Building the International Classification of Primary Care, version 3

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Since its introduction in 1987, the International Classification of Primary Care (ICPC) has become a standard classification tool to support primary health care around the world. ICPC was designed to enable GPs to simply and reliably capture essential information about primary care encounters in a format that fits the workflow of busy clinicians, and it has succeeded brilliantly at this task.

The current version, ICPC-2, has several major strengths.

- It includes components (**reason for encounter, symptoms and complaints, social problems,** and **interventions**) that reflect the core content of primary care.
- It accommodates the **episode of care** data model, which links information related to care for specific problems over time to enhance our understanding of the clinical epidemiology of primary care symptoms and problems.
- Its **level of granularity** is based on epidemiologic data from primary care practices worldwide and is optimal for data retrieval and analysis.
- It can be **embedded** in electronic health record (EHR) software used by GPs and linked to other standard classification and terminology tools.

However, we have seen significant changes in primary care practice in Europe and other developed regions, and ICPC has been introduced into non-Western and non-developed regions where the visit-based episode of care model is not followed.

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The Wonca International Classification Committee (WICC) has begun a major revision of ICPC, and we face a difficult task: to preserve the simplicity and clinical utility of the classification while adding components and concepts that capture the new content of primary health care. Our 3 main goals for this work are:

- Improving ICPC-3 "core content": making space for new conditions and expanding social and functional status content without making the classification too large.
- Adding new components that can capture person-related information, including patient goals and preferences and functional status.
- Linking ICPC to other classification and terminology tools in EHRs through use of thesaurii and maps to ICD and SNOMED-CT.

ICPC-3 will be significantly different from ICPC-2. One major difference is that its coding structure will move from 3-digits to 4-digits. Another will be that it will be a suite of linked tools, with a foundation or "base" ICPC linked to additional classifications or terminologies.

Why are we making a suite of classification tools rather than just expanding the current structure of ICPC? It has proven very difficult to extend ICPC within its current structure. One good example is our struggle to build in a suitable "risk factor" classification. If we strictly follow the episode-of-care structure of ICPC, accommodating risk factors requires an arbitrary assignment of a particular risk factor to a preventive care episode, or links to multiple episodes, or creation of "pre-disease" states, or creation of a new class of rubric or a new and separate ICPC chapter.

So, we have taken a step back to consider what information is necessary to capture the essence of

general/family practice, and how that information should be structured. We have created a simple **primary care data model** to guide our work, based in part on work of the European health care data standards initiative (CEN TC 251) and an expert group chartered by the Robert Graham Center in the United States. Working with this model has made it clear that a set of classification tools is the best approach. We can maintain the simple and elegant biaxial structure of the current ICPC to code visit- and episode-based information AND create new modular classification tools to handle non-episode based information (like social determinants of health, functional status, personal goals and preferences, risk factors).

The proposed set of classification tools will include in the central role ICPC-3, linked to modules that provide more comprehensive content: a Person-Related Information classification, a classification of patient preferences and goals, a revised and simplified functional status classification, and a revised process/intervention classification.

1. "BASE" ICPC-3.

ICPC remains the best tool available for classifying the problems addressed by GPs, but we must add new conditions and correct prior inconsistencies within and across chapters. The "base" ICPC-3 will retain its biaxial chapter-and-component structure but feature 4-digit codes. The chapter structure will remain. A second alphabetical 'digit' will contain added information in the form of subcategories of interest to health authorities, including:

S = <u>S</u>ymptoms/complaints
G = infections (<u>G</u>erms)
N = <u>N</u>eoplasms
T = <u>T</u>rauma/injury
A = congenital <u>A</u>nomalies
D = other <u>D</u>iseases

A new Chapter G ("genital") will replace Chapters X and Y.

2. NEW MODULES TO EXTEND ICPC.
A. Person-Related Information (PERI).

This module will allow users to enter information that does not fit within the constraints of an individual episode of care but should be taken into account when making decisions about care for a specific patient. This type of information will include **clinical modifiers** (previously experienced clinical events that are not active problems but can affect future care, such as hysterectomy or amputation), **risk factors** (clinical items important to the care process but not active clinical problems, such as genetic markers), and **personal or social problems** or issues that affect an individual's care.

B. Patient goals, preferences, and requests.

This module will provide the structure to capture patients' expressed goals, priorities and preferences for care, limits to care (for example, advance directives), and specific requests for care (such as a request to receive no blood products). These fall outside the scope of the Reason for Encounter contained in the base ICPC classification. It is possible that the "patient side" will be expanded further in some countries to include direct patient entry of information into the health record, or patient-directed posting of information from a personal health record into a shared record maintained by the GP.

C. Functional status.

Efforts to include functional status, severity, and complexity into ICPC have not been successful to date. WICC members have worked to find ways to harness ICF to provide functional status data for ICPC. While some specific applications show promise (use of reduced-set ICF for sick leave certification) it has proven exceedingly difficult to link functional status to a specific episode or problem. This is a particular problem for patients with multimorbidity. The approach we will now consider is to create space in the base ICPC-3 to link to functional status information from ICF or another tool yet to be developed.

D. Interventions and other processes of care.

Coding and recording interventions or clinical decisions in ICPC has become a significant challenge. IC-Process-PC, developed in the 1980s, offered a way to improve the granularity of the process codes in Components 2-6 of ICPC, but it never achieved

wide-spread use. Many ICPC user groups have since developed their own coding schemes, but there is no standard in this area. Given the granularity required for documentation of interventions and procedures in individual patient records, it may not be possible to include this within the base ICPC-3 other than by a link to "interventions" opened for each health problem for an individual patient.

SUMMARY

The purpose of ICPC is to order clinical information in primary care and family medicine. The changes we are introducing in the 'base' ICPC-3 will improve both content and ordering of clinical information, and we believe that the new modules will enable users to better capture the personal, social and environmental factors that can influence care.

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