O-010

INFLUENCE OF THROMBECTOMY VOLUME ON NON-PHYSICIAN STAFF BURNOUT AND ATTRITION IN NEUROINTERVENTIONAL TEAMS

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Introduction Burnout takes a heavy toll on healthcare providers. We sought to assess the prevalence and risk factors for burnout among neurointerventional (NI) non-physician procedural staff (nurses and technologists) given increasing thrombectomy demands.

Materials and Methods A 41 question online survey containing questions including the Maslach Burnout Inventory-Human Services Survey for Medical Personnel was distributed to NI nurses and radiology technologists at 20 U.S. endovascular capable stroke centers.

Results 244 responses were received (64% response rate). Median (inter-quartile range) composite scores for emotional exhaustion were 25 (15–35), depersonalization 6 (2–11) and personal accomplishment 39 (35–43). Fifty-one percent of respondents met established criteria for burnout. There was no significant relationship between hospital thrombectomy volume, call frequency, call cases covered, or length of commute. On multiple logistic regression analysis, feeling underappreciated by hospital leadership (OR 4.1; $P < 0.001$) and working with difficult/unpleasant physicians (OR 1.2; $P = 0.05$) were strongly associated with burnout. At participating centers, nurse and technologist attrition was 25% over the last year. Over 50% of respondents indicated they had strongly considered leaving their position over the last 2 years.

Abstract O-010 Table 1 Independent predictors of burnout

Multiple Logistic Regression Outcome: Burnout Classification	Coefficient	Odds Ratio [95% CI]	P-value
Happiness in Career Choice	-0.59	0.55 [0.43–0.69]	<0.001
Feeling Under-Appreciated by Hospital/Department	1.4	4.10 [2.07–8.31]	<0.001
Physicians More Difficult to Work With	0.19	1.21 [1.00–1.48]	0.05
Increasing Effect of Work on Family Life	0.13	1.14 [1.01–1.30]	0.04

Conclusion This survey of United States NI non-physician procedural staff demonstrates a self-reported burnout prevalence of 51%. This was driven more by interaction with leadership and physician staff than by thrombectomy procedural volume and stroke call. Attrition among NI non-physician procedural staff is high.

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O-011

DRIVERS OF VARIATION IN 90-DAY EPISODE PAYMENTS AFTER MECHANICAL THROMBECTOMY FOR ACUTE ISCHEMIC STROKE

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Introduction Although mechanical thrombectomy for acute ischemic stroke from a large vessel occlusion is now the standard of care, little is known about cost variations in stroke patients following thrombectomy.

Methods We evaluated claims data for thrombectomy-performing hospitals within Michigan through a registry that includes detailed episode payment information for both Medicare and privately insured patients. We aimed to

Abstract O-011 Table 1 Sample characteristics for terciles of hospital's thrombectomy spending. P values from ANOVA and Chi Squared tests

	Hospital Thrombectomy Spending Tercile			P-value
	Low (N=218)	Medium (N=477)	High (N=381)	
Hospitals, n	5	6	5	
Age, mean $\pm$ SD	74.7 $\pm$ 12.7	74.8 $\pm$ 13.0	73.6 $\pm$ 12.4	0.3429
Male, n(%)	81 (37.2)	216 (45.3)	180 (47.2)	0.0490
High 6-month prior spending, n (%)	101 (46.3)	230 (48.2)	170 (44.6)	0.5746
Payer, n (%)				
Medicare FFS/Medicare Advantage	166 (76.2)	359 (75.3)	285 (74.8)	0.9349
BCBSM PPO and BCN	52 (23.9)	118 (24.7)	96 (25.2)	
Mean Count of HCCs per patient, mean $\pm$ SD	5.9 $\pm$ 3.3	6.0 $\pm$ 3.0	6.0 $\pm$ 3.3	0.9372
Major HCC Categories, n (%)				
Chronic Kidney Disease	12 (5.5)	11 (2.3)	20 (5.25)	0.0407
Cancer	29 (13.3)	64 (13.4)	47 (12.3)	0.8872
COPD	39 (17.9)	116 (24.3)	85 (22.3)	0.1679
CHF	84 (38.5)	166 (34.8)	116 (30.6)	0.1179
Diabetes	80 (36.7)	175 (36.7)	132 (34.7)	0.7998
Vascular Disease	50 (22.9)	132 (27.7)	117 (30.7)	0.1236
Respiratory Dysfunction	18 (8.3)	37 (7.8)	22 (5.8)	0.4165
Neurologic Disorders	183 (83.9)	404 (84.7)	315 (82.7)	0.7263

Abstract O-011 Table 2 Post discharge subcomponent spending across hospital terciles

	Hospital Thrombectomy Spending Tercile			P-value
	Low (N=218)	Medium (N=477)	High (N=381)	
SNF spending, mean $\pm$ SD	\$5,570 $\pm$ \$11,790	\$7,201 $\pm$ \$15,883	\$8,738 $\pm$ \$17,738	0.0585
SNF utilization, n(%)	35 (16.1)	104 (21.8)	118 (31.0)	<0.0001
SNF spending when present, mean $\pm$ SD	\$18,396 $\pm$ \$14,981	\$21,468 $\pm$ \$21,142	\$23,445 $\pm$ \$22,375	0.2591
Home health spending, mean $\pm$ SD	\$903 $\pm$ \$3,128	\$1,720 $\pm$ \$5,492	\$1,760 $\pm$ \$5,556	0.0998
Home health utilization, n(%)	55 (25.2)	122 (25.6)	108 (28.4)	0.5896
Home health spending when present, mean $\pm$ SD	\$3,580 $\pm$ \$5,437	\$6,727 $\pm$ \$9,202	\$6,208 $\pm$ \$9,041	0.0712
OP rehab spending, mean (SD)	\$4,655 $\pm$ \$8,068	\$4,828 $\pm$ \$8,725	\$4,557 $\pm$ \$8,221	0.8933
OP rehab utilization, n(%)	85 (39.0)	190 (39.8)	164 (43.3)	0.4802
OP rehab spending when present, mean $\pm$ SD	\$11,939 $\pm$ \$8,953	\$12,121 $\pm$ \$10,143	\$10,523 $\pm$ \$9,667	0.2735
Other OP spending, mean (SD)	\$1,245 $\pm$ \$3,294	\$928 $\pm$ \$2,333	\$943 $\pm$ \$2,255	0.2721
Other OP spending utilization, n(%)	101 (46.3)	263 (55.1)	189 (49.6)	0.0672
Other OP spending when present, mean $\pm$ SD	\$2,686 $\pm$ \$4,432	\$1,684 $\pm$ \$2,935	\$1,902 $\pm$ \$2,906	0.0311

analyze price-standardized and risk-adjusted 90-day episode payments in patients who underwent thrombectomy at Michigan hospitals. Hospitals were grouped into three payment terciles for comparison. Statistical analysis was carried out using unpaired t-test, Chi-square and ANOVA tests as appropriate. Results: 1,076 thrombectomy cases treated at 16 centers were analyzed. The average 90-day episode payment by hospital ranged from \$53,046 to \$81,767, with a mean of \$65,357. A \$20,467 difference (35.1%) existed between the high and low payment hospital terciles ($P<0.0001$). The primary drivers of payment variation were related to post-discharge care which accounted for 38% of the payment variation ($P=0.0058$, inter-tercile range \$11,977-\$19,703) and readmissions accounting for 26% ($P=0.016$, inter-tercile range \$3,315-\$7,992). This was followed by professional payments representing 20% of the variation ($P<0.0001$, inter-tercile range \$7,525 to \$9,922), while index hospitalization payment was responsible for only 16% of the 90-day episode payment variation ($P=0.10$, inter-tercile range \$35,432-\$41,099). High payment hospitals were more likely to discharge to a skilled nursing facility (difference of 14.9%, $P<0.0001$).

Conclusion There is a wide variation in 90-day episode payments for patients undergoing thrombectomy across centers within a single state.

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Abstract O-011 Figure 1