

# Trifluridine/Tipiracil: A Review in Metastatic Gastric Cancer

Connie Kang  
Sohita Dhillon  
Emma D. Deeks

---

## Video Abstract

**Keywords:** Trifluridine, tipiracil, Lonsurf, gastric cancer, metastatic cancer, cancer, DNA synthesis, TAGS trial, adenocarcinoma, cancer treatment, ECOG performance, overall survival, gastroesophageal carcinoma, Drugs, Adis

**Posted Date:** January 15th, 2020

**DOI:** <https://doi.org/10.21203/rs.2.21223/v1>

**License:**  This work is licensed under a Creative Commons Attribution 4.0 International License.

[Read Full License](#)

---

# Abstract

Gastric cancer is the third leading cause of cancer-related mortality worldwide. Treatment of metastatic gastric cancer typically aims to prolong overall survival and maximize health-related quality of life. For patients who have failed previous gastric cancer treatments, the oral, fixed-dose tablet trifluridine/tipiracil, appears to do just that. Adding tipiracil slows trifluridine metabolism, boosting the anti-cancer effect at a manageable level of drug toxicity by increasing trifluridine bioavailability in the body. Once inside the cancer cell, trifluridine inhibits cell proliferation by interfering with DNA synthesis. The pivotal phase 3 TAGS trial examined trifluridine/tipiracil's efficacy and tolerability in previously treated patients with metastatic gastric cancer or adenocarcinoma of the gastroesophageal junction. Data showed that in these patients, trifluridine/tipiracil plus best supportive care significantly prolonged overall survival and progression-free survival compared with placebo plus best supportive care, and improved the disease control rate, which is the proportion of patients with either a complete response, a partial response or stable disease. Prolonged survival with trifluridine/tipiracil occurred, irrespective of baseline patient and disease characteristics, including prior gastrectomy. Adding trifluridine/tipiracil to best supportive care did not adversely affect health-related quality of life. And when change in ECOG performance status was evaluated, the time to deterioration of patients' ability to care for themselves and to participate in daily activities was significantly delayed in trifluridine/tipiracil recipients. The most common adverse events with trifluridine/tipiracil were either haematological, such as neutropenia, anaemia, and leucopenia or gastrointestinal, including nausea, vomiting, and diarrhoea. These were generally manageable with dose modifications and supportive treatment. Altogether, the phase 3 TAGS trial results suggest that trifluridine/tipiracil is an effective and much-needed treatment option for patients with metastatic gastric cancer or gastroesophageal junction adenocarcinoma previously treated with at least two prior systemic therapies.