

RESEARCH ARTICLE

Unscheduled Consultation in Patients with Digestive Cancer

Matilde Bolaños Naranjo*, Victoria Aviñó Tarazona, Francisco Javier Jiménez Ruiz, Juan Bayo Calero

Medical Oncology Service, Hospital Juan Ramón Jiménez, Huelva, Spain

Abstract: Background: The demand for unplanned care in cancer patients is very common and leads to the interruption and delay of planned activities. We described the incidence of unscheduled consultations in patients with digestive cancer in our hospital. **Method:** Descriptive, prospective and non-interventional studies were carried out. Unscheduled visits attended in the medical oncology consultation for digestive cancer in the Juan Ramón Jiménez were collected chronologically within 6 months (from May 15th to December 14th, 2017). We used the statistical program G-STAT v.2.0 for descriptive analysis of the collected variables. **Results:** Patients with colon or rectal cancer had the most visits (68.63%), followed by pancreatic cancer (9.15%) and gastric cancer (5.23%). Most patients had metastatic or advanced cancer (59.87%), and received palliative or symptomatic treatment (58.82%). The most common reason for consultation was clinical symptoms (47.05%), followed by information needs (18.30%). **Conclusion:** Patients with digestive cancer have a high demand for unscheduled consultations, which interferes with scheduled consultations and problems are not always satisfactorily addressed. Several measures were suggested in this article to reduce the number of such consultations.

Keywords: Gastrointestinal neoplasms, Unscheduled consultation, Advanced cancer, Clinical tumor, Oncological emergency

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***CORRESPONDING AUTHOR**
Matilde Bolaños Naranjo
E-mail: mabolna@yahoo.es

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1. Introduction

The demand of cancer patients for unscheduled consultations is very common at different stages of disease development^[1,2]. These on-demand queries can lead to changes and delays in scheduled queries, and their responses are not always satisfactory. Some publications analyze the reasons and characteristics of these assistance requests and show that the reasons for consultation vary widely, and a large part of them do not belong to real cancer emergencies^[2-6].

The disease development of cancer patients is often unpredictable, and unexpected symptoms will appear at all stages. Coupled with the psychological impact of this diagnosis, cancer service institutions often carry out irregular consultation. The human and time resources consumed by such activities are considerable. Moreover, problems are not always satisfactorily addressed. It is important to analyze which patients consult most often and the reasons for these consultations, so as to find solutions for the most common needs and propose care models for these patients.

2. Materials and methods

We conducted a prospective, uncontrolled, non-interventional, and non-comparative analysis of variables.

We believe that unscheduled consultations refer to those from patients who have been treated in oncology consultations but have not made an appointment. Consultations were arranged in chronological order and in Excel 2017. In addition, the medical history, date and reason of visit were also recorded. These patients were treated for six months from May 15th to December 14th, 2017 at Hospital Juan Ramón Jiménez, which serves about 460,000 residents. Once the consultation collection period was ended, the demographic and clinical data collection required to complete the database was completed.

The variables collected in each unscheduled consultation (analysis unit) include:

1) Demographic data of patients: age, gender, resident population

2) Pathological characteristics of tumor: tumor type, stage according to the classification of the TNM 8th edition^[7]

3) Treatment status of patients: follow-up, chemotherapy and intention of chemotherapy, or patients receiving symptomatic treatment only

4) Reason for consultation: for clinical reasons related or not to tumor, to obtain information, to obtain drug prescriptions or medical tests, for lack of oral chemotherapy, or to change or request an appointment in consultation

5) Resolution: whether the reason for the consultation is completely or partially resolved, and describing whether the patient is referred to other services, emergency room or hospitalization.

After collecting the data, we made a descriptive analysis of the collected variables, including the frequency of each research project and their percentage with respect to the total frequency after including the data in the Microsoft® office Excel 2017 database and using the statistical program G-STAT v.2.0.

Ethical aspects. The data obtained are in conformity with the Organic Law 15/1999, of December 13th, on the protection of personal data^[8]. The professionals involved in this study ensure that the procedures and actions resulting from the implementation of these studies are consistent with the ethical premises and framework set out in existing legislation and the Helsinki Declaration and the Standards of Good Clinical Practice.

3. Result

During the study period, 123 patients sought care, corresponding to 153 unscheduled consultations, as 16 patients consulted on more than one occasion. The total number of consultations of patients with digestive cancer during this period was 2,353. As a result, unscheduled consultations accounted for 6.50% of the activities involved.

The following is a descriptive analysis of the different demographic and clinical variables collected:

Age and gender. Men accounted for 46.41% and women 53.59%. The mean age of 123 patients was 65.36 years, and the standard deviation was 11.25 years.

Place of residence. 57 patients (46.34%) lived in Huelva, 28 patients (22.76%) lived within 20 kilometers from the capital, and 38 patients (30.89%) lived more than 20 kilometers.

Tumor type. Among the patients examined, the most frequent tumor location was the colon with 85 times (55.56% of the total), followed by rectal tumors with 20 times (13.07%), pancreatic tumors with 14 times (9.15%) and gastric tumors with 8 times (5.23%). Other digestive diseases (16.99%) (esophagus, GIST, neural stem cell tumor, hepatocarcinoma, cholangiocarcinoma, anal canal, unknown origin), accounted for less than 5% of consultations respectively. There was also one consultation from a patient with breast cancer, which is not included in the figure (**Figure 1**).

Stage (**Figure 2**). Tumor staging is in line with the newly released guidelines of TMN in the 8th edition^[7], and the stage IV of resection is added as it is not uncommon in colorectal cancer and has an important impact on prognosis and management. The largest number of consultations with 86 (56.58%) corresponded to stage IV patients, followed by stage III with 43 consultations (28.29%), stage II with 9 consultations (5.92%), resected stage IV with 6 consultations (3.95%), advanced non-metastatic with 5 consultations (3.29%) and stage I with 3 consultations (1.97%).

Type of treatment. 90 cases (58.82%) received palliative treatment, 28 cases (18.30%) were followed up, 34 cases (22.22%) received adjuvant or neoadjuvant chemotherapy, and 1 case (0.65%) had treatment intention.

Reasons for consultation (**Figure 3**). The most frequent reason for consultations was clinical manifestations related or unrelated to tumor: 72 in total (47.05%), among which 47 (30.72%) unrelated to tumor treatment, and 25 (16.34%) due to therapeutic toxicity. The second most frequent reason was the demand for information 29 (18.30%). In third place were 28 (18.15%) for citations. Less frequently, there were 13 (8.50%) that requested for prescription drugs and 11 (7.19%) lacked oral chemotherapy to complete prescription treatment.

We noted that the largest advisory group was for clinical reasons, with a total of 72 participants (**Table 1**). In this group, the most common is 47 consultations, which has nothing to do with tumor treatment. In this group, the most common reason was the lack of analgesic control (11 consultations accounted for 23.40%), of which 9 were solved by adjusting or prescribing new drugs, although two consultations needed further intervention within a few days. The second reason was tumor bleeding, a total of 7 visits (14.89%). Among them, 4 cases were referred to the emergency department of our hospital due to large amount of bleeding and risk, and 3 cases needed hospitalization.

The third common cause was the deterioration of the overall condition, so they consulted 5 patients (10.63%), of which 3 patients were referred to the palliative care room for evaluation. One patient needed to be hospitalized for symptom control, and the other patient underwent outpatient treatment after adjusting family treatment. All five patients had advanced tumors and died within 3 months. Of the same number of consultations, 5 (10.63%) were due to possible symptoms of intestinal obstruction, 4 were metastatic colon cancer and 1 was pancreatic cancer with peritoneal cancer. Four of the patients were treated in the emergency room. The next cause was fever, 4 cases

(8.59%), of which 3 cases were referred to the emergency room because chemotherapy may be secondary to neutropenia. Two of the patients developed febrile neutropenia and were hospitalized for hospital antibiotic treatment. Two patients (4.25%) had diarrhea unrelated to chemotherapy. One of them needs a second consultation. Two patients were treated at the infectious clinic without fever, and one patient was hospitalized due to hospital pneumonia. The remaining time of 11 visits in each clinic (23.40%) was caused by various reasons, and there was no need to enter the emergency room or consult.

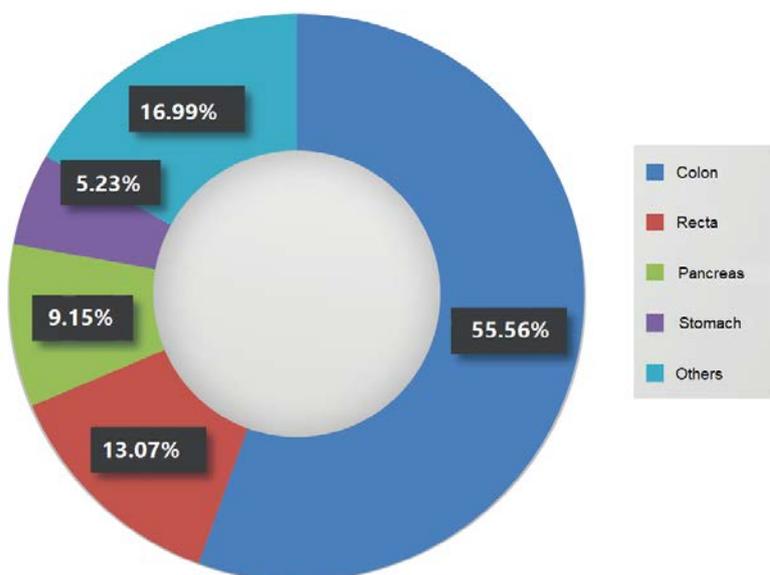


Figure 1. Treatment types of digestive tumor.

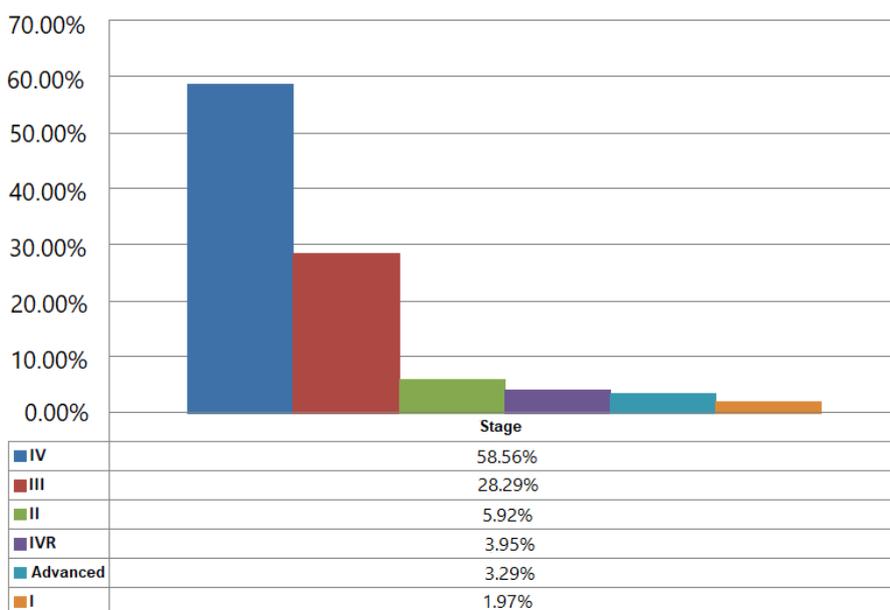


Figure 2. Staging of patients who consulted.

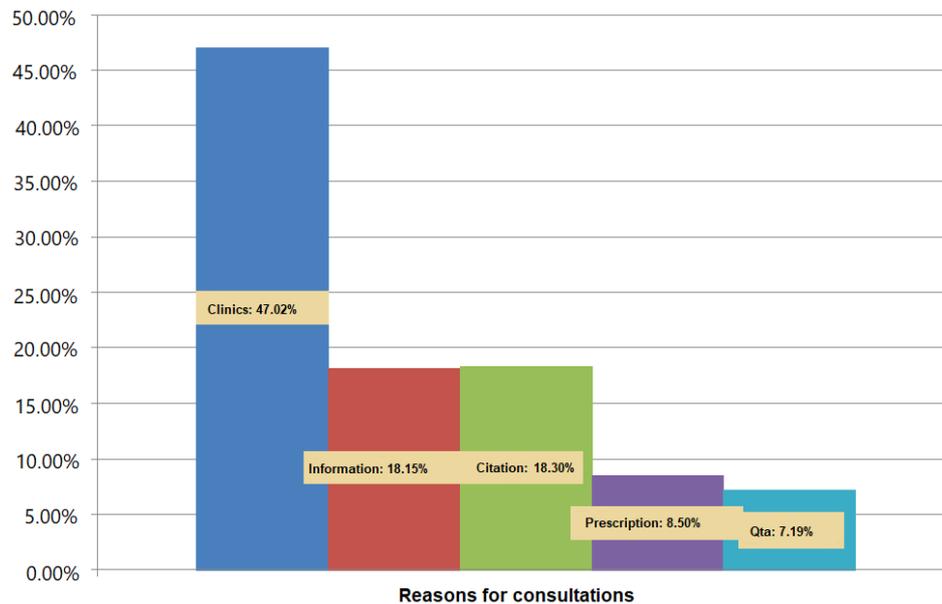


Figure 3. Reasons for consultations.

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five patients had advanced tumors and died within 3 months. Of the same number of consultations, 5 (10.63%) were due to possible symptoms of intestinal obstruction, 4 were metastatic colon cancer and 1 was pancreatic cancer with peritoneal cancer. Four of the patients were treated in the emergency room. The next cause was fever, 4 cases (8.59%), of which 3 cases were referred to the emergency room because chemotherapy may be secondary to neutropenia. Two of the patients developed febrile neutropenia and were hospitalized for hospital antibiotic treatment. Two patients (4.25%) had diarrhea unrelated to chemotherapy. One of them needs a second consultation. Two patients were treated at the infectious clinic without fever, and one patient was hospitalized due to hospital pneumonia. The remaining time of 11 visits in each clinic (23.40%) was caused by various reasons, and there was no need to enter the emergency room or consult.

Table 1. Causes and solutions of unscheduled cancer outpatient consultation (n = 47)

Reasons for consultation	Number of consultations	Number of resolution in consultation
Painful	11	11
Hemorrhage	7	4
Deterioration	5	4
Obstacle	5	1
Have a fever	4	1
Diarrhea	2	1
Infected	2	1
Other	11	11

Consultations based on cancer treatment toxicity were common (16.34%) (**Figure 4**), with 25 consultations in total. Toxicity was assessed and managed according to SEOM recommendations^[9]. The most common toxicity

was diarrhea with 9 consultations, followed by palmar-plantar erythrodysesthesia with 5 consultations. Other consultations considered to be due to therapeutic toxicity include nausea (3), acute neurotoxicity (2), mucositis (2),

fatigue (2), abdominal pain (1), and fever (1).

The demand for information accounts for 18.30% of all queries. The type of information requested is mainly related to the evolution of its tumor process, but some people have clarified the management of tumor treatment and potential side effects.

13 (8.50%) consultations for prescription refer to those made by patients requiring complementary medication (not chemotherapy), as well as those in which a laboratory or imaging examination was requested or which required the prescription of orthopaedic materials.

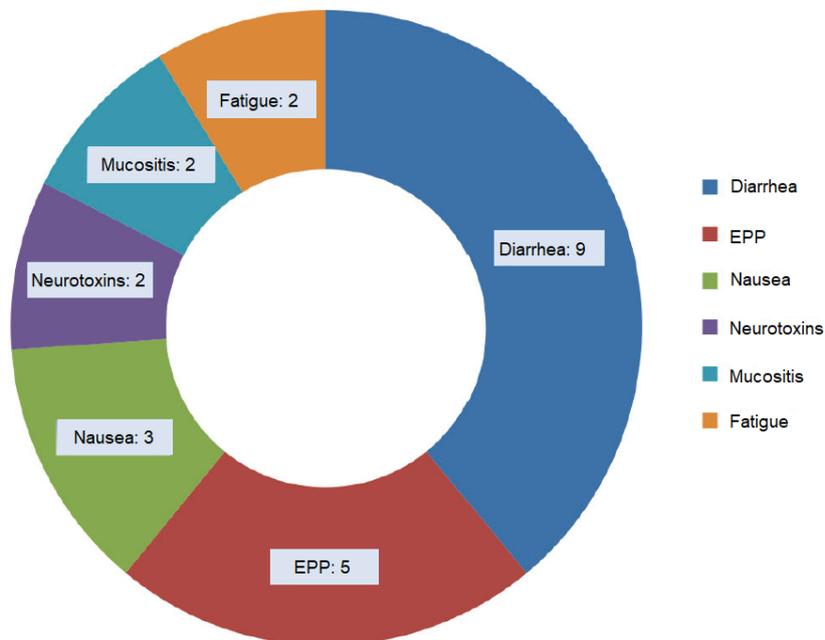


Figure 4. Types of toxicity causing consultation.

We found that 11 patients (7.19%) were treated for lack of oral chemotherapy to complete the treatment.

Resolution. In 88.89 % of cases (136 cases) an adequate response was given to the demand for assistance. 9 cases (5.88%) had partial remission, with 4 patients being sent to the palliative care support room and 2 to surgery and 1 to gynecology. Eight cases (5.23%) remained unresolved. During the 6-month follow-up period, 22 consulting patients died.

With regard to recidivism counseling, 16 of the 123 patients consulted more than once, 10 of them twice and 6 more than twice, range 2–7.

4. Discussion

The literature on the subject of unscheduled consultations in oncology is scarce. Most publications provide a comprehensive analysis of counseling for cancer patients without limiting to any tumor type^[1-5,10,11], with some exceptions^[12]. However, we do not believe that the basic reasons for counseling vary greatly between different types of tumor pathology, although it is foreseeable that the clinical symptoms of this disease will vary.

One limitation of this study is that no control group received regular consultation, so we cannot compare and analyze with the whole consultation patients. However,

the purpose of the study is to understand the reasons for consultation and its possible solutions. Given the resource consumption of these consultations and the interference with the scheduled consultations, it is important that the solution should focus on the different aspects of the patient’s need for assistance. It is worth noting that almost a quarter of patients consulted on applications, advance appointments and delayed appointments for administrative reasons. These requests, advance appointments and delayed appointments do not require the intervention of doctors to a large extent, as they are regarded as administrative tasks.

The most common consultation is conducted by patients with colon or rectal cancer. We think this is due to the high prevalence of this tumor in the digestive tract. According to the 2017 SEOM report on cancer figures in Spain^[13], it is estimated that 440 people per 100,000 residents have colorectal cancer in five years, which is the third largest cancer in both sexes after prostate and breast cancer^[13]. Secondly, they consulted patients with pancreatic cancer. Although the incidence and prevalence of pancreatic cancer are much lower, it is an aggressive and rapidly developing tumor with subacute symptoms.

We were not surprised by the higher number of consultations in patients with metastases or advanced tumors, as these tumors produce more clinical

complications and are more difficult to control. Similarly, it can be expected that patients with the most consultations will receive palliative treatment, including chemotherapy or symptomatic treatment only.

Consultations for symptomatology, whether or not related to the tumor, were the most frequent, which coincides with the experiences of other cancer centers^[1,5,11,14]. The symptoms of 25 cases (16.34%) were secondary to the toxicity of tumor treatment. Cancer patients often seek unplanned care in situations they perceive as urgent. They often encounter problems of disease and treatment effect at home, and do not know whether their symptoms will lead to serious complications. Although it is not uncommon for these symptoms to require medical intervention to resolve, educational intervention for patients helps to distinguish between real emergencies and mild clinical symptoms that patients themselves can treat appropriately at home.

In the literature, the most common symptom is tumor pain^[2], followed by tumor bleeding, as this is common in gastrointestinal tumors. The lack of drugs to complete oral chemotherapy is not uncommon as many gastrointestinal tumors are treated orally and treatment is usually prescribed according to the expected date. In many cases, changes in appointments can result in patients not having enough drugs to complete on time. This does not seem to be an important issue, but it is correct to rule out the confusion of patients with poor compliance, drug loss or polycondensation. We found that 18.30% of unscheduled queries involve the need for information. It must be noted that under the influence of strong emotions, such as cancer diagnosis, chemotherapy or poor disease progression, the ability to absorb information is limited. In addition, the time available for this task is limited.

In order to minimize such consultations, some interventions can be implemented. These recommendations are mutually reinforcing, and all of them should be implemented:

Patient education. It is important to spend enough time on training patients at the first visit to understand the most common side effects that may occur and which of these toxicities can be handled by the same patient at home, depending on the condition, the type of treatment expected or whether the patient is receiving chemotherapy, when they should consult their primary care physician and when they should suspect a severe complication and should go to a hospital emergency department without delay. The information should be clear, suitable for the patient's situation, and supplemented in writing.

Telephone consultation. Since many consultations involve questions about how to carry out certain treatment and the importance of certain symptoms or signs, we believe that many problems can be solved by telephone consultation.

Specialist nursing consultation. It already operates in

many services, including ours, although its functions still need to be strengthened. Staff should receive knowledge training on the prevention and control of symptoms and signs of chemotherapy patients. The interview will emphasize the information provided by doctors on the care of actively treated patients, how to identify and respond to the main toxicity of treatment, and recommend appropriately health and dietary measures according to the situations of patients.

Participation in primary health care. We believe that it is essential that each patient's primary care doctor has a broad understanding of their cancer process, has access to complete hospital medical records and is involved in the patient's care. An important step is to have students in these elective courses received appropriate oncology training and offer supplementary courses in this field. Furthermore, it is essential that there is good communication between doctors and that priority attention is given to oncology patients when their doctor considers it appropriate. Therefore, primary care doctors can provide first-time care to cancer patients in need of care without requiring patients to go to the hospital.

Improve emergency services. This may be a common situation in our setting^[10,15-18]. We find that patients are very reluctant to go to the hospital emergency room because they believe that there are great delays in the nursing of these units in the interview with doctors, further research and discharge or hospitalization time. It is particularly inconvenient for patients to have a disease that, in many cases, weakens and limits their activities. In our center, a fast track is providing care to cancer patients who are receiving priority care in the emergency room. It is desirable to reduce the waiting time for initial care, result collection, and discharge or admission. This can be achieved not only by increasing the resources of hospital facilities, but also by providing good health education for patients, regardless of their pathology and health status, so that they can make rational use of services, attending their health center as a priority if the clinical situation is not serious or is not really urgent.

Work closely with palliative care support units. Palliative nursing support for patients with advanced cancer studies have shown that at the beginning of the diagnosis of advanced diseases, patients and their families have better symptom control and higher satisfaction when entering the palliative treatment program^[15,19]. For patients with poor short-term development and evidence of disease progression, consultations with palliative care units should not be delayed. Communication between these units and cancer services should be fluid with regular clinical meetings^[19-21].

All cancer services should have a special clinic to take care of patients without appointment. Although this would initially require an investment, it can be recovered in a short time to avoid one of the reasons for the overload of

scheduled consultation and emergency services. This consultation can be provided by nurses and oncologists with the longest possible opening hours.

The conclusion is that unplanned consultations of patients with gastrointestinal cancer are more frequent than expected, which leads to interference with planned consultations and does not always get sufficient and satisfactory solutions. Most consultations are for secondary clinical reasons rather than the treatment received.

We can take various measures to reduce the number of these consultations, or adjust them within the outpatient care framework of primary care and emergency department, so as to minimize these consultations, improve patient satisfaction and safety, and improve the work quality of doctors involved in the care process of cancer patients.

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