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# Opinaudit study: clinical uses in breakthrough pain, is scientific evidence being followed up?

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# ABSTRACT

Introduction: Breakthrough pain (BTP) in cancer is a common, little-known and poorly-treated health problem, despite the progress made in its treatment. Guidelines have been recently published by Scientific Societies involved in its management in order to improve diagnosis and treatment.

*Objectives:* To know professionals' level of understanding and accordance with Scientific Societies' recommendations, self-awareness in follow-up and real follow-up by doctors in their outpatient clinics.

Materials and methods: A descriptive study from professionals' opinions, which were recorded using an electronic survey at two sequential times. A self-audit of clinical habits was carried out between them. Professionals evaluated the level of accordance and the application of 12 recommendations from the guidelines in five BTP cancer patients their outpatient clinics.

*Results*: A total of 202 physicians working at national pain and palliative care units participated in the study. The mean professional experience was 11.9 years. Mean age was 47.9 years and 45% were women. A total of 86.6% of the physicians were aware about the recommendations' report. Recommendations with a lower level of accordance or considered less followed-up by professionals were: 1. Recommendation about the patient's follow-up during medication titration process: 78.7% and 18.3% of those surveyed were totally or partially in accordance with it, respectively; whereas 59.4% always implemented it. 2. Recommendation about prevention of opioid side effects from the start of treatment: 56.4% and 18.8%

After clinical records self-audit, recommendations regarding patients' follow-up and prevention of side effects were not implemented between 15 and 20% of the times, in line with previous perceptions from specialists. However, recommendation about the use of opioids for baseline pain showed a lower non-compliance (7%) than perceived (33.2%).

*Conclusions:* Professionals from Pain Units and Palliative Care Units have a realistic and accurate perception of the quality of their job in patients with breakthrough pain as well as areas for improvement in their daily work regarding follow-up and application of recommendations based on scientific evidence.

**Key words:** Breakthrough pain, recommendations, survey, quality health care, variability.

## RESUMEN

Introducción: El dolor irruptivo oncológico (DIO) es un problema de salud frecuente, mal conocido e incorrectamente tratado a pesar de los avances en su tratamiento. Las sociedades científicas implicadas en su manejo han publicado recientemente recomendaciones para la optimización de su diagnóstico y tratamiento.

Objetivos: Conocer el grado de conocimiento y de acuerdo de los profesionales con las recomendaciones de las sociedades científicas, la autopercepción del seguimiento de las mismas por los médicos y su seguimiento real en la clínica.

Material y métodos: Estudio descriptivo de las opiniones de los profesionales, recogidas en un cuestionario electrónico

of those surveyed were totally or partially in accordance with it, whereas 66.3% always implemented it. 3. Recommendation about the need for the patient to receive opioids for baseline pain: 76.7% and 35.6% of those surveyed physicians were totally or partially in accordance, respectively; whereas 66.8% always implemented it.

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en dos momentos secuenciales entre los que intermedió una autovaloración (self-audit) de hábitos clínicos. Los profesionales evaluaron el grado de acuerdo y la aplicación de 12 recomendaciones de las guías en cinco pacientes con DIO en seguimiento en consulta.

*Resultados:* En el estudio participaron 202 médicos de unidades del dolor y cuidados paliativos de ámbito nacional con una media de 11,9 años de experiencia laboral. La edad media fue 47,9 años y el 45 % fueron mujeres. El 86,6 % conocía el documento de recomendaciones.

Las recomendaciones que alcanzaban menor grado de acuerdo o se percibían como menos aplicadas por los profesionales fueron: 1. La recomendación relacionada con el seguimiento del paciente durante la titulación del tratamiento: el 78,7 % y el 18,3 % de los encuestados mostraron un acuerdo pleno o parcial con la misma y el 59,4 % la aplicaba casi siempre. 2. La recomendación sobre la prevención de efectos secundarios del tratamiento con opioides desde el inicio: el 76,7 % y el 18,8 % mostraron acuerdo pleno o parcial, el 66,3 % la aplicaba casi siempre. 3. La recomendación sobre la necesidad de que el paciente esté recibiendo opioides para el tratamiento del dolor basal: el 56,4 % y el 35,6 % mostraron acuerdo pleno o parcial, el 66,8 % la aplicaba casi siempre.

Tras el self-audit de historias clínicas, las recomendaciones sobre el seguimiento de los pacientes y la prevención de efectos secundarios no se aplicaban en el 15 y 20 % de las ocasiones, en línea con las percepciones previas de los especialistas. Sin embargo, la recomendación sobre la utilización previa de opioides para el dolor basal reveló un incumplimiento menor (7 %) al percibido (33,2 %).

*Conclusiones:* Los profesionales de Unidades del Dolor y de Unidades de Cuidados Paliativos tienen una percepción realista y precisa de la calidad de su trabajo en los pacientes con dolor irruptivo, así como de los aspectos mejorables de su práctica clínica diaria en relación con el seguimiento y la aplicación de las recomendaciones basadas en la evidencia científica.

**Palabras clave:** Dolor irruptivo, recomendaciones, encuesta, calidad asistencial, variabilidad.

# **INTRODUCTION**

Breakthrough cancer pain (BTcP) is defined as an acute worsening of pain that appears rapidly, has a short duration and moderate to high intensity that patients with cancer suffer when they present a stabilized baseline pain, controlled with opioids. BTcP is a frequent problem in cancer patients and is associated with significant morbidity (1). Data regarding prevalence is inaccurate because a definitive consensus has not been reached as to its definition, but some studies estimate that it may be present between 23% and 93% of cancer patients (2). Despite its high prevalence and the major advances made in its treatment, BTcP is still a poorly-known clinical problem, under-researched and frequently treated incorrectly (1).

In order to alleviate possible lacks in managing BTcP, in 2013 significant representatives of the Sociedad Española de Cuidados Paliativos (Spanish Palliative Care Society -SECPAL), the Sociedad Española del Dolor (Spanish Pain Society - SED), the Sociedad Española de Oncología Médica (Spanish Society of Medical Oncology - SEOM) and the Sociedad Española de Oncología Radioterápica (Spanish Society of Radiotherapeutic Oncology SEOR) published a document of multi-professional recommendations which offered a consensus on the definition of BTcP and gave recommendations to optimize its diagnosis and treatment (1).

The level of accordance and follow-up with these recommendations in actual clinical practice by the specialist doctors that work in pain units (PU) and in palliative care units (PCU) has not been researched in depth. The objective of this study has been to find out the level of knowledge and of accordance of the professionals involved in managing BTcP with the recommendations of the Scientific Societies (SS). Furthermore, it has evaluated the perception that physicians have of the made of therm in clinical practice. Accordingly, opinions of the professionals were gathered by means of two surveys. By filling out the two questionnaires, each doctor made a self-assessment of clinical habits (self-audit) which evaluated their own patients BTcP, whether the agreed recommendations appear in the guidelines for managing BTcP had been followed.

#### MATERIAL AND METHODS

An observational analytical study was carried out between April and December 2016. The opinions of professionals were collected at two sequential times, between which there was a personal experience of retrospective selfassessment of prior clinical habits in their clinical practice (self-audit) (Figure 1).

Before starting the field period, the promoter presented the study protocol, together with all working material that the investigators used, to the Ethics Investigation Committee of Santiago-Lugo for evaluation, and its resolution was favorable.



Fig. 1. Esquema del estudio.

#### **Study population**

We recruited physicians who worked managing patients with BTcP in PU and in CPU distributed proportionally in the different autonomous communities. The professionals undertook to analyze the information regarding 5 of their patients with BTcP by reviewing the clinical records (CR) of the last 5 patients attended personally in their clinic who met the study's criteria for eligibility. They analyzed the follow-up of 12 of the consensus recommendations of the guidelines for the management of BTcP as promoted by the SS (1).

#### Study sample

Information on the CR of 905 patients was gathered to guarantee sufficient accuracy in the descriptive estimates of the study's core results (percentage of patients with appropriate follow-up of expert recommendations). This sample size let us estimate the categorical dichotomous results with a maximum error of  $\pm 3.3\%$ , for a level of confidence of 95% and with the most unfavorable result (p=q=0.5) representing a binomial distribution. The number of CRs ensures the accuracy of the results even if they are broken down and analyzed for specific factors of interest such as specialty, geographical area or others.

The criteria to consider an auditable CR were: CR of patients diagnosed and attended for episodes of BTcP and verified in clinical registrations of morbidity of the service and CR of patients in habitual clinical follow-up by the professional who has authorized access to that registration. Possible cases of recruited patients were excluded for follow-up in a clinical trial related with their condition of pain or cancer in the last year.

The investigators selected the CR of the last 5 patients attended for BTcP prior to the starting date of the study.

# **Project implementation**

The study was carried out by means of two descriptive opinion questionnaires, arranged by structured electronic questionnaires and self-administered. In the period between the two questionnaires, each participant carried out, confidentially and according to their strict personal knowledge, a self-audit of their habitual practice (Figure 1). Analysis of information was retrospective (chart-review), that is, available in the CR but generated prior to starting the study. The final questionnaire (descriptive opinion of their real practice) was carried out upon concluding the self-audit. The initial and final questionnaires gathered personal opinions from the professional and/or self-assessment descriptions of their clinical habits. No data was recorded or analyzed related with the patients' identity.

## Study instrumentation

The initial questionnaire consisted of an anonymous, confidential way of collecting the personal and subjective perception of professionals related with the level of followup (knowledge, acceptance and application) from a list of 12 recommendations of good practices on managing BTcP, selected from the agreed recommendations by the SS (1) (Table I). Subsequently, a limited time period was established, where participants were invited to take part in a systematic review of the level of these recommendations' implementation as from data recorded in the CR of their patients. Physicians noted the level of adherence to the recommendations in the CR of cases analyzed. Physicians were offered a reminder (check-list) with a summary of the main recommendations from the expert reference agreement to standardize and optimize rigor in the review of clinical records. Lastly, a final form was distributed to evaluate, as a group, the results of the self-audit anonymously and confidentially. The form recorded opinions on the level of real implementation of the recommendations.

The study was carried out in accordance with the ethical requirements of the declaration of Helsinki, Scotland review (October 2000) for medical research involving human subjects. Although the project only gathers professional opinions and trial, it was submitted to approval by an Ethics Committee of Independent Clinical Investigation (Comité Ético de Investigación de Santiago-Lugo) in accordance with the international standards relating to carrying out epidemiological studies laid down in the International Guidelines for Ethical Review of Epidemiological Studies and the recommendations of the Spanish Epidemiology Society (SEE) regarding ethical aspects of epidemiological investigation.

## Study variables

The variables of the first questionnaire determined knowledge of each of the 12 recommendations, the level of compliance with them and their frequency of implementation in common practice. For the level of compliance, a 5-point Likert scale was used from "1: full non-compliance" to "5: full compliance". Frequency of implementation was quantified in four intervals, ">75%", 75-50%", "49-25%" and "<25%". The final questionnaire recorded the clinical profile of the 5 cases of BTcP (etiology, physiopathology, trigger, rate of establishment, frequency, duration and intensity) and a summarized judgment by the professional of the implementation of each of the 12 recommendations.

		DEED IED NECOMMENDATIONS TO EVELONED I CI (TANEN I NOM ESCODAN AND COES.).
No of recommendation	Aspects included in the recommendation	Recommendation
_	Content of the case history to assess BTcP	It is recommended to include at least the following information: number of episodes, pathophysiological variety (nociceptive, neuropathic or mixed), features of the pain (time of onset, duration, intensity, frequency, location and irradation), precipitating and relieving factors, drugs used up to that moment. Assessments should be always performed before treatment begins and after it at frequent intervals until reaching an adecuate pain management
2	Differential diagnosis of BTcP. Use of Davies' algorithm	The initial case history of the patient should include a differential diagnosis of the pain using Davies' algorithm in order to establish if the patient presents or not BTcP
3	Specific treatment for BTcP	The analgesic treatment of BTcP is specific and it does not replace the baseline pain treatment. Opioids should be prescribed for BTcP as an adjuvant therapy with opoids used to control baseline pain
4	Comprehensive BTcP treatment	Treatment of BTcP patient should be comprehensive, comprising prevention and analgesic therapy (opioids) and co-analgesics (antiepileptic drugs and/or antidepressant drugs), both pharmacological and non-pharmacological measures. The co-analgesics can contribute to pain management and decrease the dose of opioids
5	Prevention of side effects of the treatment	The analgesic treatment of BTcP with opioids should be accompained, from the beginning, by a treatment for the prevention of their side effects (nausea, vomiting and constipation). If their prevention is not possible, the aim of the therapy should minimize these side effects
6	Prior use of opioids for baseline pain	Major opioids are the recommended treatment for BTcP. However, it is mandatory that the patient is using opioids for the treatment of baseline pain (tolerance)
L	Use of fentanil, regardless of the background analgesic drug	Due to a high analgesic potency and high lipophilicity of fentanil, this active substance is the one that best fits the analgesic needs of the BTP, regardless the major opioid used for the control of baseline pain
∞	Selection of drug dosage form/route of administration of IRO as drugs of choice	IRO are the choice drugs for the treatment of BTcP because of their pharmacokinetic features and because of their rapid action onset, in particular in idiopathic or spontaneous pain. The choice of the drug dosage form or route of administration (oral, sublingual or nasal) would depend mainly on the clinical status and preferences of the patient
6	Dose titration of CRO	The dose of the drug used for BTcP should be always titrated, similarly to the titration carried out for the baseline pain. This is explained by the lack of equivalence between doses of CRO and IRO. Starting with the lowest possible dose of the drug is recommended, then scaling the dose at scheduled intervals until finding the minimum effective dose
		(Continue in the next page)

	SELECTED RECOMMEND,	SELECTED RECOMMENDATIONS TO EVALUATE BTCP (TAKEN FROM ESCOBAR AND COLS.).
No of recommendation	Aspects included in the recommendation	Recommendation
10	Patient follow-up	Pain is a changing and evolving symptom. Therefore, its treatment should be dinamic. A patient fol-low-up is required during the stage of titration, its objective is to assess the effectiveness and tolerance of the analgesic treatment, as well as to know any change in the nature of the BTcP. A first evaluation prior to the first 72 hours from the beginning of the treatment is recommended. If required, the dose should be modified until achieving an appropriate pain management. It is advisable that the patient note on his/her prescription sheet (both inpatient and outpatient) the dose, interval and maximum number of the administered drug daily doses
11	Health education of patient/family on pain and its management	Part of the success of the BTcP treatment is based on the health education of patient and his/her close environment about the pain and its management. This education improves the therapeutic compliance and minimizes or prevents potential side effects. The specialist should highlight the significance of the early administration of the treatment during the episode
12	Recording the therapeutic strategy in the clinical record	The therapeutic strategy of BTcP (including co-analgesia, radiotherapy, rehabilitation, etc.) should be included in the clinical record and in the patient report
BTcP: breakthrough	BTcP: breakthrough cancer pain. IRO: immediate-release opioids. CRO: controlled-release opioids.	CRO: controlled-release opioids.

TABLE I (CONT.

#### **Statistical analysis**

Description of quantitative variables was performed using centralization and dispersion measures (mean and standard deviation). The median was used as estimate and position indicators (quartiles and inter-quartiles) were used in cases of wide or atypical data dispersion. Qualitative variables were described using relative frequencies (%) and appropriate charting. Comparison between quantitative variables was conducted using the Student's t test or Mann Whitney's U test when subsamples required it. Analysis of variance (or Kruskal-Wallis test) was used for multiple comparisons. The Chi square or Fisher's exact tests were used for the assessment of qualitative variables. Analysis of data was performed using the software SPSS-W version 21.0 by the staff of the Unit of Consultancy and Health Research of the Universidad Francisco de Vitoria.

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# RESULTS

In the study, a total of 202 specialist physicians took part and 905 clinical records of patients with BTcP were reviewed (90.5% of the expected total). A total of 45% of the professionals were women. The median age was 47.9 years old (CI 95%: 46.7-49.05) with a minimum of 33 and a maximum of 67 years old. The professionals worked in the public sector in 83.7%, in the private sector in 2.5% of cases, and 13.9% combined public activity with private. 51,5% of specialists worked in PU (n=104) and 48.5% in CPU (n=98). The distribution of specialties was as follows: 47% anesthetists, 27.7% family doctors, 13.9% of specialists in internal medicine and 11.4% other specialties. Professional experience ranged between 1 and 30 years, with an average of 11.9 years (CI 95%: 10.8-12.9) and a median of 10.5 years. According to the data provided by the professionals themselves, each doctor of the PU attended an average of 8.8 patients with BTcP per week, and each doctor of the CPU attended an average of 15.2 patients with BTcP per week (p < 0.01).

A total of 86.6% (n=175) of the professionals were aware of the consensus document "Recommendations for the diagnosis and treatment of BTcP" (1) and, of these, 55% (n=97) had read it in full. The level of understanding of each of the recommendations was greater than 90% in all cases, ranging between 90.6% for recommendation 2 (differential diagnosis) and 100% for recommendation 3 (specific treatment for BTcP) (Figure 2).

The level of specialists' compliance with the recommendations was very high for all of them (Figure 3). Recommendation 6, regarding prior use of opioids for baseline pain, was the recommendation that found least acceptance (56.4% of full and 35.6% partial compliance), followed by recommendation 2 regarding the differential diagnosis *of BTcP and use of Davies' algorithm* (72.3% with full compliance and 26.7% with partial compliance) and recommendation 10 regarding *patient follow-up* (78.7% with full compliance and 18.3% with partial compliance).

Prior to the review of clinical records, all physicians considered that they "*almost always*" implemented each of

the guideline recommendations (between 75% and 100% of times) or "*normally*" (between 50% and 75% of times), though with significant differences among items (Figure 4). The recommendations least frequently implemented were recommendation 10 (patient follow-up), where 59.4% of physicians reported "*almost always*" implementing it, and



Fig. 2. Specialists' level of understanding of the recommendations.



1:totally in accordance. 2: partially in accordance. 3: I do not have a clear opinion. 4: partial disagreement. 5:total disagreement.



**Fig. 4.** Level of implementation of recommendations for BTcP management perceived by the specialists before the evaluation of the clinical records (*self-audit*).

recommendations 5 (*prevention of side effects*) and 6 (*prior use of opioids for baseline pain*), where 66.3% and 66,8% of participants recorded that they "*almost always*" implemented them.

We analyzed whether the work place (PCU or PU) could influence the physicians' opinions. There were significant differences in the perception of implementing the recommendations in articles 10 (*patient follow-up*), 5 (*prevention of side effects from the treatment*) and 11 (*health education of the patient/family on the pain and its management*). For the three recommendations, the professionals who worked in PU reported they implemented them with lesser frequency than those who worked in CPU (p=0.001 in the three mentioned items) (Figure 5).

The patients reviewed in the study during the evaluation of the CR by the physicians themselves (self-audit) had a mean of 3.1 (CI 95% = 2.9-3,2.) and a median of 3 episodes of BTcP per day (range 1-6). A total of 69% (627) of cases were patients with tumor origin. The intensity of the episode was classified as "moderate" in 22.5% of cases, "high" for 53% and "unbearable" for 22.5% of cases. The mean time taken to reach a peak of maximum pain was within 5.5 minutes, the median was 4 minutes, with a range between 0 seconds and 44 minutes. Regarding the physiopathology of the pain, 33% of cases had nociceptive origin, 16% were of neuropathic origin and 51% of mixed origin. After the review of CR, the recommendations with a lesser level of implementation in actual practice were recommendation 5 regarding the prevention of side effects of the treatment, on average, in 15% of cases, and recommendation 10 regarding patient follow-up, with 18.5% of cases where its implementation was not recorded (Figure 6).



**Fig. 5.** Perceived level of implementation of recommendations based on the workplace before the self-assessment of clinical records *(self-audit)*.



Fig. 6. Frequency of non-implementation of recommendations by the specialists after self-assessment of the clinical records (*self-audit*).

# DISCUSSION

BTcP is a very common problem among cancer patients (1). European studies estimate that between 23% and 93% of cancer patients could be suffering it (2). In Spain, in 2002, this type of pain was found in 41% of cancer patients attended in palliative care units (3)a transitory exacerbation of pain superimposed on a background of persistent, usually adequately controlled pain, has been reported to occur in 50% to 75% of cancer patients. However, a 23% prevalence of BTP was recently reported in a study of Spanish patients with advanced cancers, showing probably a low detection rate of this clinical problem. The purpose of the present study was to determine the prevalence of BTP among oncology patients managed by palliative care teams in Catalonia, Spain, and to characterize the frequency, intensity, and treatment of BTP episodes. Sixty-two teams studied 397 patients on a predetermined index day. BTP was reported by 163 (41%. In a more recent study, a prevalence of 90% cancer patients was described (4). Emotional and sleep alterations, together with a limitation of higher functions, such as ability of concentration and thought, lead to a deterioration in quality of life and functional capacity of patients with BTcP. Additionally, they prevent the normal implementation of daily and working activities and interfere with personal relationships (5-8).

The diagnosis of causes that give rise to BTcP and the evaluation of characteristics of its appearance in daily prac-

tice is, often, deficient and as a consequence its treatment may be sometimes inadequate (2,4,9,10). However, the diagnosis and the evaluation of BTcP are not complex if there exists a high rate of suspicion and precise case history to make a correct differential diagnosis (11-14). Furthermore, therapeutic possibilities have improved in recent years with the appearance of fentanyl administered through mucous surfaces, which are adjusted accurately to the requirements to immediately relieve the syndrome (15). Nevertheless, there is evidence that a large number of BTcP episodes are not detected correctly or are inappropriate and insufficient with non-selective drugs, nor recommended according to the available scientific knowledge(1). Additionally, some physicians and patients may have unjustified fear regarding the use of opioids in this context, which may lead to insufficient treatment (16). This situation has major repercussions on patients' quality of life and healthcare costs (17).

Our study shows that the professionals dedicated to attending to patients with BTcP know the recommendations for its proper management and that the level of compliance with them is very high. The questionnaires were answered by physicians, mostly from public health system, with an average of 12 years experience and a large number of patients with BTcP in their consultations, which may explain the high level of understanding and follow-up of the recommendations and, furthermore, strengthens the role of these guidelines drawn up by the SS involved in managing BTcP. Nevertheless, it is important to point out the two recommendations that achieved a lesser degree of compliance *a priori*, before carrying out the evaluation of the CR or selfaudit. These two recommendations with lesser compliance were recommendation 6 regarding the prior use of opioids for baseline pain which only obtained full compliance of 56%, and recommendation 2 regarding differential diagnosis of BTcP and use of Davies' algorithm, which obtained 72.3% of full compliance.

Furthermore, the general perception of specialists is that most recommendations are always implemented or almost always, but we should mention three recommendations that are perceived to be implemented with lesser frequency. These recommendations are 10 about the patient's followup (only 59.4% of physicians stated they almost always implement it), recommendation 5 regarding the prevention of side effects of the treatment (66.3% almost always implement it), and again, recommendation 6 regarding the prior use of opioids for baseline pain (only 66.8% almost always implement it).

Considering both recommendations with lower level of accordance and those recommendations perceived as the lesser implemented, recommendation 6 is highlighted. This recommendation, regarding the *prior use of opioids for baseline pain*, is one that reaches lower level of accordance and it is perceived as the lesser implemented.

In future editions of the guidelines for managing BTcP, it would be interesting to redraft the less accepted or less implemented recommendations, referring to differential diagnosis, baseline treatment of pain or side effects, and the follow-up of BTcP, to obtain the maximum consensus of specialists. There have also been differences in application of the recommendations among specialists that work in PU and in CPU, which could be an aspect to bear in mind in the future to adapt the recommendations to the field of professionals' performance.

After the self-audit of CR, the lesser implemented recommendations in actual clinical practice were 5 regarding the prevention of side effects of the treatment, and 10 regarding patient follow-up. In both cases, the attendance deficit described coincides with physicians' prior perception. However, regarding recommendation 6 on the use of opioids to control baseline pain, the analysis of actual practice revealed a significantly lower non-compliance (only 7% of cases) than expected, in accordance with professionals' prior self-audit (33.7% of physicians stated they had not implemented it systematically).

This work has certain limitations, characteristic of surveys and forms carried out electronically, among which we highlight the difficulty to clarify or nuance the individual opinions of participants (18,19)"uri":["http://www.mendeley.com/documents/?uuid=39a3d5d8-93a4-464c-ac76-fefdeddff2c5"],"itemData":{"DOI":"10.1046/j.1365-2923.2002.01312.x","ISBN":"0308-0110 (Print. Additio-

nally, the opinions provided by the participants may not necessarily reflect the majority opinion of professionals of the whole territory that can include physicians with less work experience or a smaller number of patients with BTcP.

In short, most PU and CPU professionals understand, support and imlpement the recommendations of the SS on managing BTcP. They also have a realistic, accurate perception of the quality of their work, as well as of the aspects to be improved in their daily practice as regards the recommendations based on scientific evidence. In future updates to the guidelines for managing BTcP, the lesser accepted or implemented recommendations could be re-drafted or refined, in order to achieve broader compliance among professionals in different working environments. The diffusion and implementation of the recommendations may improve the clinical results of managing BTcP, rationalizing clinical decisions and reducing the unjustified variability of habits by means of a correct diagnosis, follow-up and treatment of BTcP.

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