## The background of the NPU Terminology

The form and content of the NPU terminology is based on international recommendations and Standards from:

- The Bureau International des Poids et Mesures (BIPM)
- The International Organization for Standardization (ISO)
- The European Committee for Standardisation (CEN)
- IUPAC Compendium of Chemical Terminology The Gold Book
- International vocabulary of metrology Basic and general concepts and associated terms (VIM)
- Vocabulary on nominal property, examination, and related concepts for clinical laboratory sciences (IFCC-IUPAC Recommendations 2017) (VIN)
- Compendium of Terminology and Nomenclature of Properties in Clinical laboratory Sciences -The Silver Book
- Recommendations and Technical Reports from IUPAC-IFCC, published since 1966

A joint IFCC-IUPAC Committee-Subcommittee on Nomenclature for Properties and Units (C-SC-NPU) has been an active participant in much of this work, describing and harmonizing the NPU terminology of the various subject fields. Maintaining and adding entries to the terminology is done in a continuous process according to the advice of the C-SC-NPU.



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# **NPU Terminology**

#### An IUPAC-IFCC succes in Health Care



The NPU Terminology (NPU: Nomenclature for Properties and Units) is a patient centered clinical laboratory terminology for use in the clinical laboratory sciences.

The terminology is in use today in Denmark, Norway and Sweden, where standardized reporting of laboratory results in health care is communicated on a national basis.





### WHAT IS THE NPU TERMINOLOGY?

The NPU terminology is a collection of 25 000 IDs and definitions of clinical laboratory result items. It is used to communicate patient examination results safely between laboratory information systems, hospital patient records, GPs and local and national data repositories. Data can be recognized, compared, reused in calculations, extracted for research or statistics, and stored for documentation, without loss of meaning.



#### NPU MODEL

The NPU concept model identifies examined properties of a patient, independent of the technology or procedure used to obtain the information. The examination results are described in a formal structure, identifying

- the part of the universe that is studied (the system)
- the component examined in that system

• the estimated kind-of-property of the component in that system A SI measurement unit is added where relevant.

NPU24866 Urine–Morphine; mass concentration = ? microgram per litre NPU02187 Blood–Glucose; substance concentration = ? millimole per litre





### WHY IS THE NPU TERMINOLOGY NECESSARY?

The variety of examinations from clinical laboratories has increased over the last 50 years from a mere few hundred types to well over 30 000. In national health care, where patients and their data move between hospi-

tals, specialists, GPs and other care units it is important to ensure a common understanding of what is being measured, and of how the result values and their units are expressed.

With the NPU Terminology examination results from clinical laboratories can be communicated between different systems across technology, time and geography.

It covers many different fields of laboratory science:

- Clinical allergology
- Clinical chemistry
- Clinical immunology and blood banking
- Clinical microbiology
- Clinical pharmacology
- Molecular biology and genetics
- Reproduction and fertility
- Thrombosis and hemostasis
- Toxicology

### NPU in several languages

The formal syntax and the use of international nomenclatures, classifications and recommendations for all terms ensures that the NPU definitions can be translated easily and safely into other languages.

