

Table 1: Features selected by LASSO regression

	Symptom severity reports	PROMs	Clinical	Demographic	Time-modelling
All available variables	1) Pain, 2) nausea, 3) vomiting, 4) diarrhoea, 5) temperature, 6) chills, 7) physical ability, 8) appetite, 9) fatigue, 10) sore mouth, 11) indigestion, 12) shortness of breath, 13) other symptoms	FACT-G: 14) Physical, 15) social, 16) emotional, 17) functional well-being; EQ5D: 18) Pain, 19) anxiety and depression, 20) usual activities, 21) self care, 22) mobility, 23) health status; QLQ-C30: 24) Role, 25) social functioning	26) Previous chemotherapy, 27) primary/metastatic, 28) number of comorbidities, 29) diabetes, 30) respiratory comorbidities, 31) stoma, 32) disease site, 33) chemotherapy regimen	34) Marital status, 35) employment status, 36) level of education, 37) sex, 38) age, 39) BMI	40) Days since study started, 41) days since previous report, 42) days since last chemotherapy cycle
Admissions during chemotherapy (PROMs considered)	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13	14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25	26, 27, 28, 29, 30, 31, 32, 33	34, 35, 36, 37, 38, 39	40, 41, 42
Admissions during chemotherapy (PROMs not considered)	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13	N/A	26, 27, 28, 29, 30, 31, 32, 33	34, 35, 36, 37, 38, 39	40, 41, 42
Admissions within 14 days (PROMs considered)	2, 3, 4, 5, 6, 7, 10, 11, 12, 13	14, 18, 20, 21, 22, 23, 25	28, 31, 32	34, 35, 39	42
Admissions within 14 days (PROMs not considered)	1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13	N/A	27, 28, 30, 31, 32, 33	34, 35, 36, 38, 39	40, 42