

Editorial

Disease management: a proposal for a new definition

Visiting congresses in 2007 (London and Bonn) and 2008 (Gothenburg¹), I heard the words *disease management* being used for programs focusing on one single disease: for instance, diabetes or heart failure or depression or COPD. In Germany and Austria, the term disease management is monopolized for single disease programs with an emphasis on prevention and self-management by patients and family. These programs are financed by social insurance companies with special arrangements for doctors and patients. Although I welcome these initiatives, I don't think these single-disease programs are the only answer to the needs of patients with chronic diseases, because many chronic patients suffer from more than one disease. They suffer from diabetes plus depression or from heart failure plus COPD and sometimes they have more than two chronic conditions.

At other moments during these congresses the phrase disease management referred to prevention: how to identify persons at risk of a chronic disease? How to promote healthy lifestyles such as exercise and self-management, when there are symptoms of a chronic disease? How to stop smoking? How to stop unhealthy eating habits? How to stop too high alcohol consumption?

I also noticed an association of the words disease management with cost reduction. My Japanese colleague and editor of this journal, Etsuji Okamoto, defines disease management as: *A buzz word in Japan. At least here, government and insurers promote it with an aim of achieving savings on health care cost. I would define disease management as management of chronic conditions initiated by third parties particularly by insurers with an eventual purpose of reduction of health care cost in the long run, provided through an integrated approach of medical care providers and health guidance by the third parties, facilitated in many cases by effective employment of IT technologies.* In the USA, disease management is often associated with commercial firms working for one single chronic disease with the ambition to show lower costs Per Month Per Member.

Disease management also improves compliance to pharmaceutical drugs. That is why it promotes the efficacy of these drugs, because then they are better sold. The term Disease Management was invented in the 1990s by three pharmaceutical companies.

Because of all these different elements and associations, I propose to our readers, authors and participants of our congresses a redefinition of the concept of disease management. To come to a new definition, I went into my personal archive where I collected definitions of disease management used in papers published between 2006 and mid-2008. I do not pretend to have done a systematic literature review; this editorial is a contribution to and not the final word in the debate about what disease management is. I found seven definitions of disease management (see [Table 1](#)).

Four of the currently used definitions were formulated for the first time in the years 1996 and 1997. That is the period that disease management came up in the USA. The three other ones are from a more recent year. I found eight elements in the definitions characterizing disease management: (1) focusing on a target group (2) of persons with chronic diseases (3) with the goal to improve clinical outcome and quality and (4) cost-effectiveness of care (5) by means of a systematic approach (6) with preventive and curative interventions (7) in which self management by patients is important (8) provided by a multidisciplinary professional team.

Epstein's definition contains six of the eight elements and misses the self-care by patients and the multidisciplinary element. The other authors provide us with definitions mentioning five or less elements. Surprisingly, only three authors (Epstein, Faxon and DMAA) mention a target group, although at IJIC congresses in 2007 and 2008 the most important element of disease management was the focus on a target group of patients suffering from one single disease. The three authors use broad descriptions of target groups: *population based* (Epstein), *selected patients suffering from chronic conditions* (Faxon) and *populations in which patient self-care efforts are significant* (DMAA). None of the seven definitions focus on a single disease target group. Disease management is, according to scientific authors, not by one disease alone.

Let me propose a new definition to facilitate the communication between researchers, policy makers and disease management program leaders. I want to include the eight elements in the above mentioned definitions, along with the ninth element: the use of modern Health Information Technology (HIT) to facilitate communica-

¹ For the conference archive visit: www.integratedcare.eu

Table 1. Definitions of disease management

1. Disease management refers to the use of an explicit systematic population-based approach to identify persons at risk, intervene with specific programs of care, and measure clinical outcomes (Epstein and Sherwood, 1996) [1].
2. Disease management has three parts:
 - A knowledge base that quantifies the economic structure of a disease and includes guidelines covering the care to be provided, by whom, and in what setting for each part of the process;
 - A care delivery system without traditional boundaries between medical specialties and institutions; and
 - A continuous improvement process which develops and refines the knowledge base, guidelines and delivery system (Dellby, 1996) [2].
3. An approach to patient care that emphasizes coordinated, comprehensive care along the continuum of disease and across health care delivery systems (Ellrodt et al., 1997), [3].
4. Disease management is generally defined as a comprehensive, integrated approach to care and reimbursement based on a disease's natural course. The goal of disease management is to address the illness or condition with maximum effectiveness and efficiency regardless of treatment setting(s) or typical reimbursement patterns (Zitter, 1997) [4].
5. Disease management is an intervention designed to manage or prevent a chronic condition using a systematic approach to care and potentially employing multiple treatment modalities (Weingarten et al., 2002) [5].
6. Disease management typically refers to multidisciplinary efforts to improve the quality and cost-effectiveness of care for selected patients suffering from chronic conditions (Faxon et al. AHA, 2004) [6].
7. Disease management is a system of coordinated health care interventions and communications for populations with conditions in which patient self-care efforts are significant (DMAA, 2006) [7].

tion between professionals in a disease management program, to integrate all health data in one electronic patient record, to support telemedicine and telemonitoring and to give feedback and reminders to professionals and patients. In my proposal, I use the nine elements and formulations of all seven mentioned authors. I don't want to introduce a completely new, out of the box, definition.

My proposal starts with the short definition of Weingarten: *Disease management is an intervention designed to manage or prevent a chronic condition using a systematic approach to care and potentially employing multiple treatment modalities.* However, Weingarten is not explicit about focusing on more than one chronic condition and he does not mention the elements: goal of disease management, multidisciplinary approach, self management by patients and health information technology. Adding these elements, I propose the following definition:

Disease management consists of a group of coherent interventions designed to prevent or manage one or

more chronic conditions using a systematic, multidisciplinary approach and potentially employing multiple treatment modalities. The goal of disease management is to identify persons at risk for one or more chronic conditions, to promote self management by patients and to address the illnesses or conditions with maximum clinical outcome, effectiveness and efficiency regardless of treatment setting(s) or typical reimbursement patterns.

I invite readers and authors to give comment to this proposal and to vote for or against my definition (visit our home page at www.ijic.org). During our international annual congress on Integrated Care in Vienna on 5 and 6 November 2009 (visit www.integratedcare.eu) surely, we can communicate easier about (the definition of) disease management.

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