



abstract

**Objective:** To know the readers' opinion on the information offered by the Drug Therapeutics Bulletin (DTB Navarre) and other related products, and obtain suggestions on areas for improvement as an independent source of drug information. **Methods:** In May 2014 a survey on the DTB Navarre designed by the editorial committee was sent individually to all physicians working at the Navarre Health Service, Spain. In addition, it was sent to all primary care nurses through their head nurses. The survey was also sent via Twitter and through a DTB Navarre distribution list. The questionnaire was carried out with the Google Drive tool. **Results and conclusions:** Approximately 90% of the readers believe that the DTB Navarre and its associated products are of "good or very good" quality. The majority read "almost all of it" or "in full" and the information is considered "fairly or very comprehensible". Readers show interest in the DTB Navarre's adaptation to new technologies.

## Opinion survey on the Drug Therapeutics Bulletin of Navarre (DTB Navarre) and other related products

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## Introduction

The Drug Therapeutics Bulletin of Navarre (DTB Navarre, [www.bit.navarra.es](http://www.bit.navarra.es)) was created in 1992 through a local Government decree (Resolution 1158/1992 published in October 14<sup>th</sup>, 1992). This resolution indicated that "it is necessary to create a Drug Therapeutics Bulletin that provides concise and independent information to physicians in the Navarre Health Service and in this way contribute to the rational use of drugs". In addition, the edition of the bulletin was placed under the responsibility of the Drug Information Unit of the Navarre Health Service, Spain.

Since then the DTB Navarre has been constantly evolving. It is available in both a print edition and an electronic based format. From January 2007 it is also published in English ([www.dtb.navarra.es](http://www.dtb.navarra.es)) but only in the electronic format. Currently there are some 40,000 annual hits through the website from around 105 different countries and it is indexed in the TRIP database. It is a full member of the *International Society of Drug Bulletins* (ISDB, [www.isdbweb.org](http://www.isdbweb.org)) an international society that encompasses all drug bulletins that are both financially and intellectually independent of the pharmaceutical industry.

The issues addressed by the DTB Navarre are selected among several proposals by members of the editorial board and suggestions from physicians in the Navarre Health Service and subscribers in general. In recent years the DTB Navarre's format has been adapted to make it more reader friendly. An illustration has been included on the front page to help draw attention to the readers on the main topic of the issue, and also short key phrases throughout the article. In addition, the layout has evolved over the last years.

In September 2013 the editorial committee of the DTB Navarre decided to carry out a readers' survey. The aim was to get to know the readers' opinion on the information provided by the bulletin, obtain suggestions on possible areas for improvement and learn how to satisfy current and future needs regarding independent drug information.

Besides the publication of the bulletin as such, the Drug Information Unit also publishes additional drug related material through the following products:

**Drug Assessment Reports.** These are reports on new drugs which are carried out in coordination with other drug evaluation committees in Andalusia, Aragon, Castille and Leon, and the Basque country. They are available in English in electronic format under *Drug Assessment Reports* (DAR, [www.dtb.navarra.es](http://www.dtb.navarra.es)).

**Summaries of Current Pharmacotherapeutics:** this is a cuatrimestral publication that summarises relevant papers in general medical journals.

**Course on Hot topics in Pharmacotherapy.** This is an annual in-class course carried out after working hours for two consecutive days. In this course relevant issues regarding current pharmacotherapy are openly exposed and discussed. The course is carried out in-class in Pamplona and via video-conference with participants in other towns like Estella and Tudela in Navarre.

**Videos and podcasts.** In March 2011 the first "audio" recording of an interview with two authors of an article from the DTB Navarre was carried out to disseminate the messages from the DTB Navarre to a wider audience and as a way of adjusting to new times. In June of the same year the video production of an interview was released. Only a few months ago the audiovisual production has been temporarily suspended due to logistic and technical problems.

**In-house research projects.** Currently the unit is working on three lines of investigation: pharmacoepidemiology studies (in collaboration with the Spanish Medicines Agency), Cochrane systematic reviews (in collaboration with the University of British Columbia, Canada) and e-prescribing support tools based on artificial intelligence (in collaboration with the Department of Automation and Computation of the Public University of Navarre). The information derived from scientific publications resulting from these research projects is not the objective of the current survey.

In October 2013, the editorial committee worked on the content of the survey which was finally approved in November 2013.

**Methods**

In May 2014 a survey on the DTB Navarre was distributed exclusively online. The survey was sent via email to all physicians working in the Navarre Health Services individually (574 physicians in primary care and 1,414 specialists). In addition the survey was also individually distributed to head nurses in primary care to be re-distributed among nurses in each primary care team. Lastly the survey was also sent to all subscribers through a distribution list and via Twitter.

The anonymous questionnaire was carried out through the Google Drive tool. Information on the profession of the responders and their place of work was recollected. Results were analyzed according to type of physician (primary care or hospital doctor) whenever relevant.

An English translation of the survey was made available excluding questions on products or items not available in English. This survey was sent to subscribers through the DTB Navarre distribution list and via Twitter.

The contents of the survey are related to the quality perceived with regard to the distinct products available (paper, electronic, audio-visual, etc.), future perspectives, information needs, suggestions regarding issues to address. A petition to readers was also made for any suggestions or comments.

**Results**

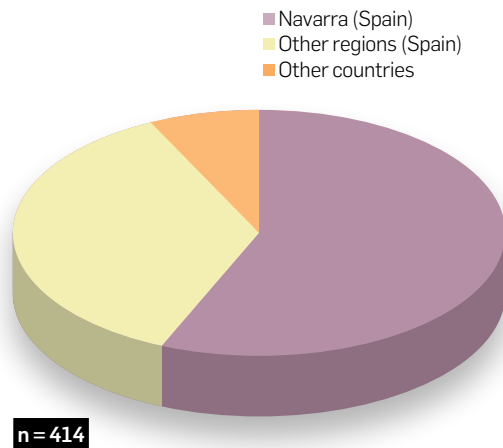
Primary care physicians were the most important group among responders (41.9%) followed by primary care health system pharmacists (22.7%), which seems logical given that the contents of the DTB Navarre are of general character. This could perhaps also explain why it is remarkable that 17.7% of the completed questionnaires correspond to hospital-based physicians. It is also worth mentioning the poor response from resident physicians and pharmacists.

General Practitioner	175	41.9%
Health System pharmacist (primary care)	95	22.7%
Hospital doctor	74	17.7%
Hospital pharmacist	18	4.3%
Other	18	4.3%
University professor	16	3.8%
Nurse	10	2.4%
Community pharmacist	8	1.9%
Drug Company employee	3	0.7%
Resident doctor	1	0.2%
Resident pharmacist	0	0.0%
<b>Total responses</b>	<b>418</b>	<b>100.0%</b>

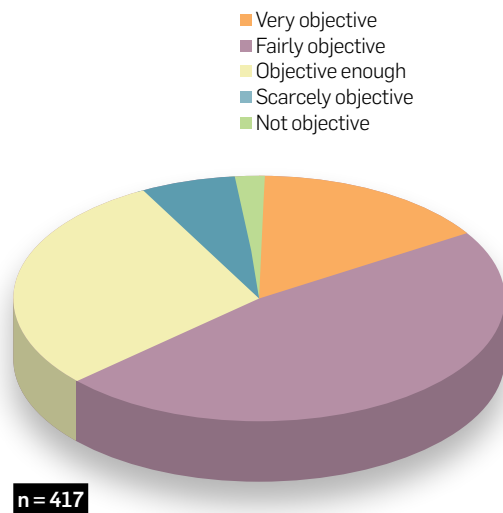
The response rate among primary care doctors in Navarre was 24.4% (n=140; total=574) and 4.8% among specialists in Navarre (n=68; total=1414). It was not

possible to calculate the response rate among doctors outside Navarre.

With respect to responders' place of work, a little more than half of the responses came from Navarre (56.9%), where the DTB Navarre is edited, while 34.9% came from other Spanish regions. The rest (7.2%) corresponded to professionals from other countries such as Argentina, Australia, Canada, Brazil, Colombia, Chile, Nicaragua, Portugal, United Kingdom, Switzerland, Uruguay and Venezuela.



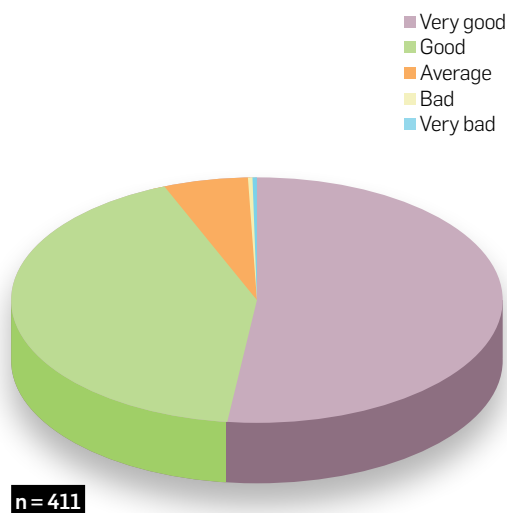
**Whenever you receive the link to the Bulletin, you read the issue...**



One of the objectives of the survey was to know whether DTB Navarre is really read and to what extent. This question synthesizes two important aspects of any publication, which are the quality of the contents and its presentation.

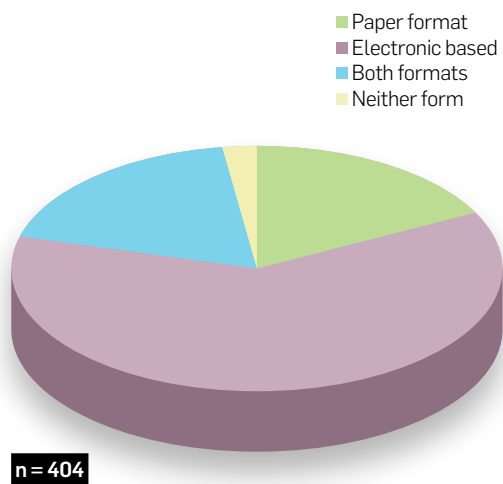
Of all readers 63.5% of them read the majority or the full text of the articles. A 28.3% only read the abstract and the conclusions. Overall we consider these values acceptable taking into account that the topics involved are specific and not always of general interest.

The content of the articles is...



When analysing the contents, besides evaluating the relevance of the selected topics, an adequate language is also necessary to facilitate readers comprehension. In our case, 93.2% of the responders reported that the articles are "quite or very comprehensible," which indicates that the articles are well adapted to readers.

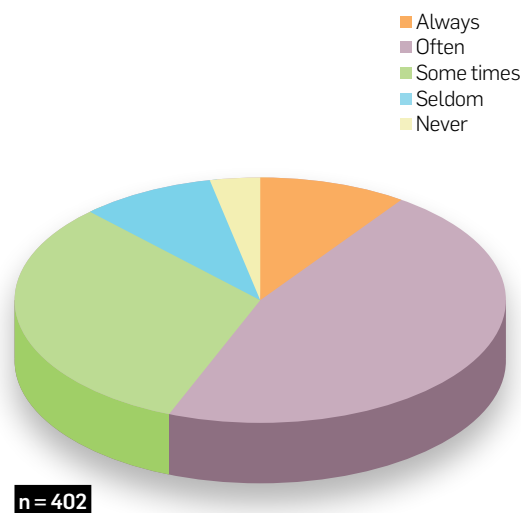
In what format do you prefer to receive the bulletin?



The DTB Navarre is published in both print and online. The printouts are distributed among physicians working in the Navarre Health Service. The English version of the DTB Navarre is published exclusively in electronic form.

Approximately 60% of the readers prefer to receive the bulletin exclusively in electronic form. Of the readers 18% opt for paper, while a similar proportion would like to receive the bulletin in both formats. It is clear that only a minority of the readers prefer the printed edition of the bulletin.

The bulletin is helpful in my clinical practice...



One of the main aims of the DTB Navarre is to help physicians make clinical decisions. Academic and scientific discourse should ultimately lead to concrete messages that explain the place in therapeutics of the evaluated drugs. The information should be well founded and practical to ensure that patients receive the best treatments for their ailments and the health care system makes optimum use of its resources.

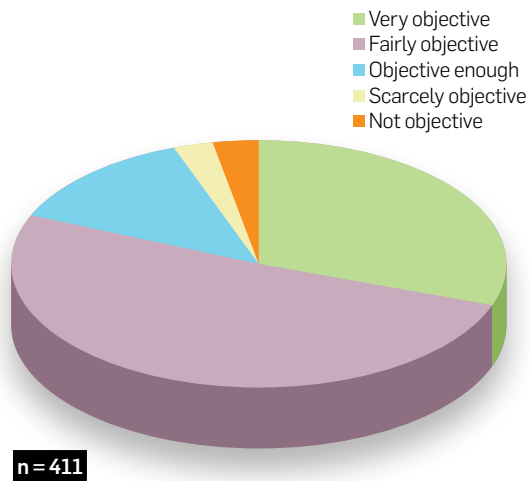
It makes sense that the DTB Navarre has a greater impact among general practitioners compared to hospital doctors, given that the former address a greater variety of patients with different conditions, while the latter treat patients with more specific diseases that are not always the main focus of the bulletin.

On analysing the responses of general practitioners compared to hospital doctors, the proportion of readers who believe that the DTB Navarre is useful when making decisions "often or always" the proportions are 55% and 26% respectively. If we include those readers who claim the DTB Navarre helps "some times" the percentages raise up to 90% and 67% respectively. These data confirm that general practitioners show a higher expected value from the bulletin.

**Table 1.** Usefulness of the DTB Navarre in making therapeutic decisions (hospital doctors compared to general practitioners)

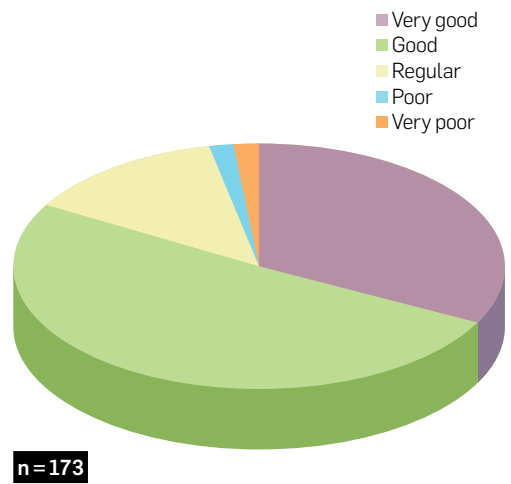
Does the bulletin help in making therapeutic decisions?	Hospital doctor (n=69)	General Practitioner (n=168)
Always	7.2%	7.1%
Often	18.8%	48.2%
Some times	40.6%	34.5%
Seldom	23.2%	8.3%
Never	10.1%	1.8%

The information provided in the bulletin is...



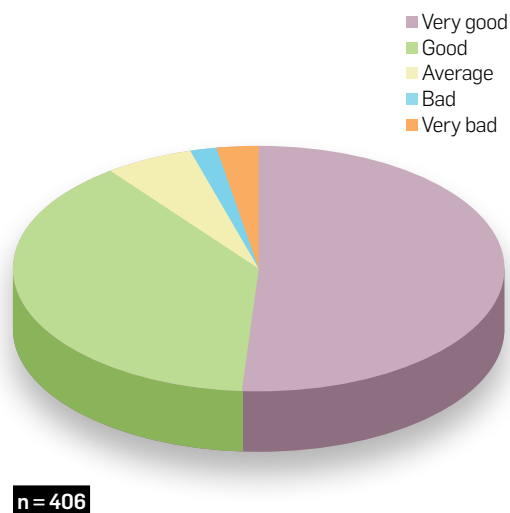
A total of 81.3% of the responders think that the information offered is "fairly or very objective" and 6.3% believe that the information was either "scarcely or no objective".

What is your evaluation of the videos and podcasts produced by the DTB Navarre?



Of all responders of the survey 83.3% evaluated the audiovisual material as "very good or good" while only 3.4% considered them "poor or very poor".

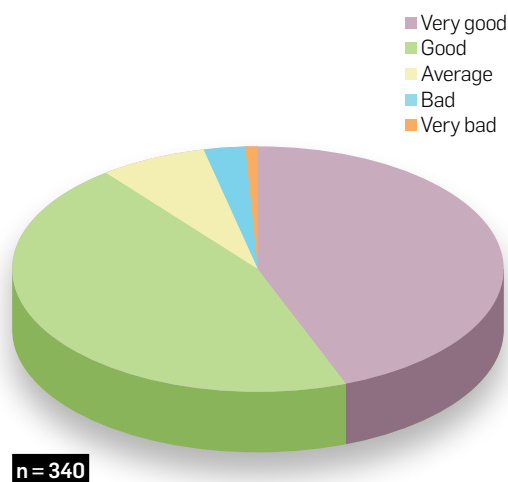
In general terms, the quality of the Bulletin is...



Of all responders 89.7% reported that DTB Navarre is of "good or very good quality" while 4.4% of them believe that the overall quality of the publication is "bad or very bad".

The lower number of responses to this question (approximately half compared to other questions) shows that the number of users of audiovisual products is lower with respect to regular articles. In addition, the low response rate may also be influenced by two other factors: audiovisual material from the DTB Navarre is relatively new and not as widely known as the traditional formats, and these products are offered only in Spanish but not in English.

### What is your evaluation of the Drug Assessment Reports?

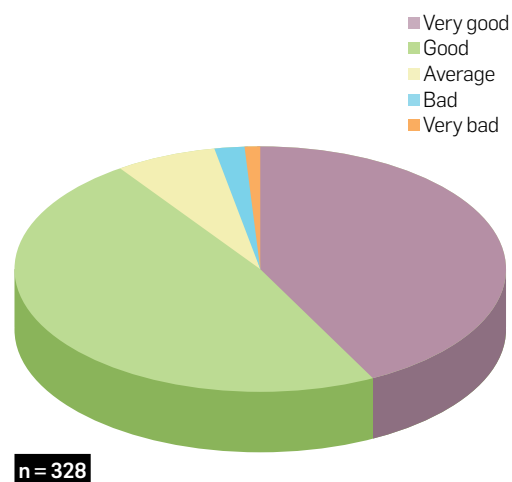


The Drug Assessment Reports include a critical appraisal of new drugs and the efficacy, safety, cost and adequate place of the drug in therapeutics is discussed. These reports are made in collaboration with other drug evaluation committees in other Spanish regions including Andalusia, Aragon, Castille and Leon, Cataluña and Basque country. The reports are not issued on a regular basis, but in consonance with the approval of new drugs.

Drug reports issued usually evaluate medications employed in primary care and those which, although initially prescribed in hospitals could have certain repercussion and use in primary care.

A total of 89.4% of the readers think that the quality of the Drug Assessment Reports is "good or very good", a similar score to that obtained for the DTB Navarre.

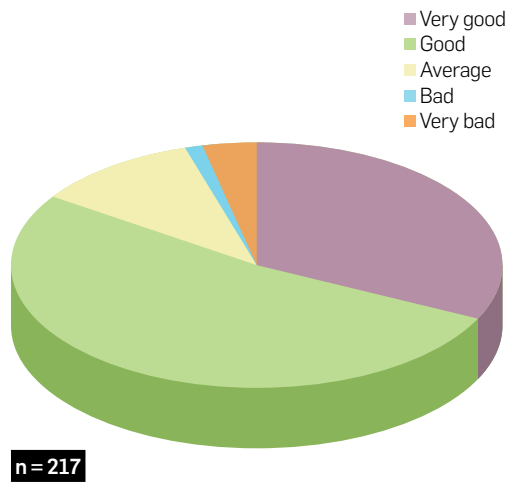
### What is your evaluation of the *Summaries in Current Therapeutics*?



The *Summaries in Current Therapeutics* is a publication available in Spanish only that compile the abstracts of the most relevant medical articles of general interest published within the last 3 months. It also includes a link to the original paper. It is structured according to pathologies to facilitate readers finding the articles that most interest them.

A total of 90.3% of the readers believe that the quality of these summaries is "good or very good", while only 3% regard the quality as "poor or very poor", similar results to the rest of the publications.

10. What is your evaluation on the course "Hot topics in Pharmacotherapy"?



This is an annual in-class course taking place every April and lasts for two days in the afternoons after working hours. Speakers in the course include general practitioners, hospital doctors, nurses and pharmacists. Current issues are presented and debates are raised among the different professionals. Presentations last approximately 30 minutes including time for questions from participants.

The course is carried out in Pamplona and there is an option to participate from two other major towns, Tudela and Estella through videoconference. The total participation in each session ranges between 250 and 300 professionals in all three centres.

The survey showed that 84.4% of the responders regarded the course as "good or very good" and 4.6% of them considered the course "poor or very poor." The high percentage of responders to this question is remarkable given the average number of course participants.

What products would you like to see implemented or further developed?

The most valued option is the course on pharmacotherapy, sessions or webinars. In second place, the in-class courses or seminars are most evaluated. There is however growing interest in other options such as the development of mobile apps that offer useful information for patients, audiovisual productions, and the use of social networks as an element of disseminating information. The number of responses is relatively higher compared to previous questions given that, in this case, the reader could select more than one option for this question.

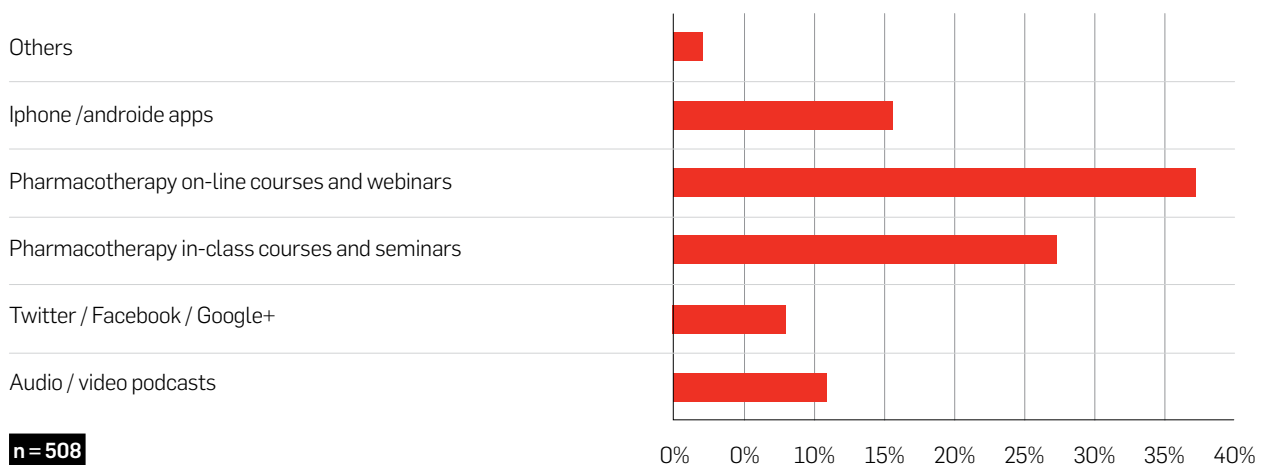
There is a considerable demand for adapting our products to current times. We should accept the challenge to employ new technologies to offer information and training on pharmacotherapy. Some readers' comments described later are related to the technological limitations of the Navarre Health Service to make use of some of the already existing products such as the videos and podcasts.

Suggestions and comments from the readers.

The online survey included some open questions that allowed for responders to make suggestions or comments. There was a wide variety in the responses and we classified them in the following four categories:

Positive comments

At least 29 responders congratulated the editorial board for the DTB Navarre's quality and objectivity. Six of them were readers of the English version. The importance expressed with regard to audio and podcasts was remarkable.



**Clear and concise criticism**

- Some readers are very critical with what they describe as “DTB’s fear” of new drugs, considering the bulletin biased by excessively focussing on “price” issues.
- There was considerable criticism on the DTB Navarre article on ADHD for not including the participation of health care professionals who work in mental health care, and a lack of objectivity [n=3].
- Some of the hardest criticisms come from hospital doctors.
- Some criticisms are remarkable: “it does not usually offer me anything valuable”, “loss of objectivity”, “totally biased information”, “useless information... wasted money”, “a taliban model set up against the pharmaceutical industry”.

**Room for improvement**

- Include evaluations of classical or older drugs.
  - Some readers consider that the DTB Navarre is excessively long, dense, tedious and therefore they only read the summaries and conclusions. These readers suggest brevity, a more structured and longer summary, and a quick guide that guarantees that the reader visualizes the key points.
- Suggestions with regard to format and method of subscription
- Criticism of the pdf format which is not friendly readable in mobile phones
- Other reading formats are requested such as epub and that the “Summaries of Current Therapeutics” be incorporated into a blog to allow for greater interaction and discussion among readers.
- Subscription via RSS was also requested [n=3].

**Other issues not related to the DTB Navarre per se**

- Impossibility to watch the videos or listen to podcasts at work in primary care.
- Need for an updated vademecum and interactive applications on pharmacological interactions.
- Elaboration of protocols
- Other issues related to the relationship between clinicians and the pharmaceutical industry: pharmaceutical representatives’ visits to doctors, training sponsored by the industry, congresses as a source of information on therapeutical issues.

**Suggestions on the topics to be addressed by the DTB Navarre**

A considerable amount of proposed issues were noted and classified according to areas of knowledge. In parenthesis we include the number of times a specific topic was mentioned.

**Cardiovascular**

Heart failure (2), diabetes and new hypoglycemic drugs (5), statins and cardiovascular prevention (4), new anti-coagulants.

**Infectious diseases**

AIDS, mononucleosis, sexually transmitted diseases.

**Pharmacological interactions**

Quick information on pharmacological interactions (2).

**Scientific methodology**

Evidence-based medicine (2), reviews of guidelines and management protocols for different diseases. Information regarding elective treatment options with a grade of evidence “A” (2),

**Neurology**

Dementia.

**Pediatrics**

Address child related issues (4), pharmacological management of anxiety and depression in children; ADHD and school failure.

**Pharmaceutical policy**

Drug patents, conflicts of interest, “me too” drugs, public health care policy, drug regulatory agencies and drug approval.

**Mental health**

Psychiatric related drugs, psychosomatic ailments.

**Respiratory**

New inhalers for COPD and asthma (2).

**Drug reviews**

Clinical cases and drug reviews.

**Safety**

Side effects (3), cross over effects with homeopathic medications or natural medicines, cross over effects between common drugs and food, pharmaceutical alerts.

**Traumatology**

Osteoporosis treatment, management regimens for diseases affecting joints.

**Emergencies**

Emergency protocols in primary care setting.

**Urology**

Management of benign prostate hyperplasia. Treatment of prostate cancer.

**Use in special situations**

Drug use in chronic renal impairment.

**Drug use.**

Evolution of drug consumption indicators, prescription trends, polypills (drug combinations at fixed doses), polypharmacy (2), polymedication, incompatibility of drugs, the most frequently prescribed drugs in Navarre in comparison with other regions in Spain and countries.



## Others

Obesity, vaccines and vaccine calendars, new biological drugs, magistral preparations, aromatase inhibitors, protocol updates, clinical cases and differential diagnosis, information for patients.

### A reply from the DTB Navarre editorial board to the comments and suggestions received.

In first place we would like to thank all those people who have responded to the questionnaire for all the valuable information they have provided. The positive comments help us continue striving to offer the most objective drug information possible. We are most sincerely grateful for the negative comments which help us reflect on possible errors and conflictive issues when evaluating drugs.

With respect to the comment on DTB Navarre and the excessive importance given to drug costs, we would like to point out that our primary role is the critical appraisal of the available scientific evidence. Relevant recommendations are derived from a lucid analysis of the data on efficacy and safety of drugs. The price of drugs is just another element to be considered in the analysis. According to the World Health Organization, rational use of medicines requires that "patients receive medications appropriate to their clinical needs, in doses that meet their own individual requirements, for an adequate period of time, and at the lowest cost to them and their community". Our understanding of this leads us to believe and uphold an ethical obligation for both health care professionals and patients to contribute to the sustainability of health care systems.

Another criticism refers to not including health care professionals specialised on the topics covered. The DTB Navarre's editorial committee is composed of physicians and pharmacists working in both hospital and primary care settings. In addition there are experts in other fields such as research methodology or pharmacovigilance. Moreover, the articles are sent to external reviews whenever the committee finds it convenient to do so. The case of the ADHD was not an exception and was under review for a period of 8 months. In some occasions, reviewers express their preference for anonymity which is respected.

Some general negative comments like "loss in objectivity", "totally biased information", "Taliban-like model against the pharmaceutical industry", etc. were registered. The DTB Navarre has always focussed the debate in the scientific field, discussing the evidence from published trials. All readers have the possibility to reasonably express their discrepancies through our website. When this occurs, the readers critique is published entirely along with the author's response. Our interest is to promote scientific debate with respect and total transparency. The DTB Navarre has the goal to facilitate objective information in benefit of patients, health care professionals and the society as a whole.

On the other hand, various comments have been recollected expressing the need for using the new technologies and adapting to current times to disseminate information more effectively. We are sincerely grateful for all these suggestions which, undoubtedly will help us take the necessary steps ahead for improvement.

## Acknowledgements

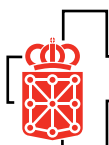
We thank Dr Clint Jean Louis, of the Emergency Department of the Navarre Regional Health Service in Spain, for translating the original manuscript into English.

## Conclusions

**Approximately 90% of the readers believe that the DTB Navarre and related products are of "good or very good" quality.**

**The majority read "nearly everything" or everything published in the DTB Navarre and the information is regarded as "fairly or very comprehensible".**

**Readers show interest in the DTB Navarre adapting itself to new technologies.**



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