

Abbreviations and symbols in discharge reports of patient records

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Resum

Abreviatures i símbols als informes d'alta de les històries clíniques

L'objectiu principal de la recerca ha estat investigar unitats terminològiques que fan referència a les abreviatures i els símbols utilitzats en la redacció dels informes d'alta en les històries clíniques dels hospitals públics del Brasil i d'Espanya, amb la finalitat d'estructurar les metadades (semàntiques) per a la representació i l'extracció d'informació. Els centres escollits per a l'estudi empíric van ser el SAME de l'Hospital Universitário Lauro Wanderley - Universidade Federal da Paraíba (HULW-UFPB), al Brasil, i la Unitat de Documentació Clínica de l'Hospital Clínic de Barcelona (HCB) a l'Estat espanyol.

PARAULES CLAU: representació de la informació; documentació sanitària; terminologia de la salut

Abstract

The main objective of our research was to investigate terminological units referring to the abbreviations and symbols used in the drafting of patient record discharge summaries in public hospitals in Brazil and Spain, aiming at the structuring of (semantic) metadata for the representation and retrieval of information. The loci of the empirical study were, in Brazil, the SAME of the Lauro Wanderley University Hospital - Federal University of Paraíba (HULW-UFPB), and in Spain, the Clinical Documentation Unit of Clínia Hospital of Barcelona (HCB).

KEYWORDS: information representation; health documentation; health terminology

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1 Introduction

Health professionals have a specialized discourse and, consequently, their own terminology, which can be expressed in scientific production, the writing and transcription of patients' medical records as well as in everyday communications. Observing this fact, this research study was conceived with a focus on the specialized lexicon present in the patient's medical record, which is defined as a single document consisting of signs and images generated from information about the patient's health, of legal, confidential and scientific nature, that is used to enable communication between members of the multidisciplinary healthcare team and the patient.

This research fits the principles defended by the Communicative Theory of Terminology (CTT), which was proposed by Maria Teresa Cabré in the 1990s and developed by the University Institute of Applied Linguistics (IULA) of the Universitat Pompeu Fabra (UPF). We adopted this theory because we consider it to be the one that best investigates the effective use of terminologies inserted in the specialized communication process. Cabré (1999, p. 131) argues that terminology can be constituted as “part of the signs of natural language and can be integrated in the knowledge of the speaker, which is at the same time the speaker of a language and the professional of an area, without the need to resort to the proposal of a double competence for autonomous systems”. Therefore, this theory fits the specialized discourse of the health area, as well as the thematic representation (index representation) of information, stated in the epistemology of Information Science. With regard to issues related to index representation and information retrieval, using abbreviations (acronyms, abbreviations) and symbols as indexable terms, although they are sporadically adopted and standardized,¹ in the field of Information Science, we have not yet found, in the literature, mentions about the use of these terminological units from the perspective of research. In the case of the Medical Archives and Statistics Service (SAME), considered as a clinical documentation unit, which keeps the patient records, we understand that, in particular, standardized abbreviations and symbols can be adopted as references to facilitate access to information and knowledge recorded in these sources.

It is in this context that we understand the emerging need of dialogues between Information Science and Health Sciences, which can be strengthened by models of representation and organization of information and knowledge. Such models demanded and still demand the development of documentary or indexing languages, as well as specialized glossaries and vocabularies, or other terminologies, providing possibilities of developing and managing information systems that can contribute to communication within the multiprofessional healthcare team and between it and patients.

Therefore, it is important that health documentation, like the patient's medical record, should be organized on the basis of the terminology units of the specialized discourse registered in these documents, an example, among many others, of what can strengthen the interdisciplinary relationships between these areas of knowledge (França, 2016).

In this perspective, we define as an objective of this research the investigation of the terminology units (abbreviations, acronyms and symbols) used in the drafting of the discharge reports in patients' records, in public hospitals of Brazil and Spain.

2 Health documentation and discharge reports in patient records

In the book *Microphysics of Power*, Foucault (1979, p. 101) warns that “before the 18th century, the hospital was essentially an institution of assistance to the poor, but also of separation and exclusion”, as it involved a totally individualistic medicine on the part of the doctor. For the author, it was only at the end of the 18th century that the hospital was born with the techniques of the disciplinary and medical power of intervention over the environment. From then on, a permanent patient registration system was organized.

We highlight some aspects in this context in the 18th century, related to the transformations of these hospital institutions, which took place due to political and economic issues that surrounded French and European society, and to power relations, that is to say, doctors started to exercise power inside and outside the institution. As producers of truth, they began to persuade people, in order to control and neutralize them and thus exercise power over society.

The book *La ética y el derecho ante la biomedicina del futuro*, written by Carlos María Romeo Casabona and other authors, presents an overview of the definition, use and distinctions between health data and medical data. The authors establish one of the first settings for the documents generated in the health field. “The Spanish adjective *sanitario* indicates belonging or being related to health and, therefore, the medical data is the health data that is obtained and used in medical institutions in order to preserve the health of citizens” (Romeo Casabona et al., 2006, p. 140). This is unlike the so-called medical data since “[...] the Spanish adjective *médico* implies belonging or being related to medicine [...]”. The authors emphasize the difference between medical data and health data when they state that “medical data, indeed, is the object of treatment in a context of assistance to medical research” (Romeo Casabona et al., 2006, p. 140). Likewise according to these authors, health information, generated as a result of care provided in primary healthcare, specialized healthcare or other areas, is so called when the health documentation is filed. This documentation is

divided into two types: clinical documentation, directly related to the patient's health, and non-clinical documentation, necessary for the assistance process, but not related to health data.

In Brazil, the term *health documentation* is not yet fully established, due to the use of the term *medical / clinical files*. As from 1943, medical archives in Brazil were separated from statistics and, from that year on, hospital statistics were reformulated. In this way, the centralization of these sectors and the general registry took place, with the creation of a body called the Medical Archives and Statistics Service (SAME), directly subordinated to the Administrative Directorate. Its coordination areas cover the sectors of General Registry, and Medical and Statistical Archives, that is, hospital institutions.

The purpose of the Medical Archives and Statistics Service – SAME – is to maintain the integrity of the set of medical records belonging to the hospital, through activities carried out, according to special criteria for keeping, classifying, coding and controlling the circulation of medical records as well as the necessary secrecy, with regard to their content. (PROAHSA, 1987, p. 303)

Most of the SAMEs, in Brazil, still work with manual medical records and usually organize their medical records in numerical or alphabetical order. We thus consider that there is a limitation of access to information, restricting it to two elements. The adoption of a controlled vocabulary would be another way of accessing the information contained in the documents.

Klück and Guimarães (2002, p. 2), understand by “medical records or patient records the set of documents generated from the healthcare act, by all hospitals involved, whether at the outpatient or inpatient level”. Novaes (2003, p. 43) reports that there was a change in the name of this document, since the medical records were previously called “doctor records”, although progressively, with the recognition of patients' rights in health services, they came to be called “patient records”.

[...] they are essential elements for the performance of patient care, for research and for administration. However, all stakeholders, invariably, complain about their quality, as if the responsibility for the problems they present was not everyone's. In addition to doctors, many other professionals currently produce records about the care they have provided to the patient. The medical records become increasingly voluminous, as there is a growing concern for documenting all procedures in case of possible legal questions and a need to preserve the confidentiality of recorded information, which are routine issues to be addressed in health services.

Taking into account that this study has, as its corpus, the discharge reports of the patient's medical

record, we refer to the concept of Francí Pallejà (2009, p. 3; 2012, p. 1), who also analyzed the abbreviations and symbols of patient records in Spain.

The hospital discharge report is a document that has the objective of registering the circumstances regarding the patient's stay at the hospital: the reason for admission, the evolution during the patient's stay, the diagnostic and therapeutic procedures that have been carried out, the surgical interventions, the treatments that have been followed, the diagnoses that have been confirmed, the situation at the time of discharge and the indications and recommendations given upon the exit from the hospital. It is a text that, sometimes, has more than one writer: the doctor who made the admission, the doctor (or doctors) who followed the patient during the stay, and the doctor who made the discharge. This causes different styles of writing and even different languages to be mixed.

In this concept of the discharge report, the author refers to the use of different languages in the writing of the text since, in the region of Catalonia, in Spain, the languages used are Catalan and Spanish. This reality was also perceived in Brazil, mainly with the arrival of foreign doctors who do not have a complete command of Portuguese, like the Cuban doctors who were in the “More Doctors” program during the period from 2013 to 2019. However, the most important factor that we record is the understanding of what is written in these discharge reports, as they are often written in a single language and yet, in the end, still have different interpretations.

Francí Pallejà (2009, 2012) proposes some recommendations for the writing of discharge reports from the patient's medical record, especially in relation to the doubts generated in the understanding and interpretation of the text, namely:

- a) When using any type of symbol, always use internationally recognized symbols and avoid unnecessary abbreviations.
- b) Do not use acronyms and abbreviations. If necessary, when using an acronym for the first time, put its meaning in brackets.
- c) Reread the discharge reports, when finished, before closing them and/or handing them over to other professionals or even to patients.

The recommendations presented by the author are significant ideas and, applied in the hospital routine, they would reduce the communication problems of the multidisciplinary team to a large extent.

3 Abbreviations, acronyms and symbols

Aleixandre Benavent and Amador Iscla (2001) point out that there are definitions and classifications for abbreviations and they recommend that they should be defined as a reduction of a word or a syntagm, by

suppressing some letters, that is to say, they consist of reducing the phonic body of a word and may be classified as abbreviations and acronyms. In addition, symbols are mentioned by the authors, and the literature refers to them, in some cases, as a type of abbreviation, even though they do not come from a reduction of words.

In the health field, Francí Pallejà (2009, pp. 6-7) lists the following definitions for abbreviation, acronym, *sigla* and symbol:

An abbreviation is a way of representing a word or a group of words by one or more of its letters, the first of which must be the initial. A *sigla* is made up of one or more letters that make up one or more words, usually the initial letter or letters. Acronyms are *siglas* that are formed by the first (or last) letters of each of the words that make them up, usually with the intention of making them pronounceable. The symbol is an extra-linguistic sign (consisting of letters, numbers or other elements) which represents a certain notion or concept and which has some kind of recognition on a national or international scale.

In the *Diccionario de siglas médicas* (Dictionary of Medical Acronyms), published by the Spanish Ministry of Health and Consumption, Yetano Laguna, Alberola Cuñat and Menéndez-Valdés (2003) explain their respective definitions:

The abbreviation is the representation of a word or the words of a phrase by one or more of its letters, the first of which must be the initial of the abbreviated word. Abbreviations preserve the gender and number of the whole word (“la a.c.” - *la auscultación cardíaca* or cardiac auscultation). The *sigla* is a particular case of abbreviation by suspension. It is formed from the initial letters of words (HPV, herpes papilloma virus). An acronym is a particular case of *sigla*. It uses the abbreviated suspension system applied not only to the initial letter of each word but also to some of its syllables (IUD, intrauterine device). Most authors include acronyms among *siglas*. Symbols are abbreviations that respond to an international convention established by competent bodies. A symbol is a graphic sign that in science and technology represents a word, a phrase or a value.

In this study, we will adopt the definitions by Yetano Laguna, Alberola Cuñat and Menéndez-Valdés (2003) for *siglas*, acronyms, abbreviations and symbols, considering their publication to be one of the works that lies closest to the goal of our research because of its being focused on the scope of health professionals.

In Brazil, we can point out some information standardization initiatives referring to the health area: ABNT / ISO / TR-20514, the Health Sciences Descriptors

(DeCS), and the Health Terminology Project, of the Virtual Health Library (Electronic Glossary of the Ministry of Health and the Electronic Siglary of the Ministry of Health), it is essential to note that these acronyms are not just medical acronyms or acronyms directed only to health professionals: they are all the acronyms found in their documentation.

In Spain, we highlight the *Diccionario de siglas médicas* (Dictionary of Medical Acronyms), by the Spanish Society of Medical Documentation (SEDOM) / Spanish Ministry of Health, Social Services and Equality, with about 6,011 acronyms, available from September 2020; and the *Repertoire of Acronyms, Abbreviations and Symbols from Cosnautas* (Navarro, 2020), a consulting company for reference and translation sources in the health field, with around 103,000 concepts on July 2, 2020.

4 Methodological procedures

This study is exploratory in nature, since the proposal of the use of abbreviations and symbols for the index representation of discharge reports is a topic that has not yet been investigated in the context of the areas of Information Science and Health. Our research was based on the functionalist method. This choice comes from the fact that we believe that a study involving the patient’s medical records contemplates two of the functionalist postulates defended by Merton (1970, p. 86), the first asserting that “standardized activities or cultural items are functional for every social or cultural system”, while the second involves “indispensability”, that is to say, the author argues that “all the items are indispensable”. The methodological procedures were observed from a qualitative and quantitative standpoint. From this perspective, the following analysis categories were established (Van Dijk, 1988; Turazza, 2005), according to the patient’s medical records:

- a) Unit of Specialized Knowledge regarding macro-proposition (UCE-macro)
- b) Unit of Specialized Knowledge regarding micro-proposition (UCE-micro)

The locus of the empirical study in Brazil was the SAME (Medical Archives and Statistics Service), at Hospital Universitário Lauro Wanderley - Universidade Federal da Paraíba (HULW-UFPB). In Spain, it was the Clinical Documentation Unit, Hospital Clínic de Barcelona, Universitat de Barcelona.

The research corpora consisted of digital and analog documents, relative to the discharge reports of the patient records, stored in the Clinical Documentation Unit of Spain and in the SAMEs of Brazil, considering the following fields: neurology, nephrology and hepatology, as specified in chart 1.

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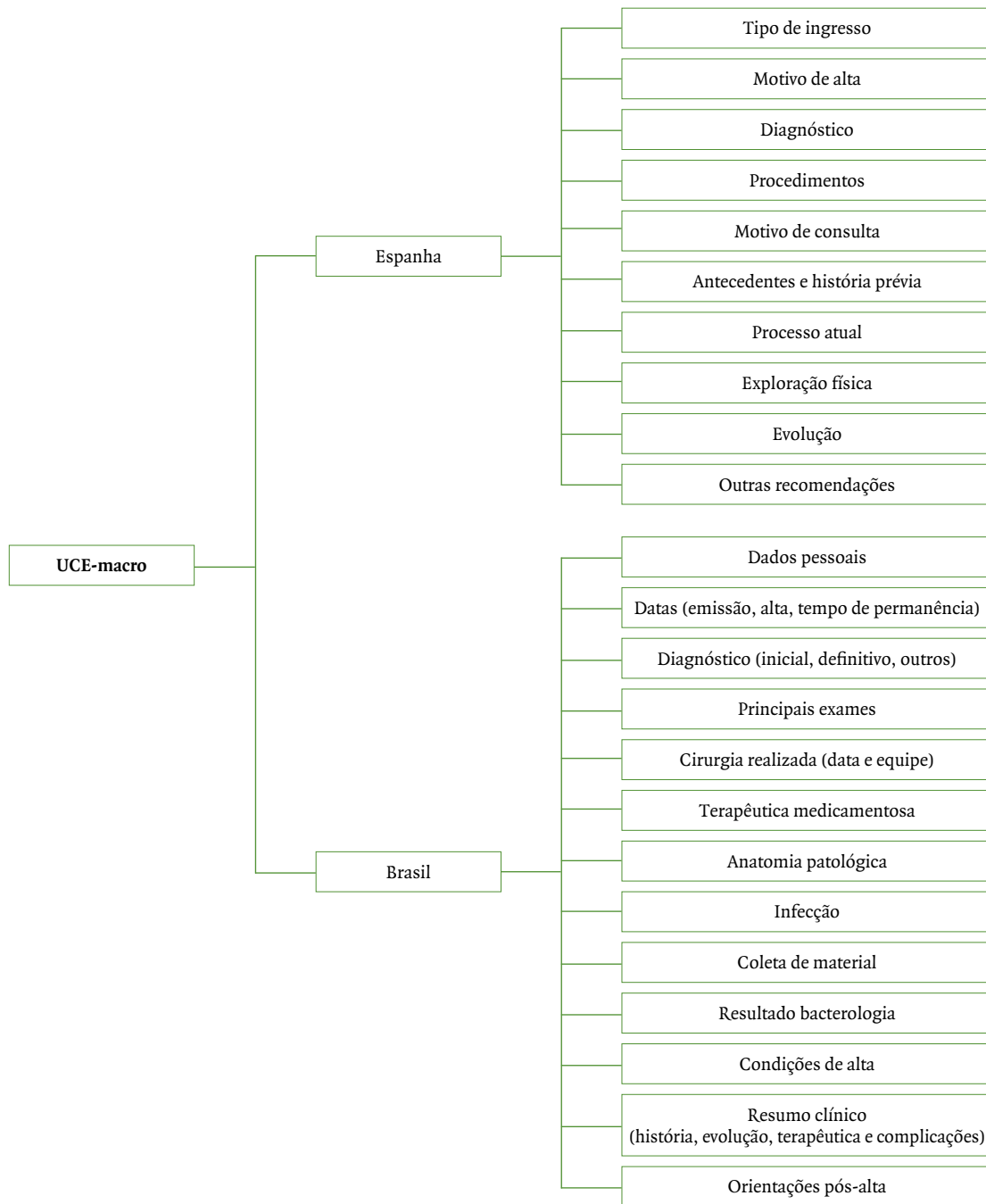


FIGURE 1. Unit of Specialized Knowledge regarding macroproposition (UCE-macro)

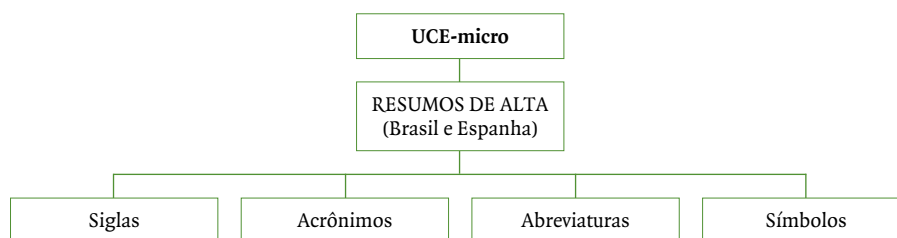


FIGURE 2. Unit of Specialized Knowledge regarding microproposition (UCE-micro)

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Hospitals	Location	Hepatology	Nephrology	Neurology
Hospital Clínic de Barcelona - Universitat de Barcelona (HCB-UB)	Barcelona, Spain	100	100	100
Hospital Universitário Lauro Wanderle - Universidade Federal da Paraíba (HULW-UFPB)	João Pessoa, Brazil	100	100	100
Total by specialty		200	200	200
Grand total		600		

CHART 1. Loci of the empirical study and investigated corpora. Source: Empirical Research Data (2015, 2016)

Thus, the quantitative nature of the corpus and the analyzed specialties are justified. The corpus was digital because all hospitals in Spain already work with electronic patient records. Therefore, to ensure the integrity of patient information, HCB used software to anonymize data, decoupling documents that identified the patient, in accordance with the Spanish data protection law, and extracted only the part which referred to the discharge reports of the patient record, so the documents were made available in a text file format.

The electronic patient record (EPR) is still not a reality in all of Brazil. Some hospitals, public and private, have already started to work with the EPR. At HULW, the patient records are still analog, they are organized in the SAME in numerical order, and it is not possible to achieve recovery by medical specialty, but just by the number of records.

In the analog corpus (manuscript), this mapping was performed manually, in order to identify the units of specialized knowledge (USK) – micropropositions. Then, the units were inserted into the Notepad ++ text editor. In the digital corpus, this mapping was done through the terminology unit extractor – WikiYATE of the APLE2 project, produced by the University Insti-

tute of Applied Linguistics (IULA). The preparation of texts (processing), to be viewed on WikiYATE, took into account two stages: the first one concerns the processing of discharge reports, aiming at the identification of the USK – micropropositions. For this purpose, processing was performed, consisting of the following steps: automatic editing of discharge reports; linguistic processing; indexing; obtaining candidate terms; analysis of candidate terms; and incorporation into the database. For better understanding, we present, as an example, in chart 2, the executable commands by regular expressions to obtain processing. The candidate terms are the descriptors (simple or compound) that were constituted in the controlled vocabulary of documentary languages. These terms usually come from the lexicon of the health fields. They are used in linguistics, in automatic text processing, to recognize and extract the terms present in a specific corpus of the health field, and to validate them as terms of that specialty.

The second stage consists of searching for processed texts (counting of potential abbreviations; location of lines of potential abbreviations; listing of all potential abbreviations in all processed files). Here is an example of this step in chart 3.

1 Automatic editing of discharge reports

```
P:\IULA\CORPUS_Infomes_medics\FabianaES\HP>perl ../filtraIM2.pl -im<informeMédico>.
```

2 Linguistic processing

```
perl P:\iula\corpus\utils\preproceso\hector.pl -inputtext iaHC_XX_28112514_e.txt -outputtext iaHC_XX_28112514_e.vrt -languagees -annotationformat IULACT -keeptags -inputmimetype iso-8859-1 -outputmimetype iso-8859-1
```

3 Indexing

```
P:\IULA\CORPUS\UTILS\indexSGMLplus.pl iaHC_XX_28112514_e.vrt-o iaHC_XX_28112514_e.5dx
```

4 Obtaining candidate terms

```
perl filtroCatMCR.pl -i iaHC_XX_28112514_e.vrt -o iaHC_XX_28112514_e -prep de -DocNoCtBaseDir “./” -lang es -nomAll -catsOnly
```

5 Candidate term analysis

```
perl P:\IULA\CORPUS\UTILS\Wikipedia\exploraWPenAPyPP_5.pl -lang es -lmincat 2 -doc iaHC_HP_28112514_e -dominio “biología” -dominiofarmacia -dominio medicina -indir “./iaHC_HP_28112514_e”
```

6 Incorporation into the database

```
perl guardaResultWP2DB.pl -uservivaldi -accion insertar -doc iaHC_HP_28112514_e -lang es -dominio medicina -devBD -indir C:\Users\U1480\Dropbox\YATE\YateMCR
```

CHART 2 . Text extraction step of the automatic extractor. Source: Research Data (2015)

```

1 Count of potential abbreviations (1 to 3 characters)
perl -nle "$count += () = /^[0-9]+\tTOK\t[A-Z]{1,3}\t/; END {print $count}" iaHC_HP_28283015_e.vrt
2 Location of potential abbreviation lines (1 to 3 characters)
P:\IULA\CORPUS_Infomes_medics\FabianaES\HP>perl -nle "print if (/^[0-9]+\tTOK\t[A-Z]{1,3}\t/); " iaHC_HP_28283015_e.vrt
3 Listing of all potential abbreviations in all processed files
perl -wE "@ARGV = glob '*.vrt'; while (<>) { say $1 if /^[0-9]+\tTOK\t([A-Z]{1,3})\t/ }"
    
```

CHART 3. Search in texts processed in the automatic extractor. Source: Research Data (2015)

From the data obtained with the extraction of candidate terms and after applying the search for abbreviations and symbols, a quality control was carried out to review and eliminate candidates that were not considered terms and the units that are not part of the domain of study, that is, only the terminology units investigated were considered. To do this, a document was listed in the text editor, Notepad ++, with abbreviations and symbols containing each term.

The context of use of the USK – micropropositions (linguistic signs: [acronyms and abbreviations] and non-linguistic signs) can be searched on the platform to obtain more information about the possible candidate term. The element composition of one or more processed documents was made using WikiYATE (figure 3).

- The steps to perform a basic consultation are:
- select and master the language;
 - select, among the available documents, the query object and click on the search button;
 - select the ordering mode of the candidate term (CAT);
 - select the CAT morphosyntactic pattern;
 - click on the searched CAT;
 - examine the available information (CAT data and contexts appearing in the selected documents);
 - update the CAT information selected in the update button.

5 Data analysis and discussion of results

For this analysis, the following were considered: the occurrence of acronyms, abbreviations and symbols for the first time in speech. The repetitions of these units, in the texts of the discharge reports of the

patient records, were not considered at this stage. Table 1 shows the lexical reduction units found in the discharge reports from Hospital Clínic de Barcelona (HCB).

The data in table 1 infer several determining factors for the characterization of these units within the scope of these medical specialties. We observed a high amount of reduction by acronyms (65.36%), and when distributed according to the health field, we have a higher percentage identified in the area of nephrology (42.16%), followed by hepatology (37.61%), and neurology (20.23%).

In the opinion of Turpin (2002), in the health area, the arguments are varied for the adoption of acronyms and abbreviations in the writing of medical records and even in discharge reports. Some argue that these resources are used so that the multiprofessional team can have more time or even to protect the patient. However, these “buy time” arguments are only valid for those inserted in the same culture. Conversely, you can exclude subjects who do not belong to the constituted group.

We share the same idea as Turpin (2002) when stating that these lexical reductions can cause difficulties in understanding for professionals and those who come from other cultures. Regarding the symbols, we understand that they follow an international convention established by competent bodies, as it is a graphic sign that represents a word, a phrase or a value.

Table 2 shows the units of lexical reductions found in discharge reports from Hospital Universitário Lauro Wanderley. The medical records of this hospital are analog, the discharge reports were identified within the patient’s medical record and then all the units of lexical reduction found were transcribed. Within the analog record, depending on the number of hospital-



FIGURE 3. WikiYATE platform. Source: http://eines.iula.upf.edu/WikiYATE_0/wikiYateBase.html

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Hospital Clínic de Barcelona (HCB)					
Forms of reduction	Nephrology (units)	Neurology (units)	Hepatology (units)	Total/Typology (units)	%
Siglas	575	276	513	1364	65.36%
Abbreviations	140	99	89	328	15.72%
Symbols	79	88	97	264	12.65%
Acronyms	48	20	63	131	6.28%
Total / Specialty	842	483	762		
Grand total				2087	100.00%

TABLE 1. Terminological units in the HCB corpus. Source: Empirical Research Data (2015)

izations of the patient, there is a record of the discharge report for each output, and generally this record is organized in ascending order of interventions, with more than one discharge report per volume of record. In this case, we consider the last intervention.

As in HCB, in HULW, as we can see in table 2, there is a large use of lexical reduction, especially siglas (72.61%), in the writing of the discharge summaries of the analyzed medical records. Regarding distribution according to specialty, the following stand out: nephrology (40.44%), followed by hepatology (36.37%), and neurology (23.18%).

The contrast of the descriptive analysis corresponding to the corpora of the discharge reports of the medical records of the investigated hospitals shows significant differences in the numbers of the forms of lexical reduction, making up 30.27% more in the HCB. Although there is a certain similarity, especially in relation to health fields (nephrology and hepatology), we still realize that, at HCB, this phenomenon is much more widespread. This may reflect that, in this hospital, discharge reports are a kind of compilation of the elements contained in the patient's medical record. That is to say, such reports are contained in labels: "evolution" (presented as ECU-macro in the method-

ology of this work) displays the complete description of the entire evolution of the patient.

And, observing the label that corresponds to that title in HULW, it may be noted that there is only a more simplified description, and it is identified by the title in the label "Clinical summary (history, evolution, therapy and complications)". The HULW discharge report has only one sheet, while the HCB summary comprises approximately 10 sheets.

With regard to abbreviations and symbols, we observed that there is also a difference in the use of these elements in HCB, which in all health fields has the practice of adopting these resources in the writing of discharge reports. Perhaps this fact is also associated with the complexity of the size of the abstracts that include laboratory tests, or due to the fact that there are specialized terminological sources for consultations.

In Brazil, the Federal Council of Medicine (CFM) does not have a resolution standardizing the writing of medical records or, of course, discharge reports; however, in CFM Resolution no. 1.638/02, which defines the medical record, the need for legibility and understanding of acronyms, abbreviations, symbols and signs adopted in the writing of medical records,

Hospital Universitário Lauro Wanderley (HULW)					
Forms of reduction	Nephrology (units)	Neurology (units)	Hepatology (units)	Total/Typology (units)	%
Siglas	328	188	295	811	72.61%
Abbreviations	89	27	36	152	13.61%
Symbols	37	15	29	81	7.25%
Acronyms	27	21	25	73	6.54%
Total / Specialty	481	251	385		
Grand total				1117	100.00%

TABLE 2. Terminological units in the HULW corpus. Source: Empirical Research Data (2016)

including spelling, is implicit. With this same understanding, in 2007, an opinion was published by the Regional Council of Medicine of the State of São Paulo (CREMESP), no. 61624/2007, on the use of acronyms and abbreviations in medical records, from a consultation with the Medical Ethics and Guidance Committee: “[...] one should prefer to write out medical notes in full, avoiding the frequent use of abbreviations or acronyms, avoiding situations involving misinterpretation and its consequences” (CREMESP, 2007).

We must not forget that the patient’s medical record is the communication channel between all the actors involved in providing care to the sick person, even for continuity in the assistance provided to the citizen. In addition, the patient may also have access to his or her medical records, or even have to be treated by another specialist or another multidisciplinary team. Therefore, if the medical record is not written in a legible or understandable way, it can cause problems for both the patient and the multidisciplinary team.

6 Conclusions

This study revealed to us that it is evident that these resources are present in all the analyzed medical records. The results indicate the presence of 2,175 siglas, 212 abbreviations, 480 acronyms and 337 symbols adopted in the writing of the medical records of all documents analyzed at Hospital Universitário Lauro Wanderley and Hospital Clínic de Barcelona. This fact can confirm a culture of reducing records

when writing discharge reports. However, this practice can lead to interference in the communication process between the doctor who signs the discharge report and the other health professionals who read or use these texts.

Regarding the patient records of Hospital Clínic de Barcelona, the clinical documentation units in Spain are evidently concerned with the use of abbreviations in patient records, such as at Hospital Clínic de Barcelona, where there is an annual assessment called BAREMOS, and one of the points of this evaluation involves the incomprehensible abbreviations in the medical discharge reports of patient records, facilitating the control of these reductions by health professionals.

In view of the results of our research, we argue that in the index representation of patient records, abbreviations and symbols are terminological units that contribute to the recovery of information in SAMEs or other clinical documentation units of health organizations in Brazil and Spain. On the basis of the results of the analysis and the discussion of the data, we infer that acronyms, abbreviations and symbols may be considered as semantic metadata for the index representation of texts of discharge reports from medical records. This fact deserves more attention from researchers since it can contribute greatly to the recovery of information in the Medical Archives and Statistics Services (SAME) and, consequently, it can help to avoid ambiguities and interferences in the communication processes between the actors involved in the execution of actions in the care of patients. ✿

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Abbreviations and symbols in discharge reports of patient records

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Note

1. Examples include thesauruses, the general list of subject headings from the Brazilian Institute of Information in Science and Technology (IBICT), the International Classification of Diseases and Related Health Problems (ICD-10), the Medical Subject Headings (Mesh), the Health Sciences Descriptors (DeCS) and the Systematized Nomenclature of Medicine-Clinical Terms (SNOMED-CT), the latter three devoted to the health area.