

Attachment 4: Content validity indices of all EPAs and the Year of indirect supervision

	General			Consultants and supervising attendings			Attendings and 5 th year residents			4 th and 3 rd year residents			1 st and 2 nd year residents		
Entrustable Professional Activity	CVI	MV $\pm$ SD	YR $\pm$ SD	CVI	MV $\pm$ SD	YR $\pm$ SD	CVI	MV $\pm$ SD	YR $\pm$ SD	CVI	MV $\pm$ SD	YR $\pm$ SD	CVI	MV $\pm$ SD	YR $\pm$ SD
Administer general anaesthesia in patients with increased risk of aspiration	0.96	3.68 $\pm$ 0.54	3.08 $\pm$ 1.59	0.96	3.70 $\pm$ 0.55	3.00 $\pm$ 1.44	0.95	3.65 $\pm$ 0.57	3.26 $\pm$ 1.68	1.00	3.72 $\pm$ 0.45	3.33 $\pm$ 1.37	0.95	3.63 $\pm$ 0.58	2.74 $\pm$ 1.77
Haemodynamic management of major blood loss	0.94	3.60 $\pm$ 0.64	3.38 $\pm$ 1.15	0.87	3.39 $\pm$ 0.82	3.64 $\pm$ 1.07	1.00	3.75 $\pm$ 0.43	3.35 $\pm$ 1.19	0.94	3.61 $\pm$ 0.59	3.56 $\pm$ 0.96	0.95	3.68 $\pm$ 0.57	2.95 $\pm$ 1.23
Administer general anaesthesia including airway management in patients with anticipated difficult airway	0.94	3.56 $\pm$ 0.65	3.41 $\pm$ 1.36	0.87	3.35 $\pm$ 0.81	3.43 $\pm$ 1.06	1.00	3.65 $\pm$ 0.48	3.50 $\pm$ 1.32	0.89	3.56 $\pm$ 0.68	3.67 $\pm$ 1.29	1.00	3.74 $\pm$ 0.44	3.05 $\pm$ 1.67
Providing anaesthetic care for extensive open abdominal surgery	0.94	3.49 $\pm$ 0.61	3.38 $\pm$ 0.90	0.96	3.57 $\pm$ 0.58	3.35 $\pm$ 0.76	0.95	3.40 $\pm$ 0.58	3.40 $\pm$ 0.97	0.94	3.56 $\pm$ 0.60	3.44 $\pm$ 0.90	0.89	3.42 $\pm$ 0.67	3.32 $\pm$ 0.98
Administer general anaesthesia including regular airway management	0.93	3.71 $\pm$ 0.60	1.36 $\pm$ 0.62	0.96	3.83 $\pm$ 0.48	1.43 $\pm$ 0.58	0.95	3.80 $\pm$ 0.51	1.35 $\pm$ 0.57	0.89	3.56 $\pm$ 0.68	1.44 $\pm$ 0.76	0.89	3.63 $\pm$ 0.67	1.21 $\pm$ 0.52
Indication and administration of blood transfusion	0.91	3.48 $\pm$ 0.81	2.03 $\pm$ 0.91	0.91	3.48 $\pm$ 0.93	2.04 $\pm$ 0.86	0.95	3.40 $\pm$ 0.73	2.10 $\pm$ 0.77	0.94	3.61 $\pm$ 0.59	2.22 $\pm$ 0.71	0.84	3.42 $\pm$ 0.88	1.74 $\pm$ 1.16
Management of the unanticipated difficult airway	0.89	3.60 $\pm$ 0.78	3.73 $\pm$ 1.64	0.87	3.52 $\pm$ 1.02	3.78 $\pm$ 1.72	0.90	3.60 $\pm$ 0.66	4.05 $\pm$ 1.40	0.94	3.61 $\pm$ 0.59	3.78 $\pm$ 1.47	0.84	3.68 $\pm$ 0.73	3.26 $\pm$ 1.80
Providing perioperative care for patients with ASA > III	0.89	3.41 $\pm$ 0.79	2.74 $\pm$ 1.05	0.83	3.13 $\pm$ 0.90	3.09 $\pm$ 1.06	0.90	3.45 $\pm$ 0.80	2.50 $\pm$ 0.74	0.94	3.56 $\pm$ 0.60	2.83 $\pm$ 0.90	0.89	3.58 $\pm$ 0.67	2.47 $\pm$ 1.27
Indication of anaesthetic technique and performance of medullary or general anaesthesia for regular and emergency caesarean section	0.89	3.40 $\pm$ 0.83	3.51 $\pm$ 1.07	0.91	3.52 $\pm$ 0.65	3.48 $\pm$ 0.83	0.85	3.35 $\pm$ 0.85	3.60 $\pm$ 1.16	0.89	3.39 $\pm$ 0.83	3.83 $\pm$ 1.01	0.89	3.32 $\pm$ 0.98	3.16 $\pm$ 1.18

Providing perioperative care for patients with ASA ≤ III	0.88	3.66 ±0.69	1.50 ±0.74	0.87	3.65 ±0.70	1.57 ±0.77	0.85	3.60 ±0.73	1.55 ±0.67	0.83	3.61 ±0.76	1.44 ±0.83	0.95	3.79 ±0.52	1.42 ±0.67
Providing anaesthetic care for small laparoscopic surgery	0.88	3.54 ±0.74	1.66 ±0.77	0.91	3.70 ±0.62	1.78 ±0.83	0.95	3.70 ±0.56	1.70 ±0.84	0.83	3.44 ±0.76	1.78 ±0.71	0.79	3.26 ±0.91	1.37 ±0.58
Providing postoperative care in the recovery room	0.85	3.35 ±0.85	2.09 ±0.94	1.00	3.70 ±0.46	2.17 ±0.92	0.80	3.35 ±0.79	1.85 ±0.73	0.94	3.44 ±0.60	2.28 ±0.99	0.63	2.84 ±1.18	2.05 ±1.05
Providing anaesthetic care for large laparoscopic surgery	0.85	3.20 ±0.75	2.58 ±1.09	0.91	3.30 ±0.62	2.78 ±0.72	0.80	3.05 ±0.80	2.65 ±1.01	0.78	3.22 ±0.79	2.89 ±1.24	0.89	3.21 ±0.77	1.95 ±1.15
Providing anaesthetic care for thoracic surgery (including lung separation) with normal lung function	0.81	3.09 ±0.74	3.30 ±0.91	0.87	3.13 ±0.74	3.48 ±0.65	0.75	2.95 ±0.67	3.25 ±1.18	0.83	3.22 ±0.85	3.33 ±0.88	0.79	3.05 ±0.69	3.11 ±0.85
Indication, consideration and performance of spinal and epidural anaesthesia	0.80	3.23 ±0.79	2.43 ±0.88	0.78	3.22 ±0.88	2.65 ±0.76	0.80	3.25 ±0.77	2.30 ±0.90	0.78	3.11 ±0.74	2.28 ±1.04	0.84	3.32 ±0.73	2.42 ±0.75
Administer general anaesthesia in pediatric patients over the age of five	0.80	3.16 ±0.87	3.60 ±1.07	0.83	3.17 ±0.82	3.48 ±1.06	0.85	3.35 ±0.73	3.50 ±0.81	0.78	3.17 ±0.76	3.72 ±1.19	0.74	2.95 ±1.10	3.74 ±1.16
Providing anaesthetic care for intracranial surgery without increased intracranial pressure	0.80	3.10 ±0.86	2.60 ±1.01	0.87	3.17 ±0.87	2.78 ±0.66	0.70	2.90 ±0.94	2.65 ±1.06	0.78	3.28 ±0.80	2.61 ±1.30	0.84	3.05 ±0.76	2.32 ±0.92
Performing in-house transfers of critically ill patients	0.79	3.23 ±0.84	2.63 ±0.95	1.00	3.61 ±0.49	2.78 ±0.83	0.70	3.15 ±0.85	2.55 ±0.67	0.72	3.11 ±0.81	3.06 ±1.03	0.68	2.95 ±1.00	2.11 ±1.02
Management of in-house emergencies	0.79	3.10 ±0.93	3.93 ±1.02	0.70	2.83 ±1.01	4.26 ±0.90	0.85	3.15 ±0.79	4.00 ±0.89	0.78	3.17 ±0.76	3.72 ±1.10	0.84	3.32 ±1.03	3.63 ±1.09
Providing anaesthetic care for patients with severe pre-existing cardiac conditions	0.78	3.15 ±0.98	3.84 ±1.06	0.61	2.78 ±1.21	4.09 ±0.78	0.85	3.20 ±0.81	3.74 ±1.02	0.89	3.44 ±0.68	4.06 ±0.97	0.79	3.26 ±0.91	3.42 ±1.31
Providing anaesthetic care and emergency management for critically injured and ill patients in the shock room	0.78	3.00 ±0.95	4.34 ±1.00	0.65	2.78 ±1.10	4.61 ±0.82	0.80	3.00 ±0.95	4.35 ±0.91	0.89	3.11 ±0.74	4.39 ±1.16	0.79	3.16 ±0.87	3.95 ±1.00

Providing postoperative pain management	0.76	3.13 ±0.86	2.20 ±1.16	0.83	3.26 ±0.74	2.26 ±0.79	0.70	3.10 ±0.83	2.55 ±1.63	0.89	3.28 ±0.65	2.06 ±0.97	0.63	2.84 ±1.09	1.89 ±0.97
Providing perioperative anaesthetic and emergency care for critically injured and ill patients	0.76	3.04 ±0.86	3.86 ±0.95	0.78	3.13 ±0.99	4.00 ±0.72	0.80	3.05 ±0.80	3.75 ±0.89	0.78	3.11 ±0.74	3.94 ±1.13	0.68	2.84 ±0.81	3.74 ±1.02
Performing a premedication round (preoperative evaluation) including patient education	0.75	3.29 ±0.95	1.68 ±1.00	0.87	3.57 ±0.82	1.70 ±0.86	0.75	3.30 ±0.95	1.65 ±1.06	0.78	3.39 ±0.83	1.67 ±0.75	0.58	2.84 ±1.04	1.68 ±1.26
Providing anaesthetic management for pregnant patients	0.75	3.06 ±0.84	3.24 ±1.02	0.74	3.09 ±0.88	3.22 ±1.06	0.85	3.10 ±0.77	3.25 ±0.94	0.72	3.11 ±0.81	3.61 ±0.95	0.68	2.95 ±0.89	2.89 ±0.97
Providing anaesthetic and haemodynamic management of uterine atony	0.74	3.00 ±1.07	4.61 ±1.17	0.74	3.09 ±0.97	4.57 ±1.10	0.65	2.80 ±1.17	4.75 ±1.13	0.78	3.00 ±1.00	5.11 ±0.99	0.79	3.11 ±1.12	4.05 ±1.19
Indication and performance of analgesedation	0.73	3.06 ±0.94	2.16 ±0.89	0.83	3.09 ±1.02	2.65 ±0.87	0.75	3.15 ±0.79	2.30 ±0.78	0.67	3.11 ±0.99	2.17 ±0.76	0.63	2.89 ±0.91	1.42 ±0.59
Providing anaesthetic care for intracranial surgery with (the risk of) increased intracranial pressure	0.71	2.98 ±0.89	3.66 ±1.06	0.74	2.96 ±1.00	3.91 ±0.93	0.70	2.90 ±0.83	3.75 ±0.94	0.72	3.17 ±0.96	3.61 ±1.21	0.68	2.89 ±0.72	3.32 ±1.08
Providing perioperative care for patients with major blood loss and pre-existing coagulation disorder	0.71	2.90 ±1.07	4.39 ±1.20	0.65	2.61 ±1.28	4.43 ±1.01	0.70	2.90 ±0.94	4.50 ±1.12	0.78	3.06 ±0.97	4.76 ±1.11	0.74	3.11 ±0.91	3.89 ±1.37
Communication with relatives of critically ill patients and consultation about treatment plans	0.70	2.95 ±1.12	2.45 ±1.28	0.78	3.17 ±0.76	2.91 ±1.38	0.65	2.90 ±1.30	1.90 ±1.09	0.78	3.06 ±0.85	2.72 ±1.19	0.58	2.63 ±1.38	2.21 ±1.15
Providing perioperative care for critically injured patients with increased intracranial pressure	0.69	2.78 ±1.11	4.41 ±1.09	0.61	2.61 ±1.24	4.52 ±0.97	0.70	2.80 ±1.21	4.35 ±0.85	0.67	2.83 ±0.83	4.56 ±1.12	0.79	2.89 ±1.02	4.21 ±1.36
Indication and performance of a regional anaesthesia technique	0.68	2.91 ±0.87	2.89 ±1.11	0.61	2.70 ±0.86	3.04 ±1.04	0.65	2.85 ±0.73	2.95 ±1.36	0.78	3.22 ±0.79	2.76 ±1.00	0.68	2.95 ±1.00	2.74 ±0.96

Administer general anaesthesia in pediatric patients under the age of five	0.64	2.81 ±1.05	4.43 ±0.98	0.61	2.74 ±1.19	4.35 ±1.00	0.70	2.80 ±0.75	4.45 ±0.80	0.61	2.94 ±0.97	4.39 ±1.01	0.63	2.79 ±1.20	4.53 ±1.09
Providing anaesthetic care for thoracic surgery (including lung separation) with limited lung function	0.63	2.76 ±0.94	4.27 ±1.09	0.57	2.70 ±1.04	4.52 ±0.88	0.55	2.55 ±0.80	4.26 ±1.21	0.72	2.94 ±0.97	4.17 ±1.17	0.68	2.89 ±0.85	4.06 ±1.08
Providing perioperative coagulation management including interpretation and therapeutical consequences of thrombelastometry	0.61	2.61 ±1.03	3.88 ±1.26	0.61	2.52 ±1.02	3.87 ±1.15	0.45	2.45 ±1.07	4.40 ±1.20	0.67	2.78 ±0.92	4.06 ±0.97	0.74	2.74 ±1.07	3.16 ±1.35
Providing anaesthetic care for pregnant patients with HELLP/pre-eclampsia/eclampsia	0.58	2.66 ±1.06	4.40 ±1.21	0.61	2.78 ±1.10	4.35 ±0.96	0.45	2.40 ±1.02	4.50 ±1.07	0.67	2.78 ±1.08	4.94 ±1.08	0.58	2.68 ±0.98	3.84 ±1.46
Administer general anaesthesia in neonatal patients	0.45	2.25 ±1.32	5.28 ±0.94	0.39	2.09 ±1.38	5.13 ±1.12	0.30	1.85 ±1.01	5.55 ±0.67	0.56	2.50 ±1.42	5.28 ±0.73	0.58	2.63 ±1.27	5.16 ±1.04
Indication and performance of ultrasound use and diagnostic (a.e FAST) and therapeutic consequences	0.44	2.34 ±1.06	3.63 ±1.26	0.43	2.26 ±1.11	3.91 ±1.28	0.25	2.15 ±0.85	3.75 ±1.13	0.50	2.44 ±0.76	3.67 ±1.15	0.58	2.53 ±1.35	3.11 ±1.29
Providing perioperative care for patients undergoing cardiothoracic surgery	0.28	1.96 ±1.16	4.70 ±0.89	0.13	1.57 ±1.14	4.83 ±0.87	0.15	1.60 ±0.97	4.50 ±0.92	0.39	2.33 ±1.11	4.94 ±0.70	0.47	2.47 ±1.09	4.53 ±0.94

Table note: The EPAs are listed downwards regarding their CVI: “High scoring”(CVI >0.75) and “low scoring” (CVI <0.75). **Abbreviations:** YR: Year in which EPA should be conducted by the trainee without direct supervision. SD: Standard deviation. MV: Mean value. CVI: content validity index