

# Improving Chronic Illness Care: The Chronic Care Model

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## Introduction

More than 100,000 Maltese, almost 25 per cent of the population (NSO Census, 2005) live with a chronic condition and many have multiple conditions (H.I.S. Malta, 2003). Chronic illness has been defined as a long-term or permanent illness that often results in some type of disability and which may require a person to seek help with various activities Wagner (1998). Very broadly this includes any condition that requires ongoing activities in response to patients and their personal needs and in response of their health care givers as well as in response of the medical care system. So this includes the more traditional conditions such as physical chronic illness like diabetes, hypertension and heart disease but it also includes chronic mental disorders, like major depression, it includes behavioural disorders like attention deficit disorders in children, some applying this to things like addiction, or harmful behaviours like cigarette smoking.

Research abroad (Wagner et al., 2004) shows that not only a large percent of the population have a chronic condition but these people tend to have more than one chronic condition sometimes two, three, four or even more. It is these persons with multiple chronic conditions that consume that most amount of the health care budget money which includes both community care and hospital care. So this substantial group of the total population is very important both from the economical aspect and from the clinical aspect. To properly meet the health care needs of these persons we cannot speak any longer about disease management but about patient-centred care.

Patients with chronic illness are not getting what they should get. Evidence shows that only 15 to 24 per cent of hypertensives are controlled, 42 percent of diabetes have controlled lipids, 35 percentage of patients with atrial fibrillation receive anti-coagulation, only 25 per cent of people with depression are receiving adequate

treatment and 44 per cent of patients with congestive heart failure are re-admitted to hospital within 120 days they are discharged from hospital (Bodenheimer, Wagner & Grumbach, 2002). So generally about 50 percent of chronically ill people are receiving modern evidence based treatment and as a result, and much fewer than 50 per cent generally are experiencing adequate levels of disease control. Basically this is a quality of care problem.

## Local Scenario

According to a recent study which evaluated the care for type 2 diabetes in the primary care setting in Malta, it was found that the present local care is based on good practice and is compatible with that provided in developed countries, Cutajar (2008). The study also showed that patients showed limited knowledge on diabetes, its complications and exercise but were better informed on nutrition and smoking. Despite of these good results our current system is ill-equipped to provide the needed clinical care or support to patient and family self-management activities involved in the management of chronically ill patients based on a modern model of care.

Addressing this issue will require nothing short of a transformation of our primary health care system, moving from a reactive system that responds when a person is sick to a pro-active system that focuses on the patient as a partner to the care team. A holistic and comprehensive approach to provide continued medical care to chronically ill patients is only possible in a well-organised system of primary health care.

Malta has traditionally been served by committed family doctors, whose training was not tailored to specific needs of future family physicians. The time is long overdue to organize our primary health system by utilising the present human resources available including the experienced private GPs and the over worked health centre doctors and provide the adequate training for the new doctors. A fundamental step in this direction will be to the introduction of a patient registration system. Our present system is fragmented and the private sector is totally apposed to the public sector in the sense that their

## Key Words

Chronic illness; Primary care; Chronic care model.

is no synergy between the two. Sometimes there is even no communication between the family doctors and the hospital consultants. This interaction is important for the continuous care of the patient in the community.

### The Chronic Care Model

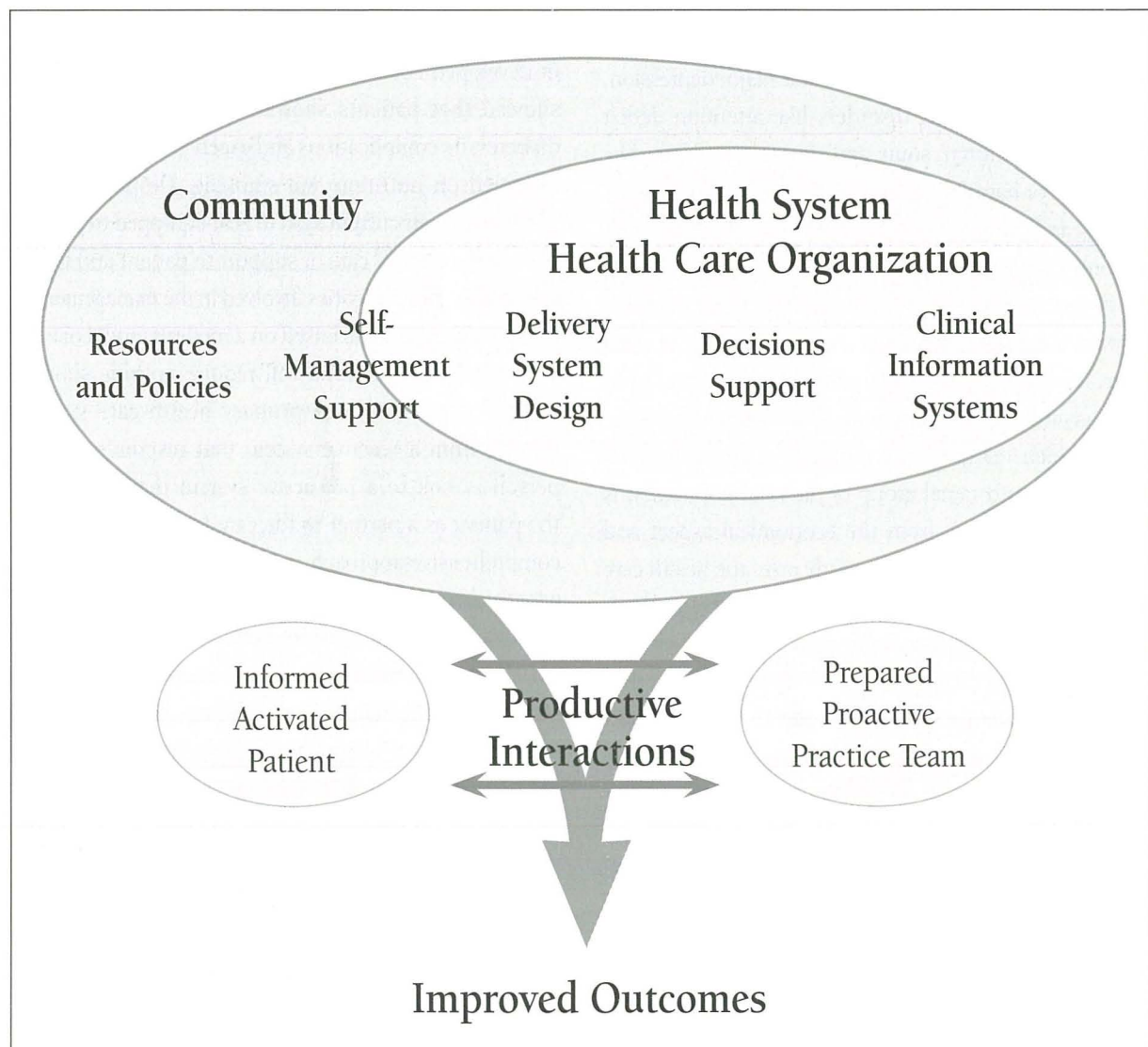
The current primary care system favours those who abuse of it. There is no equity of care. The Chronic Care Model, Wagner et al., (2002) can be used to improve outcomes. The integrated changes are directed at influencing the doctor's behaviour, make better use of the non-doctor team members, enhancements of the information systems including a computerised patient registration system, planned encounters and modern self-management support.

In order to improve the quality of chronic illness care it requires a number of different ingredients. First of all, there has to be a clear understanding of the clinical interventions that make a difference in the condition. Usually these are represented in the evidence-based

guidelines. So it begins with evidence-based clinical ideas to change the system but it doesn't end there. You need a process of a change strategy that must deal with all the inertia it is going to meet. This is a learning model enabling busy family physicians to take this intellectual model and make it real by applying it to their practice.

This algorithm is a synthesis of all the literature we find about this new approach to improve chronic illness care. It starts at the bottom as what we must care about is improving outcomes to each individual patient we see. In order to do that we need to change the whole nature of the interphase between patients and their practice team. The five main elements of the chronic care model are longitudinal care, patient-centred care, relationship-based, integrated and community oriented.

The most essential element of good chronic illness care is the productive interactions between an informed activated patient and a prepared proactive practice team. Interactions can be by a normal face to face office visit, by phone, by email, by other means of communication.





Productive here means that the work of evidence-based disease care gets done in a systematic way.

Chronic illness requires a system with very different orientations and different design, a system not designed as in an emergency room a system that is designed to provide ongoing longitudinal care.

We also need a different type of patient, so the words used are: informed and activated patient. This means that the patients have the motivation, information, skills and confidence necessary to effectively make decisions about their health and manage it. This does not mean that they should be informed as the doctor himself but they should have sufficient information to enable them to take wise decisions in order to manage their illness with the help of the doctor. Activated patient implies that the patients are activated about the importance of their role in managing the illness and activated to play that role.

By a prepared practice team it is meant that at the time of the interaction, they have the patient data, decision support (knowledge of the best evidence available to care for a particular patient), and resources necessary to deliver high quality care.

How would you know of a productive interaction if you see it? It is one that assures that a clinical evidence-based care is performed. But it is one where there is an assessment of self-management skills and confidence as well as clinical status done in a systematic way. There is a tailoring of clinical management by a stepped care protocol. There would be a collaborative setting of goals, and collaborative approaches of solving these problems.

## **The six elements of the chronic care model**

### **Self-management support:**

- Emphasize the patient's central role, passive patients generally don't make good self-managers so they need to be motivated to be autonomous as much as possible in managing their own disease/illness. In other words, studies show, without any doubt that in order to improve chronic care we need to improve the patient's ability and willingness to self-manage.
- Use effective self-management support strategies that include assessment, goal-setting, action planning, problem-solving and follow-up.
- Organize resources to provide support.

## **Delivery system design (changing the practice system): Teamwork**

- Define roles and distribute tasks among team members
- Use planned interactions to support evidence-based care.
- Provide clinical case management services for patients with particular needs and problems ideally using a case manager usually a nurse, sometimes a pharmacist or any other person with clinical training.
- Ensure regular follow-up with proactive phone calls, the use of outreach methods, the use of the internet, mobiles, etc.
- Give care that patients understand and that fits their culture.

Note: There is no successful clinical intervention that do not involve non-doctors members of the team e.g. nurses, dietitians, pharmacists, social works any other health professionals, as these may have more time and even better training for that particular task or intervention. Chronic care must be in the form of teamwork. The second point is a shift from an acute visit to a planned visit. A planned visit is simply one that is designed to have a productive interaction, it tends to be a little longer, it tends to involve other professionals rather than the physician alone, and it tends to have an agenda. It can be done on an individual level or in groups as a means of motivation e.g. weight loss or smoking cessation clinics.

### **Features of case management:**

- Regular assessment, disease control, adherence, and self-management status.
- Either adjust treatment or communicate need to primary care immediately.
- Provide self-management support.
- Provide more intense follow-up.
- Provide navigation through the health care process, by referrals, etc.

Note: These features are the same as in the productive interactions but provided with more intensity.

### **Decision support:**

- Embed evidence-based guidelines into daily clinical practice by integrating the guidelines into the flow of practice decision making e.g. point of service reminders which pop up on the screens of doctors' computers instead of the doctor looking up himself for them.



- Integrate specialist expertise and primary care in a way that it is cost-effective and practical.
- Use proven provider education methods, more problem oriented, more patient- oriented. Skilled-based small group learning, has been shown to be more effective.
- Sharing of guidelines and information with patients, a concept which is new and which is just beginning to be researched. In this way the patients are more proactive and motivated to know about their illness/disease.

### Clinical Information System:

the key here is an electronic data base (electronic medical record) that has the key clinical information that ones needs to have productive interaction.

- Provide reminder for providers and patients.
- Identify relevant patient sub-populations for proactive care eg, patients at risk.
- Facilitate individual patient care planning.
- Share information with providers and patients.
- Monitor performance of team and system.

### Community Resources and Policies:

are critical to patients and we are beginning to understand that they critical to practices as well. Many important services and resources for patients with chronic illnesses are not part of medical systems e.g. peer support groups, exercise support groups. Small practices do not have access generally to resources like nurse educators or dietitians and so GPs need to reach out to the community to find and forge those links to meet the full needs of their patients. This is what we mean here by community resources and policies. This is a grossly under researched area but it is an increasingly important area because medical practice no matter how sophisticated it is, it does not have the full array of resources and supports for patients with chronic illnesses.

- Encourage patients to participate in effective programmes.
- Form partnerships with community organisations to support and develop programmes.
- Advocate for policies to improve care.

### Health Care Organisation:

can be facilitative through leadership, provision of supports, provision of incentives to get better, or it can be a barrier by promoting the wrong things, by putting the incentives in other directions.

- Visibly support improvement at all levels, starting with senior leaders.
- Promote effective improvement strategies aimed at comprehensive system change.
- Encourage open and systematic handling of problems.
- Provide incentives based on quality of care.
- Develop agreement for care co-ordination.

A meta-analysis of interventions to improve chronic illness in four disease: diabetes, chronic heart failure, asthma and depression by Tsai et al., (2004) showed that interventions that contain one or more Chronic Care Model (CCM) elements improve clinical outcomes by 10 to 15 per cent and processes of care by 30 to 60 per cent. Thus the implications of the CCM do have a measurable effect on chronic care.

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### Answers to Self-Assessment Quiz

Q1. D, Q2. C, Q3. C, Q4. C, Q5. A B, Q6. A D, Q7. B C, Q8. A B D, Q9. A C, Q10. F