

FILOZOFICKÁ FAKULTA UNIVERZITY PALACKÉHO
Katedra anglistiky a amerikanistiky

Kvalita překlada abstraktů a souhrnů v odborných lékařských periodikách

Translation quality in medical abstracts and summaries in medical magazines and journals

Diplomová práce

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(magisterská práce)

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Statement

I hereby state that this submitted thesis is my original work and that I elaborated it myself.
I properly cite all references and other sources that I used to work up the thesis. Those
references and other sources are given in the list of references.

Olomouc

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List of abbreviations:

TQA	translation quality assessment
ST	source text
SL	source language
TT	target text
TL	target language

List of tables:

Table 1 - Three types of meaning according to Juliane House

Table 2 - Juliane House's comparative model

Table of Contents

Table of Contents	6
Introduction	8
1. Translation Quality Assessment	10
1.1. The concept of <i>quality</i> in translation	10
1.1.1. Standardization	11
1.2 Models and approaches to translation quality assessment	12
1.2.1 Juliane House	21
1.3 The need for translation quality assessment	26
1.4 Model for the quality assessment of medical translation	29
2 Analysis	31
2.1 Source texts used in the analysis	31
2.2 Source text analysis	33
2.2.1 Genre	33
2.2.1.1. Abstract as a genre	34
2.2.2 Register analysis	38
2.2.2.1 Field	39
2.2.2.2. Tenor	39
2.2.2.3 Mode	41
2.3 Comparative analysis	42
2.3.1 Defects analysis	42
2.3.1.1 Orthography defects	42
2.3.1.2 Grammar	44
2.3.1.3 Incompleteness	45
2.3.1.4 Terminology	46
2.3.1.5 Stylistics	48
2.3.1.6 Factual correctness	51
2.3.2 Translation procedures analysis	52
2.3.2.1 Borrowing	52
2.3.2.2 Literal translation	52
2.3.2.3 Transposition	53

2.3.2.4 Modulation	53
2.3.2.5 Explicitaion / Adding Information / Specification	54
2.3.2.6 Generalization	54
2.3 Final evaluation	56
Conclusion.....	57
Appendix 1	59
Appendix 2	60
Resumé	100
References	102
Journals and Magazines used for analysis.....	102
Bibliography / Works Cited	106
Reference dictionaries	109
Online sources	109
Annotation.....	111
Anotace.....	112

Introduction

This MA thesis deals with quality in medical translation narrowing its focus on the translation of abstracts in medical journals.

The first part of the thesis examines the approaches to the theory of translation quality assessment (TQA) providing an overview of the main theoretical issues. It explores the concept of quality in translation, the purpose of TQA and the use of several key terms such as *assessment*, *evaluation*, *function*, *equivalence* or *subjectivity*. The concept of *quality* is discussed including a brief reference to standardization efforts. The main part comprises a chapter on approaches and models in TQA. It is followed by a chapter on the purpose and importance of translation quality assessment.

The practical part consists of the analysis of abstracts in medical magazines such as *Medicína po promoci*, *Interní medicína*, *Postgraduální medicína*, etc. The analysis is based on the model by Juliane House in terms of having three steps: source text analysis, comparative analysis and overall assessment. The analysis of source texts is based on House's source text analysis for which she uses genre analysis and Halliday's concept of *register - field, tenore* and *mode* (House, 2009). The comparative analysis uses defect categories based on the categories for source text defects by Molnár (2012) complemented by categories of translation methods based mainly on Vinay and Dalbernet's categories. The final assessment summarizes the analysis aiming to arrive at an overall evaluation of the translation of abstracts in medical journals.

The thesis does not aim to arrive at any definitive judgements on the quality of the analyzed translations in terms of *good* versus *bad* translation, rather it intends to demonstrate the occurring issues in medical translation. It uses the academic theoretical background, namely House's model for TQA, trying to apply it in practice through the analysis.

Medical translation as a field in the Czech Republic is still rather neglected at the academic as well as the professional level. Both translation and medicine are fast growing and constantly developing fields: "Factors such as fast growth and development of medicine as a field and the overall globalization lead to greater demand for translations. The translators have to be able to cover the demand, to keep up to date with the constantly evolving profession they translate in as well as the translatology itself" (Lauscher, 2000). There are no courses or seminars for medical English integrated to the curricula of university translation programs, let alone a university program focused solely on medical translation. Nor are there any official

bodies or authorities providing a special training or ensuring that medical translations are done by professionals as is the case for legal translators.

The impulse to analyze quality in medical translation came from doctors themselves who reported occasional flaws in journal articles related to translation. The idea is also based on the results of a survey conducted as a part of a BA thesis (Pachovská, 2012) where some respondents stated that it did not even occur to them that there might be translations of different quality. Despite these facts, there is a general assumption the highest quality is ensured in medical ensured.

It is not in the scope of this thesis to investigate every detail and problem of medical translation in its fullest. Rather it aims to bring more attention to this subject in general and to provide some background information regarding quality in medical translation. The thesis is written from the point of view of a translator in training and therefore the main purpose of the thesis is to draw the attention to the gap in the academic curricula regarding medical translation.

1. Translation Quality Assessment

This chapter provides an overview of existing models and approaches to translation quality assessment (TQA) aiming to find a suitable model or approach to assess translation quality in medical abstracts.

1.1. The concept of *quality* in translation

General dictionary definitions describe *quality* in terms of how good or bad something is. The Oxford dictionary, for example, adds that *quality* is the standard of something when it is compared to other things like it. Although the process of comparison to assess the quality of something may seem logical and necessary, there are approaches to translation quality assessment that disregard the comparison of source texts with target texts altogether focusing solely on the translation, for example the literary-descriptive approach (House, 2009).

The term *quality* within the scope of translation theory is not clearly defined. Carol Maier (Maier, 2000) from Kent State University in her Introduction to *The Translator* distinguishes between *Quality in Translation* and *Translation and Quality* (building on the fields of contrastive linguistics and text linguistics): "... despite a consistently nuanced and research-based focus on quality, much, if not most of the discussion of *quality* and *Translation and Quality* occurs in the context of assessment" (Maier 2000, 140). It suggests that we cannot define quality without including some sort of measuring and comparing.

There are two key terms used within the framework of translation quality: *evaluation* and *assessment*. Some scholars use these terms interchangeably (e.g.: Susanne Lauscher in her article on TQA *Where Can Theory and Practice Meet*, 2000) but Maier points out, that no matter which term one prefers, the most important factors are the measurement and judgement (Maier, 2000).

The norm ISO (namely ISO 9000: 2005¹ which explains terminology of the ISO norm) provides a definition of quality, which can be useful in translation as well. The ISO norm states that *quality* of something can be determined by comparing a set of inherent characteristics with a set of requirements and if those characteristics meet all the

¹ more information can be found at: <http://www.praxiom.com/iso-definition.htm>

requirements, high or excellent quality is achieved and vice-versa. The norm concludes that quality is a question of a degree and it is a concept always relative to a *set of requirements*.

When talking about translation quality, some scholars distinguish between the quality of the process, the quality of the final product (target text) or the quality of the source text and to what extent it can determine the quality of the translation as a final product. Very few approaches, though, bridge the gap between the theory and practical applicability of such models.

Anthony Pym in his *Translation research terms* says, that: "The concept [of quality] is notoriously problematic, since the notion of absolute 'high quality' sets up the ideal of the perfect translation. However we know that translations can and should be different for different purposes and under different work conditions" (Pym 2011, 96 - 97).

Zehnalová emphasizes the two notions of the concept of *translation*: "since there are two notions of translations - the product and the process - the translation quality assessment also distinguishes between and deals with either the quality of the process or the quality of the result" (adapted from Knittlová 2010, 220).

1.1.1. Standardization

There are efforts to standardize the approaches and ranking systems across the fields of translation quality assessment (TQA). One of the few scholars discussing norms is Joanna Drugan in her *Quality in Translation Profession* (2013) in the chapter *2.3.1 Why quality matters for the industry* (Drugan 2013, 70-75). These efforts and standards are different in respective countries and translation bodies which aim to establish standards and norms in translation, for example CEN (European Committee for Standardization), the above mentioned ISO (International Organization for Standardization).

Many countries have their own standards for TQA², for example AENOR in Spain, AFNOR in France, UNI in Italy, BSI in United Kingdom or CGSB in Canada. Norms such as ISO 9001 or EN 15038 (issued by CEN) are recognized norms for translation quality, but they deal rather with the overall management of translation projects, agencies or services rather than providing any criteria for the quality of translations as products. In Germany they established the norm DIN 2345 and in China they have National Standard of the People's Republic in China GB/T 19363 with a Specification section for translation (Drugan, 2013). In

² taken from <http://www.translationdirectory.com/article472.htm>

the Czech Republic, there is a norm SN EN 15038 which sets conditions primarily for agencies providing translation services.

More information on individual norms can be found for example in the article *Source Text Quality in the Workflow of Translation Agencies* by Michal Kubánek (Kubánek, 2012). He reviewed several norms coming to a conclusion, that all of them share three requirements, i.e. there has to be some sort of cooperation between the client and the translation agency, source texts have to be analyzed and that the client is responsible for the quality of the source texts (Kubánek 2012, 92). In general, the quality of source texts is greatly emphasized.

1.2 Models and approaches to translation quality assessment

This chapter reviews models and approaches on translation quality assessment and aims to arrive at key underlying features that would be widely applicable in the evaluation of medical translations.

Two of the main concepts underlying various approaches to TQA are *equivalence* and *function*. "Function is the point of reference for the translation strategy developed and applied by the translator" (Lauscher 2000, 156). Lauscher talks about equivalence based and functional approaches. Carol Maier points out the ambiguity in translation criticism terminology. There currently exists a dichotomy in TQA, which concerns the concepts of *value* and *quality* (similar to House's terms linguistic analysis and value judgements). In other words, it is always *either-or* approach. Another pair of terms used in different approaches to TQA is *evaluation* and *assessment*. The main problem with these two terms is - according to Maier (2000) - that every researcher or reviewer uses them differently, sometimes interchangeably.

The theory of translation is crucial for translation quality assessment but as there is not a single clearly defined theory of translation, there is not a single model or approach to translation quality assessment applicable to all texts: "Different views of translation itself lead to different concepts of translation quality, and different ways of assessing it" (House 1998, 222). She continues that: "[...]the approaches in industry are markedly different to those of theorists, often attempting to integrate aspects of translation quality which are excluded from in the theorist's narrower focus on TQA alone" (Ibid.). This may be why any translation quality assessments fail to provide any prescriptive basis for practical use.

There are several approaches to TQA but only few detailed models which were tested on real translations. There seems to be a gap between academic and practical research

scholars which creates another gap in the practical utilization of such models: "Academics have grouped TQA approaches in various ways [...]. However, few theorists have published detailed, reproducible TQA models for human translation with an indication of the text types on which they were tested" (Drugan 2013, 46). Joanna Drugan lists four specific models by Al-Qinai, House, Larose and Williams, which were tested.

One of the first concept that provided sound basis for translation quality is Nida's concept of functional and dynamic equivalence. "His framework calls for determining quality according to the response a translation produces in target readers" (Angelli 2009, 1). Put it simply, the reaction of target and source text readers should be the same. Nida's dynamic equivalence is the key factor for the response oriented, psycholinguistic approach. His three criteria for an ideal translation, i.e. *general efficiency of the communicative process, comprehension of intent and equivalence of response* "proves to be as vague and nonverifiable as those used by proponents of the intuitive anecdotal approach" (House 1998, 222-223). Nida and Taber later presented different criteria: "the correctness with which the message of the original is understood through the translation, the ease of comprehension and the involvement a person experiences as a result of the adequacy of the form of the translation" (Ibid.) But as House (1998) further points out, when tested, these criteria were not reliable enough.

Other theoreticians who built on or are similar to Nida's model are, for example Newmark, who distinguishes between *semantic* and *communicative* translation; or Toury who works with terms *adequacy* and *acceptability* (Angelli, 2009).

In the 1960s, the criteria were mostly response-based and their major drawback is: "the same as that which characterizes all behaviouristic approaches: the 'black box', the human mind, is not taken into account [...]" (House 1998, 223).

Ernst-August Gutt developed contextually and cognitively motivated approach called relevance theoretic approach, which, as well as the previous approaches, disregards the multi-dimensional character of translations (House 1998, 223).

One of the first linguistic text-based approaches were proposed by Katharina Reiss in 1971. As House (1998) says, Reiss based her approach on Bühler's three basic language function: content-oriented, form-oriented and conative. Baker points out the flaw of this division: "However, exactly how language functions and source text types can be determined, and at what level of delicacy, is left unexplained" (House 1998, 223).

Werner Koller suggested three stages of evaluation: "(a) source text criticism, with a view to assessing transferability into the target language, (b) translation comparison, taking

account of the methods used in the production of a given translation, and (c) translation evaluation on the basis of native speaker metalinguistic judgements, based on the text specific features established in stage (a)" (House 1998, 223). However this approach is criticized for remaining programmatic in nature (Ibid.).

The approach of Jenny Williams: "combines macro and microtextual approach to translation quality assessment, which also tries to unite quantitative and qualitative dimensions" (House 1998, 223). None of the above mentioned approaches show this effort, however, Williams' flaw is that "[...] in assuming the universality of argumentative structure, he totally disregards the context and culture boundness [...]" (Ibid.). By trying to create one universal approach to translation quality assessment (which has not been proved to be possible yet), Williams seems to be denying all the intercultural and intertextual differences.

The comparative literature approach lessens the importance of the source text and allows to assess the translation without the source text and it is difficult to determine when the text is a translation and what criteria should be used (Ibid.). In case of medical abstracts, articles, journals (the publicistic genre), the reader is aware of reading a translated text since source text information such as the author(s), hospital / institution, primary journal, etc. and it therefore plays an important role for the target text reader.

The functionalist approach is represented in the work of Reiss and Vermeer who saw the skopos as the most important factor: "The way the translated text is adapted to the target language and culture norms is then taken as the yardstick for evaluating a translation" (House 1998, 204). House (1998) questions the importance of their differentiation between equivalence and adequacy but she mainly criticizes this approach for not providing a method or criteria how to determine skopos and for backgrounding the source text.

A statement by which not only the approach by Reiss and Vermeer is dismissed, but any other approach that disregards source texts in translation quality assessment: "By its very nature, translation is simultaneously bound to the source text and to the presuppositions and conditions governing its reception in the target linguistic and cultural system. Any attempt at evaluating translations must take this basic fact as a starting point" (House 1998, 224). Her conclusion is then to create a model which would not deal with source and target texts separately, but a model which "would provide a linguistic description and explanation of whether and how translation is equivalent to its source" (Ibid.).

Susanne Lauscher (2000) in her article begins with the model based on equivalence. One of the first models based on this approach was proposed by Katharina Reiss. Based on Reiss's theory, Lauscher concludes that: "[i]n a order to assess optimum equivalence between

source text and target text, the critic analyzes both texts by using categories of (1) text types [...], (2) linguistic instructions [...], (3) extralinguistic determinants [,,,]". Based on Reiss, if we are to evaluate or assess translation, it means: "reversing the translation process and reconstructing the translation strategy" (Lauscher 2000, 151). This theory analyzes the translation process as well as the product of translation only retrospectively, but it does not mention any prescriptive rules or methods. It is Reiss' third category of extralinguistic determinants that allow to evaluate ST and its translation employing the contextual parameters of texts.

Katharina Reiss proposes two-step evaluative procedure (Lauscher, 2000) consisting of: "(1) an analysis of the target text in order to evaluate the appropriateness of target language use and (2) comparison of source and target texts based on the analysis of both texts, so as to establish the degree of equivalence between them" (Lauscher 2000, 152).

The theory of skopos underlies a number of models for TQA. Both Katharina Reiss and Christiane Nord base their TQA models on the skopos theory where the critic has to consider the skopos when assessing a translation. Reiss' approach is functionalist because she based her translation criticism on text type and goals (Williams 2004, 11). Once we decide between text-oriented or goal-oriented method of translation, the critic must (according to Reiss): "assess quality against the standards or criteria appropriate to the method applied" (Ibid.). This includes among others the text type and function of a translation. Nord bases her model on Reiss' skopos theory and proposes a "model based on the function and intention of the target text in the target culture and applicable to instrumental as much as to literary documents" (Ibid.). She based her idea of *grades* of translation quality on "a conscious decision to produce a relatively literal or relatively free translation and do not encompass a tolerance level for errors unwittingly committed by the translator" (Williams 2004, 12).

According to Reiss and Vermeer skopos theory, the purpose of translation has the overriding importance when judging the quality of a translation. However House points out that the *function* in Reiss and Vermeer's theory is never made explicit: "[...] since any translation is simultaneously bound to its source text and to the presuppositions and conditions governing its reception in the new environment, Skopos theory cannot be said to be an adequate theory when it comes to tackling the evaluation of a translation in its fundamental bidirectionality" (House 2001, 245). On the question of *function*, House also states that the function is given by the translation brief from the person requesting the translation (Ibid.).

Lauscher again criticizes the vagueness of the concept of "equivalence" which would provide clear criteria for TQA. The way Reiss understands equivalence (as stated in the article

by Susanne Lauscher) is mostly related to language use: "Optimum equivalence will be achieved if the translator is able to choose the appropriate word or phrase from the dictionary by applying the process-governing rules" (Lauscher 2000, 152).

As Lauscher points out, this approach is not suitable for neologisms in technical texts or artistic texts. "Reiss herself points out that her approach is not applicable to translations that serve other functions providing an equivalent reproduction of the source text, or to translations that address a different audience in the target culture" (Lauscher 2000, 152). This fact excludes this approach from being applied to assessing quality in medical translation.

A model by Van den Broeck works with *factual equivalence*, which is "the degree to which [...] two texts can be related to each other along functionally relevant features" (Lauscher 2000, 152). He suggested the concept of *adequate translation* which is: "hypothetical reconstruction of the textual relations and functions of the source text [...] as the yardstick and parameters for the comparison of the source and target texts" (Ibid.). In his model, Broeck considers both the translator and the critic having two different sets of norms which means a comparative character of his approach to TQA (Lauscher, 2000). The negative aspect of Van der Broeck's model, according to Lauscher, is that he does not explain how to identify functional elements in the source text.

D'Hulst builds on a functional approach in which he "equates function with the concept of text act, a category similar to speech act" (Lauscher 2000, 157). According to his model, the source text and target text are first analyzed separately and compared afterwards. In comparison with previous models, D'Hulst considers the possibility of translating a defective texts. Unlike House, he "tries to overcome the problem of linking text functions to specific linguistic means [...] by relating text function to structural characteristics of the source and target texts" (Lauscher 2000, 158). His model needs two conditions to be applicable: "(1) a text's function can be clearly and unambiguously related to text structures; and (2) there is a typology of text acts and related text acts and related text structures for each language" (Ibid.).

Susanne Lauscher emphasizes the importance of understanding the process of translation, which is crucial for translation quality assessment and "in order to improve our knowledge of actual translation processes, their impact on translation and translation quality, the profession should make them more accessible, e.g.: in form of comments, forewords, product specifications, etc." (Lauscher 2000, 161). This seems to go against the common idea that a good translation is the one that is not visible which may lead us yet again to the function of a translation where depending on a particular purpose, it may be important to notify readers

of the fact they read a translation and the critic will adjust the assessing criteria and approach accordingly.

Essentially, Lauscher (2000) says we have to study translation practices if we are to understand the translation phenomenon in general and to draw any definitive models on translation quality assessment. "As long as our knowledge of actual translation processes remains limited, proponents of scholarly models of translation quality assessment must acknowledge the speculative side of those models" (Lauscher 2000, 161).

As of yet, all the approaches are in favor of the models when both source text and target text are subject the translation quality assessment, however purely comparative approach is not sufficient either: "Comparing source and target texts can tell us about differences between them, but it does not allow us to identify such differences as mistranslations or errors" (Lauscher 2000, 161). According to this statement it may seem appropriate to combine more models or approaches for a single translation assessment.

Among other proponents in the field of TQA are for example Chesterman, who distinguishes five approaches to TQA: retrospective assessment, prospective assessment, lateral assessment, corpus linguistic approach and pedagogical assessment. This classification overlaps partly with House's and Nida's approaches (Drugan 2013, 47).

Williams and Lauscher both distinguish only two categories. Williams (2004) identifies models with a quantitative dimension and non-quantitative models. His approach has four stages: Analysis of the original, Analysis of the translated text, Comparative assessment, Overall quality assessment (Drugan 2013, 48). Based on this model, he proposes a type of a checklist which he: "intends to become a useful criterion-referenced tool and quality standard." This *tool* consists of four standards which are: Publication standard, Information Standard, Minimum Standard, Substandard (Drugan 2013, 62).

Larose is a Canadian theorist who came up with a model on TQA based on three hierarchical levels: Microstructural, Macrostructural, Superstructural (Drugan, 2013). In this model, he focuses mainly on extra-textual features. His model is criticized because despite the fact he deals with the context of a translation and TQA elaborately he does not include these information when evaluating translation (Drugan, 2013).

A corpora-based approach was suggested by Bowker, Olohan and Kenny: "Large CORPORA of translations from and into many different languages [...] must be analysed in order to formulate hypotheses about why, how, and to what degree one translation may be deemed better than another" (House 1998, 225). However corpora are rather static and close

sets of language use and they do not reflect changes and development in a language use, style, or genre.

Post-modernist and Deconstructionist views are psycho-philosophical and socio-political approaches and are part of the text and discourse group. They try to make translations visible and reveal ideological and institutional manipulations by analyzing the relationship of features in the source and target texts (House, 2001).

There is a model to evaluate quality in localization. It is called LISA QA Metric³ (Localization Industry Standards Association) which uses a simple metric system to assess quality in localizations. It is in a form of a simple checklist divided into various sections (e.g.: language, formatting, etc...) and each section has three categories of errors (minor, major, critical)⁴. Very simple system which can serve as a template, a steppingstone for models in quality assessment in other fields of translation.

Linguistically oriented approaches were not primarily interested with TQA, but their theories have contributed to the field significantly when they included fields such as pragmatics, sociolinguistics, stylistics or discourse analysis (House, 2001). "Linguistic approaches take the relationship between source and translation text seriously, but they differ in their capacity to provide detailed procedures for analysis and evaluation" (House 2001, 246). Among the proponents of this approach is for example Mona Baker or Juliane House who says that: "[the] view of translation as re-contextualization is the line taken by myself in a functional-pragmatic evaluation model first developed some 25 years ago and recently revised" (House 2001, 247).

One of the Czech scholars who dedicates herself in translation quality is Jitka Zehnalová. She has a three-level approach in which she distinguishes between TQA as a field dealing with both translation process and product, TQA procedures and TQA processes (set of procedures) (Zehnalová 2012, 49).

An example of a translation quality assessment with a sole purpose to ensure an excellent quality of the outcome translations can be found at the CS Unit 1 of the Directorate-General for Translation at the European Commission⁵. Translation quality assessment is part of a daily workflow where every translation is revised by a fellow translator. The revisor's

³more information can be found at:

http://producthelp.sdl.com/SDL_TMS_2011/en/Creating_and_Maintaining_Organizations/Managing_QA_Models/LISA_QA_Model.htm

⁴ more information can be found at:

http://producthelp.sdl.com/SDL_TMS_2011/en/Creating_and_Maintaining_Organizations/Managing_QA_Models/LISA_QA_Model.htm

⁵ All information regarding the Directorate-General for Translation at the European Commission are taken from the author's professional experience as a translator trainee for the session from March to July 2015.

task is to correct the translation or suggest changes to the translation. There is a special evaluation sheet where the revisor can mark down the type and number of corrections in a table. The evaluation sheet also contains slot for revisor's and translator's comments and the head's of unit overall assessment⁶. The corrections categories are *sense, terminology, style, completeness, referential documents, grammar, spelling* and *punctuation*. There are two levels of severity - low and high. The overall assessment uses four levels of ranking: *excellent, fit for purpose, poor* and *unacceptable*. For the details see the attachment no. 1 which contains the copy of the evaluation sheet.

This evaluation sheet can serve as an example of a simple checklist which is used in other fields to ensure quality. Checklists are used in many fields to prevent mistakes from occurring and to improve and ensure quality, for example the checklist for surgeons designed by Atul Gawande which is now used by the World Health Organization within the program WHO Surgical Safety Checklist.^{7,8}

All current approaches to translation assessment are very one-sided focusing only on one aspect at a time. To assess the quality in medical translation, there seems to be a need to have different approaches to different phenomena. This tendency will probably be necessary in translation quality assessment in general, as suggested by Lee Jahnke, House and Baumgarten: "Future approaches to translation quality assessment need to be more transdisciplinary in nature" (House 1998, 225). Buenos Cuellar suggests an approach in his dynamic translation model, when he: "integrates both product and process oriented perspectives on translation as well as linguistic, literally and culturally oriented views [...] combining textual and contextual aspects with considerations of the communicative nature of translation" (House 1998, 225).

Al Qinai's model is based on House's model and according to him, the main objective of the theoretical approaches should be *empirical objectivity*, not *subjective impressionism* (Al Qinai, 2000). He distinguishes between adequacy in translation (which he prefers) and a degree of equivalence and he claims that to reach adequacy in translation, we have to consider *textual/functional (pragmatic) compatibility* (Al Qinai, 2000). For this purpose, he identifies seven parameters: textual typology (province) and tenor, formal correspondence, coherence of

⁶ For more see the evaluation sheet which is attached to this thesis as Appndix 1 (with the permission of the head of unit, Mrs. Kamila Adámková).

⁷ Atula Gawande gave a talk *How do we heal medicine* in which he explain the reasons and impulses that led to the creation of such checklist. His talk is available online at:
https://www.ted.com/talks/atul_gawande_how_do_we_heal_medicine#t-270700

⁸ WHO Surgical Safety Checklist started as a one-year pilot study in eight hospitals worldwide. More information regarding the program as well as the checklist are available online at: <http://www.who.int/en/>

thematic structure, cohesion, text-pragmatic (dynamic) equivalence, lexical properties, grammatical/syntactic equivalence.

1.2.1 Juliane House

One of the most prominent scholars in the field of translation quality assessment is Juliane House. Her approach is rather extensive therefore it is reviewed in a separate subchapter from the other models.

Juliane House proposed a pragmatic model for TQA which described as a model which: "provides for the analysis of the linguistic situational particularities of source and target texts, a comparison of the two texts and the resultant assessment of their relative match" (House 1998, 224). Borrowing Halliday's terms, House says that the translation has to be equivalent on the ideational and interpersonal functional level which can be accomplished by using equivalent pragmatic means (Ibid).

According to Juliane House, if we want to determine a good translation, we need to: "address the heart of any theory of translation, i.e. [...] the nature of the relationship between a source text and its translation" (House 2001, 243). That would mean that any approach to TQA which disregards the source text is essentially in contrary with the fundamental principle of translation. She distinguishes three types of meanings based on which we can have three different approaches in translation evaluation, i.e. intuitive and interpretative, response-based, and text and discourse approach (House, 2001).

The *intuitive and interpretative* approach is now used by neo-hermeneutic scholars who see translation as an act of individual art depending only on subjective interpretation and decisions.

The *response-based* approach: "aims at a more scientific way of evaluating translations dismissing the translator's mental action as belonging to some in principle unknowable black box" (House 2001, 244). The example of this approach can be found in Nida's work, his *sameness of reaction* and the theory of *dynamic equivalence of translation*. The basic hypothesis is that "a good translation is one leading to equivalence of response" (Ibid.). The questionable thing according to Juliane House is how do we measure the sameness of reaction, informativeness or intelligibility. All the attempts to measure these qualities failed partly because this approach disregards source texts providing no analysis of the relationship between them, which is contradictory to the demand of comparing and measuring the sameness of reaction.

The *text and discourse* approach includes literary-based approach which again disregards the source text. Juliane House refers to Toury's theory: "A translation is evaluated predominantly in terms of its forms and functions inside the system of the receiving culture

and literature." House claims that trying to evaluate a translation as an independent product in translation quality assessment is inappropriate.

House's division according to the three types of meaning can be summarized into the following table⁹:

Meaning	Translation evaluation is...	Approaches
as a concept in language users' heads - SEMANTIC meaning	likely to be intuitive and interpretative	mentalist views
as developing in, and resulting from, an externally observable reaction - PRAGMATIC meaning	likely to involve response-based methods	behavioristic views, functionalistic views, skopos approach,
seen as emerging from larger textual stretches of language use including context (situational, cultural and linguistic) - TEXTUAL meaning	likely to use discourse and text approach	literature-oriented approach, post-modernism, deconstructionism, linguistically-oriented approach,

Table 1 - Three types of meaning according to Juliane House

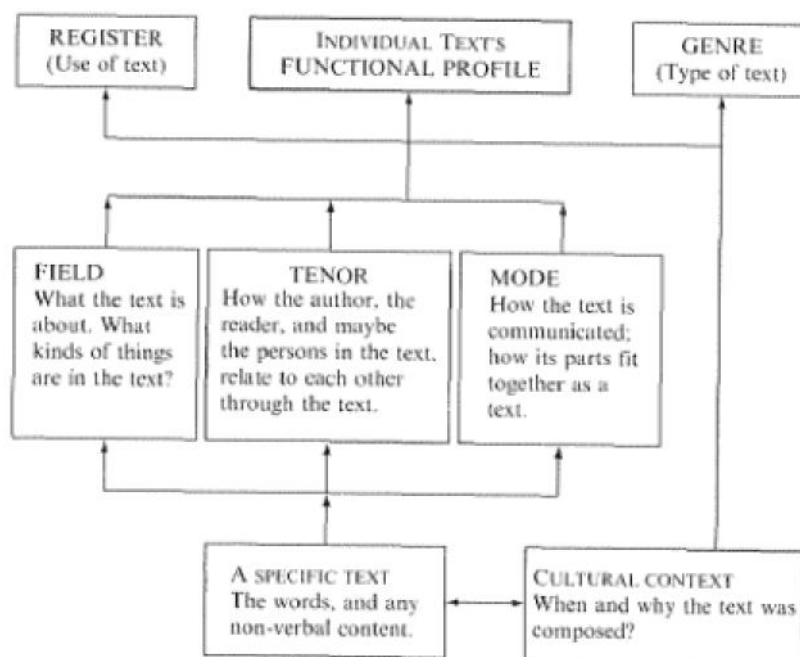
Target-text related views assess the translation based on how it functions in the system of the target language and culture (House 2009, 47 - 48). This approach can be found for example in literary texts. However House dismisses any approaches to TQA that disregard the source text, as can be seen from her conclusion on three categories: anecdotal and subjective, response-oriented, text based (Drugan 2013) saying that "the approach of all three groups is limited as translation is simultaneously bound to the source text and to the presuppositions and conditions governing its reception in the target linguistic and cultural system" (Drugan 2013, 46).

The views in which the originals and translations are compared works with the concept of *equivalence* and the Halliday's concepts of *register* (*field, tenor, mode*) are used (House 2009, 50). House tests this approach by analyzing a specific text. First she analyzes the source text in terms of *genre, field, tenor, mode* and *functional profile* and then she compares the ST and TT in terms of *field, tenor, mode* and *degrees of equivalence*. House claims that: "This type of comparative linguistic analysis and description of the degrees to

⁹ The table is not part of the original article and was made for the purpose of this thesis

which equivalence is achieved between original and translation is a good basis for making evaluative statements" (House 2009, 55). She also strongly emphasizes the difference between a linguistic analysis and social judgements (Ibid.).

Table 2: Juliane House's comparative model is shown in the following table¹⁰:



The underlying concept of her model is *equivalence* and the distinction between *overt* and *covert* translation. "The overt translation is required whenever the source text is heavily dependent on the source culture and has independent status within it. A covert translation is required when neither condition holds, i.e. when the source text is not source-culture specific" (House 1998, 225). This strict distinction makes it difficult for medical translations to be classified as either overt or covert translations. Medical texts, especially published articles, have more than one author, and sometimes the authors can be from different countries. They may be bound to source culture in terms of the stylistics and types of genres, but they are the theme, i.e. the ideational function, makes them universally bound to medical professionals in all countries. The author is always mentioned, sometimes even the source publication, therefore readers always know if they read a translation or not.

The difference between the overt and covert translation is not given only by the text or the translator, but it also depends on: "the reasons for the translation, the implied readers, on a variety of publishing and marketing policies [...] which turn out to be often more influential

¹⁰ taken from *Translation* (House, 2009)

than linguistic considerations of the professional competence of the translator herself" (House 2001, 254), which is contradictory to the fundamental nature of translation.

According to House, the functional, pragmatic equivalence is: "the type of equivalence which is most appropriate for describing relations between original and translations" (House 2001, 247). She claims that text and its context are inseparable. Each text was created in and is accompanied by a certain context consisting of field, mode and tenor (register). Translation is then: "the recontextualization of a text in [language] 1 by a semantically and pragmatically equivalent text in [language] 2" (Ibid).

House works with two parameters (Lauscher, 2000): genre and register. The genre (according to House) is a clearly determined category but register has three subcategories - field, tenor, mode - which have to do with lexical, syntactical and textual levels¹¹. Therefore the translation evaluation consists of: "(1) establishing a source text profile along the operational-enabling parameters against which the target text is measured; (2) establishing the function of the source text; (3) comparing source text profile with target text; and (4) providing a statement of quality that lists, in addition to errors, the matches and mismatches along the parameters of genre and register, and comments on the translation strategy" (Lauscher 2000, 153).

For a thorough textual and linguistic analysis, Juliane House claims that the analysis of register itself is not sufficient. The analysis of Genre should be used instead because: "The category of Genre is useful for the analysis and evaluation process because, although Register [...] descriptions are useful for accessing the relationship between text and context, they are basically limited to capturing individual features on the linguistic surface" (House 2001, 248). It could be simplified that Genre is being the umbrella concept for Register and to do a deeper analysis, one has to accept the more global context that puts different texts into context.

House claims, that the real cultural transfer is possible only in overt translation. The covert translation is a type of cultural compensation. The concept of culture in today's world maybe somewhat vague and problematic. Juliane House when discussing the culture of language community says: "Obviously, there is no such thing as a stable social group untouched by outside influence and group and personal idiosyncracies, and obviously it is wrong to assume a monolithic unified culture of which all differentness is idealized and cancelled out" (House 2001, 251).

¹¹ House based her theory on Halliday's approach

Juliane House warns against disregarding the two different concepts in TQA which are linguistic analysis and value judgements and against making evaluation judgements without the linguistic analysis. The two main functions of translation criticism (ideational and interpersonal) each have their opposite method: "The first and, in my estimation, the primary one, refers to linguistic-textual analysis, description, explanation and comparison, and it is based on empirical research and on professional knowledge of linguistic structures and norms of language use. The second step refers to value judgements, social, interpersonal and ethical questions of socio-political and socio-psychological relevance, ideological stance or individual persuasion"(House 2001, 256). If these two concepts are to be done simultaneously by one critic, it may imply, that the translation reviewer should have linguistic background relevant to the theory of translation which can be used in the linguistic-textual analysis and practical experience in translation to be able to make judgements on the value of translation. To summarize House's claim, the textual-linguistic analysis provides sound foundation for value judgements.

Another important influence to consider apart from culture is according to House the influence of lingua franca. There is a gap in research in exploring the influence of lingua franca at the pragmatic, syntactic and discourse level: "Rules of discourse, conventions of textualisation and communicative preferences tend to remain hidden, operating stealthily at a deeper level of consciousness and thus presenting a particular challenge for translation evaluation" (House 2001, 253).

The model designed by Juliane House is the only one that represents: "a way of bypassing the trap of being anecdotal or subjective, and incorporating aspects of response evaluation and text analysis" (Drugan 2013, 46).

The model by House can be simplified into a three-step process (Drugan 2013):

1. Analysis of ST and Statement of function
2. ST and TT comparison
3. Statement of quality

House claims that we need to focus on the process of translation, not on a translation as a final product. To be able to "tap" the translation process, we have to use "introspective methods" - "triangulated" process-oriented work.

The idea is that a good translation is one that has the same textual profile and the function of the profile as the original text: "The resulting profile of the original characterizes its function which is then taken as the norm against which the translation [...] match the profile and function of the original is the degree to which the translation is adequate in

quality" (House 1998, 224 - 225). This suggests that the characteristics of the source text provide crucial criteria for the translation assessment and thus it justifies the source text analysis being included in the assessment of translation quality.

1.3 The need for translation quality assessment

The field of TQA is mainly criticized for being built on subjective judgements which are mostly descriptive rather than prescriptive: "Translation quality is a problematical concept if it is taken to involve individual and externally motivated value judgements, [...]. However, this should not lead us to assume that translation criticism as a field of inquiry is worthless" (House 2001, 255). It may be of benefit to translators (either in training or professionals), it can provide feedback and suggestions for improvements and prevent errors from occurring again in similar texts. It may be a useful tool to educate translators as well as general public which uses translation services (to facilitate communication with translators or to distinguish professional translators and translating services, etc.). As Susanne Lauscher suggests in her article *Where Can Theory and Practice Meet*, this discipline deserves more attention since the demand as well as offer is constantly growing: "More people use translations than ever, and more people than ever make (or try to make) a living from translation" (Lauscher 2000, 149).

As Joan Drugan (2013) points out, many new factors have entered the translation industry during the past three decades, such as high demand on translation in our ever more globalized world; Internet or the overall progress in technologies including software and technological support for translation industry. "All this has meant increasing attention to different levels of translation quality" (Drugan 2013). With this expansion in translation industry in general, translation quality has been seeing: "the general drive to establish industry-wide standards" (Ibid).

According to Juliane House in her article *Translation Quality Assessment: Linguistic Description vs. Social Evaluation*: "[...] translation is at its core a linguistic-textual phenomenon, and it can be legitimately described, analyzed and evaluated as such. It is for this reason that I would argue that the primary concern of translation criticism should be linguistic-textual analysis and comparison, and any consideration of social factors [...] must be of secondary relevance in a scientific discipline such as translation studies" (House 2001, 244 - 245).

The quality in translation or rather translation quality assessment is very broad and not distinctly defined field and in highly specialized text is almost nonexistent. But as Carol Maier says: "Today, however, the growing demand for translations in such fields as

technology and business is giving rise not only to a demand for increasingly specialized translations but also to a need for more nuanced and more explicit methods of determining values" (Maier 2000, 137).

Wherever the quality is assessed, the factor of subjectivity is also discussed. Jitka Zehnalová says on subjectivity: "[...]subjectivity is inevitable - it forms an integral part of human communication, and its interpretations and assessment. Translation is a complex form of communication, engaging not only [...] the text producer and the text recipient but also [...] the translator. Subjectivity thus plays a greater role in translation than in non-mediated forms of communication" (Zehnalová 2012, 43). Apart from the fact that subjectivity is an integral part of any mediated communication, she points out the aspect of human factor. The subjective factor in both the translation process and translation assessment cannot be simply erased or changed into an objective one.

The traditional approaches to TQA often results in lists of criteria of problems trying to define what is or is not a good translation. The main problem of these approaches, according to Susanne Lauscher, is that: "[t]he ultimate goal seems to be the establishment of a conclusive list applicable to all translations, and the criteria mentioned typically refer to correct language use in terms of the target language system" (quote by Schmitt, in Lauscher 2000, 150). It is wrongly assumed, as Lauscher continues, that these lists should provide basis for judging good or bad translation.

As well as the translation process or product, TQA depends on the function, the purpose of translation quality assessment. As Lauscher says, it is all about: "delivering the right translation, at the right time, at the right place, and at the right price". Considering these factors may help us to choose the right models or approaches to translation quality assessment, to take into account their individual roles and importance. One may conclude, that if we are to judge the quality of a particular translation, we should also have access to the information about the translation process such as *what, where, why*. These questions are part of what Christiane Nord (2005) calls translation brief in her *Text Analysis in Translation*, which is useful to the translator and it may be useful to the critic/reviewer as well. The only problem with translation brief is that it is not provided by the client and very often a third party (e.g. an agency) is involved which further complicates the communication and the overall translation process.

Another debate about the purpose of TQA is whether this discipline should be prescriptive or not. According to House, we should not make any prescriptive judgements as a "sign of respect for translation and translator" (Lauscher 2000, 162). This would imply that

we should not criticize a *bad* translation or translator. These statements seem to be in contradiction to the whole concept of assessing quality in general and have no use in translation university program which are mostly built on mistakes analysis in students translations.

According to Susanne Lauscher (2000), translation criticism has two tasks in order to become prescriptive: "First, it must investigate the evaluation process further in order to determine the levels on which the influence of the subjective occurs, and it must emphasize that agreement on these levels is a prerequisite for prescriptive judgements. Second, translation criticism could consider and build into its models general knowledge about prescriptive judgement" (Lauscher 2000, 163). This suggests we might find useful inspiration in other disciplines and sciences where criteria and standards for quality evaluation are already established (such as medicine, engineering or music).

Lauscher criticizes House's approach to functional equivalence as being somewhat problematic because: "[House] assumes that text function is expressed by linguistic means." which leads Lauscher to two issues: "(a) is text function inherent in linguistic expression? and (b) do different languages use the same linguistic means to express text function?" (Lauscher 2000, 154). After elaborating on this matter further, she concludes that the function is given to a text by its readers and a particular context. She criticizes House for not providing "sufficient basis for distinguishing communicative preferences in different cultures" (Ibid.).

There are various opinions on the purpose of translation quality assessment. What they all agree on, though, is that TQA should provide some sort of yardstick to evaluate existing translations, provide feedback and try to establish criteria or standards for future translations. Juliane House says that: "In translation criticism it is important to be maximally aware of the difference between (linguistic) analysis and (social) judgement" (House 2001, 254). In trying to find a compromise, she suggests a functional-pragmatic model, which is described in the following chapter in more details. One approach however is not a solution: "Such approach [...] cannot ultimately enable the evaluator to pass judgements on what is a good or a bad translation. Judgements of the quality of a translation depend on a large variety of factors that enter into any social evaluative statement" (Ibid.). Currently it seems easier to state what TQA should not be and what it should not do, that is not to aim to make judgements and not to prescribe what a good translation should be like.

According to Mona Baker, the problem with anecdotal and subjective approaches by translators themselves is their lack of theoretical basis and the tendency to "see the quality of

a translation as solely dependent on the translator and his or her personal knowledge, intuitions and artistic competence" (House 1998, 222).

The two notions included in the term *translation* as well as various purposes of the translation as a result of the work of a translator should serve as variable characteristics which help to shape the approach to TQA.

Jitka Zehnalová regards TQA as a complex challenge and raises three key questions: "[...] do we really need [TQA]? And if so, who needs it and why do they need?" (Zehnalová 2012, 42). If we follow Honig's list of groups involved in this process, which is quoted in Zehnalová (2012), then we have four groups of *TQA users*: users (of the text), professional translators, translational research and trainee translators.

Users in the case of medical translation are medical professionals, and from their point of view, TQA should provide a guarantee of a good translation. However, during a survey conducted within a BA thesis on medical translation (Pachovská, 2012), some doctors admitted, that they did not even know there is such thing as *good or bad translation*. However some of them reported translational mistakes in some medical journals. This shows a gap to be bridged by raising awareness in the users of translations, but this is not the primary aim of this thesis.

Professional translators need it to distinguish their work from amateur translators which in the case of medical translations are mostly doctors who are highly educated medical professionals but usually have no linguistic, let alone translational education. Translational research needs to bridge theory and practice, which is related to the last groups of trainee translators, who benefit from both theory and practice.

1.4 Model for the quality assessment of medical translation

The models by House, Larose, Al-Qinai and Williams are distinctive because they have been tested (Drugan 2013). As the research into theory of TQA shows, there are plenty of theoretical models and approaches, but only few tested and further developed by practitioners. There is sufficient theoretical foundation to build on. The TQA theory draws not only on translation theory, but on many linguistic disciplines. The next step might therefore be not to create another models for new texts or for different purposes, but instead to test the existing models and adapted accordingly.

One of the main purposes of assessing quality in medical translation is educational. As Maier says, there is an increasing need for translators who specialize in various fields and

they will be most likely educated at university. "This, if nothing else, points the need for evaluative practices in diverse areas" (Maier 2000, 137). Therefore this factor should also be taken into consideration when choosing a suitable approach to assessing quality in medical translation.

When assessing the quality of medical translations, we should have in mind the characteristics of the overt translation, be aware of the aspects of translation of these texts and perceive the translations and an insight into the source culture: "In overt translation, the work of the translator is important and visible. Since it is the translator's task to give the target culture members access to the original text and its cultural impact on source culture members, the translator puts target culture members in a position to observe and/or judge this text from outside" (House 2001, 250). This claim may be relevant for a TQA reviewer, especially when (s)he is considering the sameness of reaction as a factor.

Medical translations as a type of an overt translation may be approached based on the Juliane House's four-tiered analytical model consisting of Function, Genre, Register, Language/Text: "[...] we can state that an original and its overt translation are to be equivalent at the level of language/Text and Register as well as Genre" (House 2001, 250). The function has, according to House, its own discourse world of frame which is different in source and target language: "The translation is differently framed, it operates in its own frame and its own discourse world, and can thus reach at best second-level functional equivalence" (Ibid.).

2 Analysis

Following Juliane House's model, the analysis contains source text analysis, comparative analysis and final evaluation. The source text analysis is based on the *genre* and *register* analysis. Comparative analysis uses set of categories and parameters based on source text defects (Molnár, 2012) and set of translation procedures (based on Vinay and Darbelnet's classification). Final evaluation provides and overall assessment of the translation quality of analyzed texts.

2.1 Source texts used in the analysis

For the purpose of this analysis abstracts from various medical journals and magazines were selected in order to provide a wider and representative set. The journals were provided by medical professionals who regularly read them and who reported occasional problems in the texts or quizzes resulting from translation mistakes.

Abstracts used for the analysis are from journals *Interní medicína pro praxi*, *Postgraduální medicína*, *Rehabilitace a fyzikální lékařství*, *Cor et Vasa*, *Klinická farmakologie a farmacie*, *Medicína pro praxi* and *Medicína pro promoci*.

Interní medicína pro praxi is a Czech medical journal that publishes articles by Czech medical professionals from the field of internal medicine. According to the official disclaimer all articles are subjects to reviews. The only translations in this journals are short abstracts / summaries at the beginning of each article. Source texts (ST) are in Czech and are translated into English.

Postgraduální medicína is a medical journal that publishes articles from various medical specializations (internal medicine, pediatrics, dermatology, traumatology, pharmacology, etc.). It has one monothematic part called *Focus* containing papers by different professionals on a selected topic. This journal is designed for a wide medical public as a life-long learning source of information. The source language of the articles is Czech and the summaries and abstracts are translated into English. There is no information on translation however they provide contact information for foreign countries distribution (apart from the contact for Czech and Slovak distribution).

Rehabilitace a fyzikální lékařství is a Czech medical journal which follows the journal *Fysiatrický a revmatologický vstřížník* established in 1923. It is published by Czech Medical

Association of J. E. Purkyn¹². The source language of articles is Czech and the summary of each article is translated into English but no disclaimer regarding the translation is included.

Cor et Vasa is an international journal published by the Czech Society of Cardiology¹³. According to its disclaimer, it features, among others, editorials, review articles, results of research studies, book reviews, reports on congresses and conferences, information from the Czech Society of Cardiology and the European Society of Cardiology, and many others. It publishes articles in Czech, Slovak whose annotations are always translated into English, and English articles.

Klinická farmakologie a farmacie publishes articles on pharmacotherapy and clinical pharmacology and is designed for doctors of internal medicine as well as pharmacists¹⁴. The published articles are in Czech and Slovak in which case the summary is translated into English. Articles in English can be also published however no translation into Czech is provided.

Interní medicína pro praxi, Klinická farmakologie a farmacie and Medicína pro praxi are all published by Solen Medical Education¹⁵, one of the biggest publishing house for medical journals in the Czech Republic.

Medicína pro praxi is a journal designed for general practitioners and contains information and news from the field of internal medicine. It tries to facilitate orientation in this complex specialty and to cover a wide range of internal medicine issues. It publishes articles in Czech and all summaries are translated into English.

Medicína po promoci contains articles by Czech medical professionals as well as translations of articles published in American Postgraduate Medicine and German Deutsche Medizinische Wochenschrift with commentaries by Czech specialists. It has the highest number of copies sold and in 2008 it was included on the list of reviewed journals published in the Czech Republic which are being assessed according to Impact Factor List.

Each volume of the journal Medicína po promoci is divided into sections. The first part is called Symposium and it deals with a specific issue in each volume. Next section includes Translated articles with commentaries (P ekladové lánky s komentá em) which are followed by Review articles (P ehledové lánky). Then there are several different sections in each volume, for example Pharmacotherapy (Farmakoterapie), Congress reports (Zprávy z

¹² More information on this association can be found online at: <http://www.cls.cz/english-info>

¹³ More information on society can be found online at: <http://www.e-coretvasa.cz/>

¹⁴ More information and selected articles can be found at: <http://www.klinickafarmakologie.cz/>

¹⁵ More information on the Solen publishing company and its publications can be found online at: <http://solen.cz/artkey/inf-888800-0003.php>

kongres), Series (Seriál), etc. Each volume contains a quiz or a trial test with questions related to articles. The tests are accredited by the Czech Medical Chamber and for correct answers a doctor can earn 2 credit points in each volume.

Journal volumes used for the analysis are Interní medicína pro praxi volume 1/2013, Postgraduální medicína volume 8/2008, Rehabilitace a fyzikální léka ství volume 2/20 from 2013, Cor et Vasa volume 6/2006, Klinická farmakologie a farmacie volume 1/2011, Medicína pro praxi volume 2/2012 and Medicína po promoci volume 1 - 1/2013.

All the journals were available in hard copies and the abstracts were transcribed and attached to this thesis as Appendix no. 2. Throughout the analysis, pieces of the texts are part of the main body of the analysis in order to demonstrate particular issue, but there is always a reference to the text number according to the appendix. In case the source or target text of abstracts in the above mentioned journals were not in English or Czech, those abstracts were not included in the analysis. Altogether, 62 texts and their translations were analyzed.

2.2 Source text analysis

Source text analysis is the first step in the model proposed by Juliane House. Following her model, the source text analysis includes Halliday's concept of genre and register (House, 2009). This chapter provides the analysis of both English and Czech source texts providing an overview of similarities and differences in those respective languages. These similarities are taken into consideration in the comparative analysis - whether and how are they reflected in the translation.

2.2.1 Genre

It is difficult to clearly define the scope of genre analysis because it comprises a multitude approaches. As Bhatia (2002) says in his article *Applied genre analysis: a multi-perspective* model, it is a multi-disciplinary activity attracting various linguistic specialists, including translators.

Bathia distinguishes four main goals of genre analysis:

"to represent and account for the seemingly chaotic realities of the world; to understand and account for the private intentions of the author, in addition to socially recognized communicative purposes; to understand how language is used in and shaped by socio-critical environment; and, to offer effective solutions to pedagogical and other applied linguistic problems" (Bathia 2002, 5). However he points out, that the underlying purpose of genre

analysis is to provide understanding of communication goals in particular communities or fields - *why they write the way they do* (Ibid.).

The main contradiction in genre analysis is the attempt to use conventionalized criteria to analyze real texts which are dynamic and complex (Bhatia, 2002).

Swales (1990) points out the lack of interest in genre among linguists probably "due to traditional tendencies to deal with aspects of language below the level of texts and partly due to a reluctance to employ a 'term of art' so closely associated with literary studies" (Swales 1990, 38). However he claims that genre analysis is a legitimate discipline since there are many types of genres with great differences among them, for example the degree to which individual genre exemplars are prepared or the mode or medium through which genres are expressed (Swales 1990, 61 - 62).

The difference between genre and register may not always be evident, however as Swales explains it using Martin's definition: "[...]genres constrain the ways in which register variables of field, tenor and mode can be combined in a particular society" (Swales 1990, 40). Swales adds that genres have a structure in terms of a beginning, middle part and an end, which is not the case of register (Swales 1990, 41).

Despite the certain level of controversy, the genre analysis has its place in linguistics and according to Juliane House it has its place in translation quality assessment since she included it in the source text analysis of her TQA model.

2.2.1.1. Abstract as a genre

Using Bhatia's division of genres from the real world perspective (Bhatia, 2002), an abstract would be placed into the group of Colonies of Genres, because it may be found across various professional communities, not only the medical one.

Within the Colonies, Bathia (2002) distinguishes Introductory genres Promotional genres, Reporting genres, Introductory genres, Academic genres, Letter genres, Textbook genres, E-mail genres (Bhatia 2002, 10). Here the classification of abstracts is not as definite. The analyzed abstracts always appear at the beginning of each article introducing the topic (Introductory genre), but in some cases it may also include whole or partial results of a study (Reporting genres) or suggest and promote a suitable treatment for a particular treatment or drug (Promotional genres).

Both Swales (1990) and mejrková (1999) et al. agree on the importance of abstracts and the underlying factor that apart from writing an abstract in author's native language, there

often has to be an English version of it or in some case only an abstract in English is required by the publishers.

Abstracts may even determine whether the reader will continue reading the whole article / text and sometimes it may be the only thing a reader needs to create an idea about the rest: "[...] of those who will read the title, only some will read the abstracts, and of those who read the abstracts only some will read the article itself" (Swales 1990, 179). It can be summarized that an abstract is presents the article, it is its representation (Swales, 1990).

A very concrete and specific definition of abstract was provided by Graetz (1985 *In Hyland, 2004*):

"The abstract is characterized by the use of past tense, third person, passive, and the non-use of negatives. It avoids subordinate clauses [...]. It avoids abbreviation, jargon, symbols and other language shortcuts [...]. It is written in tightly worded sentences which avoid repetitions, meaningless expressions, superlatives, adjectives, illustrations, preliminaries, descriptive details, examples, footnotes. In short it eliminates the redundancy which the skilled reader counts on finding in written language and which usually facilitates comprehension" (Graetz 1985, *In Hyland, 2004*).

If we look at the abstracts in medical journals and magazines, we will discover that most of the Graetz definition does not apply here:

Unless referring to previous research, the present tense prevails in both English and Czech language versions of abstracts:

- *P ísp vek zpracovává...* (ST 6) x *The paper presents...* (TT 6)
- *Na základ našich zahrani ních výsledk jsou vyvozovány záv ry...* (ST 11)
- *This forces us to reflect on the current state...* (TT 11)

The use of abbreviations, jargon and symbols is fairly common even within a single sentence and often not in a concise form:

- *Cílem tohoto sledování bylo 1) zhodnotit vliv lé by CSA u pacient s revmatoidní artritidou za použití index aktivity onemocnění: DAS 28 (CRP a CDAI), 2) posoudit vztah dostupných farmakokinetických údaj od t chto pacient (AUC₀₋₁₂, C_{max}) a aktivity onemocnění u pacient s RA.* (ST 44)

- *The objective of this research was 1) to evaluate the effect of CSA therapy in rheumatoid arthritis patients using disease activity indexes: DAS 28 (CRP) 28 (CRP) and CDAI, 2) assess the relationship of the previously obtained and measured pharmacokinetic variables (AUC_{0-12} , C_{max}) and the disease activity in RA. (TT 44)*
- *Bolus enoxaparinu podaný i. v. navodil zvýšení inhibice F Xa ($1,07 \pm 0,31$ IU/ml, p ed $0,05 \pm 0,06$ IU/ml; $p = 0,001$) a inhibice F IIa ($0,60 \pm 0,45$ IU/ml, p ed $0,28 \pm 0,14$ IU/ml; $p < 0,001$) proti výchozí hodnotě, které p etrvávalo ještě jednu hodinu (anti F Xa $0,91 \pm 0,34$ IU/ml, anti F IIa $0,69 \pm 0,93$ IU/ml; ob $p < 0,001$). (ST 51)*
- *The i.v. bolus of enoxaparin induced an increase in the inhibition of F Xa (1.07 ± 0.31 IU/ml, baseline 0.05 ± 0.06 IU/ml; $p = 0.001$) and in the inhibition of F IIa (0.60 ± 0.45 IU/ml, baseline 0.28 ± 0.14 IU/ml; $p = 0.001$) at 20 minutes, which continued for 1 hour (anti F Xa 0.91 ± 0.34 IU/ml, anti F IIa 0.69 ± 0.93 IU/ml; both $p = 0.001$). (TT 51)*

Frequently used superlatives

- In the Czech texts: *nejastjší, nejvzácnjší, nejširší (uplatnění), nejzávažnější, nejdležitější, nejužitečnější, etc.*
- In the English texts: *the most effective, the most important, the most prevalent (arrhythmia), the most frequent, the most common, etc.*

mejrková et al. perceives abstracts in scientific and medical fields as a miniature of the whole article (translated from mejrková et al., 1999, 74). In any case, the abstract should contain information on the objective and the scope of the research, used methods or techniques, important findings and results and the evaluation of results, and possible options for the future (adapted from mejrková et al. 1999, 74).

She proposed a structure of an exemplary abstract which comprises: *Problem - Formulation of a particular problem - Suggested solution - Method(s) - Results - Conclusions* (adapted from mejrková et al.). This structure can be observed in the abstracts of *Cor et Vasa* journal (see Appendix 2, texts 52), where individual parts of an abstract are marked: *Cíl/Aims - Metodika/Methods - Výsledky/Results - Závěr/Conclusion* and the problem is formulated in the title of the article.

It is common to use fixed and stereotypical phrases, especially at the beginnings of abstracts (Mejrková 1999). Mejrková distinguishes three types of abstract openings: 1) starting with a noun, 2) authorial beginning, 3) "in medias res", i.e. starting with the topic directly.

From those three types of opening, the third one is the most prevalent in the analyzed abstracts, regardless of the language (Appendix 2):

- TEXT 8: *Hypothyroidism is a clinical disorder commonly encountered by the primary care physician.* (ST) / *Hypothyreóza p edstavuje poruchu lé enou zpravidla všeoecným léka em.* (TT)
- TEXT 26: *Skruz proximální femorální epifýzy - coxa vara adolescentium - je hormonáln podmín né onemocn ní,...* (ST) / *Slipped capital femoral epiphysis - coxa vara adolescentium - is a hormonally determined disease,...* (TT)
- TEXT 48: *Uzel lze ve štítné žláze lze zjistit ultrazvukovým vyšet ením...* (ST) / *Using ultrasound a thyroid nodule is detectable...* (TT)
- TEXT 56: *Karpální nestability p edstavují heterogenní skupinu poran ní záp stí...* (ST) / *Carpal instability represents a heterogenic group of wrist injuries considering...* (TT)
- TEXT 60: *Porucha polykání v d tském v ku je závažným rizikovým faktorem...* (ST) / *Swallowing disorder in childhood is a major risk factor that...* (TT)

An example of the first category (opening with a noun) can be found here:

- TEXT 12: *Cílem sd lení je charakterizovat malnutrici, resp. nutri ní poruchy...* (ST) / *The purpose of this article is to characterize malnutrition...* (TT)

An example of the second category (authorial beginning) can be found here:

- TEXT 20: *Auto i dokumentují p ípad vzácné lékové interakce...* (ST) / *The authors are documenting a case of uncommon drug interaction...* (TT)

2.2.2 Register analysis

Juliane House in her comparative model for translation quality assessment uses the Halliday's categories of register, that is field, tenor and mode to analyze source texts (House, 2009). Source texts used for the analysis in this thesis are written in English and Czech. This fact is acknowledged in the analysis by comparing and contrasting differences and similarities in the register of both Czech and English source texts of medical abstracts.

The categories of register - *field*, *tenor*, *mode* - can be according to Halliday used to describe any kind of a situation. He uses the following definitions of the categories:

Field = what is going on in the situation: (i) the nature of social and semiotic activity; and (ii) the domain of experience this activity relates to (the subject matter or topic)

Tenor = who is taking part in the situation: (i) the roles played by those taking part in the socio-semiotic activity - (1) institutional roles, (2) status roles (power, either equal or unequal), (3) contact roles (familiarity, ranging from strangers to intimates) and (4) sociometric roles (affect, either neutral or charged, positively or negatively); and (ii) the values that the interactants imbue the domain with (either neutral or loaded, positively or negatively)

Mode = what role is being played by language and other semiotic systems in the situation: (i) the division of labour between semiotic activities and social ones (ranging from semiotic activities as constitutive of the situation to semiotic activities as facilitating); (ii) the division of labour between linguistic activities and other semiotic activities; (iii) the rhetorical mode: the orientation of the text towards field (e.g. informative, didactic, explanatory, explicatory) or tenor (e.g.: persuasive, exhortatory, hortatory, polemic); (iv) turn: dialogic or monologic; (v) medium: written or spoken; (vi) channel: phonic or graphic" (Halliday - Matthiessen 2014, 33 - 34).

Basil Hatim puts the House's model for TQA and the Halliday's functions of language, i.e.: ideational, interpersonal and textual into the context of register: "[House's] model is informed by a theory of register and pragmatic function is thus primarily concerned with contextual meaning in translation" (Hatim 2009, 41 - 42).

Considering the House's model which includes the register analysis of the source texts and the above mentioned definitions, the following part aims to provide a register analysis of medical abstracts and summaries.

2.2.2.1 Field

The subject matter (as Halliday defines *field*) in the analyzed abstracts can be generalized into one umbrella-topic, which is medicine. However, some of the journals focus on a more specific domain of medicine (such as *Cor et Vasa* focusing on cardiovascular system and its problems or *Interní medicína* focusing on internal medicine), therefore these abstracts are narrowed to this particular domain. Some journals (such as *Medicína po promoci* or *Postgraduální medicína*) contain articles from various medical profession ranging from gastroenterology, neurology, dermatology, internal medicine or pharmacology.

2.2.2.2 Tenor

The authors of the abstracts (both Czech and English) are medical professionals (mainly doctors) who write about a research they conducted or a patient they treated (case studies) or they discuss their professional experience. Most articles indicate more than one author, and very often, there is a team of authors/doctors often from different medical domains and institutions. All the journals have their own editorial boards or a chief editor, but for example the editing team of the journal *Postgraduální medicína* comprises only doctors.¹⁶

Medicína po promoci is the only journal which provides a list of its translators, who are all doctors.

None of these journals are available to general public and the target audience are medical professionals in general, but mainly doctors or medical students.

The personal noun "we" is used rarely and it appears in the following meanings:

(1) "we" meaning the authors, as for example in the abstract no. 60:

- ST: *V textu p edkládáme vý et...*

- TT: *In the text, we present...*

(2) "we" meaning the doctors or medical professionals, This is the most common use of the personal pronoun "we" in medical abstracts:

ST no. 25: *n kdy nalezneme jen bolestivé kulhání..., provádíme pak Salterovu pánevní osteotomii, ...pro chirurgickou lé bu se rozhodneme v p ípad rizikové hlavice.,*

TT no. 25: *sometimes we find only limp without pain..., we carry out innominate osteotomy, ...we decide for surgical treatment in case of head at risk.*

¹⁶ There is a list of editors in each journals using their full names and all their degrees.

ST no. 26: *Terapeuticky se v p ípad akutních skluz snažíme o repozici a epifyzeodézu...* translated as TT no. 26: *we endeavour to achieve a reposition and epiphyseodesis...*

(3) "We" meaning general public or patients, as in the abstract no. 23:

- ST: *Na nohou trávíme p ibližn 80 % asu...*

- TT: *We spend approximately 80 % of the time on our leg...*

The use of the personal pronoun in a source texts and translations is not always mirrored in the translation.

For example in the ST no. 25 the phrase *vysta íme pouze s p edozadním snímek* was translated using the passive form: *an anteroposterior x-ray is sufficient*.

In abstract 27, the source text uses neutral phrase *Nelze íci, že to již neplatí* which is translated using the inclusive pronoun "we": *We can not say that this is already invalid* (TT no. 27)

Since doctors are the authors of the texts, the meaning of personal pronoun "we" referring to doctors or the authors of the texts may sometimes overlap. For example ST and TT no. 27: *Doporu ujeme námi propracovaný konzervativní postup...* x *We recommend the conservative procedure developed by us*

There is no interaction between the author(s) and readers in terms of an author(s) communicating with or addressing the reader(s) with several exceptions in the form of a question used as the title of an article:

For example in ST no. 56 *Co by m l fyzioterapeut v d t o karpálních nestabilitách?* which was followed in the translation (TT no. 56) *What should Physiotherapist Know about Carpal Instability?*

Other examples of questions used as a title can be found in the ST and TT no. 34: ST: *Je prevalence kardiovaskulárních p íhod otázkou zvolené terapie?* translated as: *Is prevention of cardiovascular events a question of the treatment chosen?*; ST and TT no. 36: *Co nového p inesl rok 2011 v o kování?* translated as *What news did occurred in vaccination in 2011?*

There is one example of a question which can be described as a communicative sentence type (Tárnyiková 2009, 138) used again as an article title in the ST 67: *Dobrý den, rezistence, mohu dál? I.* translated as *Hello, resistance, may I continue? I.* (TT no 67).

2.2.2.3 Mode

Mode is often describe in terms of written or spoken (Hatim, 2009). In this regard both English and Czech source texts abstracts can be described as original written texts.

However, mode does play an important role when completing the "register profile" of a text: "Within the register membership of a text, mode tends to join forces with tenor, determining the appropriate level of formality, and with the field, regulating the level of technicality and thus serving subject matter concerns" (Hatim 2009, 41). In this regard, mode "joins forces" with the field in terms of enabling the amount of information being expressed within a unit of language so short such as abstracts and summaries and it "joins forces" with the tenor allowing access to as many intended readers (medical professionals) as possible. As a separate feature of the "register profile", it completes the formal character of the abstracts.

Both English and Czech source texts contain high volume of terminology and focus purely on sharing the knowledge and factual information with other medical professionals. From this perspective, the abstracts and summaries in medical texts can be described as field-dominated texts. Terminology should therefore be a translator's primary concern in these types of texts.

2.3 Comparative analysis

Comparative analysis is based on categories and parameters based on source text defects (Molnár, 2012) and set of translation methods and procedures based on Vinay and Darbelnet's categories (Vinay and Darbelnet, 1995).

2.3.1 Defects analysis

The defect analysis is based on the typology of source text defects from the article *Source Text Quality in the Translation Process* (Molnár, 2012). The matrix of defects was created to provide objective criteria for text evaluation. The categories were grouped as follows: *factual correctness of the textual context; incomprehension or ambiguity; coherence; cohesion; terminology; incompleteness; grammar mistakes; stylistics; spelling and punctuation; defects in orthography, typography or formatting; source file problems; file structure and content that does not reflect the logical structure of the component(s), but rather the chronological history of development work; HTML embedded in XML; the use of competing orthographic rules and standards during authoring of source files* (Molnár 2012, 64 - 65). The chapter is divided into smaller subchapters according to a particular group.

In his model for translation quality, Al Qinai (2000) highlights parameters similar to those stated above. He emphasizes *textual typology and tenor, formal correspondence, coherence of thematic structure, cohesion, text-pragmatic equivalence, lexical properties (register), grammatical/syntactic equivalence* (Al Qinai 499, 2000). This categorization partly overlaps with those proposed by Molnár (2012), however they are more general.

Not all of these categories are relevant for the analyzed abstracts in this thesis. The category *HTML embedded in XML* or *source file problems* are irrelevant since the text were available in a printed version and no HTML was used in those texts.

If an example is taken from a particular journal to illustrate respective categories, it does not mean that this particular appears exclusively in that journal. All examples were chosen solely for illustrative purposes of this thesis and no discrediting of any medical journal is intended.

2.3.1.1 Orthography defects

This category of defects includes spelling and punctuation. Considering the length of an average abstract or summary, the number of orthographic defects is rather high. They might be considered as less severe mistakes, however their presence is a sign of careless proofreading and reduction of the credibility of the article as well as the journal. Typography

rules sometimes differ in different languages and a translator should be aware of these differences and adjust them accordingly in the target texts.

They may be ascribed to a source language interference or influence such as the word *mechanizm* in TT 1 resulting from the Czech word *mechanizmus* in ST 1, where the letter *z* from the ST stayed in TT. The word *kontinuity* in TT 43 is a spelling mistake where the translation contains source language spelling of the target word.

There is a hyphen missing in the word *hematooncology* in TT 15, which should be spelled *hemato-oncology*. This type of mistake may again be a result of the source language interference where the word is spelled *hematoonkologie*.

Spelling mistakes appear in words of Latin or Greek origin, which sometimes allow for more spelling alternatives, such as *haemorrhage - hemorrhage*¹⁷ where both spellings are correct (the latter being American). However in TT 13, the correct spelling of the word *menorrhagia* should include double *r*: *menorrhagia*. Another case of a wrong spelling can be found in TT 56 of the word *unrecognised*, which was spelled *unrecognited*.

There is a part of the word missing in the title of the TT 55: *Recise* instead of *Exercise*.

In TT 47 the parentheses from the ST 46 were replaced with a dash which interferes with the meaning, because without the parentheses, the end of the sentence *and subclinical forms of thyroiditis* belongs to the list of what subclinical thyreopathies include, not that it is a subject to accidental detection as is the meaning in the source text. This causes a slight change of meaning and therefore this type of defect is of rather serious nature.

Writing numbers can be somewhat problematic since English and Czech have different orthography rules. There are no binding rules, nevertheless, the general recommendation being that once the author / translator chooses to write in figures or words, he/she should be consistent. Chicago Manual of Style, for example, recommends to spell out whole numbers up to one hundred and always spell out a number, when it is at the beginning of a sentence. Both the ST and TT no. 52 contain a lot of numeric information including decimals and mathematical symbols. The ST phrase *do t í skupin* was translated as *into 3 groups* which is in contradiction with the recommendation to spell out the whole numbers up to one hundred.

Another case of different orthography rules for English and Czech can be found in the use of capital letters, especially in names of events or institutions. In some cases there are fixed equivalents and therefore should be used. The translation of *Mezinárodní konsenzuální*

¹⁷ Spelling alternatives were verified using medical dictionaries *Lékařský slovník anglicko-český - česko-anglický* by Jarmila Paroubková et al. (1991) and *Velký lékařský slovník* by Martin Vokurka et al. (2009)

kritéria in ST 6 because it was translated using capital letters in the headline but not in the paragraph of the abstract.

2.3.1.2 Grammar

There are cases where the translation does not follow the singular or plural of the source text for example the translation of ST no. 1. The ST deals with *fenofibrate (fenofibrát)* which is always used in a singular. In the ST, the pronoun *jeho* has an anaphoric reference to the term *fenofibrate* in the previous sentence. However, the pronoun *their* in the TT implies a reference to all the terms from the previous sentence and thus can be misleading and confusing for the reader.

Another example of different use of plural and singular can be found in text no. 51. The ST uses singular: *Cílem naší observa ní studie...*, the TT uses plural: *The objectives for our observational study*. This does not have to constitute a defect or a mistake, it may simply represent a different usage of language in a particular style, thus relates to stylistics rather than grammar.

There are some cases where the translation uses a tense that does not correspond with the source text. Difficulties and inconsistencies may be ascribed to the disproportion in the number of tenses in Czech and English. Especially when expressing past actions where English has three tenses, i.e. preterite, perfect and plusquamperfect compared to Czech which only has simple past (translated from Dušková 2006, 220). In the analyzed abstracts, there is a case where the present tense of Czech source text was translated into English using perfect tense: ST no. 1: *Proto stále probíhá vývoj nových lékových forem...* translated in TT no. 1: *Therefore, new pharmaceutical formulations have been developed...* The source text suggests that drug development is an ongoing process whereas the translation suggests that some pharmaceutical already exists.

In the ST no. 35 a present tense is used: *V klinické praxi se v této indikaci používají imunoglobuliny namí ené proti...* which in TT no. 35 was translated using past tense: *In clinical practice we used immunoglobulins targeted against*. This causes a slight change in meaning since the TT suggests *immunoglobulins* are no longer used.

Missing article, such as the TT no. 40: *Scoliotic deformity represents serious spinal problem* missing an indefinite article: "a serious spinal problem".

2.3.1.3 Incompleteness

There are several cases of information being omitted from or simplified in the translation. It is difficult to determine clearly whether they are cases of simple omission or simplification and what led the translation to omit this particular word or phrase.

In the ST no. 1, the phrase *Hlavním problémem farmakokinetiky fenofibrátu je špatná rozpustnost a tím způsobená nerovnoměrná biologická dostupnost.* was translated as => TT: *The main problem with using fenofibrate is low solubility, which causes uneven absorption.* The term "farmakokinetiky" is disregarded entirely. According to medical dictionary at www.thefreedictionary.com, "Pharmacokinetics" can be defined as "[a] process by which a drug is absorbed, distributed, metabolized, and eliminated by the body," or "[t]he study of this process." The translator used a semantically poor verb "using" and the translation is thus missing an important piece of information.

In the text no. 2 the ST phrase *Hlavní komplikace je dehydratace v určitém stupni s odpovídajícími důsledky.* was translated as => TT: *The most important complication of viral gastroenteritis is dehydration with different seriousness.* The information "s odpovídajícími důsledky" is lost.

The section Výsledky/Results in the text no. 44, the ST includes numerical information, often in parenthesis, which were kept in the translation text with one exception: ST: *U pacientů s RA došlo k statisticky významnému poklesu počtu bolestivých a otokých kloubů ($p < 0,002$, $p < 0,04$).* => TT: *In RA patients, there was found a significant drop in the number of painful and swollen joints.* This particular numerical information is stated only once throughout the abstract and it is completely missing in the translation.

Another missing information can be found in the text no. 49. The phrase in the ST: *FAMPRIDINE - SR (4-aminopyridin) je podáván dvakrát denně perorálně v jednotlivé dávce 10 mg.* was translated => TT: *FAMPRIDINE - SR is administered perorally twice daily in single dose of 10 milligrams.* The word *4-aminopyridin* in the parenthesis is missing in the translation. However it has appeared twice in the previous part of the text, therefore the severity of this omission is not as serious as the previous one, because the numerical information was not presented to the reader at all.

An omission of information related to the source language culture can be found in the text no. 9. The initial ST sentence relates the information of the article to the United States: *Acne is a chronic inflammatory skin disease that is the most common skin disorder in the United States.* But this information is missing in the translation: *Akné je chronické závažné kožní onemocnění a představuje nejčastěji se vyskytující dermatologickou poruchu.* The

information is important here, because even though a reader might be aware of reading a translation, (s)he may not realize that the statistical information relates only to the United States but may not relate to the culture of the target text reader.

In the text 34, a whole sentence is simplified omitting some information: ST: *Trvalá a pe livá monitorace všech nemocných na biologické lé b je samoz ejmou nutností.* was translated as TT: *The precise patients monitoring for whole time therapy with biologicals is needed.*

From the syntactic perspective, the important aspect different in English and Czech is the information structure,

2.3.1.4 Terminology

Based on the register analysis, the abstract are field dominated text with high prevalence of medical terms.

There are examples of source language interferences regarding terminology. For example in the text no. 5: ST: *u obéz ní ženy s lé enou hypertenzí a prediabetem.* => TT: *in an obese woman with treated hypertension and prediabetes.* The word "treated" suggests a successful result of a treatment, however the meaning of the ST word "lé enou" suggests an ongoing process, someone who is still undergoing some treatment.

A case of false friends can be found in text no. 25 where the ST word "*resp.*" ¹⁸(ST: *asná chirurgická lé ba vychází stejn jako konzervativní lé ba z principu „containment“, provádíme pak Salterovu pánevní osteotomii, resp. variza ní femorální osteotomii.*) was translated as "respectively" (TT: *Early surgical treatment as well as conservative treatment comes from the principle of „containment“, then we carry out innominate osteotomy, respectively varus femoral osteotomy.*)

Inconsistency in the use of terminology can be found in text no. 60. The ST: *klinický logoped* is translated either as *clinical speech pathologist* or *clinical speech therapist*. Both solutions are correct, however to unify the terminology within one text, a translator should use only one within a particular text.

In text no. 55, a lay, non-professional terms were used both in the ST: *chronická bolest beder* and in the TT: *chronic low back pain*. Another lay terms was used in text no. 58 to translate ST: *bérec* as TT: *shank*.

Term *skiaskopické asy* in text no. 52 is translated as *fluoroscopy times*. Skiascopy is a basic method, fluoroscopy, uses additional techniques or agent (such as fluorescent light) for

¹⁸ *respektiv* (author's note)

examination.¹⁹ When used as "X-ray skiascopy" it can be called fluoroscopy. "Skia" is related to any examination using an X-ray²⁰.

In text 4, a wrong term is used in the translation. The ST term: *centrální zrakové ostrost* (zhoršení centrální zrakové ostrosti diabetik) is translated as: *visual impairment (cause of visual impairment in patients affected by diabetes mellitus)*. However, the *central visual acuity* which should be the correct translation, refers to a different thing than *visual impairment*. Visual impairment: "is when a person has a sight loss that cannot be fully corrected [...]"²¹ whereas visual acuity is a method to test person's vision.

Similar to the example from text no. 4, a wrong term is used in text no. 40. The ST term *dispenzarizace* is translated as *follow-up*. *Dispenzarizace* according to a medical dictionary is an active preventive examination, regular treatment and social monitoring of persons with a particular disease or a risk factor during the period when the person's health is at risk or until the person is cured whereas *follow-up* means monitoring the patient after a treatment.

Creating a term in the translation which seemed to be falsy derived from an existing word "consequently", however which does not appear in any of the reference dictionaries. The word is "consequitive" and it appears in the first sentence of TT no. 40.

Several terms showed to be problematic in an ambiguous way even within the single context of medical texts and may evoke different meanings and therefore may require different translation depending on a particular (con)text:

SL: *terapie* => TT: *therapy / treatment*

SL: *lé ba* => TT: *therapy / treatment*

SL: *diagnostika* => TL: *diagnosis, diagnostics*

Another Term which have more translations equivalents with a slightly different meaning. For example *klinický obraz* (in ST no. 4) can be translated as: *clinical picture, clinical presentations, clinical manifestation*. In the TT no. 4, the translator used a collocation *clinical definition*.

The translation of the Czech word *p íznaky* is problematic in that there are two equivalents having two different meanings: *signs* and *symptoms*. The difference is that *signs* are objective, measurable or observable by a doctor such as high blood pressure whereas *symptoms* are patient's subjective feelings such as headache (Glendinning 2010, 36).

¹⁹ this terms were consulted with a doctor (with a specialization in internal medicine)

²⁰ definition based on the entry in Velký lékařský slovník (Vokurka et al., 2009)

²¹ adapted from: <http://www.nhs.uk/conditions/Visual-impairment/Pages/Introduction.aspx>

2.3.1.5 Stylistics

Stylistics is a very complex field of linguistics which is not easily described with a simple and straightforward definition. Crystal and Davy in their publication *Investigating English Style* distinguish "four commonly occurring senses of the term style" which are 1. some or all of the language habits of one person (e.g. Shakespearean style); 2. selection of language habits; 3. some or all of the habits shared by a group at a particular time and 4. public-speaking styles (Crystal, Davy 1997, 9 - 10). Hoffmanová in her Introduction to *Stylistika* points out the multidisciplinary and eclectic nature of stylistics within the linguistics itself (Hoffmanová 1997, 5 - 7).

For the purpose of this analysis the focus is on the scientific style comparing the stylistic differences between English and Czech (i.e. the Anglosaxon and Czech stylistic tradition). The English and Czech stylistic traditions are based on different theories and have different historical backgrounds. Mikov in her *Linguistic Stylistics* provides an overview of individual stylistic traditions where British stylistics is influenced by the work of M. Halliday, the American stylistic draws on the literary work analyses and poetics and Czech stylistics is based on the work of Prague linguistic circle and its prominent member B. Havránek and his styles classification (Mikov 2003, 13 - 14).

A comparison of English and Czech stylistic tradition in scientific texts can be found in Mejrková's *Jak napsat odborný text*. She claims that the Czech scientific style is considered to be the most complex and difficult and the factual and intellectual aspects are favored at the expense of the social, communicative and interactive function (adapted from Mejrková et al. 1999, 31 - 32). The Anglosaxon stylistic tradition in scientific texts, on the other hand, can be characterized as more reader-oriented or reader-friendly which is taught and practised within an independent discipline called *academic writing* (adapted from Mejrková et al. 1999, 32 - 33).

The differences in English and Czech tradition can be seen in the length of sentences. Whereas they are commonly used in Czech, they are sometimes divided into shorter sentences in English. Dividing long sentences from ST into shorter sentences in TT is done rather randomly depending probably on translator's individual preferences. Examples of sentences being divided in the translation can be found in the TT no. 11:

ST no. 11: *Neustále se množící doklady o vysoké frekvenci nedostatku vitamínu D v b žné populaci i u r zných skupin onemocn ní nás nutí k zamýšlení nad sou asným stavem naší populace.* => TT no. 11: *There is an ever-increasing body of evidence of a high*

frequency of vitamin D deficiency in the general population as well as in different groups of diseases. This forces us to reflect on the current state of affairs in our population.

However, in many cases the translation copies the original and length of the original. For example text no. 28:

ST no. 28: *Vysoký počet typů benigních tumorů, ale samozřejmě i maligních a jiných, tzv. nádorů s podobnými afekcemi v etnicky zánětlivých procesech, které mají mnohdy obdobný klinický i rentgenologický obraz, má za následek obtížnou diagnostiku, a následně i zcela odlišnou terapii.* => TT no. 28: *A high number of types of benign tumors, but of course also malign tumors and other so-called tumor-like affections, which often have similar clinical and X-ray picture, have the consequence of difficult diagnostics and further on an entirely different therapy.*

In one abstract the final paragraph is formed by one single sentence which could be divided into two sentences. This example can be found in text no. 28:

ST: *Léčba maligních tumorů je prováděna na specializovaných pracovištích, mnohdy ale i benigní afekce nejsou svým klinickým obrazem zcela charakteristické a existuje riziko záměny za maligní proces, proto v těchto případech považujeme za vhodné ošetření na pracovišti se zkušenostmi s onkologickou problematikou skeletu.* => TT: *The treatment of malign tumors takes place on specialized clinics, but in many cases benign affections do not have entirely characteristic clinical picture either and there is a risk of their interchange with a malign process, that is why we consider relevant that these cases are being treated on clinics with an experience with the oncological diseases of the skeleton.*

An example of a relatively short ST sentence divided into two sentences can be found in text no. 46: ST: *Do poloviny 80. let se vyráběla výhradně extrakcí z kadaverózních lidských hypofýz, od roku 1985 jsou k dispozici rekombinantní přípravky.* => TT: *Up to mid-1980s, it was exclusively extracted from human cadaverous pituitary glands. Recombinant products have been marketed since 1985.*

An important factor in the scientific style is the passive voice. As Knittlová (2010) says, it allows for the impersonal formulation of the presented facts and the suppressed role of an author (adapted from Knittlová 2010, 150).

The following examples show the use of passive voice and how it is followed and maintained in the translation.

In text no. 1 there is an example of passive voice used in the Czech ST, however in the TT, the active voice was used: ST: *Váda studií byl prokázán pozitivní vliv terapie fibráty na*

prevenci kardiovaskulárních onemocnění. => TT: A number of studies demonstrated a positive effect of fibrate therapy in the prevention of cardiovascular disease.

In ST no. 44, the passive voice is used when describing the research results: *U pacientů s RA došlo k statisticky významnému poklesu počtu bolestivých a oteklých kloubů ($p < 0,002$, $p < 0,04$).* However the TT no. 44 does use the active voice: *In RA patients, there was found a significant drop in the number of painful and swollen joints.* Even though the passive voice would be appropriate in the TT as well: *A significant drop ...was found.*

There are several examples of source language interferences. An interference at a syntactic level can be seen in text no. 3, where the ST: *U mužů je vždy potřeba velmi pečlivě pátrat po pomozných sekundárních příčinách onemocnění => TT: it is always necessary to very carefully search for possible secondary causes of the disease.* The translation copies the word order of the source text creating an unusual phrase "to very carefully search" instead of "to search very carefully".

Source language interference can be seen at the syntactic level as well. In the text no. 14 the ST: *Existuje významná souvislost mezi průjby a hem...* was translated with the word "exist" placed at the end of the sentence: => TT: *A significant connection between [...] exists.* In this case, the use of English structure there is/are might be more appropriate.

One of the characteristic features of English language is *nominal chains*. Their translation may be problematic both into and from English. These are a typological characteristic of the English language and there are different ways to express these in Czech (e.g.: prepositions) which makes it easier to identify the modifier and head (Knittlová 2010, 45). Some nominal chains in English can have two or three-membered pre-modifier whereas their Czech equivalents can contain both pre and post-modifiers (Knittlová 2010, 47). Knittlová continues that a dual interpretation is possible, which should not be the case in medical texts, since professional texts strive for unambiguity. Incorrect interpretation can lead to mistakes in translations.

An example of a nominal chain in text no. 16 the ST expression *kontaktní iritace a alergické dermatitidy* is translated => TT: *irritant contact dermatitis and allergic dermatitis.* A longer example of a nominal chain is in the text no. 54: ST: *Spirální CT-angiografie plicní arterie => TT: Pulmonary artery spiral CT angiography;* and in text 44: ST: *index aktivity onemocnění => TT: disease activity indexes.* In both texts (54 and 44) the translator was translating and analyzing the phrase backwards, that is starting with the last noun(s). In the text no. 51, the head word changes its position due to language typologies where Czech languages often use declension to translate English nominal chain.

In the text no. 8, the English as a SL uses the semantically poor verb "to be" which was translated into Czech differently every time, for example ST: *Hypothyroidism is* => TT *Hypothyreóza p edstavuje...* This is again due to different language typologies.

Differences at the syntactic level can be found in the way the information are structured, that is the theme and rheme²². The information structure is changed accordingly for example in the text no. 40: ST: *u t žších k ivek nad 40 stup indikujeme opera ní ešení* => TT: *We indicate scoliotic curves above 40 degrees for surgery.* The theme and rheme structure is disobeyed in text no. 44, in the part "Výsledky/Results", ST: *U pacient s RA došlo k statisticky signifikantnímu poklesu po tu bolestivých a oteklých kloub* => TT: *In RA patients, there was found a significant drop in the number of painful and swollen joints.*

2.3.1.5.1 Collocations

The Longman Dictionary of Contemporary of English defines collocation as a particular combination of words that are used together. Collocations are mainly subject to corpus linguistic studies, though the information on co-occurrence of certain words and phrases might be useful to translators as well. Corpora tend to be rather static and do not reflect current language developments, however, they serve as a reliable indicator to compare occurrences of particular collocations.

Majority of the wrongly used collocations can be traced to the source language interference and literal translation. In text no. 3 the redundant phrase from the ST: *velmi významn horší* was left in the TT as well: *very significantly worse.*

In text no. 12, the ST collocation "stravovací návyky" was translated as "feeding habits". According to corpus²³ search, the frequency of *eating habits* in example 35 is 736 in comparison with *feeding habits*, which is only 58.

The ST 36 contains a phrase *získali jsme první zkušenosti z ukon eného plošného o kování proti...* as => TT: *we gained the first experience from the stop of universal vaccination against...* where the unusual collocation *the stop of* was used to translate *ukon eného*.

2.3.1.6 Factual correctness

For a translator to assess whether the content of the abstracts is correct is rather impossible to judge because it would require a medical degree, relevant medical specialty and

²² Theme and rheme - a theory developed by a prominent member of the Prague school, Jan Firbas (Functional Sentence Perspective in Written and Spoken Communication published in 1992)

²³ <http://corpus.byu.edu/coca/>

probably even presence at the research or hospital. However, what a translator can assess is the correct use of terminology in translation that is why this category overlaps with the category of terminology. In case of any doubt (whether pertaining to correct content or terminology), a consultation with a doctor or any medical professional is vital.

2.3.2 Translation procedures analysis

Analyzing translation procedure is not part of the House's model for translation quality assessment, however, it is an essential part of any translator's training that is why it is included into the analysis. This part of analysis is based on the seven basic translation procedures by Vinay and Dalbènet (*borrowing, calque, literal translation, transposition, modulation, equivalence and adaptation*).

As Malcolm Williams said: "What is to be standardized is not the level of quality of a translation but a set of procedures for achieving that level" (Williams 2004, 17). Therefore it follows, that a translator needs a set of procedure or methods which would help him/her in achieving a good quality translation.

2.3.2.1 Borrowing

The direction of borrowing in the analyzed texts is always from English into Czech and the most frequently borrowed terms are acronyms and abbreviations:

- text 15: FUO = fever of undetermined origin / teplota nejasného p rovodu
- text 15: ECIL = European Conference on Infection in Leukemia
- text 51: PCI = percutaneous coronary intervention = PCI - perkutánní koronární intervence
- text 61: VCT - vacuum-compression therapy = vakuov -kompresní terapie

All these acronyms were used both in English and Czech.

An example of a word borrowed from the English SL can be found in the text no. 12: ST: "wasting" syndrom => TT: "wasting" syndrome.

2.3.2.2 Literal translation

Literal translation, or word for word translation, can be found in the text no. 12 where the ST word "vychází" in the phrase: *Posuzování jejich nutri ního stavu vychází z komplexu vyšet ovacích postup* was translated as "come out of" => TT: *The evaluation of their nutritional condition comes out of a complex of examination procedures.*

An example of a literal translation can be found in text no.12 where the ST phrase: *a v neposlední ad zán t* was translated => TT: *and not on the last place inflammation*. The translation in this case creates an unusual collocation and syntactic structure. In text 13, the ST phrase: *nebo souhrn kontraindikací je velmi úzký* was translated as => TT: *as the summary of contraindications is very narrow* where the translation creates an unusual collocation "narrow summary".

A phrase ST no. 14: *které mají vliv na frekvenci, tíži a typ migrenózních záchvat* translated as => TT: *which have an influence on the frequency, heaviness and type of the migraine seizures* forming an unusual collocation "heaviness of the migraine".

2.3.2.3 Transposition

A different, however not appropriately selected, part of speech used in the translation can be found in text no. 7. The ST: *Dehydrataci nemocných v paliativní hospicové pé i lze snadno zvládat podkožním podáváním tekutin...* translated as => TT: *Dehydrated patients in the hospice palliative care can be easy managed by the subcutaneous administration of fluids*. The use of adjective "easy" to translate "snadno" is not correct, because it describe how is the care manage, therefore an adverb "easily" should be used instead.

Text no. 34 shows a shift from the verb used in the ST: *Možností intervence rizikových faktor aterosklerózy (a kardiovaskulárních onemocnění) p íbývá* to an adjective in the TT: *There are increasing options of intervention on risk factors for atherosclerosis (and cardiovascular diseases)*. This causes a slight shift in the meaning, because according to the ST, the options are increasing in their number, not in their scope as is suggested by the TT.

In text no. 35, the ST phrase *namí ené proti tumor nekrotizujícímu faktoru alfa* was translated as *targeted against tumor necrosis factor alpha*. *Factor alpha* has necrotizing ability towards the tumor, as said in the source text. the translation, however, changes the meaning into tumor necrosis, that is the necrosis of the tumor.

Two adjectives in a row are used in the TT 49: *clinical meaningful therapeutic benefit* instead of an adverb and an adjective as in the ST 49: *klinicky významný terapeutický efekt* causing a slight change and ambiguity in the meaning.

2.3.2.4 Modulation

A case of modulation can be found in text no. 2. The ST phrase is: *u kojenc a d tí do 5 let v ku* which was translated as => TT: *in infants and children less than 5 years of age*.

2.3.2.5 *Explicitaion / Adding Information / Specification*

In text no. 3, the translation contains information that was not in the ST: *Nejnov ji...* => TT: *Most recently, since this year...* and it is not clear why translator added this information. A case of a consistent use of the added information can be found in text no. 13 where the word in ST *levonorgestrel* is translated => TT: *levonorgestrel-releasing*. In text no. 62, the ST phrase: *Využití laserového sv tla na hojení* is translated in TT as: *Using laser light in order to induce healing* where the word *induce* was added. Another consistent specification can be found int text no. 10 where the ST uses the term *Pneumokoková onemocn ní* whereas the TT uses the term *Pneumococcal infections*.

Additional information is included at the very end of the translation of text no. 47 where the ST phrase: *Diskuze se týkají samotné definice, epidemiologie, nutnosti terapie, srovnání rizika a zisku lé by u t chto hrani ních stav a v neposlední ad i možného asného screeningu rizikových skupin* is translated => TT: *Controversy remains concerning exact definition, epidemiological issues, therapeutic intervention, evaluation of risk and gain implied in treatment of these borderline clinical stages and, last but not least, early screening of risk groups if necessary*. The information "if necessary" is added.

In text no. 18, the ST phrase: *Pat í k idiopatickým chorobám* was traslated => TT: *The disease belongs to the group of idiopathic dermatoses*. This specification causes a slight change of the meaning because the article deals with dermatological diseases in general. In text no. 50, the first sentence ST says: *u žen v produktivním v ku* which is translated as => TT: *are very common in women in the childbearing age* which limits the range of the described group to a group of women of reproductive age.

2.3.2.6 *Generalization*

The English equivalent of the term *biologická dostupnost* in ST no. 1 is *bioavailability* (TT no. 1) which according to definition taken from an online source pharmacologycorner.com is: "[t]he percent of dose entering the systemic circulation after administration of a given dosage form. More explicitly, the ratio of the amount of drug absorbed from a test formulation to the amount “absorbed” after administration of a standard formulation."²⁴ Bioavailability of a drug is largely determined by the properties of the dosage form, which depend partly on its design and manufacture. Differences in bioavailability among formulations of a given drug can have clinical significance; thus, knowing whether

²⁴ <http://pharmacologycorner.com/pharmacokinetics-what-is-bioavailability/>

drug formulations are equivalent is essential."²⁵ The bioavailability therefore is only a subcategory of absorption. The correct equivalent is, however, used in the next sentence.

Changes in the register

A change in the register can be found in the text no. 47 where the ST word with rather neutral connotation *diskuze* (*Diskuze se týkají samotné definice, epidemiologie...*) was translated as *controversy* (*Controversy remains concerning exact definition, epidemiological issues,...*).

²⁵ http://www.merckmanuals.com/professional/clinical_pharmacology/pharmacokinetics/drug_bioavailability.html

2.3 Final evaluation

The overall assessment is the final part of the TQA model as designed by Juliane House. It aims to assess the analysis only and it is followed by a conclusion dealing with the thesis as a whole.

The most common defects in orthography are related to spelling usually caused by source language interferences. Smaller number of orthographic defects is caused by different language typologies as was showed in the case of numbers of capital letters. Examples of the incompleteness lead to omitting information in the translations but they do not cause any shifts of the meaning or ambiguity.

Based on the register analysis, the analyzed abstracts are field dominated, therefore the defects and flaws may be considered as the most severe. These defects were caused by source language interferences, there is one case of false friends and a number of wrongly used terms in the translation texts. Where more translation equivalents are possible, the translations show inconsistencies in using one term throughout the text.

In stylistics analysis, it is essential to consider the language and cultural differences. Most translations from Czech in English divide long sentences into two or more. Significant differences were found in the use of passive. The passive voice is commonly used in scientific texts in English as well as in Czech, but despite this fact, the translation does not always use the passive where it is used in the source text and vice versa, it is often used as an equivalent translation to the active voice in the source text. The stylistic feature of information structure (functional sentence perspective) is not always followed based on the relevant language, however the failure to observe this feature in relevant languages does not cause any significant change in the meaning.

Unusual collocations are a special type of defect which mainly appear in the translation from Czech into English. They do not interfere with the meaning, but they may disrupt the target text readability. Borrowing mostly concerns acronyms from English to Czech. Literal translation creates unusual collocations. Transposition always resulted in an inappropriate part of speech being used in the target text. Among the most commonly used translation procedures are explicitation and generalization.

The analysis based on the defects typology provides rather descriptive comment on the defects found in abstracts. However, as suggested by Malcolm Williams (2004), a further study dealing exclusively with translation methods used in medical translation could provide not a only a descriptive overview of defects but also a potential explanation as to why do specific defects occur.

Conclusion

The aim of this thesis is to assess translation quality of abstracts in medical journals. There is a separate chapter preceding this conclusion, which provides an overall final evaluation of the analyzed texts therefore this conclusion relates to the thesis as a whole.

The first chapter provides an overview of current approaches and trends in the field of translation quality assessment demonstrating the complexity of the discipline. The overview shows that there is a plethora of theoretical approaches and models for TQA, however only a few of them have been tested such as for example the model by Julian House, which is used for the practical analysis of this thesis. This shows a certain gap between the theory and its practical application.

Following the Julian House's model, the analysis contains the source text analysis focused on genre and register analysis, followed by comparative analysis and final assessment. The aim is not to arrive at any definitive and quantitative judgements regarding medical translation quality, but rather to demonstrate what type of defects appear in the medical translation.

The analysis does not confirm the prevailing idea of medical translations being flawless. A high number of defects can be ascribed to the source language interference, for example defects in orthography, syntax or stylistics. Quite a high number of defects was found regarding terminology, which is surprising considering the fact that these texts are field-dominated and ensuring correct terminology should thus be of primary importance. Disregarding language and cultural differences lead to many defects, mostly in stylistics or syntax. Most of these defects are related to the use of passive voice in English and Czech and in scientific texts as such; and to the differences in the information structure, that is the theme and rheme.

Based on the Malcolm Williams (2004), the analysis of translation procedures is used to complement the defect analysis. The most frequently used procedures are explicitation and generalization. Borrowing is mainly used when translating into English. Literal translation often results in unusual collocations and all examples of transposition resulted in an inappropriate part of speech being used in the target text. As Williams suggests, using translation procedures analysis may be beneficial for translators in training, because it provides them not only with a purely descriptive overview of defects, but it also provides explanations how were the defects caused and may prevent the translators from making the same mistakes in the future.

The existing problem is that the authors of the texts as well as translators of those texts are mostly doctors without any translation training and on the other hand, translators in the Czech Republic still do not have the opportunity to attend any official seminars focused on medical English (such as the case for e.g. legal translation). Considering the complexity and demanding character of both medicine and translation, a certain level of cooperation between medical professionals writing articles and translators is necessary if a good quality text is to be ensured.

Appendix 1

Evaluation sheet used at the CS Unit 1 of the Directorate-General for Translation at the European Commission:

TRANSLATION EVALUATION SHEET			
Translator			
Reviser			
Doc no		Language/Pages	
Deadline		Delivered on	

NUMBER AND TYPE OF CORRECTIONS ¹					
	HI	Lo		HI	Lo
SENSE (SE)			REF DOC (RE)		
TERM (TE)			GRAMMAR (GR)		
STYLE (ST)			SPELLING (SP)		
COMPLETENESS (CO)			PUNCT (PU)		

REVISOR'S COMMENTS

Mandatory. Observations concerning the linguistic correctness, terminological consistency and the accuracy of the translation.

TRANSLATOR'S COMMENTS

Optional. Any observations from the translator regarding the original, difficulties encountered in translation, conclusions for future assignments of this kind.

HEAD'S OF UNIT OVERALL ASSESSMENT

Mandatory. Overall evaluation of the translation, concerning its fitness for purpose.

excellent	{ }
fit for purpose	{ }
poor	{ }
unacceptable	{ } ²

TRANSLATOR: REVISOR: HEAD OF UNIT: DATE:

.....

¹ Please, use given abbreviations for marking of the errors in the document.

Appendix 2: Transcription of the texts used for analysis

Interní medicína pro praxi 1/2013

TEXT1

ST 1:

Fenofibrát a jeho lékové formy

Fenofibrát patří do 3. generace fibrátů a je jedním z léků volby ve farmakoterapii dyslipidemií. V ad studii byl prokázán pozitivní vliv terapie fibráty na prevenci kardiovaskulárních onemocnění. Podávání fenofibrátu je indikováno u pacientů se smíšenou dyslipidemií s nízkým HDL-cholesterolem a vysokými triglyceridy. **Mechanismus** jeho účinku je zprostředkován přes aktivaci lipoproteinové lipázy cestou exprese PPAR alfa receptorů. Hlavním problémem farmakokinetiky fenofibrátu je špatná rozpustnost a tím způsobená nerovnoměrná biologická dostupnost. Proto stále probíhá vývoj nových lékových forem, které zvlášť upravují povrch přípravku a tím zvyšují rozpustnost i biologickou dostupnost fenofibrátu. Umožní tak užívání fenofibrátu bez závislosti na jídle a zlepšují spolupráci pacienta i efekt terapie.

TT 1:

Fenofibrate and its pharmaceutical formulations

Fenofibrate belongs to the 3rd generation of fibrates and are one of the drugs of choice in pharmacotherapy of dyslipidemia. A number of studies demonstrated a positive effect of fibrate therapy in the prevention of cardiovascular disease. Fenofibrate is used in patients with mixed dyslipidemia with low HDL-cholesterol and high triglycerides. The **mechanism** of their effect is delivered by activation of lipoprotein lipase through expression of PPAR alpha receptors. The main problem with using fenofibrate is low solubility, which causes uneven absorption. Therefore, new pharmaceutical formulations have been developed, which increase the surface of the product and thus increase the solubility and bioavailability of fenofibrate. These formulations allow the use of fenofibrate without regard to meals and thus improve patient compliance and the effect of therapy.

TEXT 2

ST 2:

Virové gastroenteritidy, léčba

Průjemová onemocnění vyvolaná viry mají závažný průběh především u kojenců a dětí do 5 let věku. Mohou však být příčinou lokálních epidemií také u seniorů v uzavřených kolektivech. Hlavní komplikace je dehydratace různého stupně s odpovídajícími důsledky. Nejčastějšími etiologickými agensy jsou rotaviry a noroviry. Léčba je u všech virových gastroenteritid pouze symptomatická, prevence nescifická. Před rotavirovou infekcí je možné chránit kojenče perorální vakcínou.

TT 2:

Viral Gastroenteritis, therapy

Diarrheal diseases caused by viral agents have severe course especially in infants and children less than 5 years of age. Viral gastroenteritis may be also the cause of local outbreaks in home care facilities for seniors. The most important complication of viral gastroenteritis is

dehydration with different seriousness. The most common etiological agent is rotavirus and norovirus. The therapy is only symptomatic and prevention non-specific. Infants can be protected by vaccine given orally.

TEXT 3

ST 3:

Osteoporóza u muž

Osteoporóza u muž je chorobou se stále vzrůstající incidencí. I přes adu specifík mužského skeletu a jeho vývoje v průběhu života jsou diagnostická i terapeutická kritéria odvozována od přístupu k osteoporóze u žen. Muži se zlomeninou proximálního femoru mají velmi významně horší prognózu proti ženám v této klinické situaci. U mužů je vždy potřeba velmi pečlivě pátrat po možných sekundárních příčinách onemocnění. Z hlediska terapeutického má data a schválení na léčbu mužské osteoporózy podstatně méně přípravků než u osteoporózy žen. Nejnověji je v léčbě osteoporózy u mužů schváleno užívání stroncium ranelátu.

TT 3:

Osteoporosis in men

Osteoporosis in men is a condition with an ever-increasing incidence. In spite of numerous specific features of the male skeleton and its development throughout life, both the diagnostic and therapeutic criteria are derived from the approach to osteoporosis in women. Men with proximal femoral fracture have a very significantly worse prognosis than women in this clinical situation. In men, it is always necessary to very carefully search for possible secondary causes of the disease. In therapeutic terms, data and approval for the treatment of male osteoporosis are available for substantially fewer products than in the case of osteoporosis in women. Most recently, since this year, the use of strontium ranelate has been approved for the treatment of osteoporosis in men.

TEXT 4

ST 4:

Nové trendy v diagnostice a léčbě diabetického makulárního edému (pg 19)

Diabetický makulární edém je závažnou komplikací obou typů diabetes mellitus a nejčastěji příčinou zhoršení centrální zrakové ostrosti diabetiků. Je definován jako ztlustění sítnice podmíněné akumulací tekutiny a/nebo tvrdých exudátů v centru nebo blízkosti centra makuly. Riziko vzniku a progresse diabetického makulárního edému stoupá s trváním diabetu, hyperglykemií, systémovou hypertenzí a pokročilostí diabetické retinopatie. V přehledovém článku jsou popsány patogeneze, klinický obraz, diagnostika a terapie diabetického makulárního edému.

TT 4:

New trends in diagnosis and therapy of diabetic macular edema

Diabetic macular edema is the most important complication of both types of diabetes mellitus and the most common cause of visual impairment in patients affected by diabetes mellitus. A diabetic macular edema is defined as a retinal thickening caused by accumulation of fluid and/or hard exudates involving or approaching the center of macula. Risk factors for the occurrence and progression of diabetic macular edema are duration of diabetes, hyperglycemia and systematic hypertension and severity of diabetic retinopathy. In the review

article pathogenesis, clinical definition, diagnosis and therapy of diabetic macular edema are described.

TEXT 5

ST 5:

Redukce tělesné hmotnosti u obezní ženy s prediabetem při dvouleté léčbě liraglutidem a metmorfinem

Kazuistika ukazuje příznivé účinky dvouleté "off-label" léčby liraglutidem a metmorfinem u obezní ženy s léčenou hypertenzí a prediabetem. Po několikaletém marném úsilí snížit nadměrnou tělesnou hmotnost (82 kg, BMI 36,4 kg/m²) se při roční léčbě hmotnost snížila o 14 kg a v následujícím roce stagnuje okolo 70 kg. HbA1c před léčbou i při léčbě byl opakovaně v mezích normy.

TT 5:

Body weight reduction in an obese woman with prediabetes in a two-year treatment with liraglutide and metformin

The case report illustrates beneficial effects of a two-year off-label treatment with liraglutide and metformin in an obese woman with treated hypertension and prediabetes. After several of failed attempts to reduce excessive body mass (82 kg, BMI 36,4 kg/m²), body weight decreased by 14 kg with one-year treatment and stagnated at around 70 kg in the subsequent year. HbA1c before and after treatment was repeatedly within normal limits.

TEXT 6

ST 6:

Myalgická encefalomyelitida - praktická aplikace Mezinárodních konsenzuálních kritérií
Příspěvek zpracovává symptomatologickou analýzu ME/CFS za použití Mezinárodních konsenzuálních kritérií na konkrétním případě pacientky trpící touto chorobou v akutní formě 9 let. Předložené poznatky mohou být užitečným vodítkem pro včasné rozpoznání choroby, která je velmi problematická jak po stránce diagnostiky, tak po stránce léčby.

TT 6:

Myalgic Encephalomyelitis - Practical Application of the International Consensus Criteria (ICC)

The paper presents symptomatological analysis of ME/CFS based on the International consensus criteria, which are applied to a particular case of a patient suffering from this disease for nine years. The acquired knowledge is useful for a timely identification of the disease, which is very problematic from both diagnostic and therapeutic aspects.

TEXT 7

ST 7:

Komplikace podkožního podávání infuzí v paliativní péči a možnosti jejich řešení (pg. 36)
Dehydrataci nemocných v paliativní hospicové péči lze snadno zvládat podkožním podáváním tekutin - hypodermoklýzou. Autor uvádí možné komplikace tohoto léčebného postupu. Metodu však lze pokládat za snadnou, bezpečnou a finančně nenákladnou.

TT: 7

Complications of the subcutaneous administration of fluids and possibilities of their solutions

Dehydrated patients in the hospice palliative care can be easily managed by the subcutaneous administration of fluids (hypodermoclysis). Author describes possible complications of this method. But hypodermoclysis can be put down as easy, safe and cost-effective.

Medicína po promoci ročník 14 / číslo 1/2013

TEXT 8

ST 8:

Summary

Hypothyroidism is a clinical disorder commonly encountered by the primary care physician. Untreated hypothyroidism can contribute to hypertension, dyslipidemia, infertility, cognitive impairment, and neuromuscular dysfunction. Data derived from the National Health and Nutrition Examination Survey suggest that about one in 300 persons in the United States has hypothyroidism. The prevalence increases with age, and is higher in females than in males. Hypothyroidism may occur as a result of primary gland failure or insufficient thyroid gland stimulation by the hypothalamus or pituitary gland. Autoimmune thyroid disease is the most common etiology of hypothyroidism in the United States. Clinical symptoms of hypothyroidism are nonspecific and may be subtle, especially in older persons. The best laboratory assessment of thyroid function is a serum thyroid-stimulating hormone test. There is no evidence that screening asymptomatic adults improves outcomes. In the majority of patients, alleviation of symptoms can be accomplished through oral administration of synthetic levothyroxine, and most patients will require lifelong therapy. Combination triiodothyronine/thyroxine therapy has no advantage over thyroxine monotherapy and is not recommended. Among patients with subclinical hypothyroidism, those at greater risk of progressing to clinical disease, and who may be considered for therapy, include patients with thyroid-stimulating hormone levels greater than 10 mIU per L and those who have elevated thyroid peroxidase antibody titers.

TT 8:

Hypothyreóza: novinky

Hypothyreóza představuje poruchu léčenou zpravidla všeobecným lékem. Neléčená hypothyreóza může přispívat k hypertenzi, dyslipidémii, neplodnosti, poruše kognitivních funkcí a neuromuskulární dysfunkci. Z údajů z National Health and Nutrition Examination Survey vyplývá, že ve Spojených státech amerických přibližně jedna osoba z 300 trpí hypothyreózou. S věkem prevalence narůstá a u žen je vyšší než u mužů. Hypothyreóza se může rozvinout v důsledku selhání samotné štítné žlázy nebo v důsledku nedostatečné stimulace štítné žlázy hypothalamem nebo hypofýzou. Ve Spojených státech amerických je nejčastější příčinou hypothyreózy autoimunitní onemocnění štítné žlázy. Klinické příznaky hypothyreózy nejsou specifické a mohou být vyjádřeny jen mírně, především u starších jedinců. Mezi nejlepší laboratorní ukazatele funkce štítné žlázy patří hodnota thyreotropního hormonu v séru. Nejsou důkazy, že screeningové vyšetření asymptomatických dospělých zlepšuje terapeutické výsledky. U většiny pacientů je perorální aplikací syntetického levothyroxinu dosaženo zmírnění příznaků a většina pacientů potřebuje celoživotní léčbu.

Kombinovaná terapie trijódthyroninem/thyroxinem není v porovnání s monoterapií thyroxinem výhodnější, a proto se nedoporučuje. Pacienti se subklinickou hypothyreózou s hodnotami thyreotropního hormonu >10 mIU/l a jedinci se zvýšenými titry protilátek proti thyreoperoxidáze patří do skupiny s nejvyšším rizikem progresu do klinického onemocnění, a proto by se u nich měla zvážit léčba.

TEXT 9

ST 9:

Summary

Acne is a chronic inflammatory skin disease that is the most common skin disorder in the United States. Therapy targets the four factors responsible for lesion formation: increased sebum production, hyperkeratinization, colonization by *Propionibacterium acnes*, and the resultant inflammatory reaction. Treatment goals include scar prevention, reduction of psychological morbidity, and resolution of lesions. Grading acne based on lesion type and severity can help guide treatment. Topical retinoids are effective in treating inflammatory and noninflammatory lesions by preventing comedones, reducing existing comedones, and targeting inflammation. Benzoyl peroxide is an over-the-counter bactericidal agent that does not lead to bacterial resistance. Topical and oral antibiotics are effective as monotherapy, but are more effective when combined with topical retinoids. The addition of benzoyl peroxide to antibiotic therapy reduces the risk of bacterial resistance. Oral isotretinoin is approved for the treatment of severe recalcitrant acne and can be safely administered using the iPLEDGE program. After treatment goals are reached, maintenance therapy should be initiated. There is sufficient evidence to recommend the use of laser and light therapies. Referral to a dermatologist should be considered if treatment goals are not met.

TT 9:

Diagnostika a terapie akné

Souhrn

Akné je chronické zánetlivé kožní onemocnění a představuje nejčastěji se vyskytující dermatologickou poruchu. Terapie je cílena na tyto faktory zodpovědné za tvorbu lézí: na zvýšenou produkci mazu, hyperkeratinizaci, kolonizaci bakterií *Propionibacterium acnes* a na výslednou zánetlivou reakci. Mezi cíle léčby patří prevence tvorby jizev, zmírnění psychických následků a zhojení lézí. Při rozhodování o terapii může pomoci odstupňování akné podle typu a závažnosti lézí. Topické retinoidy účinně léčí zánetlivé i nezánetlivé léze tím, že brání vzniku komedonů, snižují počet komedonů již existujících a působí protizánetlivě. Benzoylperoxid je volně prodejná baktericidní látka, jejíž používání nevede k rozvoji bakteriální rezistence. Topická a perorálně podávaná antibiotika účinkují i v monoterapii, ale účinnější jsou v kombinaci s topickými retinoidy. Podávání benzoylperoxidu k antibiotikům snižuje riziko bakteriální rezistence. Perorálně užívaný isotretinoin je schválen k terapii závažné refrakterní akné a lze jej bezpečně podávat v rámci programu iPLEDGE. Po dosažení cíle léčby by měla být zahájena udržovací terapie. Není k dispozici dostatek důkazů, na jejichž základ by bylo možno doporučit terapii laserem a světlem. Při nedosažení léčebných cílů bychom měli uvážit předání nemocného do péče dermatologa.

TEXT 10

ST 10:

O kování rizikových skupin pacientů proti pneumokokovým infekcím

Souhrn

Pneumokoková onemocnění patří stále mezi závažná onemocnění detské i dospělé populace. Přes dostupné o kování patří stále rizikové skupiny pacientů mezi nejohroženější. V některých zemích, kde pozorují nepřímý účinek o kování dětí na pokles incidence invazivních pneumokokových onemocnění u dospělých, nepozorují tento pokles u rizikových skupin a imunokompromitovaných. V české republice dosud nepřímý efekt nebyl zaznamenán, proto o kování starších dospělých a pacientů s imunosupresí i komorbiditami proti pneumokokům má veliký význam. K dispozici jsou dva druhy vakcín, konjugovaná 13valentní a polysacharidová 23valentní. Každá z nich má své výhody a nevýhody. Jednou z cest, jak zvýšit pro o kovanost právě rizikových skupin, je tvorba národních doporučení pro o kující lékaře. Proto vzniklo doporučení české vakcinologické společnosti pro pneumokokovou vakcinaci v dospělosti, pro aplikaci obou vakcín. Plné využití o kování konjugovanou vakcínou proti pneumokokům v rizikových skupinách pacientů lze očekávat po rozšíření v kové indikace na prakticky všechny v kové kategorie a potvrzení účinnosti v prevenci pneumonií.

TT 10:

Summary

Pneumococcal infections can still be considered severe illnesses in both pediatric and adult patients. Despite available vaccination, at-risk groups are still the most endangered ones. In some countries, an indirect effect of childhood vaccinations in the sense of decreasing incidence of invasive pneumococcal infections in adults is observed while this effect is absent in at-risk groups and immunocompromised patients. This indirect effect has not been described in the Czech republic yet; thus, the vaccination of the elderly and immunosuppressed or comorbid patients is of great importance here. Two types of vaccine are available - conjugated 13-valent and polysaccharide 23-valent. Each has its advantages and drawbacks. One approach to increasing the vaccination rate is represented by development of national recommendations for vaccinating physicians. Recommendation of the Czech Vaccinological Society was developed for this reason, concerning both vaccines. Full use of vaccination with the conjugated and pneumococcal vaccine in the at-risk groups can be expected after broadening the age-dependent indication to practically all age categories and after the effectiveness of vaccination in prophylaxis of pneumonia is confirmed.

TEXT 11

ST 11:

Deficit vitamínu D

Souhrn

Neustále se množící doklady o vysoké frekvenci nedostatku vitamínu D v běžné populaci i u různých skupin onemocnění nás nutí k zamyšlení nad současným stavem naší populace. Na základě našich zahraničních výsledků jsou vyvozovány závěry podporující vhodnost vyšetření sérových hladin vitamínu D jako podkladu pro případnou suplementaci.

TT 11:

Summary

There is an ever-increasing body of evidence of a high frequency of vitamin D deficiency in the general population as well as in different groups of diseases. This forces us to reflect on the current state of affairs in our population. Based on our own and foreign results, conclusions are drawn to support the suitability of investigating the serum levels of vitamin D as a basis for possible supplementation.

Postgraduální medicína - 8/2008 ročník 10

TEXT 12

ST 12:

Nutrice a nutriční stav pacientů v hemodialyzačním programu

Souhrn

Cílem sdělení je charakterizovat malnutrici, resp. nutriční poruchy u chronicky hemodialyzovaných pacientů. Posuzování jejich nutričního stavu vychází z komplexu vyšetřovacích postupů, zahrnujících biochemické, antropometrické, dotazníkové i přístrojové metody. Zjištění stravovacích návyků a dietologická intervence se jeví jako velmi důležité, nebo nízký příjem proteinů a energie je u dialyzovaných pacientů častou, i když zdaleka nikoliv jedinou a hlavní příčinou snížených ukazatelů nutričního stavu. Kromě nedostatečného příjmu živin se na tzv. "wasting" syndromu podílí uremická toxicita, metabolická acidóza, hormonální změny a v neposlední řadě zánět (MIA syndrom).

Jsou uvedena i základní mezinárodní doporučení příjmu živin pro hemodialyzované pacienty, včetně příjmu bílkovin, energie, vitamínů a stopových prvků.

TT 12:

Nutrition and nutritional condition of the patients in the haemodialysis program

Summary

The purpose of this article is to characterize malnutrition, respectively nutritional disorders in the chronic patients on haemodialysis. The evaluation of their nutritional condition comes out of a complex of examination procedures, including biochemical, anthropometric, questionnaire and instrumental methods. The finding out of the feeding habits and a dietologic intervention seems to be very important as the low intake of proteins and energy is a common although by far not the only reason for the decreased parameters of the nutritional condition in patients on haemodialysis. Besides the insufficient intake of nutrients, uremic toxicity, metabolic acidosis, hormonal changes and not on the last place inflammation (MIA syndrome) take part in the so called "wasting" syndrome. Basic international recommendations for the intake of proteins, energy, vitamins and microelements are also mentioned.

TEXT 13

ST 13:

Nitrodložní systém s levonorgestrellem - víc než kontracepce

Souhrn

Nitrodložní systém s levonorgestrellem představuje ideální kontracepční metodu, zajišťující vysokou spolehlivost ochrany před nežádoucí graviditou a vysoký stupeň compliance. Je

použitelný u většiny žen požadujících účinnou a dlouhodobou kontracepci, nebo souhrn kontraindikací je velmi úzký. Kromě toho byl ověřen jako velmi účinná léčebná modalita celé řady gynekologických poruch, zejména menoragií, děložních myomů, adenomyózy, zevní endometriózy a širokého komplexu obtíží vázaných na menstruaci. U rizikových skupin žen je perspektivní prevencí endometriálních hyperplazií a karcinomu endometria. Terapeutické využití systému je doposud na samotném začátku svých možností a lze očekávat jeho další široké použití. Nitroděložní hormonální rezervoár pravděpodobně umožní v budoucnu aplikaci dalších farmak v prevenci a léčbě definovaných gynekologických onemocnění.

TT 13:

Levonorgestrel-releasing intrauterine system - more than contraception

Summary

The levonorgestrel-releasing intrauterine system represents an ideal contraceptive method, insuring high reliability of the protection against unwanted pregnancy and a high level of compliance. It is usable in the majority of women requesting and effective and long-term contraception as the summary of contraindications is very narrow. Besides that it was proven as a very effective treatment option for a whole series of gynecological disturbances, including **menorrhagia**, uterine myomas, adenomiosis, external endometriosis and a broad complex of symptoms bound to menstruation. In the risk groups of women the prevention of endometrial carcinoma is perspective. The therapeutic usage of this system is so far at the very beginning of its potentialities and it could be expected to further broaden. The intrauterine hormonal reservoir will probably enable in the future the application of other drugs for the prevention and treatment of defined gynecological diseases.

TEXT 14

ST 14:

Žena a migréna

Souhrn

Migréna je chronické záchvatové onemocnění, které postihuje obě pohlaví. Maximum obtíží mají lidé ve věku 25-45 let. Výskyt migrény u žen je v průběhu dospělosti oproti mužům trojnásobný. Existuje významná souvislost mezi průběhem hormonálního cyklu a výskytem migrény; záchvat migrény u žen je vyvolán působením specificky ženských hormonů, které mají vliv na frekvenci, tíži a typ migrenózních záchvatů. Na výskyt migrény mají vliv také užívání hormonální substituční terapie, gravidita a nehormonální podněty.

TT 14:

Woman and migraine

Summary

Migraine is a chronic seizure disease, which affects both genders. The maximum symptoms are in the age group from 25 to 45 years. In the course of adulthood the incidence of migraine in women is 3 times higher than in men. A significant connection between the course of the hormonal cycle and the occurrence of migraine exists; the outbreak of migraine in women is caused by the activity of the specific female hormones, which have an influence on the frequency, heaviness and type of the migraine seizures. The usage of hormonal contraception, hormonal substitution therapy, pregnancy and non-hormonal impulses also influence the occurrence of migraine.

TEXT 15

ST 15:

Febrilní neutropenie

Souhrn

Febrilní neutropenie (teplota nejasného p vodu, fever of undetermined origin - FUO) je jednou z nej ast jších a nejvýznamn jších naléhavých situací v **hematoonkologii**. Promptní zahájení empirické antiinfek ní terapie stále z stává nejd ležit jší sou ástí lé by tohoto stavu. V posledních letech se do praxe zavedly moderní antiinfek ní preparáty, nové diagnostické metod a prognostické modely umož ůující stratifikaci a terapii nemocných podle rizika. V lé b a profylaxi houbových infekcí jsou k dispozici nová, málo toxická a velmi ú inná antimykotika. Obrovským problémem je objevení se multirezistentních , nozokomiálních bakteriálních kmen .

V roce 2005 prob hla 1. evropská konference zabývající se infekcemi u nemocných s leukémií (ECIL), na níž byly p ijaty následující d ležit é záv ry: 1. U granulocytopenických nemocných ve vysokém riziku, u kterých se o ekává, že bude granulocytopenie trvat déle než 7 dní, vede profylaxe podáváním fluorochinolon ke snížení celkové mortality i mortality zp sobené infekcemi, redukcii febrilních epizod i bakteriálních infekcí (G- i G+, v etn bakteriémy vyvolané G-baktériemi). 2. Nejvýznamn jší zm nou ve složení empiricky podávaných antibiotik je opušt ní automatického p idávání glykopeptidového antibiotika p i p etrvávání febrilií; je doporu eno glykopeptidy p idávat cílen až podle výsledk kultivací. 3. Vzhledem k tomu, že monoterapie beta-laktamovým antibiotikem je považována za stejn ú innou jako jeho kombinace být vyhrazena pouze pro nemocné v t žké sepsi i septickém šoku.

TT 15:

Summary

Clinical manifestations diagnostics basis and therapy of febrile patients with post-chemotherapeutic granulocytopenia

Febrile neutropenia (fever of undetermined origin - FUO) is one of the most frequent and most important emergency situations in **hematooncology**. The immediate initiation of empiric antiinfective therapy still remains the most important part od the treatment of this condition. In the recent years modern antiinfective drugs, new diagnostic methods and prognostic models of enabling stratification and treatment of the patients according to the risk were introduced into practice. In the tratment and prophylaxis of mycotic infections new very effective antimycotic drugs with low toxicity are available. The manifestation of multiresistent, nosococomial bacterial stems is an enormous problem.

In the year 2005 the 1st European Conference of Infection in Leukemia (ECIL) took place. On this conference the following important conclusions were accepted: 1. In granulocytopenic patients with high risk, in which febrile neutropenia longer than 7 days could be expected, prophylaxis with fluorochinolons significantly reduced all-cause mortality as well as the number of the febrile episodes and bacterial infections (G- and G+, including bacteriemias caused by G-bacteria). 2. The most significant change in the composition of the empirically administered antibiotics is the abandonment of the automatic adding of a glycopeptide antibiotic when the febrile condition persists; it is recommended that glycopeptides are added in a targeting way, as per the results of the cultivation. 3. Having in mind that monotherapy

with a beta-lactam antibiotic is considered to be as effective as its combination with an aminoglycoside, this combination should be reserved only for patients with severe sepsis or in a septic shock.

TEXT 16

ST 16:

Kontaktní dermatitidy a jejich diagnostika

Souhrn

Dermatitidy tvoří podstatnou část kožních onemocnění v ambulanci dermatologa. Z nich pak kontaktní iritativní a alergické dermatitidy jsou vedle atopického ekzému nejvýznamnější co do počtu, ale i z hlediska vyšetřování a zjištění příčiny jeho vzniku. Klinický obraz bývá rozmanitý, může být akutní, subakutní nebo chronický. K základnímu vyšetření kromě kladného anamnestického vyšetření se zaměřením na alergeny v domácím a pracovním prostředí a na volném území patří samozřejmě i vyšetření epikutánními testy.

TT 16:

Contact dermatitises and their diagnostics

Summary

Dermatitises create a substantial part of the skin diseases in the outpatient office of dermatologist. Among them irritant contact dermatitises and allergic dermatitises are besides atopic eczema the most significant in terms of number but also from the point of view of the examination and the finding out of the reason of their occurrence. The clinical picture may be various and their course may be acute, subacute and chronic. The examination through epicutaneous tests belongs of course among the basic examinations besides thorough anamnestic examination targeting allergens in the home and working environment and the leisure time activities.

TEXT 17

ST 17:

Lymfedém - klasifikace, diferenciální diagnostika a léčba

Souhrn

Lymfedém je vysokoproteinový otok způsobený patologií lymfatického systému. Klasifikace lymfedému je možná z různých hledisek. V zásadě dělí na primární a sekundární. Primární lymfedém vzniká bez zjevné příčiny a dále se dělí podle vku nástupu prvních projevů, podle charakteru postižení lymfatických cév a uzlin a podle důvodů. Sekundární lymfedém vzniká druhotně, následkem infekce, zánětu, operace, radioterapie, úrazu nebo nádorové infiltrace. Základem léčby je komplexní dekongestivní terapie, která využívá kombinace manuální a pístrojové lymfodrenáže spolu s kompresí. Probíhá ve dvou fázích: fázi redukce otoku a fázi udržovací. Nedílnou součástí léčby jsou režimová opatření. Nejdříve je zahájit léčbu včas a získat pacienta k aktivní spolupráci.

TT 17:

Lymphoedema - Classification, differential diagnostics and treatment

Summary

Lymphoedema is a highprotein swelling caused by pathology of the lymphatic system. The classification of lymphoedema from different points of view is possible. Basically it is divided to primary and secondary. Primary lymphoedema occurs without any apparent reason and is further divided according to the age when the first symptoms occur, the character of the infliction of the lymphatic vessels and nodules and heredity. Secondary lymphoedema occurs as a consequence of infection, inflammation, operation, radiotherapy, injury or a tumor infiltration. The basis of the treatment is a complex decongestive therapy, which uses a combination of manual and instrumental lymphodrainages together with compression. It proceeds in 2 phases: the phase of the reduction of the swelling and the phase of maintenance. Regime measures are an indivisible part of the treatment. It is most important to start the treatment in time and to achieve the active cooperation of the patient.

TEXT 18

ST 18:

Chronická polymorfní fotodermatóza

Souhrn

Chronická polymorfní fotodermatóza je onemocnění vyvolávané solární radiací u přibližně 10-25 % populace mírného podnebného pásma. Má jednak ekzematózní, jednak pruriginózní formu, a je diagnostikovatelná klinicky, histologicky a pomocí fototestování. Patří k idiopatickým chorobám, bývá ale zaměřeno za některý z fototoxických nebo fotoalergických, zejména polékových, stavů. K léčbě a profylaxi se u ní nověji osvědčují fototerapeutické postupy.

TT 18:

Summary

Chronic polymorphic photodermatosis (polymorphic light eruption) is a disease initiated by solar radiation in approximately 10-25 per cent inhabitants of mild climate zone. It occurs either in eczematous or pruriginous form and can be diagnosed clinically, histologically or by means of phototesting. The disease belongs to the group of idiopathic dermatoses, but is often mistaken with several phototoxic or photoallergic, especially postmedicamentous, pathological states. As for their good therapeutic and protective effect, several phototherapeutic methods have recently proved to be successful.

TEXT 19

ST 19:

Traumata motocyklyst

Souhrn

Problematika pasivní bezpečnosti motocyklu a biomechaniky poranění motocyklisty se v posledních letech dostává do popředí zájmu a stává se postupně jedním z hlavních témat motocyklových výrobců. Snaha omezit závažné následky motocyklových dopravních nehod dvou víceméně nekompatibilních kolizních partnerů (motocykl - automobil) dnes vyúsňuje do evropských projektů, které mají za úkol zlepšit pasivní ochranu motocyklistů.

TT 19:

Traumas of motocyclists

Summary

The problem of the passive safety of motorcycles and the biomechanics of the injuries of motorcyclists is recently gaining ground and is becoming one of the main themes of the motorcycle producers. The effort to limit the substantial consequences of the motorcycle traffic accidents of two more or less incompatible collision partners (motorcycle - car) leads to the current European projects having the task to improve the passive protection of motorcyclists.

TEXT 20

ST 20:

Zvýšení antikoagulačního účinku warfarinu s krvácivou komplikací vlivem interakce s fluvastatinem

Souhrn

Autoři dokumentují případ vzácné lékové interakce mezi warfarinem a fluvastatinem, kterou pozorovali u 73leté nemocné diabetičky a hyperteničky na dlouhodobé perorální antikoagulační léčbu warfarinem po náhradě aortální chlopně. Nemocné byla nasazena vzhledem k hyperlipoproteinémii a velmi vysokému kardiovaskulárnímu riziku fluvastatin, dávkování warfarinu po tuto dobu zatím nebylo. Po 20 dnech této léčby se u nemocné objevily bolesti končetin a následně rozsáhlé podkožní krvácení na břiše, které vedlo k hospitalizaci, při přijetí byla u nemocné zjištěna hodnota INR nad 15. Příčinou výše uvedeného stavu byla nejspíše interakce warfarinu s fluvastatinem, pravděpodobně na úrovni enzymu CYP2C9. Tuto hypotézu podporuje nález mutace genu kódujícího CYP2C9 u nemocné, který předpokládá sníženou aktivitu tohoto enzymu. Stav si vyžádal úplné vysazení perorální antikoagulace, vysazení hypolipidemika, provedení nemocné na nízkomolekulární heparin a urgentní substituci krevními deriváty. Nemocnou postupně převádíme opět na léčbu warfarinem v dávkách obdobných jako před jejím přijetím, od té doby po současně se obdobné krvácivé komplikace u nemocné již neobjevily.

TT 20:

Summary

The authors are documenting a case of uncommon drug interaction between warfarin and fluvastatin, which they observed in a 73 years old female patient with diabetes and hypertension who was enduring a long-term anticoagulation warfarin treatment after replacement of the aortal valve. Because of hyperlipoproteinaemia and very high cardiovascular risk fluvastatin was administered to the patient, at the same time the dosage of warfarin was not changed. After 20 days of this treatment the patient was suffering from extremity pain and a following extensive subcutaneous bleeding in the abdominal field, which led to hospitalization. On hospital admission an INR level of more than 15 was detected in this patient. The reason of the above-mentioned status was most likely an interaction between warfarin and fluvastatin, probably on the level of the CYP2C9 enzyme. This hypothesis is supported by the discovery of the mutation of the CYP2C9 coding gene, which presumes decreased activity of this enzyme, found in the patient. The status of the patient required full discontinuation of the oral anticoagulation, discontinuation of the hypolipidemic treatment,

admission of low molecular heparin and urgent blood derivatives substitution. The patient is been gradually transferred back to the period before hospitalization. Since then until the present time similar bleeding complications did not appear in this patient.

TEXT 21

ST 21:

N kolik nových poznatků o paracetamolu

Souhrn

Paracetamol, pravděpodobně nejrozšířenější analgetikum, vzbuzuje stále v tšší výzkumný zájem. Mechanismus jeho léčebného účinku se do jisté míry blíží mechanismu účinku nesteroidních antirevmatik ze skupiny selektivních inhibitorů cyklooxygenázy 2. Není vyloučeno podíl dlouhodobého podávání paracetamolu na rozvoji hypertenze a je možná i jeho úloha při aktivaci chronických zánětlivých stěvních onemocnění.

TT 21:

Several new pieces of knowledge about paracetamol

Summary

Paracetamol, **most probably the most** frequently used analgetic, still inspires research interest. The mechanism of its treatment action resembles to a certain extent the mechanism of action of the non-steroid antirheumatics from the group of the cyclooxygenase 2 inhibitors. The contribution of the long-term administration of paracetamol on the development of hypertension **can not** be excluded and its role in the activation of the chronic inflammatory bowel disease is possible.

TEXT 22

ST 22:

Statiny a akutní koronární syndrom

Souhrn

Opakovaně bylo prokázáno, že statiny (inhibitory 3-hydroxy-3metylglutaryl koenzym A reduktázy) jsou velmi účinné v primární i sekundární prevenci ischemické choroby srdce. Statiny však inhibují také různé patologické mechanismy (včetně endoteliální dysfunkce, aktivace zánětu a koagulace), které hrají významnou úlohu při vzniku akutního koronárního syndromu (AKS). Vztahující se publikací z poslední doby naznačuje, že statiny by se mohly uplatnit nejen včasné sekundární prevenci, ale i přímo v léčbě AKS, jestliže by podávání statin bylo zahájeno ihned po přijetí ještě klinicky nestabilního pacienta; velká kontrolovaná klinická studie, která by se zabývala touto hypotézou, však dosud chybí. Přesto na základě dostupných údajů by statiny mohly v budoucnosti zaujmout důležité místo v první linii léčby AKS.

TT 22:

Statins and acute coronary syndrome

Summary

It has been repeatedly shown that statins (3-hydroxy-3-methylglutaryl coenzyme A reductase inhibitors) are very effective in the primary and secondary prevention of ischemic heart disease. Statins, however, influence also different pathogenic mechanisms that play a significant role in the development of acute coronary syndrome (ACS). Recently, an

increasing number of authors indicate that statins could be effective not only in the early secondary prevention but also directly in the therapy of ACS. Nevertheless, confirmation of this hypothesis by large prospective controlled clinical trials will be necessary before introduction of statins as the first line therapy in unstable patients with ACS.

TEXT 23

ST 23:

Ortopedické vady nohy a možnosti terapie

Souhrn

Noha prodělala během vývoje řadu změn, její vývoj není zdaleka ukončen, hrají zde úlohu vlivy civilizace. Hyperlaxita, hypermobilita kloubů přispívají ke vzniku statických vad již v dětství, stejně tak jako nevhodné nošení módní obuvi v období dospívání a dospělosti se všemi následky. Vzniká tak plochá noha se subjektivními potížemi - únavou, bolestivostí a tvarovými změnami nohou - například hallux valgus, digiti mallei. Změny svalové rovnováhy jsou příčinou různých deformit v oblasti chodidla u neurogeních onemocnění (dětská mozková obrna, meningomyelokéla, morbus Charcot-Marie-Tooth, kongenitální myotonická dystrofie). Vrozené vady nohy se vyskytují ve frekvenci 1 na 1000 narozených dětí. I předešlé včasné prenatální diagnostice, kdy lze eliminovat těžká systémová postižení, vyžadují zejména vrozené rigidní vady nohy intenzivní konzervativní a eventuálně operační terapii s následnou pooperační ortotickou péčí. Na nohou trávíme přibližně 80 % času, proto plantigrádní postavení nohy s vyvinutou podélnou a příčnou klenbou nožní je více než nutností. Smyslem sdělení je poukázat na problematiku nejčastějších vrozených a získaných vad různé etiologie a možnosti jejich řešení.

TT 23:

Orthopedic defects of the foot and possibilities of its therapy

Summary

The leg went through a series of changes during its development; its development is not finished by far, the civilization influences play their role. Hyperlaxicity, hypermobility of the joints support the occurrence of static defects already in childhood, in the same way as wearing fashion shoes in the period of adolescence and adulthood with all its consequences. In this way flat foot is formed with subjective difficulties - fatigue, pain and form changes of the leg - for example hallux valgus, digiti mallei. Changes of the muscle balance are the reason of different deformations in the field of the sole and neurogenic diseases (cerebral palsy, meningomyelocele, morbus Charcot-Marie-Tooth, congenital myotonic dystrofia). Congenital defects of the foot occur with the frequency of 1 per 1000 newborn children. In spite of the current timely prenatal diagnostics, where severe systemic afflictions can be eliminated, there is a demand of intensive conservative and possibly surgical therapy with following after-surgical orthotic care, especially of the congenital rigid defects of the foot. We spend approximately 80 % of the time on our legs, that is why the plantigrade position of the foot with developed longitudinal and transverse arches is more than a necessity. The meaning of this article is to point out the problem of the most frequent congenital and acquired defects of different etiology and the options of their treatment.

TEXT 24

ST 24:

Možnosti a indikace ortopedické léčby u onemocnění Charcot-Marie-Tooth

Souhrn

Onemocnění Charcot-Marie-Tooth (CMT) je geneticky podmíněnou dědičnou periferní neuropatií s postižením periferních nervů s projevy parézy na svalech dolních i horních končetin. S narůstajícím věkem pacient dochází k rozvoji deformit chodidla a ruky. Průběh onemocnění je velmi variabilní, klinický nálezní kolísá i v rámci jedné rodiny od asymptomatických až po těžce postižené jedince. Diagnostika je neurologická (elektrodiagnostika), molekulárně-genetická (analýza DNA) a klinická. Kausální terapie CMT choroby není známa. Symptomatická léčba je kombinací terapie medikamentózní, rehabilitační, podpůrné protetické péče a operačního řešení v závislosti na tíži a prognóze postižení a subjektivních potížích pacienta. Důležitý je multidisciplinární a individuální přístup k problematice pacienta.

TT 24:

Possibilities and indications of orthopedic treatment in Charcot-Marie-Tooth disease

Summary

The Charcot-Marie-Tooth disease is a genetically determined hereditary peripheral neuropathy with infliction of the peripheral nerves and manifestations of paresis of the muscles of the lower and upper extremities. With the increasing age of the patients deformities of the foot and the hand occur. The course of the disease is quite variable, the clinical picture wavers even within one family from asymptomatic up to heavily disabled individuals. The diagnostics is neurological (electrodiagnostics), molecular-genetic (analysis of DNA) and clinical. The causal therapy of CMT is not known. The symptomatic treatment is a combination of medicamentous therapy, rehabilitation, supportive prosthetic care and surgical solution dependant on the burden and the prognosis of the infliction and the subjective problems of the patient. A multidisciplinary and individual approach to the patient is important.

TEXT 25

ST 25:

Perthesova choroba

Souhrn

Perthesova choroba je závažné onemocnění kyčelního kloubu v dětství, které se sice dokáže samo zhojit (self-healing), bez správné léčby však v tšinou za cenu vzniku závažné artrózy kyčelního kloubu.

Pro zážitek onemocnění je typická bolest v třísle, může ale zcela chybět; bolest může být pak ve stehně i koleně, někdy nalezneme jen bolestivé kulhání. Pro správné stanovení diagnózy je nezbytný kvalitní skiagram kyčelních kloubů ve dvou projekcích (předozadní a „axiální“), při sledování vývoje choroby pak vystačíme pouze s předozadním snímkem.

Kromě klidového režimu a rehabilitační péče je v konzervativní léčbě používána nejčastěji abdukční ortéza Atlanta, pro chirurgickou léčbu se rozhodneme v případě rizikové hlavice.

Závažnější chirurgická léčba vychází stejně jako konzervativní léčba z principu „containment“, provádíme pak Salterovu pánevní osteotomii, resp. varizaci femorální osteotomii. Pozdní

chirurgická léčba pak zahrnuje abdukční rotační femorální osteotomii, event. cheilotomii - modelaci hlavice.

TT 25:

Perthes' disease

Summary

Perthes' disease is a serious illness of the hip joint in childhood, which may indeed heal itself (self-healing), however, without the correct therapy, mostly at the price of the occurrence of early arthrosis of the hip joint.

Groin pain is typical for the beginning of the disease, but it may be completely missing; there could be a thigh or a knee pain, sometimes we find only limp without pain. For the correct determination of the diagnosis x-ray of both hip joints in two projections (anteroposterior and „axial“) is essential, then for the monitoring of the development of the disease an anteroposterior x-ray is sufficient.

Except for the rest regime and rehabilitation care the abduction orthosis Atlanta is most used in the conservative treatment, we decide for surgical treatment in case of head at risk. Early surgical treatment as well as conservative treatment comes from the principle of „containment“, then we carry out innominate osteotomy, respectively varus femoral osteotomy. Late surgical treatment then includes abduction-rotational femoral osteotomy, alternatively cheilotomy - shaping of the femoral head.

TEXT 26

ST 26:

Coxa vara adolescentium

Souhrn

Skluz proximální femorální epifýzy - coxa vara adolescentium - je hormonálně podmíněné onemocnění, které nesprávně a pozdě diagnostikováno může vést k trvalým následkům v podobě asté koxartrózy, někdy až invalidity v mladém věku.

V klinickém obraze je typická bolest v tříse, vleklá a náhle vzniklá, závažná ale může být bolest ve stehně a v koleně. Pro postavení diagnózy je nezbytný rtg snímek obou kyčlí ve dvou projekcích (předozadní a „axiální“).

Terapeuticky se v případě akutních skluzů snažíme o repozici a epifyzeodézu, v případě chronických skluzů (nad 30° v jedné z rovin) řešíme stav vícerovinovou korekční osteotomií se snahou dosáhnout správného postavení epifýzy. I tak je ale pacient ohrožen koxartrózou - a to mechanismem femoroacetabulárního impingementu - mechanického konfliktu mezi nesprávným tvarem hlavice a okrajem jamky.

TT 26:

Coxa vara adolescentium

Summary

Slipped capital femoral epiphysis - coxa vara adolescentium - is a hormonally determined disease, which may lead to permanent consequences in the form of early coxarthrosis, sometimes up to disability in the young adulthood, if wrongly or lately diagnosed.

In the clinical picture chronic or acute groin pain is typical, but thigh or knee pain may be misleading. In order to put up the diagnosis and x-ray of both hips in two projections (anteroposterior and „axial“) is essential.

Therapeutically in the case of acute overlaps we endeavour to achieve a reposition and epiphyseodesis, in the case of chronic overlaps (over 30° in one of the planes) we solve the condition through multi-plane corrective osteotomy with the effort to achieve the correct position of the epiphysis. Anyhow the patient is endangered by coxarthrosis - namely through the mechanism of femoroacetabular impingement - the mechanic conflict between the wrong form of the femoral head and the margin of the fossa.

TEXT 27

ST 27:

Suprakondylická zlomenina humeru u d t í

Souhrn

Suprakondylické zlomeniny d tského humeru pat í mezi zlomeniny obávané, s možnými trvalými následky. Nelze íci, že to již neplatí. ádu poškození a komplikací zp sobí již úraz sám, další úskalí p ináší lé ba. Doporu ujeme námi propracovaný konzervativní postup, který využívá minimálního p sobení svalových skupin na oba fragmenty v poloze na b íše pacienta s abdukcí zran é paže, flexí v lokti a prona ního visu p edloktí. V této pozici mají fragmenty tendenci ke spontánní korekci. P i repozici ji v tšinou již jen potencujeme. Výsledky za 15 let ustáleného postupu nás oprav ují k jistému optimismu. V každém p ípad íze touto metodou p ízniv ovlivnit dislokace *ad peripheriam*, které v minulosti p edstavovaly repositioní problém. Následn rereponovat í operovat jsme nemuseli ani jednou. D sledná porepositioní observace z stává samoz ejmou nutností.

TT 27:

Supracondylar Humeral Fracture in Children

Summary

Supracondylar fractures of the humerus in children used to belong among the feared fractures with possible lasting consequences. We **can not** say that this is already invalid. The injury itself brings a series of damages and complications, other difficulties are coming from the treatment. We recommend the conservative procedure developed by us, which uses the minimal activity of the muscle groups on both fragments. The patient is in the prone position with abduction of the injured arm, flexion of the elbow and pronation hanging position of the forearm. In this position the fragments have the tendency of spontaneous correction. During the reposition we mostly only potentiate it. The results of the 15-year long steady procedure justify our certain optimism. In any case this method may positively influence the dislocation *ad periferam*, which in the past represented a reposition problem. We never had to reposition again to use surgery. Consistent after-reposition observation remains an apparent necessity.

TEXT 28

ST 28:

Diagnostika a terapie benigních kostních nádor

Souhrn

Vysoký počet typ benigních tumor , ale samoz ejm í maligních a jiných tzv. nádor m podobných infekcí v etn zán tlivých proces , které mají mnohdy obdobný klinický i rentgenologický obraz, má za následek obtížnou diagnostiku, a následn í zcela odlišnou terapii. Biologické vlastnosti a chování jednotlivých skupin a dokonce i samotných nádor

jsou rozli né, jedná se o spojitou řadu od afekcí zcela benigních až po vyslovené maligní nádory. V některých případech může docházet i k malignizaci benigního procesu v jeho průběhu.

Terapie vychází z těchto vlastností, její schéma a principy v etně konkrétních typů nezbytné resekce vycházející z Ennekingovy klasifikace.

Léčba maligních tumorů je prováděna na specializovaných pracovištích, mnohdy ale i benigní afekce nejsou svým klinickým obrazem zcela charakteristické a existuje riziko záměny za maligní proces, proto i v těchto případech považujeme za vhodné ošetření na pracovišti se zkušenostmi s onkologickou problematikou skeletu.

TT 28:

Diagnosics and therapy of benign bone tumors

Summary

A high number of types of benign tumors, but of course also malign tumors and other so-called tumor-like affections, which often have similar clinical and X-ray picture, have the consequence of difficult diagnostics and further on an entirely different therapy. The biological characteristics and behaviour of the individual classes of tumors and even the tumors themselves are diverse, we deal with a continuous line of tumors from totally benign to pronouncedly malign ones. In some cases the malignization of an originally benign process in its course is also possible. The therapy is defined by these characteristics, its scheme and principles including the specific types of inevitable resection come also from the Enneking classification.

The treatment of malign tumors takes place on specialized clinics, but in many cases benign affections do not have entirely characteristic clinical picture either and there is a risk of their interchange with a malign process, that is why we consider relevant that these cases are being treated on clinics with an experience with the oncological diseases of the skeleton.

TEXT 29

ST 29:

Náhrady kyčelního kloudu

Souhrn

Nejširší uplatnění mají v současné době náhrady kyčelního kloubu pro degenerativní artrózu. Náhrada kloubní se od sebe liší použitým materiálem, ukotvením endoprotézy v kosti (cementovaná a necementovaná totální endoprotéza) a kontaktní plochou hlavice-jamka.

„Nové typy“ endoprotéz představují endoprotézy s metafyzární fixací, resurfacing, custom made endoprotézy a speciální typy endoprotéz. Velmi výhodné jsou také miniinvazivní operativní přístupy.

TT 29:

Hip replacements

Summary

Replacements of the hip for degenerative arthrosis currently have the broadest implementation. Joint replacements are differentiated from each other by the use of material, the fixation of the endoprosthesis in the bone (cemented and non-cemented total endoprosthesis) and the contact surface head-fossa. „New types“ of endoprosthesis are represented by endoprosthesis with metaphyseal fixation, resurfacing, custom made

endoprosthesis and special types of endoprostheses. Mini-invasive surgical approaches are also quite beneficial.

TEXT 30

ST 30:

Komplikace náhrady ky elního kloubu

Souhrn

Komplikace náhrady ky elního kloubu lze rozdělit na peroperační a časnou a pozdní pooperační. Frekvence komplikací našťstí není vysoká, a většinou lze vyřešit ad integrum. Pro úspěšné řešení je ale velmi důležitá správná a včasná diagnóza. Mezi nejzávažnější pozdní komplikace patří uvolnění náhrady ky elního kloubu z kostního lžka. Nejzávažnější příčinou je narušení kontaktní kosti granulační tkání, která vzniká v důsledku přítomnosti polyetylenového otřru v neokapsule náhrady kloubu. Velmi závažnou komplikací, mnohdy ohrožující i život pacienta, je infekce v okolí implantátu. Jediným řešením je operativní revize a kompletní odstranění cizího materiálu.

TT 30:

Complications of the hip replacement

Summary

Complications of the hip replacement could be differentiated into per-surgical and early and late post-surgical. Fortunately the frequency of the complications is not high and they could be mostly solved ad integrum. Correct and timely diagnosis is very important for the successful solution. Disengagement of the hip replacement from the bone socket belongs among the most serious late complications. The most common reason is an impairment of the contact bone by granulation tissue, which is developed as a consequence of the presence of polyethylene attrition in the neocapsule of the joint replacement. Infection in the surroundings of the implant is a very serious, often threatening the life of the patient, complication. The only solution is a surgical revision and complete removal of the extrinsic material.

TEXT 31

ST 31:

Diferenciální diagnostika bolestivých stavů ramenního kloubu

Souhrn

Rozbor bolestivých patologií ramenního kloubu je uspořádán tak, aby bylo jasné, jak lze diferenciálně diagnosticky odlišit jednotlivé patologie. Autor popisuje bolestivé stavy ramenního kloubu, objasňuje jejich příčinu a vysvětluje důvody nespecifických syndromů.

K určení diagnózy napomáhá popis nejdůležitějších manévrů, testů a fenoménů.

TT 31:

Differential diagnostics of the painful conditions of the shoulder joint

Summary

The analysis of the pathologies of the shoulder joint is organized in such way that it becomes clear how to single out the individual pathologies by their differential diagnosis. The author describes the painful conditions of the shoulder joint, brings out their sources and explains the reasons of the non-specific syndromes. The description of the most important maneuvers, tests and phenomena helps the determination of the diagnosis.

TEXT 32

ST 32:

Diferenciální diagnostika bolestí kolenního kloubu

Souhrn

Diferenciální diagnostika bolestí kolenního kloubu je složitá. Kolenní kloub vykazuje celou řadu patologií s relativně malými rozdíly. V článku jsou uvedeny vyšetřovací postupy, jejich technika a význam pro stanovení diagnózy. Suverénním vyšetřením je magnetická rezonance, která prokáže změny v měkkých tkáních a chrupavce. Při podezření na nádorové onemocnění je nutností CT vyšetření.

TT 32:

Differential diagnostics of the pain of the knee joint

Summary

The differential diagnostics of the pain of the knee joint is a complicated one. The knee joint embodies a whole series of pathologies with relatively small differences. The examination approaches, their technique and importance for the determination of the diagnosis are introduced in this article. The sovereign examination is magnetic resonance, which also demonstrates changes in the soft tissue and the cartilage. CT examination is a must in the case of suspicion of a tumor disease.

TEXT 33

ST 33:

Bolest v ortopedii

Souhrn

Terapie bolesti v ortopedii je nedílnou součástí léčby ortopedických onemocnění. Terapií se nemyslí pouze farmakoterapie, i když ta je nejčastější. Analgeticky mohou působit režimová opatření, fyzikální terapie, mobilizace, manipulace i rehabilitace, termoterapie (působení chladu), ale i psychoterapie. Správně indikovaná chirurgická terapie odstraní i bolestivost chronickou dlouhodobou bolestí i bolestí akutně vzniklou.

TT 33:

Pain in orthopedics

Summary

The therapy of pain in orthopedics is an indivisible part of the treatment of orthopedic diseases. By therapy it is not meant only pharmacotherapy although it is the most common one. Regime measures, physical therapy, mobilization, manipulation and rehabilitation, thermotherapy (incidence of cold) but also psychotherapy may act as analgesia. Correctly indicated surgical therapy removes through the acute painfulness the chronic long-term pain and the pain, which occurred acutely.

Medicína pro praxi 2/2012

TEXT 34

ST 34:

Je prevalence kardiovaskulárních p íhod otázkou zvolené terapie?

Možností intervence rizikových faktor ateriosklerózy (a kardiovaskulárních onemocnění) p íbývá. Je ale z ejmé, že ne všechny zp soby modifikace rizikového profilu ú inkují stejn na výskyt klinických p íhod. O úsp chu intervence rozhoduje správné n asování, rozhodnutí o zp sobu lé by, volba konkrétního lé ebného postupu a v neposlední ad i compliance pacienta s navrženými postupy. Dnes je jednozna n prokázáno, že ve v tšin klinických situací jsou hlavními pilí i farmakologické lé by ke snížení KV rizika antihypertenzivní režimy založené na kombinaci blokátoru RAS a blokátoru kalciového kanálu v tšinou v kombinaci s hypolipidemickou lé bou statinem. Tento postup s prokázanou synergií ú inku jist není univerzální, ale bude vhodný pro velkou skupinu nemocných v primární i sekundární prevenci ob hových aplikací.

TT 34:

Is prevention of cardiovascular events a question of the treatment chosen?

There are increasing options of intervention on risk factors for atherosclerosis (and cardiovascular diseases). However, it is apparent that not all methods of modifying the risk profile have the same effect on the occurrence of clinical episodes. The success of an intervention is determined by correct timing, the decision on the method of treatment, the selection of a particular treatment strategy as well as patient compliance with the proposed strategies. In most clinical settings today, antihypertensive regimens based on a combination of a RAS blocker and a calcium channel blocker usually combined with hypolipidaemic statin treatment are well established as the cornerstones of pharmacotherapy to reduce cardiovascular risk. This strategy with an established synergistic effect certainly is not universal, but may well be suitable for a large group of patients in primary as well as secondary prevention of circulatory complications.

TEXT 35

ST 35:

Biologická lé ba Crohnovy nemoci

Biologická terapie Crohnovy nemoci p edstavuje v sou asné dob nejú inn jší formu medikamentózní terapie u této choroby. Je vyhrazena pro pacienty se st ední a vysokou aktivitou nemoci, kte í neodpovídají na konven ní medikamentózní lé bu. V klinické praxi se v této indikaci používají imunoglobuliny namí ené proti tumor nekrotizujícímu faktoru alfa (anti TNF-). Infliximab je monoklonální, chimérická protilátka a adalimumab je kompletní humánní protilátka. Efektivita biologické terapie je v klinické praxi relativn vysoká. Asi 80-90 % nemocných odpovídá na podávanou lé bu. Problémem je sekundární ztráta odpov di, která vyžaduje intenzifikaci terapie. Vedlejší ú inky nejsou asté, ale mohou být potenciáln závažné. Jde p edevším o vznik oportunních infekcí. Trvalá a pe livá monitorace všech nemocných na biologické lé b je samoz ejmou nutností.

TT 35:

Biological therapy of Crohn's disease

Biological therapy is the most effective treatment modality in patients with Crohn's disease. Indicators for biological therapy start is moderate or severe Crohn's disease activity despite of intensive standard therapy. In clinical practice we used immunoglobulins targeted against tumor necrosis factor alpha (TNF- α). Infliximab is a monoclonal, chimeric antibody and adalimumab is a complete human antibody against TNF- α . Biological therapy effectivity is relatively high, more than 80-90 % patients respond due to induction treatment period. Unsolved problem is the secondary treatment failure, which requires a therapy intensification. The side effects are not frequent, but potentially severe. The most important is a risk for opportunistic infections. The precise patients monitoring for whole time therapy with biologicals is needed.

TEXT 36

ST 36:

Co nového přinesl rok 2011 v očkování?

V roce 2011 se udála celá řada změn a novinek v oblasti očkování. Došlo k úpravě kalendáře pro děti, bylo zaregistrováno v kovové rozšíření možnosti aplikace tetravalentní konjugované meningokokové vakcíny, v nichž oblastech byla zahájena aplikace posilující dávky vakcíny proti parotiditidě u adolescentním věku, získali jsme první zkušenosti z ukončeného plošného očkování proti tuberkulóze a selektivní vakcinace BCG vakcínou, diskutovala se povinnost očkování a zařazení očkování proti lidskému papilomaviru do očkovacího kalendáře, vytvářela se doporučení v očkování proti rotavirům, v praxi se začal uplatňovat očkovací kalendář pro dospělé, řešilo se očkování proti pertusi v dospělosti a možné sjednocení termínu pro očkování proti tetanu podle věkových kohort. Nově se zavedl termín „nadstandardy“ v očkování. V roce 2011 vznikla také řada nových národních doporučení v očkování a naplnil se tak smysl a význam vzniklé Národní imunizační komise.

TT 36:

What news did occurred in vaccination in 2011?

Number of changes and innovations in the field of vaccination occurred in 2011. Immunization program for children was adapted, the age extension of meningococcal conjugate tetravalent vaccine was registered, revaccination of adolescent by vaccine against mumps was started in some areas, we gained the first experience from the stop of universal vaccination against tuberculosis and from selective BCG vaccination, the mandatory vaccination and inclusion of vaccination against human papillomavirus in the universal immunization program were discussed, the recommendations for vaccination against pertussis and the possible unification of the term booster against tetanus by age cohorts were discussed. Newly the term "above-standard" was introduced in the vaccination. In 2011 the number of new national vaccination recommendations as created and the importance and value of the National Immunization Committee was filled.

TEXT 37

ST 37:

Očkování těhotných žen proti chřipce

Chřipka je velmi častým a potenciálně závažným onemocněním postihujícím jedince kteréhokoli věku. Určitě rizikové faktory zvyšují pravděpodobnost těžkého průběhu chřipky,

koplikací a případně úmrtí. K těmto rizikovým faktorům patří i těhotenství. O vakcinaci těhotných žen chráníme jednou vakcínou 2 osoby se zvýšeným rizikem: těhotnou ženu a její dítě v prvních měsících po narození. Chřipkové vakcíny v graviditě doporučuje řada odborných společností i státních i nadnárodních institucí veřejného zdraví. O vakcinaci těhotných žen proti chřipce patří k velmi důležitým nástrojům prevence a v České republice není zatím dostatečně využíváno.

TT 37:

Vaccination of pregnant women against influenza

Flu is a very frequent and potentially serious disease affecting individuals of any age. Certain risk factors increase the probability of severe course of flu, complications and even death. Pregnancy belongs to the risk factors. By vaccinating pregnant women we protect two persons with increased risk by one shot: the pregnant woman and her child during its first months after birth. Vaccinating pregnant women against flu is recommended by various medical societies and national and international institutions of public health. Vaccinating pregnant women against flu belongs to important tools of prevention and is not adequately used in the Czech Republic so far.

TEXT 38

ST 38:

Terapie akutní bronchitidy

Akutní bronchitida (akutní zánět průdušek) bývá velmi častá diagnóza, za kterou se ale mohou skrývat i jiná akutní a chronická onemocnění dýchacího systému. Recidivující akutní bronchitidy by měly být vždy důvodem k podrobnějšímu vyšetření respiračního traktu včetně vyšetření funkce plic. Častými diagnózami po podrobném vyšetření bývají i stadia chronické obstrukční plicní nemoci (CHOPN) nebo průduškového astmatu (asthma bronchiale), ale i onemocnění, která se nediagnostikovala v dětství (cystická fibróza, ciliární dyskineze a různé imunodeficity).

TT 38:

Managing acute bronchitis

Acute bronchitis is a very frequent diagnosis; however, other acute and chronic respiratory diseases may often be masked by it. Recurrent acute bronchitis should always be a reason for a thorough examination of the respiratory tract including lung function testing. A number of congenital disorders (cystic fibrosis, ciliary dyskinesia, immunodeficiency) can thus be revealed that may have gone undetected in childhood. Common diagnoses after a thorough check-up include early stages of chronic obstructive pulmonary disease (COPD) or bronchial asthma.

TEXT 39

ST 39:

Dobrý den, rezistence, mohu dál? I.

Narůstající rezistence bakterií k antibiotikům není problém pouze v nemocnicích zařízeních, ale přesouvá se i do komunity. Rozvoj infekčního onemocnění je dán patogenitou a virulencí povodce. Nález mikroorganismu v klinickém vzorku nemusí vždy znamenat, že se jedná o povodce onemocnění. Často jsou tyto nálezy pouhým odrazem kolonizace pacienta

p íslušnými mikroorganizmy, proto by zahájení antibiotické lé by m lo být racionální a m lo by spl ovat kritéria antimikrobní a klinické účinnosti p í sou asné klinické a epidemiologické bezpe nosti. Z odpov dnost za dlouhodobé zachování účinnosti antibiotik má každý, kdo je používá.

TT 39:

Hello, resistance, may I continue? I.

Increasing bacterial resistance to antibiotics is not a problem only in hospitals. Multidrug-resistant bacteria are isolated from community-acquired infections s well. Presence of microorganisms, isolated from clinical specimen, frequently reflect patient's colonization. Rational antibiotic therapy should be safe and effectiveness. Everybody who uses antibiotics is responsible for maintenance of long-term effectiveness.

TEXT 40

ST 40:

Diagnostika a terapie skolióz

Skoliotická deformita p edstavuje závažné postižení páte e, které komplexn ovliv uje nejen pohybový aparát, ale sekundárn také kardiopulmonární systém. Komplexní vyšet ení zahrnuje klinické vyšet ení a zobrazovací metody, p edevším rtg snímek dlouhého formátu s ur ením tíže deformity m ené ve stupních dle Cobba. Skoliózy do 40 stup lé íme konzervativn (rehabilitace, korzet), u t žších k ivatek nad 40 stup indikujeme opera ní ešení. Operace zahrnuje korekci deformity instrumentací a obložení operovaného úseku páte e kostními št py s nastolením spondylodézy. Dispensarizace a lé ba skolióz je problematikou multidisciplinární.

TT 40:

Diagnosis and treatment of scoliosis

Scoliotic deformity represents serious spinal problem with consequentive affection of the spine as well as cardiopulmonal system. Clinical and imaging examinations are essential parts of the complex examination with x-ray long film nd th curve measurement using Cobb angle assignment. Scoliotic curves up to 40 degrees are dedicated for conservative treatment (rehabilitation, orthosis). We indicate scoliotic curves above 40 degrees for surgery. Surgical treatment includes curve correction using implants with spondylodesis by bone grafts. Dispensarization and scoliotic treatment is multidisciplinary.

TEXT 41

ST 41:

Erektilní dysfunkce – diagnostika, nové preference v lé b

Erektilní dysfunkce je definována jako neschopnost dosáhnout a udržet ztopo ení dostate né k realizaci uspokojivého sexuálního styku. Erektilní dysfunkce (ED) a ischemická choroba srde ní (ICHS) mají spole ný morfologický podklad, tím je dysfunkce endotelu jako první stadium aterosklerózy. ED a ICHS mají stejné rizikové faktory, ke kterým pat í vysoký krevní tlak, dyslipidemie, cukrovka, obezita, v kou ení a fyzická inaktivita. ED se objevuje jako první p íznak ICHS 2-3 roky p ed objevením se symptom koronární nedostate nostia 3-5 let p ed vypuknutím akutní kardiiovaskulární p íhody. Moderní lé ba ED spo ívá v podávání

PDE5 inhibitor , je bezpečná a dobře tolerovaná. Druhým krokem je použití intrakavernózní farmakoterapie aplikací prostagladinu E1.

TT 41:

Erectile dysfunction – diagnosis, new treatment preferences

Erectile dysfunction is defined as an inability to achieve and maintain an erection sufficient for satisfactory sexual intercourse. Erectile dysfunction (ED) and coronary artery disease (CAD) have the same morphological base – endothelial dysfunction as a first stage of atherosclerosis. ED and CAD have the same risk factors, as a hypertension, dyslipidemia, diabetes mellitus, obesity, age, smoking and sedentary lifestyle. The time interval among the onset ED symptoms and the occurrence of CAD symptoms and cardiovascular events is estimated at 2-3 years and 3-5 years respectively. Modern oral form of ED therapy by PDE5 inhibitors is safe and effective and is well tolerated. The second step is using intracavernous pharmacotherapy by PGE1.

TEXT 42

ST 42:

Bezlepková dieta pro praxi

Bezlepková dieta (BLD) hraje zcela zásadní roli v léčbě celiakie. Jedou dědičné autoimunitní onemocnění dříve dospělých projevující se trvalou intolerancí lepku (glutenu) ve stravě. Vyloučí-li potraviny obsahující lepek nebo jeho toxické frakce, odstraníme i vyvolávající příčinu. Přistupujeme k ní i v případě prokázané alergie na lepek (vzácná), kontroverzní je její použití u dětí se syndromem ADHD nebo autizmem. V následujícím textu bude pojednáno o bezlepkové dietě pouze ve vztahu k léčbě celiakie.

Lepek je součástí tzv. prolaminové frakce bílkovin, které se nacházejí společně se škrobem v endospermu semen některých bílkovin, a to pšenice, žita, ječmene a ovesa. V případě pšenice představuje lepek dokonce až 80 % z bílkovinného obsahu.

Bezlepková dieta je vždy velkým zásahem do života člověka. Zejména zpočátku po stanovení diagnózy se snažíme zajistit kolektivní spolupráci lékaře, nutričního terapeuta, populárních organizací a zapojit rodinu klienta. Zvládnutí BLD vyžaduje nemalé úsilí a motivaci, především proto, že se jedná o celoživotní změnu. Prognóza celiakie je při včasné diagnostice a správném dodržování BLD dobrá.

TT 42:

Gluten-free diet for practice

Gluten-free diet (GFD) plays a crucial role in the treatment of celiac disease. It is hereditary autoimmune disease manifested by children and adults with permanent intolerance to gluten in the diet. If we exclude foods containing gluten or its toxic fractions, it is removed the underlying cause. We approach it, even if proven allergy to gluten (rare), its use is controversial in children with ADHD syndrome or autism. The following text will be dealt with on a gluten-free diet only in relation to the treatment of celiac disease.

Gluten is a component of the prolamine fraction of proteins that are found together with starch in the endosperm of seeds of cereals, namely: wheat, rye, barley and oats. In the case of wheat gluten is even up to 80 % of protein content.

Gluten free diet is always a major intervention in human life. In particular, initially after diagnosis, we are working to ensure collective cooperation physician, dietician, eventually,

stakeholder groups and engage the client family. Mastering GFD requires considerable effort and motivation, especially because it is a lifelong change. Prognosis is in early diagnosis and good compliance to GFD favorable.

TEXT 43

ST 43:

Možnosti v hojení ran

Péče o nemocné s chronickou ránou je komplexním procesem, který vyžaduje multidisciplinární přístup a jasné vymezení procesních kroků. Základem je logická provázanost jednotlivých kroků procesu a návaznost na základě přesně stanovených a vymezených kompetencí a určení zodpovědnosti jednotlivých zdravotnických pracovníků.

TT 43:

Options in wound healing

Care for the ill patients with chronic wound is a comprehensive process that requires a multidisciplinary approach and a clear definition of the process steps and their logical consistency and continuity. All the steps have to be based on clearly defined competencies and the determination of health workers' responsibilities.

Klinická farmakologie a farmacie 1/2011

TEXT 44

ST 44:

Klinický efekt cyklosporinu u nemocných s revmatoidní artritidou a dalšími revmatologickými chorobami

Cíl: Cílem tohoto sledování bylo 1) zhodnotit vliv léky CSA u pacientů s revmatoidní artritidou za použití indexu aktivity onemocnění: DAS 28 (CRP a CDAI), 2) posoudit vztah dostupných farmakokinetických údajů od těchto pacientů (AUC_{0-12} , C_{max}) a aktivity onemocnění u pacientů s RA.

Metody: Výzkumný soubor tvořilo 19 pacientů s revmatoidní artritidou a ostatními revmatickými chorobami, kteří byli léčeni po dobu tří měsíců CSA. Autoi hodnotili vliv léky CSA (1,34 +/- 0,32 mg/kg/den) na základě předem definované základní sady proměnných u pacientů s RA. Aktivita RA hodnocena pomocí dvou aktuálně používaných indexů aktivity onemocnění. Plocha pod křivkou plazmatických koncentrací (AUC) CSA v intervalu 0 až 12 h (AUC_{0-12}) byla odhadnuta lineárním lichoběžníkovým pravidlem pomocí 8 koncentrací v časech 0,5h, 1h, 1,5h, 2h, 4h, 6h, 8h a 12 h po jednorázovém prvním podání cyklosporinu.

Výsledky: 1) U pacientů s RA došlo k statisticky významnému poklesu počtu bolestivých a oteklých kloubů ($p < 0,002$, $p < 0,04$). Změny ve vybraných indexech aktivity onemocnění byly statisticky významné (DAS 28 (CRP) $p < 0,005$, CDAI $< 0,003$), a koliv v případě indexu DAS 28 (CRP) klinický význam pouze přímý. Byla prokázána dostatečná korelace mezi použitými indexy. 2) Farmakokinetické veličiny ($AUC_{CSA0-12}$ a C_{max}) po prvním podání léky nekorreloují se změnami v indexu aktivity a nebyl tedy prokázán vztah ke změnám aktivity onemocnění.

TT 44:

The clinical effect of cyclosporine in patients with rheumatoid arthritis and other rheumatic diseases

Objective: The objective of this research was 1) to evaluate the effect of CSA therapy in rheumatoid arthritis patients using disease activity indexes: DAS 28 (CRP) 28 (CRP) and CDAI, 2) assess the relationship of the previously obtained and measured pharmacokinetic variables (AUC_{0-12} , C_{max}) and the disease activity in RA.

Methods: The investigated group comprised 19 patients with rheumatoid arthritis who were treated for three months with CSA. The authors evaluated the influence of CSA treatment (dose 1,34 +/- 0,32 mg/kg/day) on predefined core set of variables in RA patients, activity of disease was assessed using **tworecent** indices of activity. For evaluating the relationship between pharmacokinetic and disease activity C_{max} and area under the plasma concentration curve between 0h and 12 h (AUC_{0-12}) was chosen. It was estimated by linear trapezoidal rule using 8 samplings in times of 0,5h, 1h, 1,5h, 2h, 4h, 6h, 8h a 12 h after a first drug administration.

Results: 1) In RA patients, there was found a significant drop in the number of painful and swollen joints. Changes in selected indexes of disease activity were statistically significant, (DAS 28 (CRP) $p < 0,005$, CDAI $< 0,003$), however the changes in DAS 28 (CRP) index were clinically only moderate. There was demonstrated sufficient correlation between used activity indexes. Pharmacokinetic (AUC and C_{max}) variables do not correlate with changes in an index of activity.

TEXT 45

ST 45:

Porovnání originálních a generických p ípravk karbapenemových antibiotik

Východiska: Karbapenemová antibiotika jsou používána u závažných nozokomiálních infekcí, proto je kladen velký d raz na kvalitu jednotlivých používaných p ípravk .

Cíl práce: Porovnání kvality generických kopií imipenem/cilastatinu a meropenemu výrobce Fresenius Kabi s originálními p ípravky.

Metodika: Byly testovány vzorky komer n dostupných 3 šarží generických p ípravk (Imipenem/cilastatin Kabi[®] a Meropenem Kabi[®]) a 1 šarže originálního p ípravku (Tienam[®] a Meronem[®]). Koncentrace ú inných látek byly stanoveny HPLC analýzou se spektrofotometrickou detekcí. Hodnocena byla p ítomnost p ím sí i degrada ních produkt , obsah ú inné látky v p ípravku na ed ném k aplikaci, stabilita na ed něho p ípravku a plazmatické koncentrace po intraperitoneální aplikaci laboratorním potkan m.

Výsledky: Koncentrace ú inné látky ve všech testovaných vzorcích se významn nelišily. V žádném z testovaných vzork nebyly nalezeny významné obsahy degrada ních produkt . Všechny testované vzorky byly po na ed ní k aplikaci p í teplot do 26°C dostate n stabilní po dobu až 6 hodin. Zjišt né pr m rné plazmatické koncentrace 20, 60, 120, 180 a 240 min. po aplikaci pokusným potkan m se signifikantn nelišily, stejn jako AUC v ase 0-4 h.

Záv r: Shoda testovaných vzork generických p ípravk s originály byla prokázána ve všech testovaných parametrech.

TT 45:

Comparison of branded and generic lots of carbapenem antibiotics

Background: Carbapenem antibiotics are used in severe nosocomial infections, so the quality of their different preparations has been emphasized.

Aim: A comparison of the quality of generic imipenem/cilastatin and meropenem produced by Fresenius Kabi with the branded preparations.

Methods: 3 commercially available lots of generic preparations (Imipenem/cilastatin Kabi[®] and Meropenem Kabi[®]) were compared with one branded lot of each carbapenem (Tienam[®] and Meronem[®]). Concentrations of active agents were measured by HPLC analysis with spectrophotometric detection. Impurity or degradation product content, concentration of active agent in preparation dissolved for use, stability of dissolved preparation and plasma concentrations following intraperitoneal administration to laboratory rats were measured.

Results: Concentrations of the active agents in all tested lots have not significantly varied. Impurities or degradation products were not found in any of the tested lots. All tested preparations were sufficiently stable at temperatures up to 26°C in 6-hour interval. Plasma concentrations in experimental rats in 20, 60, 120, 180 and 240 min. following intraperitoneal administration have not varied significantly, as well as the AUC in 0-4 hours.

Conclusions: Conformity of the tested generic lots with branded preparations was proved in all assessed parameters.

TEXT 46

ST 46:

Lébařstovým hormonem v pediatrii. Historie a současnost

Růstový hormon byl poprvé použit k léčbě v roce 1957. Do poloviny 80. let se vyráběl výhradně extrakcí z kadaverózních lidských hypofýz, od roku 1985 jsou k dispozici rekombinantní přípravky. Vedle klasické substituce terapie u dětí s deficitem růstového hormonu je v současné době růstový hormon registrován k použití také u deficitu růstového hormonu v dospělosti, u dívek s Turnerovým syndromem, u dětí s chronickou renální insuficiencí se syndromem Prader-Willi, s růstovým selháním navazujícím na nitroděložní růstové opoždění (SGA/IUGR) a u dětí s deficitem SHOX. U všech uvedených indikací proběhly studie účinnosti a bezpečnosti. Otázka dlouhodobé bezpečnosti byla znovu otevřena v prosinci 2010 na základě výsledků francouzské studie SAGhE, které jsou ale vnímány jako předběžné a vyžadují další zhodnocení.

TT 46:

Growth hormone therapy in pediatrics. Past and Present.

Growth hormone was firstly used in therapy in 1957. Up to mid-1980s, it was exclusively extracted from human cadaverous pituitary glands. Recombinant products have been marketed since 1985. Besides of classic indication of hormone replacement in children with growth hormone deficiency, growth hormone is additionally approved for therapy of growth hormone deficiency in adults, of girls with Turner syndrome, of children with chronic renal failure, Prader-Willi syndrome, growth failure as a consequence of intrauterine growth retardation (SGA/IUGR) and SHOX deficiency. All these indications have been approved following studies of efficacy and safety. The safety issues were reopened after a release of French SAGhE study in December 2010. However, published data are regarded as preliminary and require further re-evaluation.

TEXT 47

ST 47:

Subklinické tyreopatie

Subklinické tyreopatie jsou patologické stavy štítné žlázy často náhodně zjištěné laboratorním vyšetřením nebo zobrazovacími metodami, a to bez odpovídajících klinických projevů. Jedná se o diagnostickou skupinu vzniklou na základě zdokonalených možností laboratorní diagnostiky a zvýšeného zájmu o preklinická stadia manifestních chorob.

V širším pohledu mezi ně řadíme subklinickou hypothyreózu a hyperthyreózu, sonograficky náhodně zjištěné změny objemu i struktury štítné žlázy, iniciální stadia malignit (náhodný záchyt mikrokarcinomu) a subklinické formy zánětu štítné žlázy. Diskuze se týká samotné definice, epidemiologie, nutnosti terapie, srovnání rizika a zisku léčby u těchto hraničních stavů a v neposlední řadě možnosti časného screeningu rizikových skupin.

TT 47:

Subclinical thyroid disease

Subclinical thyreopathies are pathological states of the thyroid gland that show no corresponding clinical symptoms, yet may be detected sporadically by laboratory examination or screening methods. They represent a diagnostic entity, which appeared due to innovations in laboratory diagnostics and recent focus on pre-clinical stages of manifestative diseases.

Subclinical thyreopathies include subclinical hypothyreosis and hyperthyreosis, thyroid volume or structure changes found accidentally by sonography, initial stages of malignancy – accidental detection of a micro-carcinoma and subclinical forms of thyroiditis. Controversy remains concerning exact definition, epidemiological issues, therapeutic intervention, evaluation of risk and gain implied in treatment of these borderline clinical stages and, last but not least, early screening of risk groups if necessary.

TEXT 48

ST 48:

Uzel štítné žlázy

Uzel lze ve štítné žláze zjistit ultrazvukovým vyšetřením u více než poloviny žen středního a vyššího věku. Kromě anamnézy a fyzikálního vyšetření má největší význam v diagnostice vyšetření ultrazvukem, doplnění cílenou aspirační cytologií. Scintigrafie se uplatňuje v případě prokázané hyperfunkce. Z laboratorních vyšetření je důležité posouzení funkce (hladina TSH) a stanovení protilátek. Hladina kalcitoninu jako tumorózního markeru medulárního karcinomu je vyhrazena podle nejnovějších guidelines jen pro vybrané případy. Blokádní léčba tyroxinem dokáže zmenšit uzel asi u každého šestého nemocného za cenu suprese TSH pod normální hladinu. Je proto doporučena jen u mladých pacientů po vyloučení tyreoidální autonomie. Většinu nemocných lze jen dispenzarizovat, autonomní uzly léčit podáním radioaktivního jodu, u ostatních zůstává metodou léčby v případě indikace chirurgické odstranění.

TT 48:

Nodule of thyroid gland

Using ultrasound a thyroid nodule is detectable in more than one half of women in middle age or older. Besides history and physical examination the most important in the diagnostic workout is thyroid ultrasound with guided fine-needle aspiration cytology. Scintigraphy is

indicated in cases with hyperthyroidism only. Laboratory investigation of thyroid function (TSH level) and antithyroid antibodies is important. Estimation of calcitonin level as tumor marker of medullary carcinoma of the thyroid is indicated for selected cases only. Suppressive therapy with thyroxin can decrease nodule volume in about every sixth patient in expense of low TSH level. It is considered only in young patients after thyroid autonomy has been ruled out. The majority of cases can be only followed-up; in autonomous nodules therapy with radioiodine is indicated. Surgery remains the treatment of choice when indicated.

TEXT 49

ST 49:

Nový lék v symptomatické terapii roztroušené sklerózy mozkomíšní: 4-aminopyridin (FAMPRIDINE - SR)

FAMPRIDINE - SR (4-aminopyridin) je farmakologicky postupně uvolňovaný blokátor draslíkových kanálů v centrálním nervovém systému působící na internodální membrány demyelinizovaných axonů, čímž zlepšuje vedení elektrického impulzu. FAMPRIDINE - SR (4-aminopyridin) je podáván dvakrát denně perorálně v jednotlivé dávce 10 mg. Zlepšuje rychlost chůze u pacientů s roztroušenou sklerózou mozkomíšní. Zlepšení je statisticky významné a má klinicky významný terapeutický efekt.

TT 49:

New drug in the symptomatic treatment of multiple sclerosis: 4-aminopyridin (FAMPRIDINE - SR)

FAMPRIDINE - SR, a sustained - release formulation of fampridine (4-aminopyridine), is a potassium channel blocker in central nervous system acting on internodal membrane of demyelinated axons thus improving conduction of electrical impulse. FAMPRIDINE - SR is administered perorally twice daily in single dose of 10 milligrams. FAMPRIDINE - SR demonstrated improvement of walking ability in some patients with multiple sclerosis. The improvement is statistically significant and has a clinical meaningful therapeutic benefit.

TEXT 50

ST 50:

Léčba migrény během gravidity

Primární bolesti hlavy, zvláště migréna a tenzní bolesti hlavy jsou u žen v produktivním věku velmi časté. Článek se zabývá specifickou situací žen - migreniček v období gravidity, kdy je vznik a rozvoj různých typů bolesti hlavy ovlivněn hormonální situací organismu. Většina studií i klinická praxe potvrzují, že asi u 70 % migreniček v graviditě se migréna zlepšuje, zvláště během druhého a třetího trimestru. Toto konstatování se týká migrény bez aury. Ženy s migrénou s aurou mají častější záchvaty i v graviditě. Pokud se první záchvat migrény objeví až během gravidity, jedná se většinou o migrénu s aurou. V tomto případě je nutné vyloučit některou ze sekundárních bolestí hlavy jako je cerebrální venózní trombóza, jiná cévní příhoda mozková nebo postínající eklampsie. Neexistuje žádný důkaz o tom, že by migréna s aurou nebo bez aury měla nějaký negativní následek pro plod.

Užití léků v graviditě je vždy balancováním mezi užitkem a rizikem - podání každého léku by tedy mělo být pečlivě zváženo. Druhá část textu se proto věnuje otázkám bezpečnosti použití

vybraných léků v lékových skupinách v léčbě akutního záchvatu migrény a okrajově též použití léků v profylaktickém režimu.

TT 50:

Treatment of migraine during pregnancy

Primary headache disorders, particularly migraine and tension headaches, are very common in women in the childbearing age. The article deals with a specific situation of women with migraine during the period of pregnancy when the development and progression of various types of headache disorders is affected by the hormonal situation of the organism.

Most studies as well as the clinical practice confirm that in about 70 % of female migraine sufferers their migraine improves, particularly during the second and third trimesters. This observation applies to migraine without aura. Women with migraine with aura more frequently suffer from attacks in pregnancy as well. If the first migraine attack occurs no sooner than during pregnancy, it typically is migraine with aura. In that case, it is necessary to rule out some of the secondary headache disorders, such as cerebral venous thrombosis, another cerebrovascular accident or incipient eclampsia. There is no evidence that migraine with aura or without aura has any negative impact on the fetus.

The use of medications in pregnancy always means balancing between benefit and risk; therefore, the administration of each medication should be considered carefully. Thus, the second part of the article deals with the safety issues of the use of selected medications or medication groups in treating acute migraine attacks and, partially, with the use of medications in a prophylactic regimen.

Cor et Vasa 6/2006, volume 48

TEXT 51

ST 51:

Změny koagulace při PCI jednorázovým podáním nízkomolekulárního heparinu enoxaparinu v dávce 0,75 mg/kg hmotnosti i. v. - farmakokinetická studie

Cíl a metody: Klinická účinnost enoxaparinu byla zatím potvrzena při léčbě nestabilní anginy pectoris, při perkutánní koronární intervenci (PCI) však jeho indikace při zajištění výkonu zůstává stále nejasná. Cílem naší observační studie bylo zjistit změny koagulačních vyšetření (APTT, trombinového času /TT/, inhibice F Xa, inhibice trombinu /F IIa/ a koncentrace fragment protrombinu F 1 + 2) a výskyt krvácivých komplikací (podle kritérií TIMI) po jednorázovém podání i. v. bolusu 0,75 mg/kg enoxaparinu před urgentní a elektivní PCI v souboru 30 nemocných, kteří byli léčeni pouze aspirinem (100-300 mg) a po provedení PCI iniciační dávkou 300 mg clopidogrelu. Vzorky arteriální krve byly získány před 20 min a za 20 min, za 1 hod. a za 6 hod. po podání enoxaparinu.

Výsledky: Bolus enoxaparinu podaný i. v. navodil zvýšení inhibice F Xa ($1,07 \pm 0,31$ IU/ml, před $0,05 \pm 0,06$ IU/ml; $p < 0,001$) a inhibice F IIa ($0,60 \pm 0,45$ IU/ml, před $0,28 \pm 0,14$ IU/ml; $p < 0,001$) proti výchozí hodnotě, které přetrvávalo ještě jednu hodinu (anti F Xa $0,91 \pm 0,34$ IU/ml, anti F IIa $0,69 \pm 0,93$ IU/ml; obě $p < 0,001$). Za 6 hodin se však již výsledky obou testů vracejí opět k výchozím hodnotám (anti F Xa $0,10 \pm 0,12$ IU/ml; anti F IIa $0,27 \pm 0,06$ IU/ml). Za 20 min bylo také pozorováno více než dvojnásobné zvýšení APTT ($98,0 \pm 39,8$ s, před $32,9 \pm 4,6$ s, $p < 0,001$). V 6. hodin však výsledky obou testů opět klesají k výchozí hodnotě (APTT $34,8 \pm 6,6$ s, TT $15,3 \pm 2,9$ s). Hodnota APTT po i. v. bolusu

enoxaparinu p itom ve všech intervalech korelovala s anti F Xa, zejména v 6. hodin ($r = 0,58$, $p < 0,001$). Koncentrace F 1 + 2, která byla před léčbou enoxaparinem zvýšena ($1,21 \pm 0,36$ nmol/l, kontrolní soubor zdravých osob $0,70 \pm 0,36$ nmol/l; $p < 0,001$), se po i. v. bolusu enoxaparinu ve 20. min i po první hodin snížila ($1,07 \pm 0,43$ nmol/l, resp. $1,15 \pm 0,40$ nmol/l; ob $p < 0,001$), což v porovnání s poáte ní hodnotou p etrvávalo i v 6. hodin ($1,04 \pm 0,33$ nmol/l, $p < 0,001$). B hem 6 hod. jsme také nepozorovali žádné zjevné krvácení.

Záv r: Cílové koncentrace inhibice F Xa ($> 0,6$ IU/ml), která je vhodná pro zahájení PCI, bylo v naší studii dosaženo u 93,3 % nemocných. V období 6 hod. po jednorázovém i. v. podání enoxaparinu v dávce 0,75 mg/kg nebylo pozorováno žádné zjevné krvácení, ani tzv. „rebound fenomén“ (zvýšení F 1 + 2).

TT 51:

Changes in coagulation after single i.v. bolus 0.75 mg per kg of the low molecular weight heparin enoxaparin during PCI-a pharmacokinetic study.

Goal and methods: The clinical efficacy of unstable angina treatment with enoxaparin has been well established, but its indication for optimal anticoagulant treatment in percutaneous coronary intervention (PCI) remains uncertain. The objectives for our observational study were to investigate changes in coagulation tests (APTT, thrombin time [TT], inhibition of F Xa and F IIa and prothrombin fragments F 1 + 2 level) and bleeding complications (according to TIMI criteria) after single i.v. bolus administration of 0.75 mg/kg of enoxaparin to a group of 30 patients during urgent or elective PCI. Additional treatment consisted of only aspirin (100 - 300 mg) and clopidogrel (loading dose of 300 mg). Arterial blood samples were taken prior to enoxaparin administration (baseline) and 20 minutes, 1 hour, and 6 hours after enoxaparin administration.

Results: The i.v. bolus of enoxaparin induced an increase in the inhibition of F Xa (1.07 ± 0.31 IU/ml, baseline 0.05 ± 0.06 IU/ml; $p < 0.001$) and in the inhibition of F IIa (0.60 ± 0.45 IU/ml, baseline 0.28 ± 0.14 IU/ml; $p < 0.001$) at 20 minutes, which continued for 1 hour (anti F Xa 0.91 ± 0.34 IU/ml, anti F IIa 0.69 ± 0.93 IU/ml; both $p < 0.001$). The tests were decreased at baseline levels after 6 hours (anti F Xa 0.10 ± 0.12 IU/ml, anti F IIa 0.27 ± 0.06 IU/ml). After 20 minutes, we also observed $>$ twofold prolongation of APTT (98.0 ± 39.8 s, baseline 32.9 ± 4.6 s; $p < 0.001$) and TT (99.7 ± 64.2 s, baseline 15.4 ± 2.9 s; $p < 0.001$), which continued for 1 hour (APTT 87.0 ± 39.7 s, TT 75.3 ± 61.8 s; both $p < 0.001$) and returned to baseline after 6 hours (APTT 34.8 ± 6.6 s, TT 15.3 ± 2.9 s). APTT correlated well with inhibition of Xa in all periods after the i.v. bolus of enoxaparin, especially at 6 hours ($r = 0.58$; $p < 0.001$). Prior the enoxaparin treatment, the levels of F 1 + 2 were increased at baseline (1.21 ± 0.36 nmol/l, healthy controls 0.70 ± 0.36 nmol/l; $p < 0.001$). After the i.v. bolus of enoxaparin, the levels of F 1 + 2 were decreased at 20 minutes and at 1 hour (1.07 ± 0.43 nmol/l and 1.15 ± 0.40 nmol/l, respectively; both $p < 0.001$) and remained so even after 6 hours (1.04 ± 0.33 nmol/l; $p < 0.001$). No significant bleeding was observed over a period of 6 hours.

Conclusion: Target anti F Xa levels for PCI (> 0.6 IU/ml) were obtained in 93.3% of patients. No serious bleeding and no "rebound phenomenon" (increase in F 1 + 2) were observed during a period of 6 hours after a single i.v. dose of 0.75 mg/kg enoxaparin.

TEXT 52

ST 52:

Vliv katetrizační zkušenosti a volby ablační energie na rozvoj katetrové ablace jako rutinní metody pro intermitentní a perzistentní fibrilaci síní

Cíl: Cílem sdělení je retrospektivní srovnání celkových a skiaskopických časů výkonu a počet aplikací radiofrekvenční (RF) energie mezi třemi skupinami pacientů, kteří podstoupili katetrovou ablací pro intermitentní fibrilaci síní (FS).

Metodika: Z celkového počtu 372 ablačních výkonů u 282 pacientů bylo do analýzy zahrnuto 161 prvních výkonů u 161 pacientů (31 Ž) průměrného věku $54,7 \pm 9,7$ let. Tito pacienti podstoupili katetrovou ablací, jejímž základem byla izolace plicních žil pomocí elektroanatomicky navigovaných obkružujících lézí, případně doplněných o lineární léze v levé síni. Pro hodnocení byli pacienti rozděleni do **tří skupin**. Ve skupině 1 bylo 56 pacientů (10 Ž) (věk $52,8 \pm 9,7$ let), u nichž byla ablace provedena v letech 2001-2003 standardním 7 F katetrem se 4 mm koncovou elektrodou. Ve skupině 2 byla v roce 2004 provedena ablace u 53 pacientů (9 Ž), věk $54,3 \pm 9,9$ let, 7,5 F katetrem s 3,5mm chlazenou koncovou elektrodou s průtokem 2 ml/min. Ve skupině 3 byla ablace provedena u 52 pacientů (12 Ž), věk $57,1 \pm 9,2$ let, 7,5 F katetrem s 3,5mm chlazenou koncovou elektrodou s průtokem 5ml/min.

Výsledky: Byl zaznamenán signifikantní rozdíl v celkovém času výkonu (min) mezi skupinou 1 a 2 ($280,2 \pm 41,9$ vs. $262,1 \pm 44,5$; $p = 0,02$) a skupinou 2 a 3 ($262,1 \pm 44,5$ vs. $218,1 \pm 43,3$; $p = 0,001$) a také významný rozdíl ve skiaskopickém čase (min) mezi skupinou 1 a 2 ($46 \pm 14,8$ vs. $35,7 \pm 9,1$; $p = 0,001$) a skupinou 2 a 3 ($35,7 \pm 9,1$ vs. $20,7 \pm 5,7$; $p = 0,001$).

Závěr: Nabyté zkušenosti s prováděním metody a vývoj způsobu podávání RF energie vedly k signifikantnímu zkrácení celkových a skiaskopických časů výkonu a umožnily provádění ablace pro FS, jako nejúčastnější arytmie rutinním a bezpečným způsobem.

TT 52:

The effect of experience with catheterization and selection of ablation energy on the development of catheter ablation as a routine method for intermittent and persistent atrial fibrillation.

Aims: The aim of our study was a retrospective comparison of total and fluoroscopy times, and the number of radiofrequency (RF) energy applications in 3 groups of patients undergoing catheter ablation for intermittent atrial fibrillation (AF).

Methods: Out of a total of 372 ablation procedures in 282 patients, the first 161 ablation procedures in 161 patients (31 F) aged 54.7 ± 9.7 years were included into the analysis. These patients underwent catheter ablation based on full pulmonary vein isolation using electroanatomically navigated circumferential lesions, possibly complemented by left atrial linear lesions in many patients. For analysis, the patients were divided **into 3 groups**. Group 1 consisted of 56 patients (10 F), aged 52.9 ± 9.7 years, in whom the ablation was performed in 2001-2003 using a standard 7 F catheter with a 4 mm tip electrode. In group 2, the ablation was performed (in 2004) in 53 patients (9 F), aged 54.3 ± 9.9 years, using a 7.5 F catheter with a 3.5-mm cooled-tip electrode and a flow rate of 2 ml/min. In Group 3, the ablation was performed (over the first 9 months of 2005) in 52 patients (12 F), aged 57.1 ± 9.2 years, using a 7.5 catheter with a 3.5-mm cooled-tip electrode and a flow rate of 5 ml/min.

Results: A significant decrease was found in total procedure time (mins) between Groups 1 and 2 (280.2 ± 41.9 vs. 262.1 ± 44.5 ; $p = 0.02$), and between Groups 2 and 3 (262.1 ± 44.5 vs. 218.1 ± 43.3 ; $p = 0.001$); there was also a significant decrease in fluoroscopy time (mins) between Groups 1 and 2 (46 ± 14.8 vs. 35.7 ± 9.1 ; $p = 0.001$) and between Groups 2 and 3 (35.7 ± 9.1 vs. 20.7 ± 5.7 ; $p = 0.001$).

Conclusion: The experience gained from performing ablation and advances in the technique of delivery of RF energy led to a significant decrease in total and fluoroscopy times, and allowed performing ablation of AF as the most prevalent arrhythmia in a routine and safe manner.

TEXT 53

ST 53:

Bun na le ba ischemicke choroby srde ni: p ehled poznatk , limitace, perspektivy - ast druha. Kmenove bu ky, perspektivy bun ne le by

Tento p ehledny lanek pojednava o sou asnem pohledu na bun nou le bu ischemicke choroby srde ni a monostech regenerace myokardu. V prvni asti jsme se v novali vodu do problematiky, zp sob m transplantace bun k do myokardu a kosternm myoblastom m. Druha ast se zabyva kmenovymi bu kami a perspektivami bun ne le by.

TT 53:

Cellular therapy of coronary heart disease: a review of concepts, limitations, prospects. Part two. Stem cells, prospects of cellular therapy.

The review examines the current concepts of cellular therapy of ischemic heart disease and the potential of myocardial regeneration. Part One provided background information and discussed techniques of cell myocardial implantation and skeletal myoblasts. Part Two examines the issue of stem cells and prospects of cellular therapy.

TEXT 54

ST 54:

Falešn negativn spiraln CT-angiografie plicnice u rozshle plicn embolizace

Spiraln CT-angiografie plicn arterie se dostva na p edn msto v diagnostickem schematu embolie plicnice. Senzitivita i specificita metodiky se podle literatury blz 100 % v zavislosti na typu pouiteho diagnostickeho p stroje a podle lokalizace vmetku.

V praci p jednavame o p i nch falešn negativnch CT-nalez p i diagnostice plicn embolie a uvadime kasuistiku nemocne, u které asovy odstup od po tku obtz a zahajen antikoagula n terapie do okamziku proveden CT-vyet en, v kombinaci se sou asnou p tomnost zvaneho srde nho onemocnn, vedl k falešn negativnmu CT-nalezu p i sou asn scintigraficky prokazan rozshle embolizaci do prave plce.

TT 54:

False negative pulmonary artery spiral CT angiography in extensive pulmonary embolism.

Pulmonary artery spiral CT angiography is becoming number one technique in the diagnostic algorithm of pulmonary embolism. According to the relevant literature, the sensitivity and specificity of the technique are close to 100% depending on the type of diagnostic device used and embolus localization.

The paper addresses the causes of false negative CT findings in diagnosing pulmonary embolism and includes the case report of a female patient in whom the interval from the onset of complaints to CT examination, combined with the presence of a serious heart condition, resulted in a false negative CT finding while scintigraphy documented extensive right pulmonary embolism.

Rehabilitace a fyzikální lékařství - červen 2013 (2/20)

TEXT 55

ST 55:

Cvičení podle směrové preference nebo stabilizačního cvičení u pacientů s chronickou bolestí beder: Randomizovaná kontrolovaná studie

Souhrn

Design studie: Cílem výzkumného projektu bylo porovnat efektivitu cvičení dle směrové preference a stabilizačního cvičení u pacientů s chronickou bolestí bederní páteře. Sledovali jsme funkční stav pacientů a intenzitu bolesti před, po ukončení pohybové terapie, po půl a po jednom roce. Všichni pacienti splňovali kritéria k zařazení do studie, přítomnost testu směrové preference a přítomnost oslabení hlubokého stabilizačního systému.

Metoda: Zkoumaný soubor tvořilo 62 dospělých pacientů s chronickou bolestí zad. Všichni byli indikováni k léčbě dle směrové preference i ke stabilizačnímu cvičení. Jedinci byli náhodně rozděleni do dvou skupin k jednotlivým typům cvičení. Léčba probíhala 4 týdny (6 intervencí). Porovnávali jsme tyto parametry: Numerická škála bolesti (the Numeric Pain Rating Scale -NPRS) pro bolest zad a dolní končetiny, Roland-Morris dotazník (the Roland-Morris Disability Questionnaire - RMDQ), a hodnotící škálu the Global Perceived Effect Score. Všechna data byla posuzována jako ordinální (RMDQ, NPRS, GPES) a byly použity neparametrické testy. Analýza výsledků mezi skupinami byla provedena pomocí ANOVA a u všech signifikantních výsledků se oteklávalo dosažení $p < 0,05$.

Výsledky: Limitace této studie nastala při kontaminaci dat sbíraných u skupiny pacientů léčených stabilizačním cvičením, kteří současně prováděli prvek metody dle směrové preference, extenzivní cvičení. U obou skupin jsme dosáhli významného rozdílu ve všech sledovaných parametrech v dlouhodobém sledování ($P < 0,0001$), ale nedošlo k významnému rozdílu mezi oběma skupinami.

Závěr: Tyto výsledky nelze považovat za skutečné porovnávání mezi cvičením podle směrové preference a stabilizačním cvičením, protože zde došlo ke kontaminaci výsledků u skupiny postupující v léčbě podle zásad stabilizačního cvičení.

TT 55:

Summary

Exercise According to Directional Preference Exercise of Stabilization Exercise in Patients with Chronic Low Back Pain: A randomized, Controlled Trial

Study Design: The aim of this research project was to compare the effectiveness of directional preference exercises with a stabilization exercise program in the management of chronic low back pain and to follow up functional status and pain intensity at discharge from physical therapy at intervals of six months and one year later. All patients met the criteria for recruiting patients consisted of the existence of directional preference and the criteria for the clinical prediction rule for stabilization exercises.

Methods: Data was gathered from adults (n=62 patients) with chronic low back pain who, on initial assessment, demonstrated a directional preference and an indication that they might respond to stabilization exercises. Patients were then randomized to either directional preference or stabilization exercises and treated for up to four weeks (6 treatments). Outcomes used were the Numeric Pain Rating Scale (NPRS) for back and leg pain, the Rolan-Morris Disability Questionnaire (RMDQ) and the Global Perceived Effect Score (GPES), measured after treatment. All data was assumed to be ordinal (RMDQ, NPRS, GPES) so nonparametric tests were used. Analysis of outcomes between groups at different time points was done using ANOVA, and all outcomes' significance was set at $\alpha = 0,05$.

Results: Contamination of the data in the stabilization group was a major limitation of the study, with many patients in this group receiving extension exercises as well. There was a significant difference in both groups over time in all outcomes ($P < 0,0001$), but there were no significant differences between groups at any time point.

Conclusion: It is not clear if these results are a true comparison between directional preference and stabilization exercises, as there was substantial contamination of the stabilization group treatment.

TEXT 56

ST 56:

Co by m l fyzioterapeut v d t o karpálních nestabilitách?

Souhrn

Karpální nestability představují heterogenní skupinu poranění zápěstí s ohledem na rozsah poranění, stupeň poškození i variabilitou své symptomatologie. Často mohou být primárně nerozpoznány - například při léčbě souasných zlomenin distálního konce vřetenní kosti. Často to mže být i fyzioterapeut, který první upozorní na potíže manifestující se v průběhu rehabilitace pacienta po zlomenině distálního radia, lunkové kosti nebo léených pro vágní diagnózu „distorze zápěstí“, které jsou způsobeny nestabilitou zápěstí. Pro diagnostiku je možné využít klinické testy, radiologické vyšetření, včetně stresových snímků, magnetickou rezonanci nebo artroskopii zápěstí. Časný záchyt a přesná klasifikace poranění nám umožní zvolit vhodný léčebný postup, a tím zvýšit šanci na příznivý klinický výsledek.

TT 56:

Summary

What should Physiotherapist Know about Carpal Instability?

Carpal instability represents a heterogenic group of wrist injuries considering the extent of the injury, degree of damage and variability of symptomatology. They can be often **unrecognized** at the beginning - e.g. in the therapy of simultaneous fracture of distant end of radius. It is often the physiotherapist who primarily draws attention to complaints that become manifest in the course of the patient's rehabilitation after fracture of the distal radius, scaphoid, or treated for vague diagnosis of the wrist distortion which are caused by wrist instability. The establishment of diagnosis may be based on clinical tests, radiologic examination including stress images, magnetic resonance or wrist arthroscopy. An early and precise classification of the injury makes it possible to select a suitable therapeutic procedure and accordingly improve the chance for favorable clinical results.

TEXT 57

ST 57:

Využití externího informačního systému Computer Kinesiology Profi Complex Start u diagnózy hernie disku

Souhrn

Autoři prezentují tři kazuistiky torpidních vertebrogenních algických syndromů při prokázané hernii disku rezistentních na zvláštní terapii. Použití expertního informačního systému Computer Kinesiology Profi Complex Start poukázalo na možnou souvislost přetrvávajících algí se subklinickými dysfunkcemi viscerálních orgánů a teprve po komplexním přístupu (ošetření a cvičení dle systému Computer Kinesiology Profi Complex Start, zavedení adekvátní diety, fytotherapie, úpravy pitného režimu a přidání stopových prvků jako doplňků stravy) došlo k uzdravení.

TT 57:

Summary

Application of the Expert Information System Computer Kinesiology Profi Complex Start in Diagnosis of the Disk Hernia

The authors present three case reports of stubborn vertebral algic syndromes with demonstrated disc hernia resistant to standard therapy. The use of expert information system Computer Kinesiology Profi Complex Start detected the association with subclinical visceral organ dysfunction before treatment. The recovery occurred after the treatment and exercises according to the Computer Kinesiology Profi Complex Start system and after the concurrent adjustment of an adequate diet, phytotherapy, drinking regimen and trace element supplementation.

TEXT 58

ST 58:

Vztah valgozity paty, typologie a biomechaniky nohy u dětí

Souhrn

Pro bezpečnou a ekonomicky nenáročnou chůzi je nezbytná správná funkce nohy. Zhodnocení stavu nohy a určení vztahů mezi vybranými mechanickými parametry nohy je proto nutné provádět již od předškolního věku. Mezi základní biomechanické metody, které slouží pro analýzu zatížení nohy, patří využití tlakových koberců. Při hodnocení polohy a zatížení nohy při chůzi musíme vzít v úvahu závislosti mezi jednotlivými segmenty nohy a jejich vztah k dalším segmentům dolní končetiny. Studie se zúčastnilo 44 dětí (průměrný věk $5,15 \pm 1,45$ roku), u kterých bylo hodnoceno postavení zadonoží v klidové a postavení předonoží v klidovém postoji a při chůzi. Pro měření zatížení nohy na kontaktu s podložkou byla použita 2m tlaková plošina footscan. U sledované skupiny dětí převažovala statická valgozita paty, dále pak neutrální postavení zadonoží v kombinaci s varózním předonožím. Vychýlení osy nohy mediálně vzhledem ke směru pohybu bylo frekventovanější u dětí se statickou valgozitou paty.

TT 58:

Relation of the Heel Valgosity, Typology and Biomechanics of the Foot in Children

Summary

The safe and economically undemanding walk requires a correct function of the foot. The evaluation of the foot condition and determination of the relations among selected mechanic parameters of the foot should be therefore performed already from the preschool age. The basic biomechanics methods, which serve in the analysis of the foot load include the use of pressure plates. In evaluating the position and load of the foot in walking we must consider relations among individual segments of the foot and their relation to other segments of lower extremity. The study encompassed 44 children (mean age 5.15 ± 1.45 year) evaluated for the position of the posterior hindfoot against shank and the position of forefoot to hindfoot in resting position and during walk.

For measurement of the foot load in contact with the pad, the authors used a 2m pressure plate footscan. In the observed group of children, the static heel valgosity prevailed, followed by neutral position of the hindfoot in combination with the varous forefoot. The deviation of the foot axis medially in relation to the direction of motion proved to be more frequent in children with static heel valgosity.

TEXT 59

ST 59:

Využití ortotických vložek v léčbě gonartrózy

Souhrn

Gonartróza je nejčastějším neúrazovým onemocněním kloubů. V konzervativní terapii lze, mimo jiné, využít i ortotické vložky do bot. Optimální je postup dle zásad kompenzačního ortézování při stanovení typu nohy dle Roota. V případě mediální tibiofemorální gonartrózy, která je nejčastější lokalizací, je možné zkusit efekt pronáčního klínku. Vždy jsou nutné následné kontroly efektu, protože reakce je dána nejen biomechanickými principy.

TT 59:

Application of Orthotic Devices in Therapy of Gonarthrosis

Summary

Gonarthrosis is the most frequent non-injuries joint diseases. In addition to conservative therapy it is possible to use orthotic insoles. A procedure following the principles of compensation orthosis according to determination of the type of foot according to Root proved to be optimal. In case of medial tibiofemoral gonarthrosis, which is most frequent localization, it is possible to try the effect of pronation wedge. In any case, subsequent examination of the effect should be done, since the reaction to the wedge is based on other than biomechanic principles as well.

TEXT 60

ST 60:

Poruchy polykání v detském věku - mezioborová spolupráce fyzioterapeuta s klinickým logopedem (2. část - terapie)

Souhrn

Porucha polykání v detském věku je závažným rizikovým faktorem, který ohrožuje zdraví a dokonce i život dítěte. V textu předkládáme výčet terapeutických technik využívaných fyzioterapeutem a klinickým logopedem při komplexním řešení dysfagie v detském věku, které není možné provádět bez předkládaného posouzení závažnosti stavu a předchozího

komplexního vyšetření. Optimální s ohledem na dítě a jeho rodinu je možnost stanovování cílů pro terapii společně na základě komplexního zhodnocení zahrnujícího oekávání rodičů a péřiměních cílů zůastnůých odborníků .

TT 60:

Swallowing Disorders in Children - Interdisciplinary Cooperation Physiotherapists with Clinical Speech Pathologist (Part 2 - Therapy)

Swallowing disorder in childhood is a major risk factor that endangers the health and even the life of a child. In the text we present a list of therapeutic techniques used by physical therapists and clinical speech therapist with a comprehensive solution dysphagia in childhood, which is not possible without a thorough assessment of the severity of the condition and the previous complex examination. Optimal with regard to the child and his family is the possibility of setting goals for therapy together based on a comprehensive evaluation including expectations of parents and reasonable targets of the participating experts.

TEXT 61

ST 61:

Kvantifikace vlivu vakuov -kompresní terapie na přímé zvýšení dodávky kyslíku léčené končetině

Souhrn

S využitím exaktních záznamů z nichž dříve uskutečněných experimentů byly kvantitativně ohodnoceny příspěvky vakuov -kompresní terapie (VCT) k požadovaným změnám periferní hemodynamiky.

Jako jeden z adej předpokládaných léčebných mechanismů vakuov -kompresní terapie (VCT) byl sledován přírůstek objemu arteriální krve, a tím i přírůstek nabídky utilizovatelného kyslíku v léčené končetině . Tyto přírůstky byly výpočetně kvantifikovány s využitím výsledků těchto starších, dosud takto neanalyzovaných experimentů , prokazujících účinnost VCT. Ukázalo se, že vakuov -kompresní terapie dokáže během léčebné procedury přivádět do léčené končetiny trvalý inkrement první, okysličené krve, v objemech až 100 ml/min., což pro léčenou končetinu představuje 50 % nárůstu nabídky, respektive spotřeby kyslíku. Potvrdilo se však též, že pokud nejsou technické podmínky podávání procedury optimální, přetrvává sice stále ještě určitý signifikantní přírůstek nabídky kyslíku indukovaný podáváním VCT, je ovšem již zřetelně menší. Tyto experimentální závěry podporují účinnost a efektivitu vakuov -kompresní terapie i v její klasické, standardní podobě (VCT), ale zároveň poukazují na spotřebu vývoje a uplatnění zdokonalených metod a nových technických prostředků pro provádění této vysoce účinné fyzikálně -léčebné terapie, pro niž bude charakteristické snímání odezvy léčené končetiny na léčbu a zpřetnovazební počítačové řízení optimálních hodnot biotropních parametrů procedury. Tyto nové systémy, které bude možno považovat za kvalitativně vyšší generaci tradiční VCT, nesou pracovní název „počítačově řízená periferní bipolární barometrie“ (Computer Control Peripheral Bipolar Barotherapy, CC - PBBT)

TT 61:

Quantifying the influence of Vacuum-compression Therapy on the Direct Increase of Oxygen Supply in the Treated Extremity

Summary

The accession of volume of arterial blood and thereby the increment of offered exploitable oxygen in the treatment of extremity has become obvious as one of the line of supposed treatment mechanism vacuum-compression therapy (VCT). These increments were quantified with the usage of three older, so far not analyzed experiments that show the effectiveness of vacuum compression therapy can get the constant increment of the fresh oxygenated blood in volumes up to 100 ml/min into the treated extremity during the treatment procedure. It means the increased by 50 % of the offer of oxygen for the treated extremity. However it has become apparent that if the technical conditions of the procedure are not optimal, the specific increments of the offer of oxygen induced by administration of VCT persists but is distinctly lower.

These experimental conclusions support the purposefulness and efficiency of the vacuum-compression therapy (VCT) in its standard classic form but they support the need of development and the usage of improved methods and new technical tools for performing this highly effective physical-treatment therapy for which the scanning of the response of the treated extremity on the treatment and the feedback impedance control of the optimal values of the biotrophic procedure's parameters will be characteristic. These new systems will be possibly considered the higher generation of classic VCT. They are called "computer controlled peripheral bipolar barotherapy, CC-PBBT (Computer Control Peripheral Bipolar Barotherapy).

TEXT 62

ST 62:

Neinvazivní laser třídy 4 v rehabilitační praxi

Souhrn

Využití laserového světla na hojení traumatizované i patologicky pozměněné tkáně je fyzikální metodou, která je dlouhodobě odborně akceptována a klinicky využívána. Cílem této literární rešerše bylo shrnout současný stav odborné evidence této metody, zejména pak ve vztahu k jejímu intenzivnímu technologickému rozvoji. V poslední době se začínají k biostimulačním účinkům využívat také lasery o vysokém výkonu (třída 4). Terapeutické možnosti těchto laserů a klinická dokumentace jejich účinnosti jsou prezentovány.

Metodologie: Literární review studií základního a klinického výzkumu dostupných ve veřejně přístupných odborných on-line databázích.

TT 62:

Summary

Using laser light in order to induce healing of traumatized or pathological tissue is physical therapy method which is long term accepted and clinically used. The aim of this literature review is to summarize current status of research evidence of this method mainly in relation to its latest intense technological development. Recently the lasers with high intensity (Class 4) are starting to be used for biostimulation purposes. Therapeutic possibilities of these lasers and the current clinical documentation of their efficiency are discussed.

Resumé

Diplomová práce pojednává o hodnocení kvality překladu se zaměřením na překlady abstraktů ve vybraných lékařských periodikách. Hlavním cílem této práce je poukázat na problematiku lékařského překladu, která je v rámci oboru překladatelství i tlumočení poněkud opomíjená.

V první části práce, která je zaměřena teoreticky, jsou zkoumány současné přístupy a modely týkající se hodnocení kvality překladu. Krátce pojednává o konceptu *kvality* v překladu, pokusech standardizace v této oblasti a všeobecnou otázkou potřeby hodnocení kvality v translatoologii. Hlavní část se zabývá modely hodnocení kvality, přičemž vydává model Juliane Houseové jako hlavní a nejpracovanější model, který je jeden z mála modelů ověřených v praxi.

Praktická část je založena na modelu hodnocení kvality Juliane Houseové. První část analýzy tedy obsahuje analýzu žánru a registru zdrojových textů. Následuje komparativní analýza zdrojových textů a jejich překladových protějšků, která je založena na typologii chyb a klasifikaci překladatelských postupů. Typologie chyb obsahuje kategorie týkající se ortografie, gramatiky, neúplnosti textu, terminologie, stylistiky a věcné správnosti. Použití klasifikace překladatelských postupů slouží pro doplnění komparativní analýzy a má za cíl ukázat, jak může k případným chybám docházet. Jedná se o postup přejímání, doslovného překladu, transpozice, modulace, explicitace a generalizace. I přes obecnou představu, že kvalita lékařských překladů je vysoká, odhalila tato analýza mnoho nedostatků ve všech kategoriích analyzovaných jevů.

Navzdory všeobecné představě o vysoké kvalitě lékařských překladů bylo v rámci provedené analýzy objeveno mnoho nedostatků. Mnoho z těchto nedostatků bylo způsobeno interferencí zdrojového jazyka, například chyby v ortografii, stylistice nebo syntaxi. Na základě analýzy registru byly abstrakty vyhodnoceny jako *field-dominated*, tedy že jsou primárně zaměřeny na obsahovou a odbornou stránku. Přesto se překvapivě vysoký počet nedostatků týká také terminologie a všeobecně dochází také k jemným významovým posunům.

Analýza překladatelských postupů a strategií byla použita jako doplnění analýzy chyb a nedostatků, protože poskytuje nejen deskriptivní výčet těchto chyb, ale také nabízí možné vysvětlení, pro které daným chybám dochází. Například transpozice vedla k velkému počtu chybně užitých slovních druhů, které vedly ke zhoršené srozumitelnosti textu nebo významovému posunu. Mezi nejčastěji používané postupy patří explicitace a generalizace.

Lékařský překlad zatím nemá v rámci translatologického vzdělávání své pevně stanovené místo. Neexistují ani neexistují žádné organizace nebo instituce, které by se zabývaly výhradně lékařským překladem, poskytovaly vzdělávací kurzy pro překladatele nebo by se zasazovaly o postavení lékařského překladu jako samostatného oboru, jako je tomu v případě právních překladů.

Lékařskému překladu se věnují buď lékaři bez jazykového vzdělání nebo překladatelé bez potřebných odborných znalostí. Z nárokovosti lékařských překladů a také ze zvyšujícího se požadavku na překlad vyplývá, že úřadová spolupráce mezi lékaři a překladateli je nezbytná.

References

Journals and Magazines used for analysis:

- *Cor et Vasa*. 2006 / Nr. 6, volume 48. ISSN: 0010-8650:
 - Kvasni ka, Jan. et al. "Zm ny koagulace p i PCI po jednorázovém podání nízkomolekulárního heparinu enoxaparinu v dávce 0,75 mg/kg hmotnosti i. v. - farmakokinetická studie." *Cor et Vasa*. 6 (2006): 218 - 225
 - Nev alová, Renata. et al. "Vliv katetriza ní zkušenosti a volby abla ní energie na rozvoj katetrové ablace jako rutinní metody pro intermitentní a perzistentní fibrilaci síní." *Cor et Vasa*. 6 (2006): 227 - 232
 - P ni ka, Martin. et al. "Bun ná lé ba ischemické choroby srde ní: p ehled poznatk , limitace, perspektivy." *Cor et Vasa*. 6 (2006): 234 - 241
 - Oral, Ivo. et al. "Falešn negativní spirální CT-angiografie plicnice u rozsáhlé plicní embolizace." *Cor et Vasa*. 6 (2006): 247 - 250

- *Interní medicína pro praxi*. 1/2013, ro ník 15. ISSN: 1212-7299:
 - Gajdová, Jaromíra., and Karel Urbánek. "Fenofibrát a jeho lékové formy." *Interní medicína pro praxi*. 1(2013): 5 - 10
 - Táborská, Jana. "Virové gastroenteritidy, lé ba." *Interní medicína pro praxi*. 1(2013): 11 - 14
 - Jenšovský, Ji í. "Osteoporóza u muž ." *Interní medicína pro praxi*. 1(2013). 15 - 18
 - Kalvodová, Bohdana., and Jan Kalvoda. "Nové trendy v diagnostice a lé b diabetického makulárního edému." *Interní medicína pro praxi*. 1(2013): 19 - 21
 - Chlup, Rudolf., and Emília urajková. "Redukce t lesné hmotnosti u obézní ženy s prediabetem p i dvouleté lé b liraglutidem a metforminem." *Interní medicína pro praxi*. 1(2013): 25 - 27
 - Rýdlová, Jarmila., and Jaromíra Fabiánová. "Mylagická encefalomyelitida - praktická aplikace Mezinárodních konsenzuálních kritérií." *Interní medicína pro praxi*. 1(2013): 28 - 30
 - Kala, Miroslav. "Komplikace podkožního podávání infuzí v paliativní pé i a možnosti jejich ešení." *Interní medicína pro praxi*. 1(2013): 36 - 37

- *Klinická farmakologie a farmacie*. 1/2011, ročník 25. ISSN: 1212-7973:
 - Suchý, David. "Klinický efekt cyklosporinu u nemocných s revmatoidní artritidou a dalšími revmatologickými chorobami." *Klinická farmakologie a farmacie*. 1(2011): 7 - 10
 - Urbánek, Karel. et al. "Porovnání originálních a genetických přípravků karbapenemových antibiotik." *Klinická farmakologie a farmacie*. 1(2011): 11 - 17
 - Zapletalová, Jiřina. "Léčba růstovým hormonem v pediatrii. Historie současnosti." *Klinická farmakologie a farmacie*. 1(2011): 18 - 23
 - Drbalová, Karolína. et al. "Subklinická tyreopatie." *Klinická farmakologie a farmacie*. 1(2011): 24 - 27
 - Štěpánek, Jan. "Uzel štítné žlázy." *Klinická farmakologie a farmacie*. 1(2011). 28 - 32
 - Štoura, Pavel. "Nový lék v symptomatické terapii roztroušené sklerózy mozkomíšní: 4-aminopyridin (FAMPRIDINE - SR)." *Klinická farmakologie a farmacie*. 1(2011): 33 - 34
 - Marková, Jolana. and Alena Linhartová "Léčba migrény během gravidity." *Klinická farmakologie a farmacie*. 1(2011): 41 - 44

- *Medicína pro praxi*. 1/2013, ročník 14. ISSN: 1212-9445
 - Gaitonde, David I. and Kevin D. Rowley and Lori B. Sweeney "Hypothyreóza: novinky." *Medicína pro praxi*. Ročník 14. 1(2013): 23 - 29
 - Titus, Stephen. and Joshua Hodge "Diagnostika a terapie akné." *Medicína pro praxi*. Ročník 14. 1(2013): 30 - 34
 - Chlábek, Roman. "Odkrytí rizikových skupin pacientů proti pneumokokovým infekcím." *Medicína pro praxi*. Ročník 14. 1(2013): 44 - 48
 - Fuchsová, Radka. et al. "Deficit vitamínu D." *Medicína pro praxi*. Ročník 14. 1(2013): 51 - 56

- *Medicína pro praxi*. 2/2012, ročník 9. ISSN: 1214-8687
 - Vrablík, Michal. "Je prevence kardiovaskulárních příhod otázkou zvolené terapie?." *Medicína pro praxi*. 2 (2012): 48 - 52
 - Lukáš, Milan. "Biologická léčba Crohnovy nemoci." *Medicína pro praxi*. 2 (2012): 53 - 56

- Chlábek, Roman. "Co nového přinesl rok 2011 v olově?" *Medicína pro praxi. 2* (2012): 57 - 61
 - Dražan, Daniel. "Olově t hotných žen proti chřipce." *Medicína pro praxi. 2* (2012): 62 - 63
 - Pauk, Norbert. "Terapie akutní bronchitidy." *Medicína pro praxi. 2* (2012): 64 - 66
 - Adámková, Václava. "Dobrý den, rezistence, mohu dál? I." *Medicína pro praxi. 2* (2012): 67 - 69
 - Repkon, Martin. "Diagnostika a terapie skolióz." *Medicína pro praxi. 2* (2012): 70 - 73
 - Šrámková, Taána. "Erektivní dysfunkce - diagnostika, nové prevence v léčbě." *Medicína pro praxi. 2* (2012): 75 - 77
 - Píbylová, Petra. "Bezlepková dieta pro praxi." *Medicína pro praxi. 2* (2012): 78 - 81
 - Mrázová, Romana. and Andrea Pokorná and Miroslav Krejcar "Možnosti v hojení ran." *Medicína pro praxi. 2* (2012): 83 - 86
- *Postgraduální medicína. 8/2008, ročník 10. ISSN: 1212-4184*
 - Dusilová Sulková, Sylvie. "Nutrice a nutriční stav pacientů v hemodialyzačním programu." *Postgraduální medicína. Ročník 10. 8* (2008): 820 - 824
 - Kopecká, Petr. "Nitroděložní systém s levonorgestrellem - víc než kontracepce." *Postgraduální medicína. Ročník 10. 8* (2008): 825 - 830
 - Marková, Jolana., and Alena Linhartová "Žena a migréna." *Postgraduální medicína. Ročník 10. 8* (2008): 831 - 836
 - Cetkovský, Petr. "Febrilní neutropenie." *Postgraduální medicína. Ročník 10. 8* (2008): 837 - 845
 - Kellerová, Jana., and Renata Schmiedbergerová and Jana Hercogová. "Kontaktní dermatitidy a jejich diagnostika." *Postgraduální medicína. Ročník 10. 8* (2008): 846 - 849
 - Vojáková, Naděžda., and Lucie Šípulová and Jana Hercogová "Lymfedém." *Postgraduální medicína. Ročník 10. 8* (2008): 850 - 853
 - Malina, Lubor. "Chronická polymorfní fotodermatóza." *Postgraduální medicína. Ročník 10. 8* (2008): 854 - 856
 - Hönic, Martin. "Traumata motocyklistů." *Postgraduální medicína. Ročník 10. 8* (2008): 857 - 859

- Holý, Jiří., and Pavel Havránek. "Zvýšení antikoagulačního účinku warfarinu s krvácivou komplikací vlivem interakce s fluvastatinem." *Postgraduální medicína*. Ročník 10. 8 (2008): 860 - 862
- Trnavský, Karel. "Některé nové poznatky o paracetamolu." *Postgraduální medicína*. Ročník 10. 8 (2008): 863 - 864
- Roháč, Filip., and Petr Ošťádal. "Statiny a akutní koronární syndrom." *Postgraduální medicína*. Ročník 10. 8 (2008): 865 - 870
- Schnejšbalová, Alena. "Ortopedické vady nohy a možnosti terapie." *Postgraduální medicína*. Ročník 10. 8 (2008): 875 - 879
- Smetana, Pavel. et al. "Možnosti a indikace ortopedické léčby u onemocnění Charcot-Marie-Tooth." *Postgraduální medicína*. Ročník 10. 8 (2008). 880 - 885
- Chládek, P., and Tomáš Trnava. "Perthesova choroba." *Postgraduální medicína*. Ročník 10. 8 (2008): 886 - 889
- Chládek, Petr., and Tomáš Trnava. "Coxa vara adolescentium." *Postgraduální medicína*. Ročník 10. 8 (2008): 890 - 892
- Mrzena, Vladislav. "Suprakondylická zlomenina humeru u dětí." *Postgraduální medicína*. Ročník 10. 8 (2008): 893 - 896
- Schovanec, Jiří., and Tomáš Trnava and Jan Kotaška and Richard Paděra. "Diagnostika a terapie benigních kostních nádorů." *Postgraduální medicína*. Ročník 10. 8 (2008): 897 - 905
- Trnava, Tomáš. "Náhrady kyčelního kloubu." *Postgraduální medicína*. Ročník 10. 8 (2008): 906 - 910
- Trnava, Tomáš. "Komplikace náhrady kyčelního kloubu." *Postgraduální medicína*. Ročník 10. 8 (2008): 911 - 914
- Trnava, Tomáš. "Diferenciální diagnostika bolestivých stavů ramenního kloubu." *Postgraduální medicína*. Ročník 10. 8 (2008): 915 - 917
- Trnava, Tomáš. "Diferenciální diagnostika bolesti kolenního kloubu." *Postgraduální medicína*. Ročník 10. 8 (2008): 918 - 920
- Schnejšbalová, Alena., and Tomáš Trnava. "Bolest v ortopedii." *Postgraduální medicína*. Ročník 10. 8 (2008): 921 - 923

- *Rehabilitace a fyzikální léka ství. 2/20*, červen 2013. ISSN: 1211-2658:
 - Nováková, E., and May S., and řiha M., and Král P. "Cvi ení podle sm rové preference nebo stabiliza ní cvi ení u pacient s chronickou bolestí beder: Randomizovaná kontrolovaná studie." *Rehabilitace a fyzikální léka ské. 2/20* (2013): 51 - 57
 - Drá , P., and Ma ák, P. "Co by m l fyzioterapeut v d t o karpálních nestabilitách." *Rehabilitace a fyzikální léka ské. 2/20* (2013): 58 - 63
 - Jandová, D., and Formanová, P., and Morávek, O. "Využití expertního informa ního systému Computer Kinesiology Profi Complex Start u diagnózy hernie disku." *Rehabilitace a fyzikální léka ské. 2/20* (2013): 64 - 70
 - Honzíková, L., and Svoboda, Z., and Janura, M., and Rosický, J., and Martinasková, E. "Vztah valgozity paty, typologie a biomechaniky nohy u d tí." *Rehabilitace a fyzikální léka ské. 2/20* (2013): 71 - 76
 - Va eka, I. and Va eková, R. "Využití ortotických vložek v lé b gonartrózy." *Rehabilitace a fyzikální léka ské. 2/20* (2013): 77 - 80
 - Nováková, T., and Bunová, B. "Poruchy polykání v d tském v ku - mezioborová spolupráce fyzioterapeuta s klinickým logopedem." *Rehabilitace a fyzikální léka ské. 2/20* (2013): 90 - 94
 - Tichá ek, J., and Štvrtinová, V., and Gúth, A., and Hána, K., and Pr cha, J. "Kvantifikace vlivu vakuov -kompresní terapie na p ímé zvýšení dodávky kyslíku lé ené kon etin ." *Rehabilitace a fyzikální léka ské. 2/20* (2013): 95 - 108
 - Prouza, O., and Jení ek, J., and Procházka, M. "Neinvazivní laser t ídy 4 v rehabilita ní praxi." *Rehabilitace a fyzikální léka ské. 2/20* (2013): 113 - 119

Bibliography / Works Cited:

- Al Qinaí, J. "Translation quality assessment: Strategies, parameters and procedures." *Meta: Translator's Journal*. vol. 45, no. 3, 2000. 497 - 519
- Angelli, Claudia V., and Holly E Jacobson. "Introduction." In *Testing and Assessment in Translation and Interpreting Studies*. 1 - 10. USA: John Benjamins Publishing Company, 2009.
- Bhatia, Vijay K. "Applied Genre Analysis: a multi-perspective model." *Ibérica* 4 (2002): 3 - 19

- Crystal, David., and Derek Davy. "Introduction." In *Investigating English Style*. 3 - 14. New York: Longman, 1969.
- mejrková, Sv tla., and František Daneš and Jindra Sv tlá. "Kanonické ásti v deckého textu: Abstrakt." In *Jak napsat odborný text*. 72 - 82. Praha: Leda, 1999.
- mejrková, Sv tla., and František Daneš and Jindra Sv tlá. "Žánrová diferenciacie v deckého diskurzu." In *Jak napsat odborný text*. 37 - 42. Praha: Leda, 1999.
- Drugan, Joan. "Today's Translation Profession." In *Quality in Professional Translation: Assessment and Improvement*. 5 - 34. London: Bloomsbury, 2013.
- Drugan, Joan. "Translation Quality: Importance and definitions." In *Quality in Professional Translation: Assessment and Improvement*. 35 - 80. London: Bloomsbury, 2013.
- Glendinning, Eric H., and Ron Howard. "Symptoms and Signs." In *Professional English in Use : Medicine*. 36 - 37. Cambridge: Cambridge University Press, 2010.
- Graetz, Naomi. "Teaching EFL Students to Extract Structural Information from Abstracts." (1985) In Key Hyland: "About Abstracts." In *Disciplinary Discourses - Social Interactions In Academic Writing*. 64 - 65. Michigan: The University of Michigan, 2004.
- Halliday, M. A. K. "Context; language in relation to context" In *Halliday's Introduction to Functional Grammar*. rev. by M. I. M. Matthiessen. 32 - 42. London and New York: Routledge, 2014 (Fourth edition).
- Hatim, Basil. "Translating text in context." In *The Routledge Companion to Translation Studies*. 36 - 53. edited by Jeremy Munday. Revised edition. London and New York: Routledge, 2009.
- Hoffmanová, Jana. "Úvod." In *Stylistika a sou asná situace stylistiky*. 5 - 7. Praha: Trizonia, 1997.
- House, Juliane. "Equivalence in Translation." In *Translation*. 29 - 42. Oxford: Oxford University Press, 2009.
- House, Juliane. "Quality" In *Routledge Encyclopedia of Translation Studies*. edited by Mona Baker and Gabriela Saldanha, 222 - 225. London: Routledge, 1998.
- House, Juliane. "Translation Quality Assessment: Linguistic Description versus Social Evaluation." *Meta: Translators' Journal*. vol. 46, no. 2 (2001): 243 - 257
- House, Juliane. "Views on Evaluating Translation." In *Translation*. 43 - 57. Oxford: Oxford University Press, 2009.

- Knittlová, Dagmar et al. "Styl v dy a techniky." In *P eklad a P ekládání*. 148 - 169. Olomouc: Univerzita Palackého Olomouc, 2010.
- Kubánek, Michal. "Source Text Quality in the Workflow of Translation Agencies" In *Tradition and Trends in Trans-Language Communication*. edited by Jitka Zehnalová, Ond ej Molnár, Michal Kubánek, 87 - 104. Olomouc: Palacký University Olomouc, 2012.
- Lauscher, Sussane. "Translation Quality Assessment - Where Can Theory and Practice Meet?," *The translator*. Volume 6, Number 2 (2000): 149 - 168
- Maier, Carol. Introduction to *The translator*. Volume 6, Number 2 (2000): 137 - 148
- Mikov, Gabriela. "Recent Developments: Stylistics in the United Kingdom." In *Linguistic Stylistics*. 13 - 14. Nitra: Univerzita Kontanta Filozofa, 2003.
- Molnár, Ond ej. "Source Text Quality in the Translation Process" In *Tradition and Trends in Trans-Language Communication*. edited by Jitka Zehnalová, Ond ej Molnár, Michal Kubánek, 59 - 86. Olomouc: Palacký University Olomouc, 2012.
- Nord, Christiane. "A model for translation-oriented text analysis: Theoretical Principles." In *Text Analysis in Translation: Theory, Methodology, and Didactic Application of a Model for Translation-Oriented Text Analysis*. 5 - 24. New York: Radopi, 2005. (Second Edition)
- Pachovská, Petra. "Odborný p eklad léka ského textu o Alzheimerov chorob a komentá ." BA thesis. Univerzita Palackého v Olomouci. 2012
- Pym, Anthony. "Translation research terms: a tentative glossary for moments of perplexity and dispute" In *Translation Research Projects*, 75 - 110. Tarragona: Intercultural Studies Group, 2011.
- Swales, John M. "Observations on other research-process genres: Abstracts." In *Genre Analysis - English in Academic and Research Settings*. 179 - 181, Cambridge: Cambridge University Press, 1990.
- Swales, John M. "The concept of genre." In *Genre Analysis - English in Academic and Research Settings*. 33 - 67, Cambridge: Cambridge University Press, 1990.
- Tárnyiková, Jarmila. "Communicative sentence types." In *From Text to Texture - An Introduction to processing strategies*. 138 - 139. Olomouc: Olomouc, 2009.
- Vinay, Jean-Paul., and Jean Darbelnet. "Methods of translation." In *Comparative Stylistics of French and English*. 30 - 41. Translated and edited by Juan C. Sager and M. J. Hamel. Amsterdam: John Benjamins Publishings, 1995.

- Williams, Malcolm. "The Present State of TQA and study objectives." In *Quality Assessment: An argumentation-centered approach*. 3 - 20. Ottawa: University of Ottawa Press, 2004.
- Zehnalová, Jitka. "Příklad a hodnocení jeho kvality." In *Příklad a překládání* by Dagmar Knittlová et al., 220 - 271. Olomouc: Univerzita Palackého Olomouc, 2010.
- Zehnalová, Jitka. "Tradition and Trends in Translation Quality Assessment" In *Tradition and Trends in Trans-Language Communication*. edited by Jitka Zehnalová, Ondřej Molnár, Michal Kubánek, 41 - 58. Olomouc: Palacký University Olomouc, 2012.

Reference dictionaries

- *Dictionary of Medical Terms*. 4th ed. Heather Bateman, Ruth Hillmore, Daisy Jackson, Sarah Lusznat, Katy McAdam, Charlotte Regan. London: A & C Black Publishers Ltd, 2004.
- *Lékařský anglicko- český a česko-anglický slovník*. 2. vyd. Compiled by Jarmila Paroubková. Praha: Avicenum, 1991.
- *Velký lékařský slovník*. 9. vydání. Martin Vokurka, Jan Hugo et al. Praha: MaxdorfJessenius, 2009. Also available at: <http://lekarske.slovniky.cz/>

Online sources

- Atul Gawande. (2012, March). *Atul Gawande: How do we heal medicine?*. TED video, 19:19. Retrieved November 3, 2015. available online at: https://www.ted.com/talks/atul_gawande_how_do_we_heal_medicine#t-270700
- Czech Medical Association of J.E. Purkyně. "Basic Information about CzMA." Accessed November 16, 2015. <http://www.cls.cz/english-info>
- časopis české kardiologické společnosti. "Cor et Vasa." 2008 - 2015. Accessed November 16, 2015. <http://www.e-coretrvasa.cz/>
- ISO 9000 "ISO 9000 2015 Plain English Definitions." Updated on November 6, 2015. <http://www.praxiom.com/iso-definition.htm>
- Producthelp. "LISA QA Metric." Accessed November 3, 2015. http://producthelp.sdl.com/SDL_TMS_2011/en/Creating_and_Maintaining_Organizations/Managing_QA_Models/LISA_QA_Model.htm

- "quality" *Oxforddictionaries.com*. 2015. Retrieved November 3, 2015.
<http://www.oxforddictionaries.com/definition/english/quality>
- Quality standard. "European Quality Standard EN-15038:2006." Accessed November 16, 2015. <http://qualitystandard.bs.en-15038.com/>
- Solen Medical Education. "Interní medicína pro praxi." Accessed November 16, 2015.
<http://www.internimedicina.cz/>
- Solen Medical Education. "Klinická farmakologie a farmacie." Accessed November 16, 2015. <http://www.klinickafarmakologie.cz/>
- Solen Medical Education. "Medicína pro praxi." Accessed November 16, 2015.
<http://www.medicinapropraxi.cz/>
- "Spelling," In *Manual of Style - being a compilation of the typographical rules in force at the University of Chicago Press*. 29 - 38. Chicago: The University of Chicago Press, 1906. Also available online: <http://www.chicagomanualofstyle.org/home.html>
- World Health Organization. "Patient Safety - Atul Gawande." Accessed November 2, 2015. http://www.who.int/patientsafety/about/atul_gawande/en/
- World Health Organization. "Patient Safety - WHO Surgical Safety Checklist." Accessed November 2, 2015.
<http://www.who.int/patientsafety/safesurgery/checklist/en/>

Annotation

Author:	Petra Pachovská
Department:	The Department of English and American Studies, the Faculty of Arts, Palacký University in Olomouc
Title:	Translation quality in medical abstracts and summaries in medical magazines and journals
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This thesis analysis the quality of translation of medical abstracts in various medical journals. The analyzed abstracts are written in Czech/English and are translated into Czech/English. The first part of the thesis is theoretical and provides an overview of the current approaches to translation quality assessment. Second part includes the translation analysis based on Juliane House's model for TQA. Following the House's model, the analysis starts with register and genre analysis followed by a comparative analysis based on the classification of defects by Molnár (2012) and translation procedures (based primarily on Vinay and Darbelnet's classification) and is concluded with a final assessment.

Anotace

Autor:	Petra Pachovská
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Název práce:	Translation quality in medical abstracts and summaries in medical magazines and journals
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Diplomová práce hodnotí kvalitu překladu abstraktů v několika lékařských periodikách. Zdrojovým jazykem abstraktů je angličtina/čeština a přeloženy jsou do češtiny/angličtiny. První část práce je teoretická a obsahuje pohled souasných přístupů a trendů v oblasti hodnocení kvality překladu (TQA). Praktická část sestává z analýzy kvality překladu abstraktů na základě modelu hodnocení kvality Juliane Housové. Na základě tohoto modelu obsahuje praktická část analýzu registru a žánru, srovnávací analýzu zdrojových textů s překladem na základě klasifikace chyb (Molnár 2012) a také rozbor překladatelských postupů (na základě kategorií od Vinaye a Dalbèrneta, 1958). Kapitola analýzy je zakončena celkovým zhodnocením kvality překladu abstraktů.