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Appendix

Table 1. Spearman's correlation coefficients and receiver operating characteristic analysis of PROMs and the sensitivity (3.5) satisfaction anchor question.

Interval	PROM	Spearman's Rank Correlation		Receiver Operating Characteristic Analysis		
		Coefficient	p-value	AUC	95% CI	p-value
1-Year	KOOS Pain	0.46	<0.001	0.87	0.82-0.92	<0.001
	KOOS Symptoms	0.42	<0.001	0.84	0.79-0.89	<0.001
	KOOS ADL	0.46	<0.001	0.87	0.82-0.92	<0.001
	KOOS QOL	0.46	<0.001	0.87	0.82-0.92	<0.001
	EQ-VAS	0.31	<0.001	0.75	0.68-0.81	<0.001
	EQ-5D-3L	0.47	<0.001	0.86	0.81-0.91	<0.001
	NRS Pain	-0.50	<0.001	0.90	0.85-0.94	<0.001
3-Year	KOOS Pain	0.45	<0.001	0.88	0.83-0.93	<0.001
	KOOS Symptoms	0.41	<0.001	0.86	0.80-0.92	<0.001
	KOOS ADL	0.46	<0.001	0.90	0.85-0.94	<0.001
	KOOS QOL	0.46	<0.001	0.90	0.85-0.94	<0.001
	EQ-VAS	0.34	<0.001	0.79	0.71-0.87	<0.001
	EQ-5D-3L	0.48	<0.001	0.89	0.83-0.94	<0.001
	NRS Pain	-0.48	<0.001	0.91	0.85-0.96	<0.001

PASS: Patient Acceptable Symptom State; PROM: Patient Reported Outcome Measure; AUC: Area under the curve; KOOS: Knee Injury and Osteoarthritis Outcome Score; EQ-5D-3L: EuroQol-5 Dimensions three-level; VAS: Visual Analog Scale; NRS: Numerical Rating Scale.

Table 2. PASS thresholds and their respective sensitivities and specificities at 1-year for each PROM subscale using three different methods to determine threshold values. Satisfaction is defined using the sensitivity analysis cutoff of 3.5 on the numerical rating scale.

PROM	PASS Methods					
	80% Specificity †		Youden		75th Percentile	
	Threshold	Sensitivity, Specificity	Threshold	Sensitivity, Specificity	Threshold	Sensitivity, Specificity
KOOS Pain	76.5	0.84, 0.82	76.5	0.84, 0.82	83.0	0.86, 0.70
KOOS Symptoms	77.0	0.74, 0.86	77.0	0.74, 0.86	75.0	0.86, 0.74
KOOS ADL	81.5	0.76, 0.84	73.0	0.88, 0.74	82.0	0.88, 0.72
KOOS QOL	59.5	0.77, 0.84	66.0	0.70, 0.93	63.0	0.93, 0.70
EQ-VAS	81.0	0.52, 0.82	71.0	0.73, 0.72	70.0	0.72, 0.73
EQ-5D-3L	0.77	0.74, 0.84	0.75	0.80, 0.79	0.76	0.84, 0.74
NRS Pain	2.2	0.79, 0.89	2.2	0.79, 0.89	1.5	0.90, 0.71

†Indicates the primary PASS analysis method;

PASS: Patient Acceptable Symptom State; PROM: Patient Reported Outcome Measure; AUC: Area under the curve; KOOS: Knee Injury and Osteoarthritis Outcome Score; EQ-5D-3L: EuroQol-5 Dimensions three-level; VAS: Visual Analog Scale; NRS: Numerical Rating Scale.

Table 3. PASS thresholds and their respective sensitivities and specificities at 3-year for each PROM subscale using three different methods to determine threshold values. Satisfaction is defined using the sensitivity analysis cutoff of 3.5 on the numerical rating scale.

PROM	PASS Methods					
	80% Specificity †		Youden		75th Percentile	
	Threshold	Sensitivity, Specificity	Threshold	Sensitivity, Specificity	Threshold	Sensitivity, Specificity
KOOS Pain	82.0	0.76, 0.84	82.0	0.76, 0.84	83.0	0.84, 0.72
KOOS Symptoms	84.0	0.66, 0.90	84.0	0.66, 0.90	79.0	0.79, 0.74
KOOS ADL	81.5	0.77, 0.84	84.5	0.75, 0.87	85.0	0.90, 0.73
KOOS QOL	66.0	0.72, 0.90	59.5	0.83, 0.79	63.0	0.90, 0.72
EQ-VAS	84.5	0.54, 0.87	74.5	0.77, 0.69	76.0	0.71, 0.74
EQ-5D-3L	0.74	0.82, 0.82	0.79	0.78, 0.90	0.80	0.90, 0.73
NRS Pain	2.2	0.82, 0.87	2.2	0.82, 0.87	1.5	0.95, 0.71

†Indicates the primary PASS analysis method;

PASS: Patient Acceptable Symptom State; PROM: Patient Reported Outcome Measure; AUC: Area under the curve; KOOS: Knee Injury and Osteoarthritis Outcome Score; EQ-5D-3L: EuroQol-5 Dimensions three-level; VAS: Visual Analog Scale; NRS: Numerical Rating Scale.

Appendix Figure 1. KOOS profiles at the preoperative, 1 year, and 3 year assessments after total knee arthroplasty.

