

## **BNO-X**

**Full title:** International Statistical Classification of Diseases and Related Health Problems, 10<sup>th</sup> Revision

**Abbreviation:** BNO-X

**Legal basis:**

- Decree No. 42 of 1995 (XI.14.) of the Ministry of Social Welfare about the introduction of the 10<sup>th</sup> Revision of the International Classification of Diseases

**Implementation date:** 1st January 1996.

**History of the classification:**

The International Classification of Diseases and Health Problems (ICD) is widely used to identify and document various diseases, physical and psychological disorders, especially in medical practice and in the production of statistics on mortality and disease. Besides the medical documentation, the international comparability of the morbidity and mortality conditions, the ICD plays a key role in epidemiological researches and the transparent monitoring of patient care. The beginning of statistical analysis of diseases dates back to the 17<sup>th</sup> century, till John Graunt's work on London's death data. A simple list of death mortality examinations can be considered as the early predecessor of the death classification. In the middle of the 19<sup>th</sup> century, William Farr and Marc d'Espine were asked to prepare a single, internationally applicable classification of deaths at the first International Statistical Congress. The list adopted in 1855 was amended several times, and then, in 1893, the International Institute of Statistics (NSI) - the successor to the International Statistical Congress - switched to Bertillon's classification, which, according to Farr's perception, made a distinction between general illness and a particular organ or anatomically localized diseases. The International Institute of Statistics has encouraged this system to be adopted by all statistical institutes and approved to revise every ten years. In 1928, a study by the League of Health's Organization on the expansion of the International Death Classification was published, in which it was presented how the classification could be adapted to morbidity statistics. The most significant change in the history of revisions was the sixth one in 1948, when, among others, the scope of the classification for non-fatal diseases was extended and there was an agreement for selecting the basis of death according to the international rules. The main innovation of the tenth revision carried out in 1993 was the introduction of the alphanumeric coding system, which more than doubled the available frame for coding and made it possible to assign a separate letter to most major groups. Two more major groups have been created, the tenth revision list being made up of 21 main groups. It is a major innovation that, at the end of certain major groups, items have been created for disorders caused by medical interventions. The Tenth Revision Conference recommended that the World Health Organization should support the concept of updating revisions and develop an update mechanism. The development of medical and IT sciences indicated the annual modification of the 10<sup>th</sup> revision. The two most relevant changes from these were, on the one hand, the revision of the lymphatic and hematopoietic organs and related tissue tumors (C81-C96) in 2010, and, on the other hand, the rewriting of rules about causes of death coding in terms of IT, supporting the use of the automated causes of death coding system in 2016. Based on the experience and results of the vanguard countries

(France, Italy, Sweden, USA), Hungary has developed and implemented its own automated death system in 2005, which is working according to the rules laid down by the ICD-10.

### **Structure:**

ICD-10 consists of three volumes: Volume I contains the classifications; Volume II encloses the instructions for ICD-10 users, while Volume III contains alphabetical index of classifications.

Level 1: 21 main groups: Roman numeral code: I – XXI.

Level 2: Group level items: consist of three-digit items.

Level 3: Three-digit items: one letter and two digits: A00 to Z99

Level 4: Four-digit sub-items: one letter, three digits: A000-Z999

Level 5: Five-digit sub-items: special needs for refining certain categories.

### **Short description:**

International Classification of Diseases and Health Problems (ICD) is a Hungarian translation of the International Statistical Classification of Diseases and Related Health Problems (ICD) issued by the World Health Organization (WHO). Classification of diseases can be defined as a system of items for which disease units can be assigned according to appropriate criteria. **The aim of the ICD is to enable systematic analysis and comparison of mortality and morbidity data collected in different countries.** By using it, text diagnoses of illnesses and other health problems can be converted into alphanumeric codes that allow easy retrieval and analysis of data.

ICD is a “changing-axis” classification. Its structure groups statistical data on diseases as follows:

- infectious diseases,
- formal or general illnesses,
- local diseases by localization
- developmental disorders,
- injuries.

The ICD-10 contains 21 main groups. The first two main groups show pathogen and pathological classification. From the third to the fourteenth main groups, the primary aspect of the classification is the localization of the organ system. The XV, XVI main group includes diseases linked to a specific stages of life, namely pregnancy and the period around birth, and XVII the congenital anomalies. In the XVIII main group should be the cases where the disease is not known, only some symptom or abnormal test result is known. The XIX main group is for injuries caused by physical and chemical effects classified as lesions, the XX main group serves to describe the factors or conditions that cause injury. The last XXI main group contains states where there is no specific disease, just some kind of condition that can justify any kind of health care without illness (eg. general health routine check, screening, previous post-care check, etc.).

### **Main statistical applications:**

To identify and document various forms of disease, illness, physical and mental disorders, primarily in medical practice, as well as to compile statistics on mortality and morbidity. Beyond medical documentation and the international comparability of morbidity and

mortality conditions, it also plays a key role in health care financing, epidemiological research, and transparent monitoring of patient care.

**Linked classification:**

BNO is the Hungarian translation of the International Statistical Classification of Diseases and Related Health Problems (ICD) published by the World Health Organization (WHO).

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