

Table e-1. Percent prioritizing autonomy in competencies by provider role

| Competency | Role | n | Independent at or after graduation | p-value |
|---|----------------------------------|-----------|------------------------------------|--------------------------|
| Arterial and central venous catheterization | Residents and NCC fellows | 83 | 100.0% | 1.000 ^b |
| | Attending physicians | 34 | 100.0% | |
| | Fellowship/unit directors | 49 | 100.0% | |
| Perform EVD placement | Residents and NCC fellows | 83 | 45.8% | 0.196 ^a |
| | Attending physicians | 33 | 33.3% | |
| | Fellowship/unit directors | 48 | 31.3% | |
| Bolt/probe placement | Residents and NCC fellows | 83 | 47.0% | 0.950 ^a |
| | Attending physicians | 34 | 44.1% | |
| | Fellowship/unit directors | 49 | 44.9% | |
| Perform trach procedure | Residents and NCC fellows | 83 | 48.2% | 0.027^a |
| | Attending physicians | 34 | 41.2% | |
| | Fellowship/unit directors | 49 | 24.5% | |
| Perform PEG procedure | Residents and NCC fellows | 82 | 29.3% | 0.004^a |
| | Attending physicians | 33 | 9.1% | |
| | Fellowship/unit directors | 47 | 8.5% | |
| Perform/interpret critical care ultrasound | Residents and NCC fellows | 83 | 94.0% | 0.844 ^b |
| | Attending physicians | 34 | 91.2% | |
| | Fellowship/unit directors | 49 | 93.9% | |
| | Residents and NCC fellows | 83 | 96.4% | 0.012^b |

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|---|----------------------------------|-----------|--------------|------------------------------|
| Perform intubation and airway management | Attending physicians | 34 | 79.4% | |
| | Fellowship/unit directors | 48 | 93.8% | |
| Perform diagnostic and therapeutic bronchoscopy | Residents and NCC fellows | 82 | 85.4% | 0.180 ^a |
| | Attending physicians | 34 | 70.6% | |
| | Fellowship/unit directors | 48 | 81.3% | |
| Interpretation of hemodynamic and volume status data | Residents and NCC fellows | 83 | 100.0% | 1.000 ^b |
| | Attending physicians | 34 | 100.0% | |
| | Fellowship/unit directors | 49 | 100.0% | |
| Interpretation of ICP data | Residents and NCC fellows | 83 | 100.0% | 1.000 ^b |
| | Attending physicians | 34 | 100.0% | |
| | Fellowship/unit directors | 49 | 100.0% | |
| Interpretation of advanced invasive neuro-monitoring data | Residents and NCC fellows | 83 | 96.4% | 0.421 ^b |
| | Attending physicians | 33 | 97.0% | |
| | Fellowship/unit directors | 49 | 100.0% | |
| Interpretation of TCDs | Residents and NCC fellows | 83 | 95.2% | 0.123 ^b |
| | Attending physicians | 34 | 100.0% | |
| | Fellowship/unit directors | 49 | 89.8% | |
| Interpretation of EEG | Residents and NCC fellows | 83 | 92.8% | <0.001^a |
| | Attending physicians | 34 | 61.8% | |
| | Fellowship/unit directors | 49 | 65.3% | |
| Brain death determination | Residents and NCC fellows | 83 | 98.8% | 1.000 ^b |
| | Attending physicians | 34 | 100.0% | |

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| | Fellowship/unit directors | 48 | 100.0% | |
| Interpretation of cerebral angiography | Residents and NCC fellows | 83 | 92.8% | <0.001^a |
| | Attending physicians | 34 | 58.8% | |
| | Fellowship/unit directors | 49 | 81.6% | |
| Neurologic clinical localization | Residents and NCC fellows | 83 | 100.0% | 0.500 ^b |
| | Attending physicians | 34 | 100.0% | |
| | Fellowship/unit directors | 49 | 98.0% | |

^achi-square test; ^bFisher's exact test

EVD: external ventricular drain; PEG: percutaneous endoscopic gastrostomy; ICP: Intracranial pressure; TCD: transcranial Doppler; EEG: electroencephalogram