

Appendix (unedited, as supplied by the authors)

SUPPLEMENTARY APPENDIX

A. Full Set of Estimates from Models Presented in the Paper

Table A1. IMG vs Australian-trained: Odds of complaint modeled as binary variable using logistic regression at the doctor-year level

	Adjusted OR	95% CI	p-value
Country of training			
Australia	1.00		
Overseas	1.24	1.13,1.36	<0.001
Doctor's sex			
Male	1.00		
Female	0.49	0.44,0.54	<0.001
Years in practice			
Less than 10	0.15	0.13,0.18	<0.001
10-20	0.55	0.50,0.61	<0.001
21-30	1.00		
31-40	1.13	1.03,1.24	0.01
More than 40	0.82	0.71,0.94	0.005
Type of registration			
General	1.00		
Specialist	0.67	0.57,0.79	<0.001
Area of need	0.55	0.39,0.77	<0.001
Other	0.26	0.18,0.38	<0.001
Year			
2002	1.00		
2003	0.55	0.49,0.61	<0.001
2004	0.64	0.57,0.71	<0.001
2005	0.59	0.53,0.66	<0.001
2006	0.53	0.48,0.59	<0.001
2007	0.57	0.51,0.64	<0.001
2008	0.51	0.46,0.57	<0.001
Doctor's location of practice			
Rural	1.00		
Urban	1.02	0.92,1.13	0.71
State			
Victoria	1.00	1.00,1.00	
Western Australia	0.63	0.56,0.69	<0.001

Table A2. IMG vs Australian-trained: Odds of adverse finding modeled as binary variable using logistic regression at the doctor-year level

	Adjusted OR	95% CI	p-value
Country of training			
Australia	1.00		
Overseas	1.41	1.07,1.85	0.01
Doctor's sex			
Male	1.00		
Female	0.42	0.30,0.58	<0.001
Years in practice			
Less than 10	0.19	0.11,0.31	<0.001
10-20	0.60	0.44,0.81	0.001
21-30	1.00		
31-40	0.97	0.72,1.31	0.85
More than 40	0.85	0.57,1.28	0.44
Type of registration			
General	1.00		
Specialist	0.57	0.34,0.96	0.03
Area of need	0.39	0.12,1.25	0.11
Other	0.52	0.23,1.21	0.13
Year			
2002	1.00		
2003	1.10	0.68,1.77	0.71
2004	1.47	0.95,2.27	0.08
2005	1.32	0.86,2.01	0.20
2006	1.19	0.77,1.85	0.44
2007	0.95	0.61,1.50	0.83
2008	0.96	0.61,1.53	0.87
Doctor's location of practice			
Rural	1.00		
Urban	1.06	0.77,1.47	0.72
State			
Victoria	1.00		
Western Australia	0.60	0.44,0.83	0.002

Table A3. Country-by-Country: Odds of complaint modeled as binary variable using logistic regression at doctor-year level

	Adjusted OR	95% CI	p-value
Country of training			
Australia	1.00		
UK/Ireland	1.00	0.86,1.17	0.97
India	1.61	1.33,1.95	<0.001
New Zealand	0.83	0.59,1.16	0.28
South Africa	1.06	0.80,1.42	0.68
Sri Lanka	1.33	0.99,1.78	0.06
Germany	0.59	0.26,1.30	0.19
Egypt	2.32	1.77,3.03	<0.001
Iraq	1.15	0.70,1.87	0.59
China	0.90	0.53,1.50	0.67
Singapore	1.05	0.69,1.61	0.82
Pakistan	1.80	1.09,2.98	0.02
Malaysia	0.67	0.28,1.59	0.36
Bangladesh	0.56	0.24,1.28	0.17
Hong Kong	0.49	0.18,1.30	0.15
Philippines	1.80	1.08,3.00	0.03
Iran	1.85	0.87,3.93	0.11
Netherlands	0.97	0.23,4.10	0.96
Nigeria	4.02	2.38,6.77	<0.001
Russia	2.21	1.14,4.26	0.02
Poland	2.28	1.43,3.61	<0.001
Other	1.57	1.30,1.90	<0.001
Doctor's sex			
Male	1.00		
Female	0.49	0.44,0.54	<0.001
Years in practice			
Less than 10	0.15	0.13,0.18	<0.001
10-20	0.55	0.50,0.61	<0.001
21-30	1.00		
31-40	1.15	1.05,1.27	0.004
More than 40	0.85	0.74,0.98	0.03
Type of registration			
General	1.00		
Specialist	0.66	0.56,0.77	<0.001
Area of need	0.48	0.34,0.67	<0.001
Other	0.25	0.17,0.36	<0.001
Year			
2002	1.00		
2003	0.55	0.49,0.61	<0.001
2004	0.63	0.57,0.71	<0.001
2005	0.59	0.53,0.66	<0.001
2006	0.53	0.47,0.59	<0.001
2007	0.57	0.51,0.63	<0.001
2008	0.51	0.46,0.57	<0.001
Doctor's location of practice			
Rural	1.00		
Urban	1.01	0.92,1.12	0.80
State			
Victoria	1.00		
Western Australia	0.66	0.59,0.73	<0.001

B. Sensitivity Analyses at Doctor-Year Level

Respecify outcome as a count variable and model using negative binomial regression at the doctor-year level

Table B1. IMG vs Australian-trained: Relative risk of complaint modeled as count variable using negative binomial regression at the doctor-year level

	Adjusted RR	95% CI	p-value
Country of training			
Australia	1.00		
Overseas	1.29	1.15,1.44	<0.001
Doctor's sex			
Male	1.00		
Female	0.50	0.43,0.57	<0.001
Years in practice			
Less than 10	0.15	0.13,0.19	<0.001
10-20	0.54	0.48,0.61	<0.001
21-30	1.00		
31-40	1.14	1.01,1.29	0.04
More than 40	0.84	0.71,0.99	0.04
Type of registration			
General	1.00		
Specialist	0.73	0.59,0.92	0.006
Area of need	0.69	0.48,0.99	0.04
Other	0.37	0.25,0.55	<0.001
Year			
2002	1.00		
2003	0.57	0.51,0.63	<0.001
2004	0.67	0.60,0.76	<0.001
2005	0.59	0.53,0.66	<0.001
2006	0.55	0.49,0.62	<0.001
2007	0.61	0.53,0.69	<0.001
2008	0.54	0.48,0.60	<0.001
Doctor's location of practice			
Rural	1.00		
Urban	1.05	0.93,1.18	0.41
State			
Victoria	1.00		
Western Australia	0.61	0.54,0.70	<0.001

Table B2. IMG vs Australian-trained: Relative risk of adverse finding modeled as count variable using negative binomial regression at the doctor-year level

	Adjusted RR	95% CI	p-value
Country of training			
Australia	1.00		
Overseas	1.48	1.07,2.05	0.02
Doctor's sex			
Male	1.00		
Female	0.41	0.29,0.58	<0.001
Years in practice			
Less than 10	0.20	0.11,0.34	<0.001
10-20	0.62	0.43,0.91	0.02
21-30	1.00		
31-40	0.94	0.68,1.30	0.71
More than 40	0.81	0.53,1.25	0.35
Type of registration			
General	1.00		
Specialist	0.58	0.33,1.01	0.06
Area of need	0.31	0.09,1.04	0.06
Other	0.47	0.20,1.11	0.08
Year			
2002	1.00		
2003	0.94	0.58,1.54	0.81
2004	1.22	0.78,1.90	0.38
2005	1.13	0.73,1.75	0.57
2006	1.20	0.75,1.92	0.45
2007	0.93	0.57,1.53	0.79
2008	0.84	0.53,1.35	0.47
Doctor's location of practice			
Rural	1.00		
Urban	1.18	0.83,1.68	0.36
State			
Victoria	1.00		
Western Australia	0.75	0.50,1.14	0.18

Table B3. Country-by-Country: Relative risk of complaint modeled as count variable using negative binomial regression at doctor-year level

	Adjusted RR	95% CI	p-value
Country of training			
Australia	1.00		
UK/Ireland	1.01	0.84,1.21	0.95
India	1.73	1.36,2.20	<0.001
New Zealand	0.78	0.56,1.10	0.16
South Africa	1.03	0.76,1.41	0.83
Sri Lanka	1.38	1.00,1.93	0.05
Germany	0.76	0.30,1.92	0.56
Egypt	2.30	1.69,3.12	<0.001
Iraq	1.77	0.77,4.03	0.18
China	0.86	0.49,1.51	0.60
Singapore	1.06	0.65,1.71	0.82
Pakistan	2.01	1.17,3.44	0.01
Malaysia	0.52	0.23,1.16	0.11
Bangladesh	0.67	0.26,1.76	0.42
Hong Kong	0.44	0.18,1.11	0.08
Philippines	1.76	1.01,3.07	0.04
Iran	1.90	0.77,4.68	0.17
Netherlands	1.04	0.23,4.69	0.96
Nigeria	3.50	2.04,6.01	<0.001
Russia	3.78	1.34,10.67	0.01
Poland	2.09	1.33,3.28	0.001
Other	1.67	1.30,2.15	<0.001
Doctor's sex			
Male	1.00		
Female	0.49	0.43,0.57	<0.001
Years in practice			
Less than 10	0.16	0.13,0.19	<0.001
10-20	0.54	0.48,0.61	<0.001
21-30	1.00		
31-40	1.16	1.03,1.32	0.02
More than 40	0.87	0.73,1.02	0.09
Type of registration			
General	1.00		
Specialist	0.70	0.57,0.85	<0.001
Area of need	0.59	0.41,0.85	0.004
Other	0.35	0.23,0.51	<0.001
Year			
2002	1.00		
2003	0.56	0.50,0.63	<0.001
2004	0.67	0.59,0.75	<0.001
2005	0.59	0.53,0.66	<0.001
2006	0.55	0.49,0.62	<0.001
2007	0.60	0.53,0.68	<0.001
2008	0.53	0.47,0.59	<0.001
Doctor's location of practice			
Rural	1.00		
Urban	1.04	0.93,1.17	0.51
State			
Victoria	1.00		
Western Australia	0.65	0.57,0.74	<0.001

C. Sensitivity Analyses at the Doctor-Level

Respecify outcome as a count variable and model using negative binomial regression at the doctor-level

Table C1. IMG vs Australian-trained: Relative risk of complaint modeled as count variable using negative binomial regression at the doctor-level

	Adjusted RR	95% CI	p-value
Country of training			
Australia	1.00		
Overseas	1.25	1.14,1.38	<0.001
Doctor's sex			
Male	1.00		
Female	0.49	0.44,0.54	<0.001
Years in practice			
Less than 10	0.20	0.17,0.22	<0.001
10-20	0.61	0.55,0.68	<0.001
21-30	1.00		
31-40	1.08	0.96,1.22	0.19
More than 40	0.65	0.55,0.76	<0.001
Type of registration			
General	1.00		
Specialist	0.71	0.61,0.84	<0.001
Area of need	0.60	0.45,0.78	<0.001
Other	0.47	0.36,0.60	<0.001
Doctor's location of practice			
Rural	1.00		
Urban	1.04	0.93,1.16	0.49
State			
Victoria	1.00		
Western Australia	0.55	0.50,0.61	<0.001

Table C2. IMG vs Australian-trained: Relative risk of adverse finding modeled as count variable using negative binomial regression at the doctor-level

	Adjusted RR	95% CI	p-value
Country of training			
Australia	1.00		
Overseas	1.47	1.10,1.95	0.009
Doctor's sex			
Male	1.00		
Female	0.40	0.28,0.55	<0.001
Years in practice			
Less than 10	0.23	0.14,0.36	<0.001
10-20	0.82	0.60,1.12	0.20
21-30	1.00		
31-40	1.03	0.72,1.48	0.88
More than 40	0.60	0.36,1.00	0.05
Type of registration			
General	1.00		
Specialist	0.64	0.38,1.05	0.08
Area of need	0.40	0.15,1.06	0.06
Other	0.37	0.14,0.95	0.04
Doctor's location of practice			
Rural	1.00		
Urban	1.23	0.87,1.73	0.24
State			
Victoria	1.00		
Western Australia	0.75	0.55,1.02	0.07

Table C3. Country-by-Country: Relative risk of complaint modeled as count variable using negative binomial regression at doctor-level

	Adjusted RR	95% CI	p-value
Country of training			
Australia	1.00		
UK/Ireland	0.99	0.85,1.16	0.93
India	1.64	1.34,2.00	<0.001
New Zealand	0.74	0.55,0.99	0.04
South Africa	1.04	0.77,1.41	0.81
Sri Lanka	1.43	1.04,1.96	0.03
Germany	0.71	0.33,1.55	0.39
Egypt	2.26	1.60,3.20	<0.001
Iraq	1.67	1.09,2.54	0.02
China	0.95	0.55,1.63	0.85
Singapore	1.02	0.62,1.68	0.93
Pakistan	1.71	0.95,3.06	0.07
Malaysia	0.48	0.19,1.22	0.12
Bangladesh	0.67	0.31,1.44	0.30
Hong Kong	0.44	0.19,1.01	0.05
Philippines	1.77	0.87,3.60	0.12
Iran	2.14	0.83,5.49	0.11
Netherlands	0.90	0.28,2.92	0.86
Nigeria	3.79	1.97,7.30	<0.001
Russia	3.54	1.87,6.69	<0.001
Poland	2.16	1.14,4.09	0.02
Other	1.72	1.38,2.13	<0.001
Doctor's sex			
Male	1.00		
Female	0.48	0.44,0.53	<0.001
Years in practice			
Less than 10	0.20	0.17,0.23	<0.001
10-20	0.62	0.56,0.69	<0.001
21-30	1.00		
31-40	1.10	0.98,1.24	0.12
More than 40	0.68	0.58,0.80	<0.001
Type of registration			
General	1.00		
Specialist	0.67	0.56,0.79	<0.001
Area of need	0.51	0.38,0.68	<0.001
Other	0.42	0.32,0.55	<0.001
Doctor's location of practice			
Rural	1.00		
Urban	1.03	0.92,1.15	0.59
State			
Victoria	1.00		
Western Australia	0.58	0.53,0.65	<0.001