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## **How to use History and Physical Examination (H&P) in teaching English medical terminology and documentation skills in Hungary?**

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*History and Physical (H&P) is a genre for clinical documentation in Anglo-Saxon countries, which serves the detailed recording of patient history and physical examinations to facilitate medical decision-making. It is used in any medical field either as a template or as a digitalized text following a set of rules. In teaching Medical English and Terminology, it can be applied to demonstrate the use of terms in context and lexico-grammatical patterns typical of English-speaking countries. At Semmelweis University, we have started to involve this genre for LSP and Terminology instruction, especially examples created at emergency departments (ED), because these include extensive vocabulary related to all organ systems. These medical records (MR) also serve a didactic purpose as they contain general information on the diagnosed problems. In our case study, we compared ten Hungarian and ten American ED medical records to reveal generic, structural, and terminological discrepancies. We found differences in structure, terminology, abbreviations, and contents, which students should be made aware of. Clinicians involved in our pilot research suggested the introduction of didactic ED documentation also for the instruction of Hungarian students and residents as this genre might be a gap-filling tool for practicing concise documentation skills in emergency care.*

Keywords: *H&P, medical documentation, emergency care, teaching Medical English, Medical Terminology, genre analysis*

### **Introduction**

H&P, or History and Physical Examination, is a formal and complete assessment of the patient and the presented medical problem. It is shorthand for the formal document that physicians produce through the interview with the patient, the physical examination, and the summary of the testing, either obtained or pending. It is a requirement that H&P be completed on a new patient or on admission to hospital. As it is created for the purpose of the first assessment, H&P is also used in emergency care.

In Hungary, this genre does not exist as such; however, similar documentation is applied in emergency care, where emergency documentation (ED) serves a similar purpose in recording the first assessment and supporting medical decision-making. Accordingly, the use of a similar genre can be observed at the Emergency Department of Semmelweis University.

Based on the definition of genre by Swales (1990) and Bhatia (1993), H&P in the USA and emergency documentation in Hungary share the same communicative purpose, discourse community, and functional pragmatic characteristics. Bhatia (2002) later observes that language use typical of genres may be described as dynamically changing. This case study features a contrastive structural and terminological analysis of both the American and Hungarian versions, from an interprofessional aspect, and with the cooperation of two medical experts, who are also co-authors of the present article.

At Semmelweis University, the instruction of Medical English to the students of the Hungarian, English and German study programs is provided in elective courses through which students acquire the appropriate oral and written medical communication skills based on authentic scenarios following the CLIL (Content and Language Integrated Learning) methodology (cf. Jámor et al., 2021) in a patient-centered way. With particular regard to the

development of written communication skills, students are presented with original medical documentation from the USA and other English-speaking countries. Students are required to compare these English-language documents with their nearest Hungarian equivalents in each field of medicine. In this way, students have the possibility to learn the genre-specific terms used in English language cultures.

When teaching Medical English – usually for students further advanced in their academic studies – instructors at Semmelweis placed special emphasis on emergency documentation since it belongs to the basic assessment and management skills applied in written communication among professionals. Students must also be aware that there is no - uniform system of documentation across Hungary: even within the same institution, individual departments may have different documentation strategies. In this article, we compare the documentation policies of a Hungarian and a US emergency department.

Genre-based teaching is an increasingly favored method in teaching languages for specific purposes, especially in medical settings (Keresztes, 2013; Halász–Fogarasi, 2018; Hild et al., 2021) as well as in interpreting and translation (Horváth, 2021). Certainly, written genres play an essential role in foreign language instruction, mainly in English classes (León Pérez–Martín-Martín, 2016; Plastina, 2016). However, teaching documentation skills in the native language of medical doctors is often missing in medical education (Bechmann, 2017) and doctors acquire genre-specific written communication skills during their practical work, as part of their instruction in history taking, based on the traditions of the respective ward they start working (Keifenheim et al., 2015).

Accordingly, several universities in the USA have recognized the need for documentation to be taught as a skill in its own right (Niedermier, 2017). Insufficient documentation may result in difficulties and misunderstandings in patient care, and incorrect use of data might also have legal consequences (Fogarasi–Schneider, 2017; Niedermier, 2017). Additionally, non-native physicians unfamiliar with genre-specific English collocations and terms might find it harder to integrate into the medical community (Halász–Fogarasi, 2018).

To give our Hungarian and foreign students the opportunity of acquiring and practicing authentic English language documentation skills, we integrated into the course material sample reports used for teaching documentation to American medical students at an American university. As samples of the genre of H&P created for educational purposes are available as authentic sources, they seemed as an obvious choice for the teaching of Medical English to students in all language study programs as well as in the instruction of Medical Terminology in the English study program. The reports involve the most commonly encountered medical cases for which we would like to prepare our students to make them self-confident in these situations. Comparing them with their Hungarian counterparts allows our students to become aware of both structural and genre-specific collocational and terminological differences.

## Materials and methods

In the present case study, we compared ten anonymized sample American H&P reports with ten Hungarian medical documents, namely *Ambuláns lap* (outpatient medical report, OMR) (Varga et al, 2022) and *Zárójelentés* (discharge summary) (the genre was analyzed by Keresztes, 2002). An *Ambuláns lap* is issued when the patient is discharged or transferred to another department within six hours of arriving at the ER, and a *Zárójelentés* is issued after six hours of stay, or on the following day, after midnight. (For simplicity, this article will use the umbrella term *medical records* or *MR* when referring to these Hungarian language documents.) These reports were obtained from the Department of Emergency Medicine (DEM) of Semmelweis University with the permission of the Clinical Center. The anonymized American

documents we used were written by university students during their inpatient clerkship rotations at the University of North Carolina and are freely available online.

As methods, we used contrastive manual genre analysis and concordance analysis with the help of Sketch Engine. We performed a word frequency list, keyword analysis, n-grams (2,3,4,5 grams), and concordance analysis in the individual sections.

## Results

### *Comparison of structure*

In our study, we found that H&P records have a clear-cut, rigid, template-like structure, with every subsection organized in a different paragraph; in contrast, the MRs are less clear-cut in structure: different types of information are merged into one paragraph, thus making a continuous flow of text. Moreover, the MRs were found to be less detailed than the H&P records: certain pieces of information were, in some cases, found to be missing from MRs, e.g., past surgeries; which might be due to the restricted time available in emergency departments for diagnosis and treatment, obliging the physician to prioritize the most relevant information in documentation. The H&P records may thus be observed to present advantages over the MRs in terms of accessibility and efficiency for medical caregivers trying to locate particular information when the patient is handed over. In agreement with our physician expert, we established that, despite their differences, H&P and MR can be considered parallel genres.

We observed numerous differences in structure – and several ones in content – between the two types of documents. As Table 1 (see Appendix 1) shows, the individual sections in the two types of documents do not present a complete match. However, we observed more similarity in terms of content, as most categories of information on the patient can be found in both H&P and MR, with the main differences being the length and order of the individual sections.

When comparing H&P and MR in terms of content, we found differences in the way drug allergies and medications were handled. In the MR, the patient's medications and allergies are mentioned in the *Anamnézis* (Anamnesis) section using the Latin word *CAVE* (sic, Lat. 'avoid'), whereas H&P devotes a longer, more detailed section to both in a later part. As opposed to the MR, the H&P details the reactions caused by the allergens. As for medications, the H&P details the dosage in each case, using Latin abbreviations (see Appendix 1, Table 2); however, only three out of the ten MRs provide this information.

The next main difference in structure was found in the Review of Systems and Physical Examinations sections. These sections provided further proof that H&P is both more detailed and more clear-cut in structure, with information divided into separate sections, in contrast to the Hungarian records, where all the information was written as a continuous text; the results of the tests, whether they were expressed as numbers or verbally explained, were not separated by any method. In MR, Imaging test results formed a separate paragraph, whereas in H&P they formed part of the Physical Examinations section.

The part that follows in structural order is the Problem list and *Diagnózis(ok)* (Diagnosis/-es) sections, respectively. In H&P, eight out of the ten reports had a separate Problem list for further assessment, where all the medical problems detected during the physical examinations were listed as a differential diagnosis. In the Hungarian MR, the separate and easy-to-spot *Diagnózis(ok)* section contained the one or more diagnoses that the physician had established, complete with BNO <sup>1</sup>(ICD) codes. The difference here, in comparison with the H&P, is that the diagnosis in the MR is mostly not differential: only the most likely diagnosis

<sup>1</sup> BNO (Betegségek Nemzetközi Osztályozása) is the Hungarian version of the ICD (International Classification of Diseases) used to code and classify morbidity data.

– or in some cases, diagnoses – is mentioned, and usually question marks indicate any doubt on the part of the physician.

The final part of the medical records was found to be markedly different in the two types of documents. In H&P, all the diseases mentioned in the Problem List section were addressed in the Assessment and Plan section, in the form of a differential diagnosis, together with a treatment plan for the patient; the *Epikrízis*<sup>2</sup> (Case summary), contained a complete but short summary of the case, together with the doctor's suggestion about whether to discharge the patient or refer them to another clinic for further treatment. The Assessment and Plan section is addressed solely to the medical caregiver, while the *Epikrízis* is both for the medical caregiver and the patient.

### *Comparison of terminology*

The aim of the terminological analysis was to detect discourse-specific word patterns or phraseologisms. First, we used SketchEngine to conduct a keyword analysis in both types of documents to see the central phrases around which the individual units are structured. We found that the most frequent word was *nem* 'no / not' in the Hungarian reports, while in the H&P (immediately after *and*, *of*, and *the*) it was the word *no/not*, which corresponds with previous research (Fogarasi, 2018). This does not come as a surprise, as during both the interview with the patient and the physical examination the doctor tries to rule out certain symptoms and other factors.

The most frequent keywords found in the History of Present Illness and *Jelen panasz* (Present complaint) sections were the words *pain* and *fájdalom* ('pain'), respectively. We observed that with both terms, the most common collocations were their (quasi) equivalents, e.g. *hasi fájdalom / abdominal pain*, *erős fájdalom / severe pain*; *a fájdalom jelentkezett / the pain began*, etc. In both languages, we found a high number of adjectives in connection with pain, together with terms describing intensity, location, time frame and reaction to treatment (see Appendix 2, Figures 1 and 2). In the case of the most prevalent adjective *present* and the verb *present* we observed the concordances with both the adjective and the verb form: e.g., *present symptom*, *the patient presented with* (Appendix 2, Figure 3). We also noticed that in the *Jelen panaszok* section, the words and phrases used were more varied; consequently, there were fewer if any patterns observed, with the exception of the word *fájdalom* ('pain'), which we discussed earlier (see Appendix 2, Figure 3).

The most central words in the History of Present Illness section were *deny* (e.g., *denies hemoptysis*) and *stated* (*that*). We also observed a prominent use of nominal structures: *no other episodes of diarrhea*, *no fever*, *no rash*, etc. It is also worth noting that the Hungarian transitive verb *negál* was observed as a genre-specific parallel term to the English *deny* (see Appendix 2, Figure 4). Also of special importance was the word *symptom*, which showed great variety in concordances representing all parts of speech, e.g., *present symptom*, *relieve symptoms*, *temporary symptom*, etc. (see Appendix, Figures 4 and 5).

A particular contrast we observed during our study was between the *Anamnézis* (Anamnesis) section – where the keywords were mostly lifted from previous reports from the EESZT<sup>3</sup>, and many acronyms were used – and the Chief Complaint section, where merely a concise phrase or sentence represented the patient's complaint.

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<sup>2</sup> In this paper, the individual sections of H&P will be mentioned in English, whereas those of the MRs in Hungarian.

<sup>3</sup> Elektronikus Egészségügyi Szolgáltatási tér – National eHealth Infrastructure, <https://e-egeszseguy.gov.hu/web/eeszt-information-portal/home>

In the Medications section of the H&P, the largest number of concordances were found with the word *medication*, and with verbs providing the most variance. This section also contains a large number of acronyms (e.g., *A[ngiotensin]-C[onverting] E[nzyme] I[nhibitors]*, *P[roton] P[ump] I[nhibitor]*), while addictions are also mentioned here (e.g., *nicotine dependence*).

In H&P, a separate section is rendered to the Review of Systems, which in the Hungarian documents in every case is merged with Státusz (Status). While reviewing the different body systems, the physician asks differential-diagnostically relevant, detailed questions. The verb *deny* also turns up frequently in this section, similarly to the History of Present Illness section (see Appendix 2, Figure 4). Sketch Engine identified a significant number of collocations with *deny* – all of these were related to questions asked specifically by the physician (see Appendix 2, Figure 4).

The next H&P section, Physical Examinations, involves diagnostic tests, which comprise a separate section in the Hungarian counterpart. Here, verbal structures were scarce; we did not observe predominant structures other than the abundance of nominal structures with *no*: *no erythema*, *no edema*, etc. In the Hungarian medical records, the phraseme *eltérés nélkül* ('without deviation') presented the most varied collocations.

Regarding the diagnoses, the main difference between the Hungarian and English documents was the absence of ICD codes in the English documents. As opposed to the English examples, the Hungarian reports did not contain tentative diagnoses.

In H&P, treatment must be proposed in the Assessment and Plan section for each problem listed following a short summary of the case, whereas the Hungarian *Epikrízis* provides only a concise summary without mentioning specific problems itemized. Phraseotermes found in this section are very useful for our students to prepare an argumentative summary and a well-grounded treatment plan.

### ***Comparison of abbreviations***

We observed many different kinds of abbreviations throughout both the English and the Hungarian language documents in line with previous research on Hungarian medical documentation (Ludányi 2012, Varga et al., 2022). We found more abbreviations in H&P, which matched our expectations, as using abbreviations in the English language is a typical phenomenon. On closer examination, among the abbreviations used in both types of documents we found examples of several kinds: acronyms, shortened words, and Latin abbreviations in connection with the dosage of medications (see Appendix 1, Table 2).

In the Review of Systems section, we found mostly acronyms: *HEENT* (*head, ears, eyes, nose, throat*), *CV* (*cardiovascular*), *GI* (*gastrointestinal*), *GU* (*genitourinary*), *MSK* (*musculoskeletal*). We only found one difference between the two types of documents concerning Latin-based abbreviations: *hypertension* was recorded as HT in the MR, whereas in the H&P it was recorded as HTN.

As Tables 2, 3 and 4 (see Appendix 1) show, we also found examples of non-Latin-based words abbreviated in different ways in both types of documents. With regard to medications, dosage information containing numbers is given in capital letters, e.g., *BID*, (*bis in die* 'twice a day'); the other abbreviations are written in lowercase letters, like *prn* (*pro re nata*, 'when needed'). As for the abbreviations of words of English origin, it is worth mentioning that only the acronyms are written in capital letters (e.g., *NAD* 'nothing abnormal detected'). The words *history* and *treatment* are abbreviated with the help of the letter 'x' (*hx* and *tx*, respectively) despite the fact that neither word contains that letter; we concluded that it most probably follows the pattern of the abbreviation of recipe, Rx.

In the MRs, the scenario appears to be diverse, lacking a specific rule or trend governing the technique of abbreviation. Inconsistencies are noticeable in the case of acronyms: they can be either capitalized, e.g., *UM* (*utolsó menstruáció* ‘last menstrual period’), or lowercase, e.g., *k.m.n.* (*külön megnevezés nélkül* ‘without specification’). The latter example was the sole instance we found in the MR that also utilized dots to separate the letters.

We also observed shortened versions of words, not marked with a period, in both types of medical records. In MR, the most frequently used examples were *doh* (*dohányzás* ‘smoking’), *alk* (*alkalmanként* ‘occasionally’), *anamn* (*anamnézis* ‘anamnesis’), *norm* (*normál* ‘normal’), *repol* (*repolarizáció* ‘repolarization’), *neg* (*negatív* ‘negative’), *felv* (*felvétel* ‘image’), *ir* (*irányú* ‘direction’), *path* (*pathológiás* ‘pathological’), *mérs* (*mérsékelt* ‘moderate’). In H&P, we found fewer examples of this kind of abbreviation: *approx* (*approximately*), *mets* (*metastases*), *rad & chemo* (*radiation and chemotherapy*), *psych* (*psychologist/psychiatrist*), and *rec* (*records*).

In H&P, the Medications section contained the information on dosage using the Latin abbreviations (cf. Ehrlich-Schoeder, 2013). In Hungary, physicians in every specialty use the Hungarian language for the same purpose (with one exception: *p.o.* *per os* ‘orally’). Since the Latin abbreviations are widely used in Anglo-Saxon countries, integrating them into the English-language curriculum is essential.

## Conclusion

Based on the results of our case study, it can be stated that there are marked differences between the genres of MR and H&P regarding structure, phraseology, terminology, and also abbreviation. Our aim is to contrastively integrate these genres into the instruction of Medical Terminology for students taking part in the English-language medical training programs and the medical English courses for both our Hungarian and international students. It is imperative that students be made aware of the genre-specific use of terms and collocations as well as intercultural characteristics. Moreover, on the basis of the detailed information content of H&P for didactic purposes revealed in our study, introducing H&P to teach Hungarian medical students English documentation skills should be considered.

The main results of this research, such as structural and terminological differences, particularly observed in medication and abbreviations, highlight the need for further exploration in the field to enhance the education of our students. This involves comparing various medical document genres on one hand and comparing document types from specific fields on the other, in order to integrate the acquired findings into the education of our students.

## References

- Bechmann, S. (2017): Die Sprache der Arztbriefe: Ethnomethodologische Ansätze in der Fachtextanalyse klinischer Arztbriefe. In Bechmann, S. (ed.) (2017): *Sprache und Medizin. Interdisziplinäre Beiträge zur medizinischen Sprache und Kommunikation*. Frank & Timme: Berlin.
- Bhatia, V. K. (1993): *Analysing Genre – Language Use in Professional Settings*. Longman: London.
- Bhatia, V. K. (2002): Applied Genre Analysis: A Multi-Perspective Model. *Ibérica*. 4. 3–19
- Ehrlich, A. – Schoeder, C. (2013): *Medical Terminology for Health Professions, 7<sup>th</sup> Edition*. Cengage Learning: Delmar.
- Fogarasi, K. (2018): A diagnózis jelentése és jelentősége a beteg szemszögéből. In: Dombi, J. – Farkas, J. – Gúti, E. (szerk.) (2018): *Aszimmetrikus kommunikáció – aszimmetrikus viszonyok*. SZAK Kiadó: Bicske.
- Fogarasi, K. – Schneider, Ph. – Patonai, Z. (2019): Die Rolle von Diagnosen im medizinischen Fachsprachenunterricht: Eine interdisziplinäre Analyse deutscher, österreichischer und ungarischer klinischer Diagnosen. In: Vičič, P. – Gajšt, N. – Plos, A. (eds.) (2019) *10th International Language Conference on »The Importance of Learning Professional Foreign Languages for Communication*

- between Cultures», 20 and 21 September 2018, Celje, Slovenia: Conference Proceedings. E-publication: Online. <https://doi.org/10.18690/978-961-286-252-7.9>
- Gledhill, Ch. (2011): The ‘lexicogrammar’ approach to analysing phraseology and collocation in ESP texts. *Asp la revue du GERAS*. 59. 5–23. <https://doi.org/10.4000/asp.2169>
- Gréciano, G. (2006): Zur Textrelevanz von Phraseologie im Bereich Medizin. In Häcki Buhofer, A. – Burger, H. (eds.) (2006): *Phraseology in Motion I. Methoden und Kritik. Akten der Internationalen Tagung zur Phraseologie (Basel, 2004)*. Schneider Verlag: Hohengehren.
- Halász, R. – Fogarasi, K. (2018): Arztbrieftexte im medizinischen Fachsprachenunterricht. *Journal of Languages for Specific Purposes*. 5. 87–102
- Hild, G. – Németh, T. – Csongor, A. (2021): Magyar orvostanhallgatók angol nyelvi kommunikációs hajlandóságának fejlesztése szaknyelvi órákon. *Porta Lingua*. 2021/1. 147–160  
<https://doi.org/10.48040/PL.2021.12>
- Horváth, Á. (2021): Developing Genre Awareness in Medical Translation Training – Introducing a Genre Typology and Translation Guide. *Working Papers in Language Pedagogy*. 16. E-publication: Online. <https://doi.org/10.61425/wplp.2021.16.1.17>
- Jámbor, M. et al. (2021): Native Speaker Playing Simulated Roles in ESP Courses. In: Kaščáková, E. (ed.) (2021): *FORLANG: Foreign Languages in the Academic Environment*. Technická Univerzita v Kosiciach: Kosice.
- Keifenheim, K. E. et al. (2015): Teaching history taking to medical students: a systematic review. *BMC Medical Education*. 15. E-publication: Online. <https://doi.org/10.1186/s12909-015-0443-x>
- Keresztes, Cs. (2002): Mégis kinek a feladata?: Műfajok és diskurzusok a szaknyelvtanításban In: Kurtán, Zs. – Rébék-Nagy, G. – Heltai, P. (szerk.) (2002) *Porta Lingua: Szaknyelvoktatásunk az EU kapujában*. Debreceni Egyetem Agrártudományi Centrum: Debrecen.
- Keresztes, Cs. (2013): Genre-based teaching of medical translation. *Jahr: Annual of the Department of Social Sciences and Medical Humanities*. 7/4. 535–543
- Kühtz, S. (2007): Phraseologie und Formulierungsmuster in medizinischen Texten. Narr: Tübingen.
- León Perez, I. K. – Martín-Martín, P. (2016): On the importance of a genre-based approach in the teaching of English for Medical Purposes. *Language Learning in Higher Education* 6/1. 95–117.  
<https://doi.org/10.1515/cercles-2016-0005>
- Ludányi, Zs. (2012): Rövidítések a magyar orvosi nyelvben: szemészeti kórlapok rövidítéseiről és helyesírásukról. In: Drávucz, F. et al. (szerk.) (2012): *Félúton 8. A nyolcadik Félúton konferencia (2012) kiadványa*. ELTE BTK Nyelvtudományi Doktori Iskola: Budapest.
- Plastina, A. F. (2016): Genre-knowledge Transfer in English for Medical Purposes: A Genre Activity-based Research Study. In: Garzone, G. – Heaney, D. – Riboni, G. (eds.) (2016): *Focus on LSP Teaching: Development and Issues*. LED: Milano. <https://doi.org/10.7359/791-2016-plas>
- Swales, J. M. (1990): *Genre Analysis. English in Academic and Research Settings*. University Press: Cambridge
- Varga, É. K. – Fogarasi, K. – Patonai, Z. (2021): A kórházi ellátás dokumentumai. In: Fóris Á. – Bölskei A. (szerk.) (2021): *Tartalomefejlesztés és dokumentáció. Nyelvészeti kutatások*. Károli Gáspár Református Egyetem, L'Harmattan Kiadó: Budapest.
- Varga, É. K. – Gyenes, G. – Fogarasi, K. (2022): A státusz terminológiai jellemzői. *Porta Lingua*. 2022/2. 7990.  
<https://doi.org/10.48040/PL.2022.2.8>

## Appendices

### Appendix 1. Tables

Table 1. Structural similarities and differences of H&amp;P and ED (final medical reports)

H&P	Outpatient Medical Records (OMR)/Discharge summary
<b>Chief complaint (CC)</b> presenting complaint – brief, concise	<b>Anamnézis (Anamnesis)</b> ( <b>present illnesses</b> , <b>medications taken</b> , <b>allergies</b> , <b>surgeries</b> )
<b>History of present illness (HPI)</b> patient particulars, continuous text, not separately like in the H. document	<b>Jelen panasz (Chief complaint)</b> short, continuous text; sometimes <i>Jelen panasz</i> and <i>Státusz</i> are united in one paragraph
<b>Past medical history (PMH)</b>	
<b>Past surgical history (PSH)</b>	
<b>Medications</b> + dosage	
<b>Allergies</b> + reactions to allergens	
<b>Family history (FH)</b>	
<b>Social history (SH)</b>	<b>Státusz (Status)</b> Review of systems, physical examination
<b>Review of Systems (ROS) observation + questions</b> detailed;	
<b>Physical examination (PE)</b> + <b>diagnostic tests</b> , separately (CT, lab, X-ray, if applicable)	
	<b>Képfalkó eredmények (Imaging test results)</b>
<b>Problem list (PL)</b> in 7 out of 10 as separate sections, in others: included in AP	<b>Diagnózis(ok) (Diagnosis/-es)</b> BNO codes, Hungarian description
<b>Assessment and Plan/Recommendation (AP)</b> assessment of the patient's condition, on the basis of <b>differential diagnosis</b> ; treatment plans	<b>Epikrízis (Case summary)</b> (short summary of the case – examinations, tests, referral/discharge

Table 2. Latin abbreviations in connection with medication in H&amp;P

qday (quaque die)	every day
BID (bis in die)	twice a day
TID (ter in die)	three times a day
QID (quater in die)	four times a day
prn (pro re nata)	when needed
qhs (quaque hora somni)	every bedtime
po (per os)	orally, by mouth

Table 3. Non-Latin-based (English) abbreviations in H&amp;P

pt	patient
NAD	nothing abnormal detected
SOB	shortness of breath
h/o	history of
hx	history
w	with
NKDA	no known drug allergy
PE	physical examination
ROS	review of systems
tx	treatment



Table 4. Non-Latin-based abbreviations in the Hungarian language documents

mko	mindkét oldali/oldalón ( <i>on both sides</i> )
kp	közepesen ( <i>moderate/ly</i> )
rtg	röntgen ( <i>X-ray</i> )
SBO	Sürgősségi Betegellátó Osztály ( <i>Emergency Department</i> )
tb	tabletta ( <i>tablet</i> )
UM	utolsó menstruáció ( <i>last menstrual period</i> )
k.m.n.	külön megnevezés nélkül ( <i>without specification</i> )
NSAID	non-steroidal anti-inflammatory drug
fvs	fehérvérsejt ( <i>white blood cells</i> )
vsz	valószínű(leg) ( <i>probably</i> )
HO	házi orvos ( <i>general practitioner</i> )
MVT	mélyvénás trombózis ( <i>deep-vein thrombosis</i> )

## Appendix 2. Visualization by Sketch Engine

Figure 1. Collocations with the noun *pain*

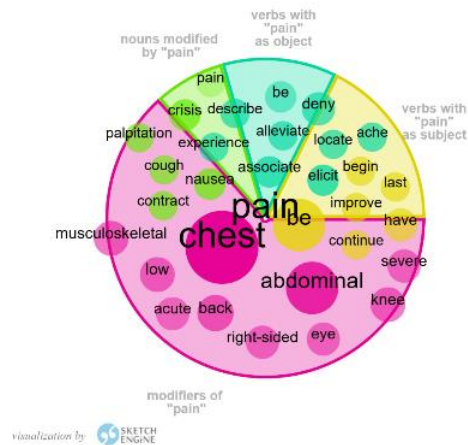


Figure 2. Collocations with the noun *fájdalom* ('pain')

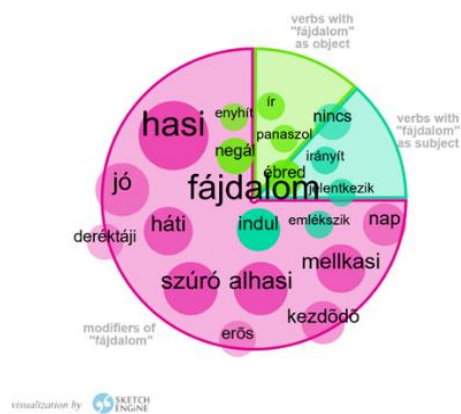


Figure 3. Collocations with the adjective/verb *present*

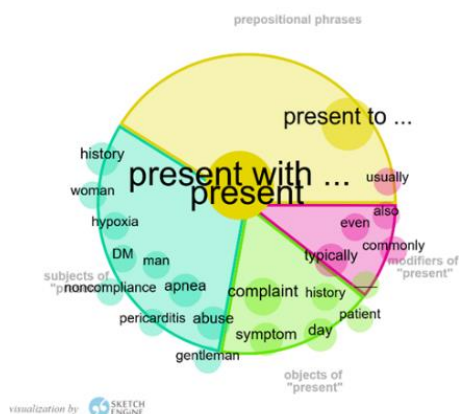


Figure 4. Collocations with the verb *deny*

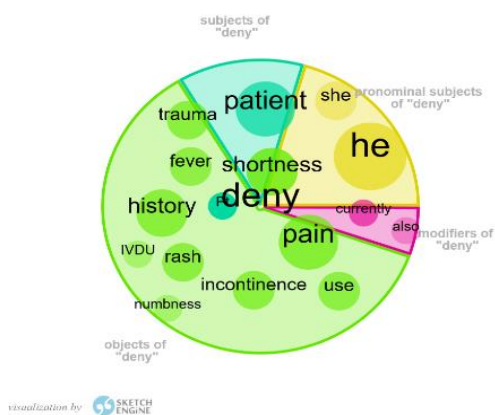


Figure 5. Collocations with the noun *symptom*

