

The health outcome analysis of sintilimab for the first-line treatment of advanced gastric or gastroesophageal junction adenocarcinoma: According to the EQ-5D-5L

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BACKGROUND

- ◆ Gastric and gastroesophageal junction (G/GEJ) cancer is one of the most common cancer in China, adenocarcinoma is the most common type of G/GEJ cancer.
- ◆ Approximately 45% of G/GEJ adenocarcinoma patients were progressed to III or IV stage at the time of diagnosis, which gained a low quality of life generally.

OBJECTIVE

- ◆ The health-related quality-of-life (HRQoL) measurement is important for patients with advanced gastric or gastroesophageal junction (G/GEJ) adenocarcinoma.
- ◆ This study aimed to assess the health outcome and clinical benefit of patients with advanced G/GEJ adenocarcinoma receiving sintilimab in combination with chemotherapy (oxaliplatin and capecitabine) compared with chemotherapy alone in China base on the ORIENT-16 study.

METHOD

- ◆ The individual HRQoL data was obtained from the **ORIENT-16 trial** and officially authorized by the Innovent Biologics, Inc. company. **Health utility values** of progression-free survival (PFS) and post-progression (PP) were calculated using **Chinese EQ-5D-5L value set**. Quality-adjusted life-year (QALY) was estimated as health outcome.
 - **Short-term analysis:** During the **clinical trial period** (January 3, 2019 to June 20, 2021), the QALYs of patients received sintilimab in combination with chemotherapy and chemotherapy alone were calculated.
 - **Long-term analysis:** A **lifetime** simulation three-state (PFS, PP, and Death) partitioned survival model (**PSM**) was developed based on the ORIENT-16 extrapolated survival data to compare the QALYs of the two groups.

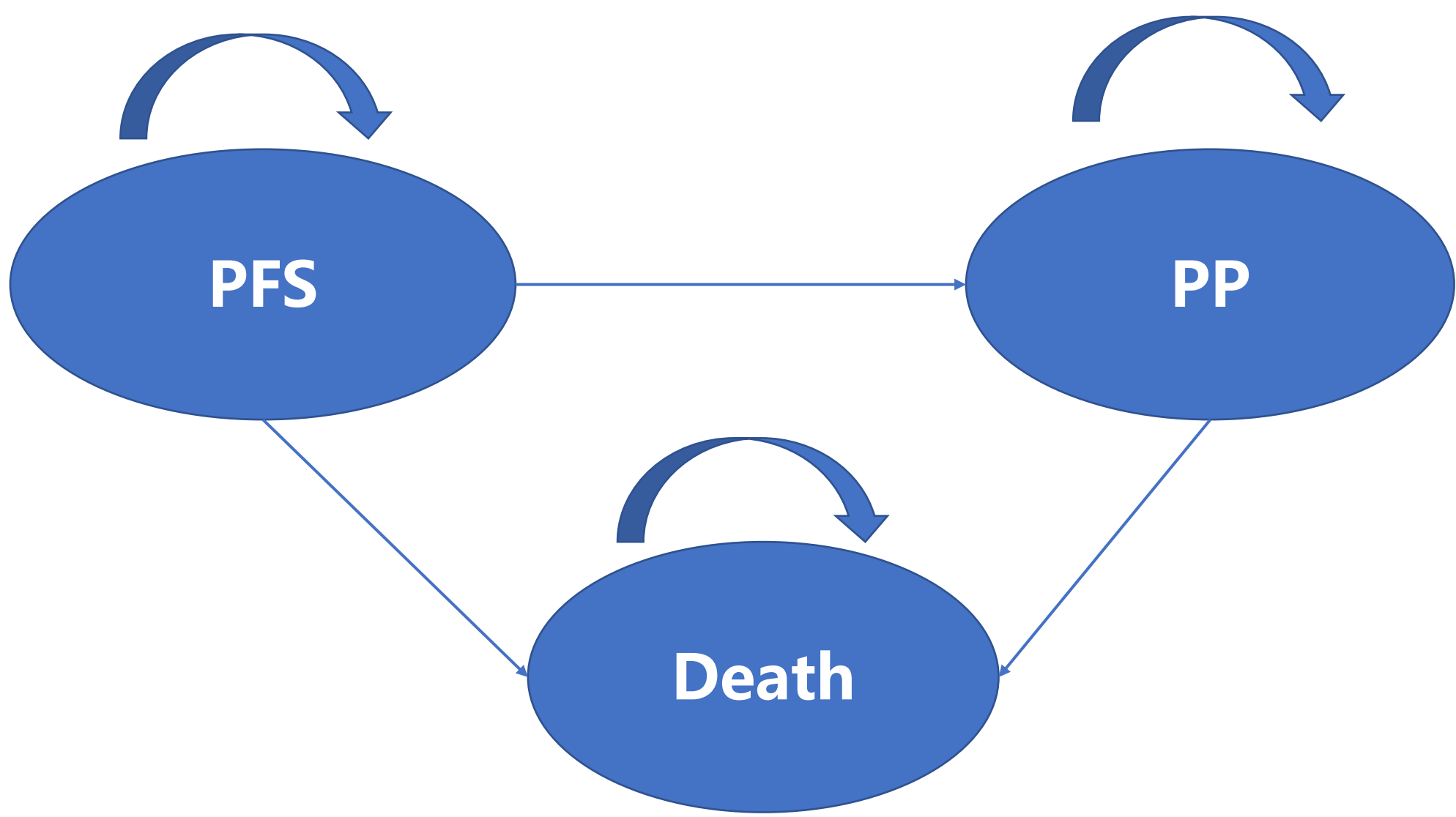


Fig.1 The structure of partitioned survival model

RESULT

- ◆ **Short-term analysis:**
 - A total of **641** (Intervention group n=324; Control group n=317) individual patient data were included in the analysis. The results were shown in the **table1**.
 - during the follow-up period of ORIENT-16, the health outcome of sintilimab group and the control group were 0.63 QALYs and 0.53 QALYs respectively.
 - Patients on sintilimab plus chemotherapy resulted in an incremental gain of 0.09 QALYs over the chemotherapy alone.
- ◆ **Long-term analysis:**
 - The mean utility value of study group and control group were 0.896 and 0.897 in PF state, 0.822 and 0.833 in PP state, respectively. The lifetime health outcome were shown in the **table2**.
 - Long-term analysis showed that the lifetime simulation of sintilimab group had higher QALYs than chemotherapy alone group (1.88 QALYs vs. 1.39 QALYs).
 - There were 0.44 QALYs and 0.06 QALYs gained in PFS and PP states, respectively.

Table 1 Result of short-term analysis

Health Outcome (QALYs)	IG		CG		ΔQALY
	n	QALYs	n	QALYs	
Total QALYs	324	0.625	317	0.531	0.094
PFS state	324	0.581	317	0.455	0.126
PD state	200	0.078	142	0.169	-0.092

Table 2 Result of short-term analysis

Health Outcome (QALYs)	IG	CG	ΔQALY
Total QALYs	1.884	1.387	0.497
PFS state	1.146	0.708	0.438
PD state	0.738	0.679	0.059

CONCLUSIONS

- ◆ Compared with chemotherapy alone, sintilimab combined with chemotherapy improves the HRQoL of Chinese patients with advanced G/GEL adenocarcinoma as a first-line treatment strategy.