overall performance. Age, race and video game experience did not have positive correlations with performance.

Conclusions: Structured hands-on mentoring is required to enable students to apply treatment strategies learned in one vascular bed to translate to another vascular bed. Machine generated data is not as useful as the GERS with the exception of total fluoroscopy time, volume of contrast, and correct stent diameter. A structured simulation curriculum stimulates student interest in endovascular fields.

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PS104. Live Cadavers for Laboratory Training in Vascular Surgery

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Objectives: Laboratory surgical training is one of the important millstones in building surgical skills and self confidence of surgery residents in all surgical fields especially in the lights of these tremendous advances in surgical techniques and treatment modalities and the cut down of residents working hours that lead to decreased exposure to live surgeries in the OR, here we present a more realistic, life-like training model for vascular surgery using human anatomy in its functional condition.

Methods: Eleven human cadavers have been used for procedures on the heart and the major vessels, and thirteen cadaver heads were used for carotid endarterectomy. The carotid and femoral arteries, the jugular and femoral vein are cannulated and connected to artificial blood reservoirs, the arterial reservoir is further connected to a machine that provides pulsating pressure. A pressure of 80-120 mm Hg and pulse rate up to 100 per minute is applied to the arterial reservoir, the venous reservoir is kept at a pressure of around 15 mm Hg.

Results: Vascular bypasses and anastomosis, dealing with penetrating injuries to the heart and major and peripheral vessels, and carotid endarthrectomies were practiced under identical simulation of live condition and realistic situation of real live surgery, experience the same challenges and difficulties faced during real surgery, and working under the crises of bleeding and massive hemorrhage in the same human anatomy.

Conclusions: This life-like training model is appeared to be the closest to live surgery among all available models and simulators. It's an important and essential teaching tool, readily available, coast effective comparing with other training models, and of great value in teaching rear pathological entities and difficult procedures, dealing with intraoperative surgical complications, testing new surgical devices, and practicing new surgical techniques. United States Patent No US 6, 790, 043 B2. Sep 2004.

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PS106.

Time of Year Does Not Influence Mortality in Vascular Operations at Academic Centers

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Objectives: Studies in general surgery have demonstrated worse outcomes in July due to the presence of new trainees (The July Phenomenon). We hypothesized that mortality was not significantly influenced by time of year for vascular surgery operations at teaching hospitals compared to non-teaching hospitals.

Methods: From 2003-2007, 264, 374 vascular surgery patient records were evaluated using the National Inpatient Sample (NIS) database. Patients were stratified according to Non-Teaching (n = 137, 406), Teaching (n = 126, 968), and Teaching with Vascular Surgery Program (n = 28, 730) hospital status. Multivariate analyses were used to examine the effect of academic quarter on mortality.

Results: Unadjusted mortality was higher at teaching hospitals compared to non-teaching hospitals (2.5% vs 2.0%, $p < 0.001$). Open AAA repair (<0.001), endovascular AAA repair (<0.001), aortoiliac bypass (<0.001) and peripheral vascular bypass (<0.001) were more commonly performed at teaching hospitals while carotid endarterectomy (<0.001) was more frequent at non-teaching hospitals ($p < 0.001$). After controlling for patient risk factors, odds of in-hospital death were significantly ($p < 0.001$) increased for open and endovascular aortic operations as well as peripheral vascular bypass operations compared to carotid endarterectomy. Academic quarter was not associated with increased risk of in-hospital mortality at teaching hospitals or at vascular surgery teaching hospitals (Table 1).

Conclusions: Teaching hospitals perform more high-risk operations compared to non-teaching hospitals. Risk-adjusted mortality is not influenced by time of year at academic centers.

Table 1: Adjusted odds ratios for effect of academic quarter on in-hospital mortality at teaching hospitals.

Variable	*Odds Ratio*	*95% Confidence Interval*	*P-value*
Academic Quarter I (July-September)	0.91	0.81-1.02	0.12
Academic Quarter II (October-December)	1.08	0.97-1.21	0.17
Academic Quarter III (January-March)	1.05	0.94-1.18	0.40
Academic Quarter IV (April-June)	Ref	Ref	Ref

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