diag	Arteriography	77.1	36	78	0.7	3	0	0.1	1	0	273.8	214	220
	Venography	19.2	32	10	3.3	24	0	0.1	1	0	23.6	32	14
	Angioscopy	0.4	3	0	0.0	0	0	0.0	0	0	1.4	6	0
	Intravascular Ultrasound	1.6	3	1	0.0	0	0	0.0	0	0	11.3	30	3
	Subtotal - Endo Diagnostic	98.3	49	103	4.0	25	0	0.2	1	0	310.1	233	272
Misc Vascular	Exploration of artery	3.2	4	2	0.0	0	0	0.0	0	0	19.8	29	7
	Postop exp bleed, Thromb Infect	3.4	6	1	0.1	0	0	0.0	0	0	0.8	2	0
	Major Vascular Ligation	3.8	3	3	0.1	1	0	0.0	0	0	1.0	2	0
	Inject pseudoaneurysm	1.5	3	0	0.0	0	0	0.0	0	0	0.1	0	0
	Spine Exposure	3.0	6	1	0.0	0	0	0.0	0	0	0.9	3	0
	Sympathectomy	0.1	1	0	0.0	0	0	0.0	0	0	0.0	0	0
	Lymphatic Procedure	0.2	1	0	0.0	0	0	0.0	0	0	0.0	0	0
	Other misc vascular proc	1.3	5	0	0.0	0	0	0.2	3	0	0.7	3	0
	Subtotal - Misc Vascular	16.4	13	14	0.3	1	0	0.3	3	0	23.4	32	12
Vascular Access	A-V Fistula	28.9	23	24	0.5	1	0	0.1	1	0	1.1	6	0
	A-V Graft	9.8	9	7	0.1	1	0	0.0	0	0	0.7	2	0
	Percutaneous-Other Access	3.2	8	0	0.1	0	0	0.0	0	0	1.3	3	0
	Revision, A-V Access	15.6	15	11	0.2	1	0	0.1	1	0	3.5	6	1
	Subtotal - Vascular Access	57.6	45	46	0.9	3	0	0.2	1	0	6.6	12	3
Amputations	Amputation, Digit	4.4	5	3	0.3	1	0	0.0	0	0	1.5	2	1
	Amputation, Transmetatarsal	4.4	6	2	0.2	1	0	0.0	0	0	0.7	1	0
	Amputation, Below Knee	10.2	7	8	0.8	2	0	0.0	0	0	0.3	1	0
	Amputation, Above Knee	8.5	7	7	0.7	2	0	0.0	0	0	0.7	1	0
	Amputation, Upper Extremity	0.2	0	0	0.0	0	0	0.0	0	0	0.0	0	0
	Amputation Closure, Revision	1.2	2	0	0.1	0	0	0.0	0	0	0.0	0	0
	Subtotal - Amputations	28.9	19	25	2.1	4	0	0.0	0	0	3.2	4	2
Total Minor	Total Minor	260.5	101	248	7.9	27	0	1.1	6	0	363.5	254	340

[PAGE 6]	Number of Programs in the Nation: 89	Numbe	er of Resid	lents in the	Nation:	122							
		Su	rgeon Fel	low	Teac	hing Ass	istant	Fir	st Assist	ant	Secon	dary Proc	edures
		Natl Res AVE	Natl Res STD	Natl Res MED									
RRC Area	RRC Procedure												
Imaging / Diagnostic Studies	Carotid duplex ultrasound	50.2	69	0	0.0	0	0	0.0	0	0	3.1	11	0
	Peripheral arterial physiologic testing	36.6	57	0	0.0	0	0	0.0	0	0	5.7	25	0
	Peripheral arterial duplex ultrasound	40.7	68	0	0.0	0	0	0.0	0	0	9.5	38	0
	Venous duplex ultrasound	58.3	98	0	0.0	0	0	0.0	0	0	3.8	15	0
	Visceral vascular ultrasound	21.5	34	0	0.0	0	0	0.0	0	0	0.8	3	0
	Transcranial doppler	5.1	19	0	0.0	0	0	0.0	0	0	0.1	1	0
	Subtotal - Imaging/Diag	212.5	277	1	0.0	0	0	0.0	0	0	22.9	71	0

		Si	urgeon Fel	low			Secor	ndary Proce	edures				
		Pr	og Percent	iles		Prog Percentiles							
	10	30	50	70	90	10	30	50	70	90			
RRC Area													
Aneurysm-Repair	54	71	84	103	140	2	5	10	21	48			
Cerebrovascular	46	58	67	80	102	0	2	3	5	11			
Periph-Obstruct	113	141	163	191	226	37	58	95	125	196			
Abdominal-Obstruct	5	11	16	20	29	1	4	8	15	34			
Upper Extremity	7	11	14	18	26	0	2	3	6	13			
Extra-Anatomic	5	7	9	13	17	0	1	2	4	7			
Thromb/Mech Thromb	2	6	10	13	22	0	1	3	4	10			
Misc Endovasc Thera	2	4	6	9	18	1	3	5	7	12			
Trauma	5	10	14	18	28	1	3	4	8	16			
Total Major	298	336	402	450	525	51	100	144	201	308			
Venous	23	35	45	70	109	3	10	16	23	40			
Endovas-Diag	37	64	96	114	152	54	154	268	384	651			
Misc Vascular	4	9	14	21	36	1	5	14	31	77			
Vascular Access	9	29	46	69	112	0	1	3	6	15			
Amputations	8	16	25	33	57	0	1	2	4	9			
Total Minor	140	184	244	304	393	86	184	351	430	708			
Total Operations	512	696	855	1,010	1,322	176	374	555	729	1,156			
Imaging / Diagnostic Studies	0	0	0	451	560	0	0	0	3	62			

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. © 2014 Accreditation Council for Graduate Medical Education (ACGME)