## Management of patients with gastrointestinal stromal tumor in clinical practice in Italy: a critical "event tree model" analysis of decision-making processes and outcomes

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## ABSTRACT

Aims and background. Even though the standard treatment of patients affected by gastrointestinal stromal tumors has been well defined by clinical trials and clinical guidelines, in practice it may be different from those proposed in the literature. This paper reports and comments on a critical picture of the management of patients with gastrointestinal stromal tumors who received at least one treatment before arriving at our GIST Study Group.

**Methods and study design.** Attention was focused on 60 patients from various hospitals. Retrospective clinical data were recorded and analyzed with the "event tree" model, which describes the algorithm of all treatment options that each patient received before. Responses from first to fourth line of therapy, time to progression, and survival analysis were also analyzed.

**Results**. Starting from the diagnosis of disease, seven possible therapeutic event trees were identified: one for 7 unresectable patients and six different trees for 53 recurred patients who initially underwent surgery. The event trees describe the multitude of different treatments that patients with gastrointestinal stromal tumors received during the course of their disease.

**Conclusions.** In clinical practice, the treatment of patients affected by gastrointestinal stromal tumor is still difficult, and the published recommendations often do not cover all therapeutic decisions for all clinical presentations of disease. Multidisciplinary dedicated teams are needed to offer the possibility to receive appropriate surgery and innovative medical therapies. The formation of formalized GIST Units is in progress in several parts of Italy. The GIST Units can be organized in a network to facilitate discussion and agreement for the wide variety of clinical presentation. Free full text available at www.tumorionline.it Key words: event tree model, gastrointestinal stromal tumors (GISTs), surgery, tyrosine kinase inhibitors.

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