

LONSURF

(trifluridine/tipiracil)

RATIONALE FOR INCLUSION IN PA PROGRAM

Background

Lonsurf is a medication used to treat patients with metastatic colorectal cancer and metastatic gastric or gastroesophageal junction adenocarcinoma who are no longer responding to other therapies such as chemotherapy and biological therapy. Lonsurf is a combination of two drugs, trifluridine and tipiracil. Trifluridine works by imitating a component of DNA (genetic material in every cell) called thymidine, and permanently inhibiting an essential enzyme for DNA to work called thymidylate synthetase. By inhibiting this important enzyme, as well as incorporating itself into the DNA, trifluridine stops the DNA from working properly and the cell dies. Tipiracil, the second drug, works by stopping an enzyme called thymidine phosphorylase from breaking down the first drug, trifluridine, so that it can work better (1).

Regulatory Status

FDA-approved indications: Lonsurf is a combination of trifluridine, a nucleoside metabolic inhibitor, and tipiracil, a thymidine phosphorylase inhibitor, indicated for the treatment of adult patients with:

(1)

- Metastatic colorectal cancer as a single agent or in combination with bevacizumab who
 have been previously treated with fluoropyrimidine-, oxaliplatin- and irinotecan-based
 chemotherapy, an anti-VEGF biological therapy, and if RAS wild-type, an anti-EGFR
 therapy.
- 2. Metastatic gastric or gastroesophageal junction adenocarcinoma previously treated with at least two prior lines of chemotherapy that included a fluoropyrimidine, a platinum, either a taxane or irinotecan, and if appropriate, HER2/neu-targeted therapy.

Off-label use: (2)

 Metastatic colorectal cancer in combination with bevacizumab who have been previously treated with fluoropyrimidine-, oxaliplatin- and irinotecan-based chemotherapy, and an anti-EGFR therapy if RAS wild type left-sided tumor.

Lonsurf can cause severe and life-threatening myelosuppression. High rates of anemia, neutropenia, thrombocytopenia, and febrile neutropenia were observed. Due to this risk, complete blood counts need to be obtained prior to and on Day 15 of each cycle of Lonsurf. They may be done more frequently if clinically indicated. In the case of febrile neutropenia, absolute neutrophil



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count (ANC) less than 500/mm³, or platelets less than 50,000/mm³, withhold Lonsurf. When the patient recovers, Lonsurf may be resumed at a lower dose (1).

The safety and effectiveness of Lonsurf in pediatric patients have not been established (1).

Summary

Lonsurf is a combination medication used to treat patients with metastatic colorectal cancer and metastatic gastric or gastroesophageal junction adenocarcinoma that are no longer responding to other chemotherapy and biological therapy. Lonsurf works by interfering with DNA synthesis through various mechanisms. There are no adequate and well-controlled studies to document the safety and efficacy of Lonsurf in pediatric patients (1).

Prior authorization is required to ensure the safe, clinically appropriate, and cost-effective use of Lonsurf while maintaining optimal therapeutic outcomes.

References

- 1. Lonsurf [package insert]. Princeton, NJ: Taiho Oncology, Inc.; August 2023.
- 2. NCCN Drugs & Biologics Compendium® Trifluridine/Tipiracil 2024. National Comprehensive Cancer Network, Inc. Accessed on October 3, 2024.