ABSTRACT

INTRODUCTION: Inconsistent use of colony stimulating factors (CSF) can add unnecessary cost to cancer treatments and adverse events to patients. We conducted an epidemiologic study to assess the correlation between CSF use and reimbursement rates recommended by the Brazilian Regulatory Agency of Health (ANS) and technical recommendations established by the international guidelines. We also analyzed the main reasons for not recommending the use of CSF, in patients during chemotherapy.

METHODS: Data on patients treated with CSF during 2014 was retrieved from the Kantar Health database of administrative claims, which comprises more than 4 million people and 46 Private Health Insurance Companies (PHCs) in Brazil. Demographic assessment, types of cancer, number of patients, treatment purpose, technical recommendation, ANS recommendation, reasons for not recommending and class of requested CSF were assessed.

RESULTS: We retrieved 440 CSF requests corresponding to 322 patients. 188 requests were recommended both by technical and by ANS. 115 (32%) CSF use was not recommended by either guidelines or ANS and only 30 claims were in discordance, as CSF use was recommended by guidelines but not by ANS. Reasons for technical non-recommendation were: requests for primary prophylaxis on chemotherapy regimens with risk of febrile neutropenia below 20% and neutropenia complications (35%), secondary prophylaxis in palliative care setting (30%) or request based on complete blood count (CBC) collected at the route of chemotherapy.

CONCLUSIONS: Administrative recommendations from ANS are in close agreement with the scientific literature. Nevertheless, despite clear international guidelines and ANS recommendations, only 32% of CSF requests were in agreement with technical guidelines. We also observed that there is a high rate of agreement between the regulatory recommendations (ANS) and the scientific literature (medical and bibliographic resources).

METHODOLOGY

This is a cross-sectional study.

RESULTS

General Aspects

In the aforementioned period, 440 requests for CSF corresponding to 322 patients were input in the Kantar Health database. Some patients had only one request for re-administration, while others had several requisitions.

Origin

Regarding requests according to geographical region, there were: 141 from the South, 205 (Southwest), 26 (Central-West), 68 (Northeast) and none from the North Region (see Figure 3).

Tumor Types

As for tumor types, CSF was requested mainly for breast cancer (104 requests), Non-Hodgkin’s Lymphoma (95), Esophageal/Gastric Tumors (93), Leukemias (92) and Myeloid/Sarcoid/Myeoma (41). CSF was also less requested for patients diagnosed with: gynecological tumors (28 requests), Hodgkin's lymphoma (25), Colon Cancer (19) and Ewing’s Sarcoma (14). Forty-four requests were distributed among other types of cancer (see Table 1 and Figure 3).

Purpose of Chemotherapy

Regarding the purpose of chemotherapy treatments in which CSF were added: 104 were for Adjuvant, 111 for Neoadjuvant, 141 for Palliative, 32 for Bone marrow transplantation, 0 for inconsistent treatment and 1 for Neutropenia in Palliative Care. Treatment of Cancer (EORTC)3, and the National Comprehensive Cancer Network (NCCN)4 is doing standardized the use of these medications, through Normative Resolution (RN) number 349. The goal of the present study was to evaluate the patterns of CSF use in the Private Healthcare System (PHS) in Brazil.

TREATMENT PURPOSE

- Technical recommendation: if the treatment was supported by international guidelines
- ANS recommendation: if the CSF indication was supported by the Regulatory Agency
- Reasons for not recommending the treatment
- Class of CSF requested

CONCLUSION

For the 2010 update of EORTC guidelines for the use of granulocyte-colony stimulating factor to reduce the incidence of chemotherapy-induced neutropenia (ANC), Thomas J. Smith et al. JCO July 1, 2006:3187-3205; published online on May 8, 2006.

TREATMENT PURPOSE

- Risk of Neutropenia > 20%
- Risk of Neutropenia = 10-20%
- Risk of Neutropenia = 0-10%
- Risk of Neutropenia ≤ 0%
- CSF for Inconsistent use to collect CBC in the course of chemotherapy
- Lack of knowledge on which chemotherapy regimens need primary prophylaxis
- Tendency to use CSF as first measure of treatment in patients on palliative therapy
- Uncertainty about the correct level of neutrophils that justify a request for CSF
- CSF for Neutropenia in Palliative Care

TREATMENT PURPOSE

- Neoadjuvant
- Adjuvant
- Palliative
- Radiosurgery
- Bone marrow transplantation

REFERENCE


