# The role of Patient Reported Outcomes (PROs) in registration and HTA

Cornelia Dunger-Baldauf, PhD (Statistical Methodology Group, Novartis)

Abstract

In recent years the patient experience under treatment has increasingly come into focus. For example, the FDA is issuing a guidance series on patient focused drug development that describes how data about patient experience can be collected and used for drug development and regulatory decision making. For this purpose the FDA considers Clinical Outcome Assessments (COAs) measures that describe or reflect how a patient feels, functions or survives. A patient reported outcome (PRO), i.e. a report which comes directly from the patient without interpretation by clinicians or others, is defined as one of four types of a COA.

FDA and other Health authorities issued several Guidances on PROs which will be briefly reviewed, including the requirements for validation of a PRO and the important question of a clinically relevant difference.

Usually, PROs compliment primary evidence derived from objective measures to provide insight into treatment benefit for the patient. However, in some disease areas such Irritable Bowel Syndrome (IBS), or migraine where objective measures are not available the primary clinical outcome assessment has to rely on one or more PROs in registration studies. Further, PROs are integrated as components into a number of primary outcome measures such as composite disease scores. Examples will be reviewed.

PROs may also be required for HTA. E.g. the EQ-5D, a multi attribute instrument for measuring health-related quality of life in cost-effectiveness analysis, is commonly included in confirmatory clinical trials to demonstrate the value proposition for a new medicine. An example will be discussed.

Advances in digital technology enable the collection of PRO data via smartphone e.g. in decentralized clinical trials. The patient can enter questionnaire data in his/her usual environment which brings the data closer to a clinical practice or real world experience. However, questions about differences to the collection of these data in the physician's office remain.

PROs have an important role as primary variables or to support primary evidence. Early planning of the use of PROs at the beginning of a clinical development programme will be beneficial in order to ensure adequate validation of the instrument used.

Cornelia Dunger-Baldauf, PhD has > 30 years of experience in the pharmaceutical industry as a lead statistician, including as a Therapeutic Area lead. She published on the validation of PROs which were used as primary variables in registration trials and presented on minimally important clinically relevant differences for PROs at conferences. She is co-chairing the ASA BIOP SWG on HTA (Health technology assessment) and is a member of the Statistical Methodology Group at Novartis.