

Patient-reported outcomes from the phase 3 ENGOT-cx12/GOG-3057/innovaTV 301 trial of tisotumab vedotin as second-/third-line treatment for recurrent or metastatic cervical cancer

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Conclusions

- This post-hoc PRO analysis (13 cycles) from ENGOT-cx12/GOG-3057/innovaTV 301 suggests that treatment with tisotumab vedotin maintains QoL in patients with r/mCC
- When patients' QoL deteriorated, tisotumab vedotin was associated with slower time to clinically meaningful deterioration compared with chemotherapy across key HRQoL domains
- Taken in context with the clinical outcomes from the ENGOT-cx12/GOG-3057/innovaTV 301 trial, wherein tisotumab vedotin significantly improved OS versus chemotherapy in patients with r/mCC,⁴ these findings reinforce tisotumab vedotin as an appropriate therapeutic option for patients with r/mCC
- Limitations of the analysis include its post-hoc nature and the open-label design of the trial; the PRO analyses were not statistically powered. Additionally, the 10-point threshold used to represent clinically meaningful change from baseline was based upon general guidance and may not be appropriate for every subscale, limiting interpretation of the results

Background

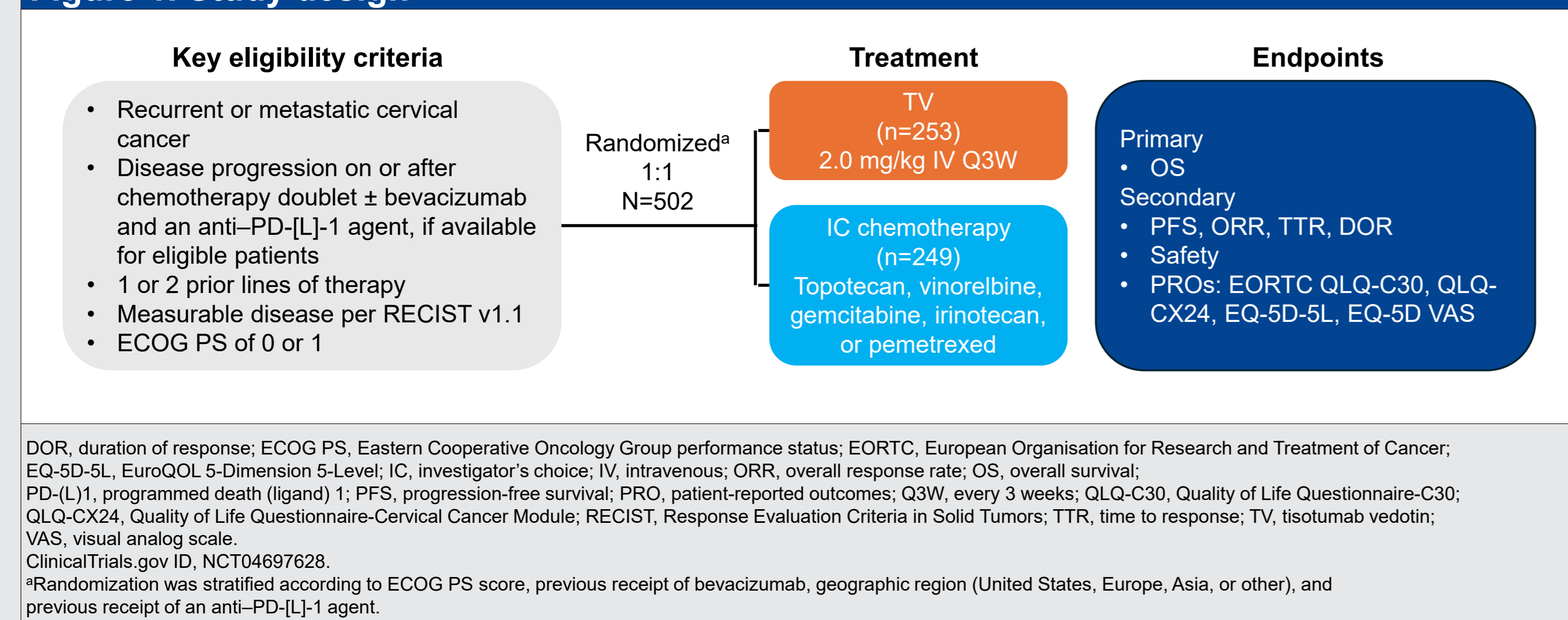
- Tisotumab vedotin is a tissue factor-directed antibody-drug conjugate approved for treating recurrent or metastatic cervical cancer (r/mCC) in multiple regions, including the US, Europe, and Japan¹⁻³
- Tisotumab vedotin showed superior efficacy outcomes compared with investigator's choice of chemotherapy, including overall survival (hazard ratio [HR] 0.70; 95% CI, 0.54–0.89; two-sided $P=0.004$), progression-free survival (HR 0.67; 95% CI, 0.54–0.82; two-sided $P<0.001$), and objective response rates in the global phase 3 ENGOT-cx12/GOG-3057/innovaTV 301 trial, and a manageable safety profile⁴
- Previously, we reported that quality of life (QoL) was maintained for patients treated with tisotumab vedotin or chemotherapy up to cycle 5 of treatment in innovaTV 301⁴
- Here, we present post-hoc analyses of patient-reported outcomes (PROs) from ENGOT-cx12/GOG-3057/innovaTV 301

Methods

ENGOT-cx12/GOG-3057/innovaTV 301

- This is a global, randomized, open-label phase 3 study of tisotumab vedotin vs investigator's choice of chemotherapy in patients with r/mCC who had received 1 or 2 prior lines of systemic therapy for their r/mCC
 - The study design has been previously described (Figure 1)⁴

Figure 1. Study design



DOR, duration of response; ECOG PS, Eastern Cooperative Oncology Group performance status; EORTC, European Organisation for Research and Treatment of Cancer; EQ-5D-5L, EuroQOL 5-Dimension 5-Level; IC, investigator's choice; IV, intravenous; ORR, overall response rate; OS, overall survival; PD-(L)1, programmed death (ligand) 1; PFS, progression-free survival; PRO, patient-reported outcomes; Q3W, every 3 weeks; QLQ-C30, Quality of Life Questionnaire-C30; QLQ-CX24, Quality of Life Questionnaire-Cervical Cancer Module; RECIST, Response Evaluation Criteria in Solid Tumors; TTR, time to response; TV, tisotumab vedotin; VAS, visual analog scale. ClinicalTrials.gov ID, NCT04697628. *Randomization was stratified according to ECOG PS score, previous receipt of bevacizumab, geographic region (United States, Europe, Asia, or other), and previous receipt of an anti-PD-(L)1 agent.

PRO outcomes

- Assessment of PROs was a secondary endpoint in the trial. Patients were administered questionnaires from several PRO instruments, including European Organisation for Research and Treatment of Cancer (EORTC) QLQ-C30 and QLQ-CX24
 - The EORTC QLQ-C30 and QLQ-CX24 measure HRQoL, cancer-related symptoms, and function domains in patients with any cancer and cervical cancer, respectively (Figure 2)^{5,6}

Figure 2. PRO instruments

EORTC QLQ-C30 scales ⁵ (for patients with any cancer)			EORTC QLQ-CX24 scales ⁶ (for patients with cervical cancer)		
Cancer-related symptoms	Function	QoL	Multiple Items	Single-item	
<ul style="list-style-type: none"> Appetite loss Constipation Diarrhea Dyspnea Fatigue 	<ul style="list-style-type: none"> Financial difficulty Insomnia Nausea and vomiting Pain 	<ul style="list-style-type: none"> Cognitive Emotional Physical Role Social 	<ul style="list-style-type: none"> Global health status 	<ul style="list-style-type: none"> Symptom experience Body image Sexual/vaginal function 	<ul style="list-style-type: none"> Lymphedema Peripheral neuropathy Menopausal symptoms Sexual worry Sexual activity Sexual enjoyment

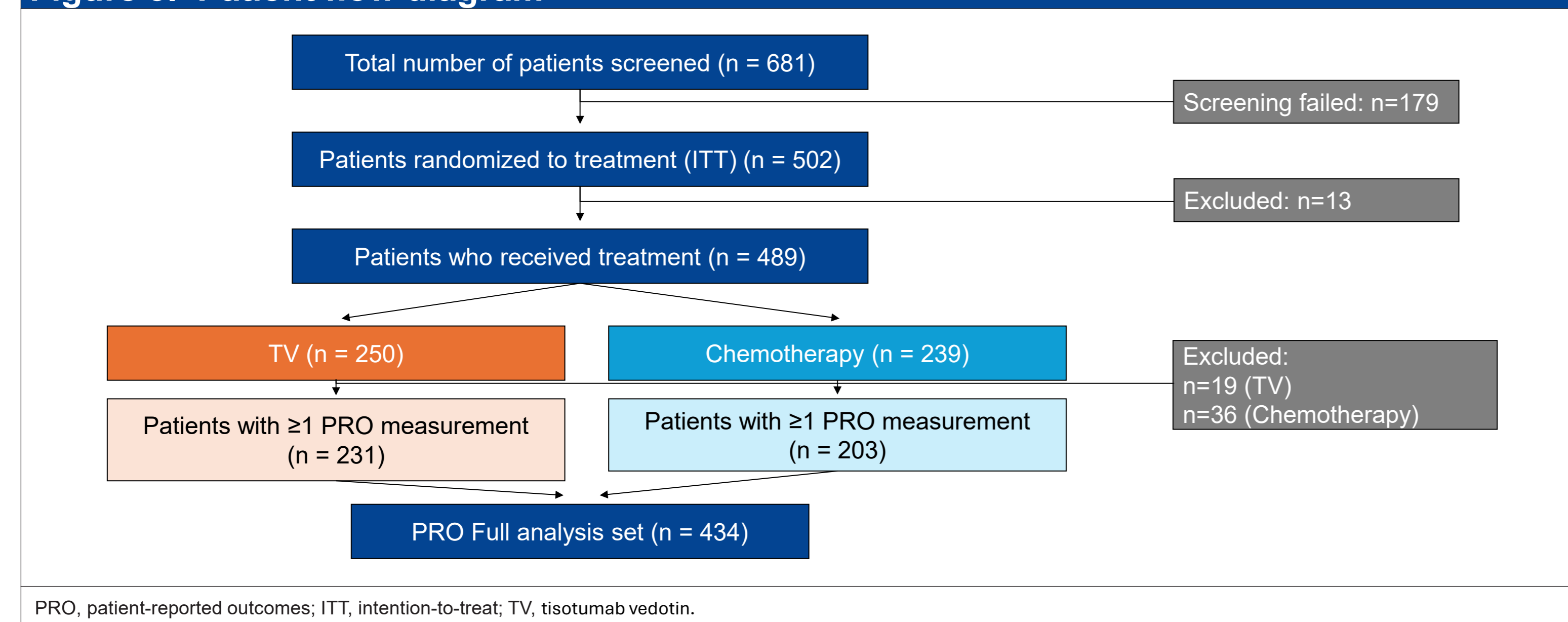
EORTC, European Organisation for Research and Treatment of Cancer; QLQ-C30, Quality of Life Questionnaire-C30; QLQ-CX24, Quality of Life Questionnaire-Cervical Cancer Module; QoL, quality-of-life.

- In this post-hoc analysis, average health-related quality of life (HRQoL) at each cycle and change from baseline (until cycle 13) were assessed using a mixed model for repeated measures
- Time to clinically meaningful deterioration was evaluated using a Cox proportional hazards model
 - Consistent with reported precedents in the literature,^{7,8} a >10-point change from baseline was considered to be clinically meaningful
- Analyses were adjusted for baseline ECOG PS, prior bevacizumab, and prior anti-PD-1/PD-L1 therapy

Results

- The PRO full analysis set consisted of 231 patients who received tisotumab vedotin and 203 patients who received chemotherapy (Figure 3)
- Patients in the PRO full analysis set were in the study for a median of 250 days

Figure 3. Patient flow diagram



PRO, patient-reported outcomes; ITT, intention-to-treat; TV, tisotumab vedotin.

- The weighted mean compliance rate for the EORTC QLQ-C30 questionnaire from baseline to Cycle 13 was 85.9% (range, 92.0% to 81.3%) for the tisotumab vedotin arm and 83.9% (range, 75.2% to 94.1%) for the chemotherapy arm (Table 1)

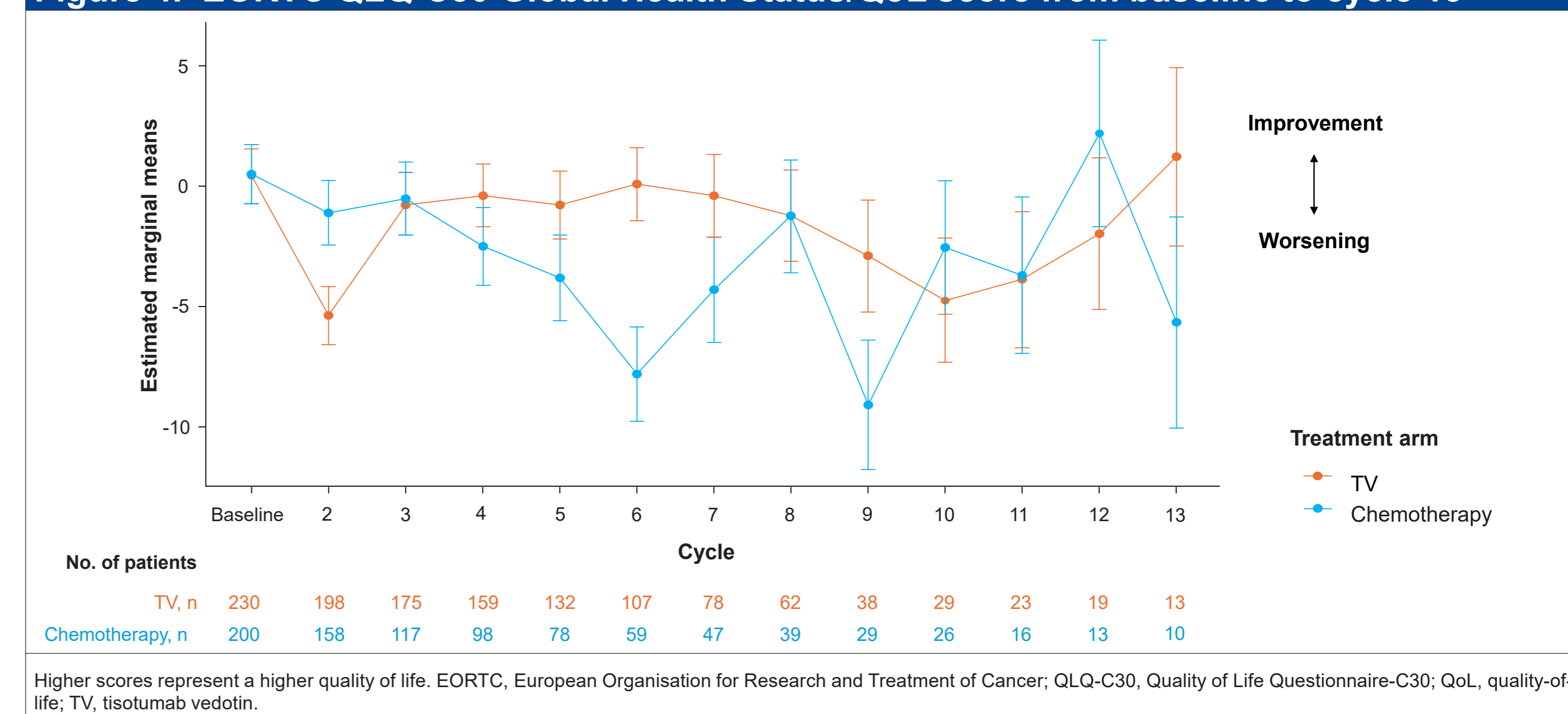
Table 1. EORTC QLQ-C30 assessment rates from baseline to cycle 13

	TV (n=231)			Chemotherapy (n=203)		
	N	Compliance rate ^a (%)	Completion rate ^b (%)	N	Compliance rate ^a (%)	Completion rate ^b (%)
Baseline	230	92.0	92.0	200	83.7	83.7
Cycle 2	198	83.5	79.2	158	75.2	66.1
Cycle 3	175	85.4	70.0	117	78.0	49.0
Cycle 4	159	89.8	63.6	98	79.7	41.0
Cycle 5	132	91.0	52.8	78	80.4	32.6
Cycle 6	107	89.9	42.8	59	80.8	24.7
Cycle 7	78	87.6	31.2	47	79.7	19.7
Cycle 8	62	93.9	24.8	39	84.8	16.3
Cycle 9	38	84.4	15.2	29	85.3	12.1
Cycle 10	29	90.6	11.6	26	92.9	10.9
Cycle 11	23	82.1	9.2	16	94.1	6.7
Cycle 12	19	90.5	7.6	13	92.9	5.4
Cycle 13	13	81.3	5.2	10	83.3	4.2

^aDefined as the number of completed questionnaires divided by the number of patients at each visit. ^bDefined as the number of completed questionnaires divided by the number of patients in the intention-to-treat population. EORTC QLQ-C30, European Organisation for Research and Treatment of Cancer Quality of Life Questionnaire-C30; TV, tisotumab vedotin.

- Global health status/QoL was maintained from baseline to cycle 13 in both arms (Figure 4)

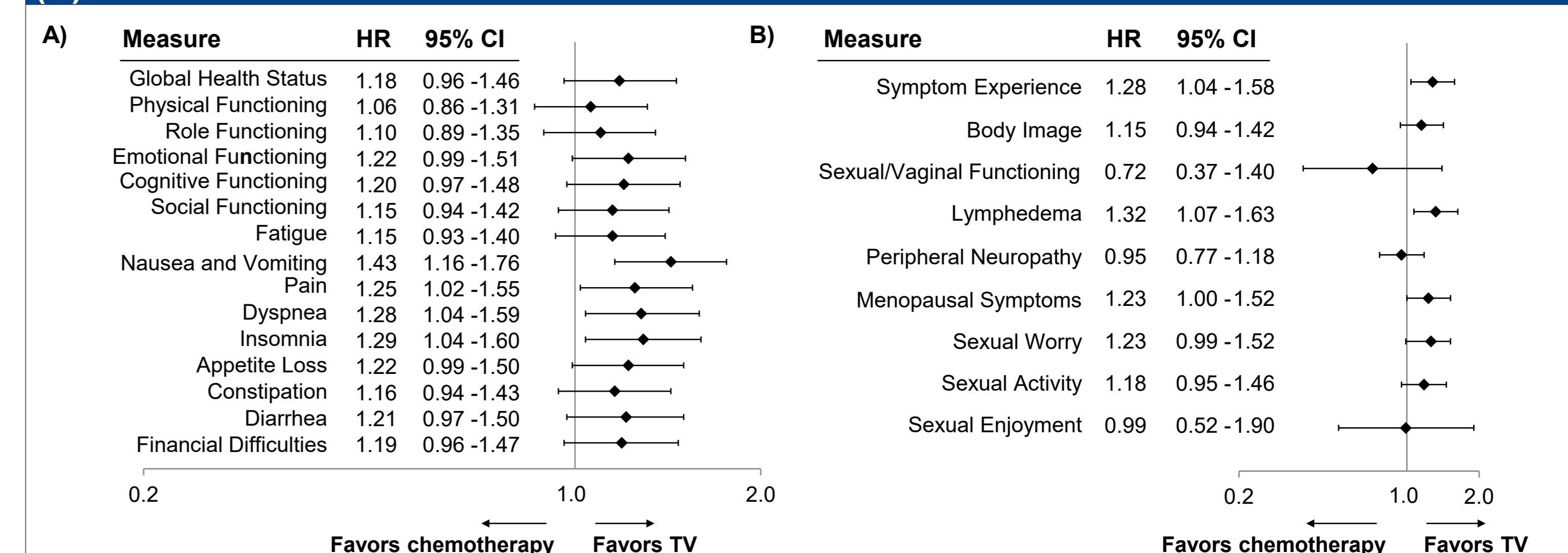
Figure 4. EORTC QLQ-C30 Global Health Status/QoL score from baseline to cycle 13



Higher scores represent a higher quality of life. EORTC, European Organisation for Research and Treatment of Cancer; QLQ-C30, Quality of Life Questionnaire-C30; QoL, quality-of-life; TV, tisotumab vedotin.

- Median time to clinically meaningful deterioration (≥ 10 -point change)^a was longer with tisotumab vedotin compared with chemotherapy across most of the key domains for QLQ-C30 and QLQ-CX24 (Figure 5)

Figure 5. Forest plots for time to deterioration of (A) EORTC QLQ-C30 subscales and (B) EORTC QLQ-CX24 subscales



EORTC, European Organisation for Research and Treatment of Cancer; HR, hazard ratio; QLQ-C30, Quality of Life Questionnaire-C30; QLQ-CX24, Quality of Life Questionnaire-Cervical Cancer Module; QoL, quality-of-life; TV, tisotumab vedotin. ^aClinically meaningful deterioration was defined as a ≥ 10 -point change from baseline, progression or death.

