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Online Publication Date: 20 March 2002


To link to this article: DOI: 10.1080/09638280110105222

URL: http://dx.doi.org/10.1080/09638280110105222

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CLINICAL COMMENTARY

Application of the International Classification of Functioning, Disability and Health (ICF) in clinical practice

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Accepted for publication: October 2001

Rehabilitation medicine is dedicated to optimizing patient functioning and health. Models of functioning and health are the basis for clinical practice, teaching and research. The ICF (International Classification of Functioning Disability and Health; formerly ICIDH-2 http://www3.who.int/icf/icftemplate.cfm) is designed to record and organize a wide range of information about health and health-related states. Since the ICF has been developed in a worldwide comprehensive consensus process over the last few years and has recently been endorsed by the World Health Assembly as a member of the WHO Family of International Classifications, it is likely to become the generally accepted framework to describe functioning in rehabilitation. The ICF is intended for use in multiple sectors that include, besides health, education, insurance, labour, health and disability policy, statistics, etc. In the clinical context, it is intended for use in needs assessment, matching interventions to specific health states, rehabilitation and outcome evaluation. However, the ICF will have to be tailored in order to suit these specific uses. The joint use of the ICF and the International Classification of Diseases ICD-10, needs to be addressed when applying the ICF to rehabilitation medicine.

WHO considers the ICF and the ICD-10 to be distinct but complementary classifications. According to this view, which is shared by rehabilitation medicine, patient functioning and health are associated with but not merely a consequence of a condition or disease. However, from a medical perspective shared by many physicians, functioning and health are seen primarily as a consequence of a condition. This perspective is mirrored in the widely accepted concept of condition-specific health status measures. Indeed, the pattern of domains represented in condition-specific measures varies considerably between conditions for domains representing ‘body function and structure’ and to some extent ‘activities and participation’. For practical purposes it would thus seem most helpful to link specific conditions or diseases to salient ICF domains of functioning.

Such generally agreed on lists of ICF domains can serve as condition-specific core-sets to be rated for every patient with the specific condition. Thus, condition-specific core-sets can be defined as a selection of ICF domains that includes the least number of domains possible to be practical, but as many as required to be sufficiently comprehensive to cover the prototypical spectrum of limitations in functioning and health encountered in a specific condition. To allow for comparisons of health across conditions, a generic core-set with domains representing the most relevant domains to include the least number of domains possible to be practical, but as many as required to be sufficiently comprehensive to cover the general spectrum of limitations in functioning and health is encountered in most conditions.

This approach is similar to the now widely used condition-specific and generic health status measures.
Condition-specific core-sets will tend to focus on domains from the dimensions body function and structure and activity and participation. The generic core-set will tend to cover domains in the activity and participation dimension as well as in the environmental dimension. Only the generic core-set allows for comparison of the impact of different health conditions.

Since both types of core-sets use the same language they can overlap and therefore reduce the total number of domains required. In the case of co-morbid conditions more than one condition-specific core-set may be applied. Core-sets with a defined number of domains to be rated on the basis of qualifiers have the important advantage of being practical in clinical practice to capture the profile of the patient. Qualifiers are numeric codes that specify the extent or magnitude of the functioning or disability in a determined domain or the extent to which an environmental factor is a facilitator or barrier. These qualifiers also create the constructs of capacity and performance with regard to the domains of activity and participation where capacity refers to the environmentally adjusted inherent ability of the individual, and performance refers to the functioning as observed or reported in the person’s real-life environment with the existing facilitators and barriers.

Scientifically based condition-specific core-sets are currently being developed in a collaborative project of the University of Munich with the Classification, Assessment, Surveys and Terminology Group (CAS) of WHO. The aim of this project is to develop internationally accepted and empirically based ICF core-sets for different musculoskeletal, neurological, internal-medicine and pain conditions. Two phases with their respective aims can be distinguished in this project (figure 1).

Phase I aims to select the ICF domains to be included in the different core-sets. This selection will take place in three international consensus conferences in cooperation with WHO. Based on the results of preliminary studies using empirical data from 1200 patients, international Delphi surveys and systematic reviews, the spectrum of prototypical domains in the variety of health conditions will be derived by experts from all over the world. These international conferences will take place in May, September and December 2002 respectively.

Phase II aims to test the feasibility, reliability, validity, and sensitivity of the condition-specific core-sets developed during phase I. To accomplish this objective, a multicentre prospective cohort study with 3000 patients will be performed.

The preliminary phase of the project is being carried out currently. The documentation of data of 1200 patients on the basis of the ICF checklist within a multi-centre cohort study is being conducted. Systematic reviews of the literature and international Delphi surveys with experts are simultaneously being performed for the different health conditions.

The work ahead is considerable but worthwhile. The development of core sets for acute and subacute rehabilitation, traumatic conditions and geriatrics is planned. The development of international scientifically sound core-sets of domains may help to address the challenges when using the ICF in clinical practice.

**Project partners**
- Ludwig-Maximilians-University, Munich; and
- WHO, CAS group, Geneva.

**Collaborating societies**
- Austrian, German and Swiss Society of Physical Medicine and Rehabilitation; and
- German Society for Rehabilitation Research (DGRW), Hamburg.

**Collaborating institutions for the preparatory phase**
- Balneology and Spa Medicine Research Institute, Bad Elster;
- Rehabilitation Sciences Network in Germany (RFB), Würzburg;
- 30 rehabilitation clinics in Germany; and
- German Indemnity Insurance (VDR), Frankfurt/M.

**Endorsing organizations**
- International Society of Physical and Rehabilitation Medicine (ISPRM); and
- Monitor Project, Bone and Joint Decade.