



HOKKAIDO UNIVERSITY

Title	Are graduating residents sufficiently competent? Results of a national gap analysis survey of program directors and graduating residents in Japan
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Supplement Table 1: Factors associated with lower self-assessment based on Graduation Year.
Data presented as the number (%) of participants with self-assessment above passive help.

	Graduation Year 2011 (221*)	Graduation Year Before 2011 (281*)	P
Distal Gastrectomy	84 (37.8%)	130 (46.4%)	0.06
Hemorrhoidectomy	82 (37.1%)	122 (43.4%)	0.17
Splenectomy	30 (13.5%)	76 (27.1%)	<0.01
Total Mastectomy	95 (43.0%)	121 (43.2%)	1.00
Partial Mastectomy	102 (45.9%)	119 (42.5%)	0.47
Breast Needle Biopsy	98 (44.3%)	136 (48.7%)	0.37
Sentinel Lymph dissection	101 (45.5%)	130 (46.6%)	0.86
Lung Wedge Resection	53 (23.9%)	64 (22.9%)	0.83
Lung Bullectomy	54 (24.4%)	70 (24.9%)	0.92
Thyroid lumpectomy	38 (17.1%)	57 (20.3%)	0.42

*Maximum number of responding graduating residents in each group. Total number of responding graduating resident vary slightly from procedure to procedure.

Supplement Table 2: Factors associated with lower self-assessment based on Age group. Data presented as the number (%) of participants with self-assessment above passive help.

	Age Younger than 33 (301*)	Age older than 33 (204*)	P
Distal Gastrectomy	116 (38.5%)	99 (48.5%)	0.03
Hemorrhoidectomy	110 (37.1%)	98 (48.0%)	0.01
Splenectomy	30 (15.9%)	60 (29.4%)	<0.01
Total Mastectomy	119 (39.5%)	101 (49.8%)	0.03
Partial Mastectomy	124 (41.1%)	101 (49.8%)	0.06
Breast Needle Biopsy	133 (44.0%)	106 (52.7%)	0.07
Sentinel Lymph dissection	127 (42.1%)	108 (53.5%)	0.01
Lung Wedge Resection	69 (22.9%)	49 (24.1%)	0.75
Lung Bullectomy	71 (23.6%)	54 (26.5%)	0.46
Thyroid lumpectomy	56 (18.5%)	42 (20.6%)	0.57

*Maximum number of responding graduating residents in each group. Total number of responding graduating resident vary slightly from procedure to procedure.

Supplement Table 3: Factors associated with lower self-assessment based on gender. Data presented as the number (%) of participants with self-assessment above passive help.

	Male (395*)	Female (101*)	P
Distal Gastrectomy	187 (47.6%)	23 (22.8%)	<0.01
Hemorrhoidectomy	168 (42.5%)	35 (35.4%)	0.22
Splenectomy	94 (23.9%)	9 (9.0%)	<0.01
Total Mastectomy	157 (39.9%)	60 (60.0%)	<0.01
Partial Mastectomy	162 (41.1%)	60 (60.0%)	<0.01
Breast Needle Biopsy	173 (44.0%)	63 (63.6%)	<0.01
Sentinel Lymph dissection	172 (43.8%)	59 (59.0%)	<0.01
Lung Wedge Resection	102 (26.0%)	16 (16.0%)	0.04
Lung Bullectomy	106 (23.6%)	19 (19.0%)	0.12
Thyroid lumpectomy	76 (19.2%)	21 (21.0%)	0.67

*Maximum number of responding graduating residents in each group. Total number of responding graduating resident vary slightly from procedure to procedure.

Supplement Table 4: Factors associated with lower self-assessment based on the type of hospital where they attained residency training. Data presented as the number (%) of participants with self-assessment above passive help.

	Community Hospital (139*)	University Hospital (15*)	Both (348*)	P
Distal Gastrectomy	77 (55.4%)	3 (20.0%)	134 (38.7%)	<0.01
Hemorrhoidectomy	64 (46.4%)	6 (40.0%)	135 (38.9%)	0.32
Splenectomy	36 (26.1%)	3 (20.0%)	67 (19.3%)	0.25
Total Mastectomy	59 (42.8%)	8 (53.3%)	150 (43.4%)	0.73
Partial Mastectomy	63 (45.7%)	8 (53.3%)	152 (43.8%)	0.74
Breast Needle Biopsy	69 (50.4%)	8 (53.3%)	158 (45.7%)	0.58
Sentinel Lymph dissection	69 (50.0%)	10 (66.7%)	153 (44.2%)	0.15
Lung Wedge Resection	32 (23.2%)	2 (13.3%)	85 (24.6%)	0.59
Lung Bullectomy	32 (23.2%)	2 (13.3%)	91 (26.2%)	0.45
Thyroid lumpectomy	24 (17.3%)	5 (33.3%)	68 (19.4%)	<0.01

*Maximum number of responding graduating residents in each group. Total number of responding graduating resident vary slightly from procedure to procedure.

Supplement Table 5: Factors associated with lower self-assessment based on the subspecialty orientation of the resident. Data presented as the number (%) of participants with self-assessment above passive help.

	Gastrointestinal Surgery (291*)	Thoracic Surgery (57*)	Cardiovascular surgery (57*)	Breast Surgery (40*)	Others (50*)	Not Decided (14*)
Distal Gastrectomy	168 (58.1%)	9 (15.8%)	8 (14.0%)	10 (25.0%)	14 (28.0%)	7 (50.0%)
Hemorrhoidectomy	140 (48.1%)	10 (17.5%)	14 (24.6%)	13 (34.2%)	25 (50.0%)	6 (42.9%)
Splenectomy	76 (26.2%)	4 (7.0%)	10 (17.5%)	2 (5.1%)	12 (24.0%)	4 (28.6%)
Total Mastectomy	129 (44.5%)	20 (35.7%)	13 (22.8%)	38 (97.4%)	14 (28.0%)	7 (50.0%)
Partial Mastectomy	127 (43.6%)	23 (41.1%)	14 (24.6%)	38 (97.4%)	16 (32.0%)	8 (57.1%)
Breast Needle Biopsy	136 (47.1%)	22 (39.3%)	15 (26.3%)	39 (100%)	20 (40.0%)	7 (50.0%)
Sentinel Lymph dissection	137 (47.1%)	22 (39.3%)	16 (28.1%)	38 (97.4%)	14 (28.6%)	9 (64.3%)
Lung Wedge Resection	41 (14.1%)	50 (89.3%)	11 (19.3%)	3 (7.7%)	10 (20.4%)	4 (28.6%)
Lung Bullectomy	46 (15.8%)	54 (94.7%)	8 (14.0%)	4 (10.5%)	10 (20.0%)	4 (28.6%)
Thyroid lumpectomy	55 (18.9%)	11 (19.3%)	7 (12.3%)	10 (25.6%)	12 (24.0%)	3 (21.4%)

*Maximum number of responding graduating residents in each group. Total number of responding graduating resident vary slightly from procedure to procedure.

Supplement Table 6: Factors associated with lower self-assessment based on the number of cases under general anesthesia. Data presented as the number (%) of participants with self-assessment above passive help.

	More than 200 cases (337*)	150-199 cases (71*)	100-149 cases (59*)	Less than 100 cases (40*)	P
Distal Gastrectomy	176 (52.2%)	20 (28.2%)	15 (25.4%)	5 (12.5%)	<0.01
Hemorrhoidectomy	160 (47.8%)	21 (30.0%)	21 (35.0%)	6 (15.0%)	<0.01
Splenectomy	83 (24.6%)	9 (12.9%)	12 (20.0%)	4 (10.0%)	0.08
Total Mastectomy	165 (49.1%)	26 (37.1%)	22 (36.7%)	8 (20.0%)	<0.01
Partial Mastectomy	168 (49.9%)	27 (38.6%)	22 (36.7%)	9 (22.5%)	<0.01
Breast Needle Biopsy	180 (53.4%)	28 (40.6%)	20 (33.9%)	11 (27.5%)	<0.01
Sentinel Lymph dissection	171 (50.9%)	28 (40.0%)	25 (41.7%)	12 (30.0%)	0.07
Lung Wedge Resection	85 (25.3%)	13 (18.6%)	13 (21.7%)	8 (20.0%)	0.66
Lung Bullectomy	91 (27.0%)	14 (20.0%)	13 (21.7%)	8 (20.0%)	0.55
Thyroid lumpectomy	79 (23.4%)	8 (11.3%)	8 (13.3%)	3 (7.5%)	0.02

*Maximum number of responding graduating residents in each group. Total number of responding graduating resident vary slightly from procedure to procedure.