# Terminological Problems and Information Missing in Descriptions of Injuries in the Hungarian Forensic Medical Discourse

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**Introduction:** In Hungary, the official template of a Medical Diagnostic Report is filled in by traumatologists or GPs on the occasion of assaults and accidents. It is a vitally important document in forensic medicine, as only on the basis of this document are forensic experts able to assess injuries. However, in numerous cases forensic examiners are not able to reconstruct injuries because of important information missing or terminology not used in the appropriate way. The research aims at comparing descriptions of injuries with those given by forensic experts and showing which problems may impair understanding.

**Material and method:** The following corpus-based study was conducted on 343 authentic Medical Diagnostic Reports from different forensic institutions and the related expert opinions. The terminology of the descriptions was compared with that of the expert opinions and the essential pieces of information were processed by statistical analysis.

**Results:** The analysis showed that 84% of the MDRs did not give the exact time of medical care and 59% if the patient had consumed alcohol. The injuries were arranged according to body parts, and 27% of them neglected the side aspect of the location. Because of terminological problems 5.6% of the injuries were regarded as only partly assessable and 15% as not assessable by the forensic expert. **Discussions:** The analysis showed that the sixth part of the MDRs was ambiguous due to inappropriate and missing information. **Conclusions:** Terminology could be unified and the template optimised using the results of the current study.

Keywords: terminology, forensic medicine, corpus analysis, discourse community, genre analysis

### Introduction

Communication between forensic experts and doctors takes place in Medical Diagnostic Reports (MDR – látlelet). MDRs can be considered as a genre [1], partly because they are to be written according to strict norms prescribed by Hungarian law [2]. The terminology to be used is more or less defined in university textbooks, but has not been unified. Consequently, there are contradictions between books and even within the same textbooks [3].

Numerous legal problems result from ambiguous diagnostic reports: e.g. when court-appointed forensic examiners cannot but ignore certain injuries described imprecisely. Accurate descriptions are especially crucial in the reconstruction and assessment of injuries of the soft tissue (wounds, bruises and abrasions) and of the weapon involved [4]. Occasional photos are no satisfactory substitute for specifications of length, depth and exact anatomical location.

Studies on these problems suggest that MDRs require just as specific and precise use of terms as general medical terminology. For example, terms in MDRs should only be collocated with particular adjectives to clarify meaning (stab wound or cut wound rather than wound on its own) [5]. The same research has also shown why specific terms occur in MDRs although never used within the discourse of forensic medicine. Many doctors in the primary care specialise in surgery or accident surgery, where terms for injuries are classified on a different basis. This is why nonaccepted terms are applied within the discourse of forensic medicine, leading inevitably to misunderstandings [6]. The following study aims at exploring further reasons and possible solutions of this practice. That is, what terminological or other linguistic problems cause such communication failure as a trend, and how these problems could be solved efficiently. A corpus-based analysis of 343 MDRs collected from different regions in Hungary is meant to provide an up-to-date description of the forensic discourse on injuries.

#### Material and method

Forensic files including MDRs were provided by forensic institutions all over Hungary, in Microsoft Word format. Most of these institutions are Institutes of Forensic Experts and Forensic Research (IFEFR) and only two of them are university departments. Out of 343 MDRs with expert opinions 60 ones were collected from the Department of Forensic Medicine at the University of Debrecen, 57 ones from the IFEFR in Szekszárd, 66 from the IFEFR in Győr, 51 from the IFEFR in Kaposvár, 58 from the Department of Forensic Medicine at the University of Pécs and 51 ones from the IFEFR in Veszprém.

MDRs were chosen at random by the search engine with the keyword injury. All personal data were deleted when creating copies of the documents, taking the secrecy of personal rights into consideration.

The analysis focused on 3 sections of each forensic file: description of external injuries (A), diagnoses in Hungarian and Latin (B) and the expert opinion about the injuries (C). Altering terminology was compared in the 3 parts

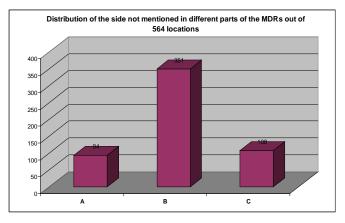


Fig. 1. Distribution of the side not mentioned in different parts of the MDRs out of 564 locations. A = Descriptions, B = Diagnoses, C = Expert opinions

to detect ambiguous information. This 3-section-division made it possible to retrace how often an injury was not taken notice of in the expert opinion, which types of injuries were mostly ignored and what terms they tended to be described by.

#### **Results**

The analysis conducted on 343 Hungarian MDRs yielded the following data:

Three hundred thirteen MDRs were created by accident surgeons, 27 by GPs and in one case it was not possible to trace the medical unit concerned. Two hundred nineteen out of 343 MRDs did not record the time of examination, 2 of them not even the date.

There were 305 MDRs on injuries caused by assaults (including dog bites), 37 by accidents and in one case the origin was not mentioned in the MDR at all. Seventy two out of 343 MDRs stated that the patient had consumed alcohol, 67 recorded the opposite, while 204 did not mention alcohol consumption at all.

Most MDRs fail to list all injuries among the diagnoses, resulting in a different number of injuries in parts A and B. Injuries arranged according to body parts were compared in A, B and C in relation to the side (right, left, in the middle, both sides, or not mentioned). In the 343 MDRs there were 564 locations described: 270 injuries of the head, 29 of the neck, 117 of the upper extremities, 74 of the lower

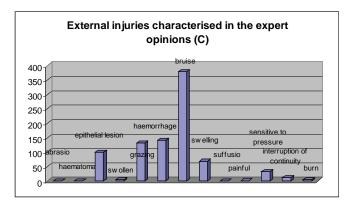


Fig. 3. External injuries characterised in the expert opinions (C)

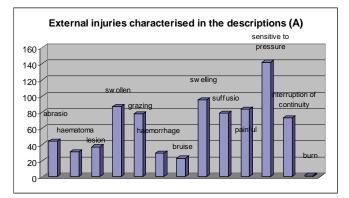


Fig. 2. External injuries characterised in the descriptions (A)

extremities and 74 of the trunk. In 564 locations the side was not mentioned 94 times in the descriptions (A), 351 times in the diagnoses (B) compared to the expert opinions where it was missing in 108 cases.

Another aspect the research focused on was the use of terminology. The processing of 564 locations showed that out of the 1145 singular injuries described by doctors 175 were not transferred into the forensic file by forensic experts.

The contrastive analysis showed that 64 injuries were regarded as partly assessable and 175 as not assessable by forensic experts, due to terminological problems. In these cases vague terms or descriptions of subjective symptoms were detected. Swollen was the most frequent term (used 86 times out of 1145 single descriptions) characterising injuries. Swelling was the second most common one (mentioned 73 times) followed by grazing and sensitive to pressure (66 times each). Figures 2 and 3 show the most often used terms in the descriptions (A) compared to those in the opinions of forensic experts (C).

Figures 4 and 5 present the distribution of terms characterising types of wounds (i.e. injuries with disruption of the continuity of the skin or material missing) in the descriptions (A) compared to those in the expert opinions (C). The most common term used 84 times in the descriptions was wound without any specifications, followed by lacerated wound (mentioned 72 times) and bruised wound (detected 33 times). In the expert opinions the most commonly (169 times) used term was lacerated wound followed by bruised wound (mentioned 71 times).

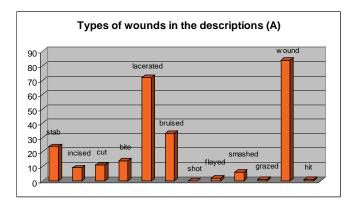


Fig. 4. Types of wounds in the descriptions (A)

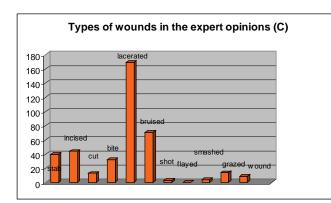


Fig. 5. Types of wounds in the expert opinions (C)

## Discussions

The results of the analysis correspond to the hypothesis: in most cases misunderstandings are caused by missing information or terminology used in a non-conform way.

The exact time of medical examination is crucial e.g. for the assessment of the influence of alcohol. However, 64 % of the MDRs did not record it precisely. Alcohol consumption of patients can be a very important issue if the question of being a victim or an offender and the question of diminished responsibility must be decided. Nevertheless, 59 % of the MDRs did not mention the alcohol consumption at all. Furthermore, one of the most misleading failures in MDRs is not mentioning the body side where the injury is located (27 % of the MDRs did not record it.) However, if the side is not given in the description (A) forensic experts are very likely to ignore the injury even if it is listed among the diagnoses (B). In such cases, further examination is needed by a consultant specialist or later by the forensic expert.

In the cases where descriptions were regarded as partly or not assessable, terminology applied in the descriptions is not specific enough for any type of injury. The most common terms for injuries like swelling cannot be considered as detailed descriptions because such alterations may also occur as a symptom of certain illnesses, rather than exclusively in injuries caused by physical force. In the case of descriptions not accepted, terms like sensitive to pressure are not specific enough, but subjective complaints of the patient. Pertaining to injuries with disruption of the continuity of the skin, the term wound used without any specifications seems to be completely ignored if there are no characteristics of the wound mentioned. In the forensic files the most common type of wound is the lacerated one followed by the term bruised wound. However, in the secondary literature of forensic medicine, bruises are not classified as wounds, and wounds related to bruises are called lacerated wounds [7]. Incised wounds tend to be confused with cut wounds, which is apparent in Figures 4 and 5.

To sum up it can be established that such communication problems occur in a very high percentage of MDRs and affect both experts' work and legal practice.

## Conclusions

The findings suggest that the lack of information and nonadequate terminology lead to misunderstandings with legal and financial consequences. These difficulties could be avoided by more detailed and precise data recording, so a computer software might be a solution. Because of the time factor and the complexity of the terminology in the forensic discourse, a software offering multiple choice options with a limited number of terms may be able to enhance accuracy. The development of a software which neither allows controversy, nor a lack of important information is under way. The software is being designed, trialled and validated in cooperation with the Department of Forensic Medicine at the University Pécs, on the basis of the results of the present corpus-based research on the use of terms in practice.

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