Implementing the Chronic Care Model for the Management of Noncommunicable diseases (NCDs) in the Primary Care Setting

Lecture: Chronic Care Model Overview

In this lecture in module 1, we will look at a model that aims to improve the processes in the healthcare system by considering the current state of inefficiencies and gaps in delivering optimal patient outcomes as well as the disease burden of NCDs. This model is the CCM
Why is a Chronic Care Model needed?

Previously, there was emphasis on physician and behaviour, as opposed to the system. In the past, deficiencies were attributed to bad physicians who just didn't do the right thing. The emphasis needs to be on the system and the care it delivers.

Characteristics of successful interventions were not being categorized usefully. Commonalities across chronic conditions were unappreciated or not taken advantage of. We need to be able to provide care in a framework that is similar no matter if the patient has asthma, depression or diabetes.

The CCM was developed to create a more cohesive, streamlined system. The Chronic Care Model was developed by the MacColl Institute for Healthcare Innovation (USA) provides a road map for redesigning the system to better manage chronic conditions. This model can be applied to a variety of chronic illnesses, health care settings and target populations

CCM Development started in 1993 and arose out of a need to improve care for diabetes. Literature reviews were conducted on previous studies that were done on processes to improve health systems and resulted in several recommended improvements. In 1996, international experts in chronic illness care were charged with finding the commonalities in the ways they provided good care and an international advisory committee of 40 members developed the CCM and created ideal chronic illness care programs at health facilities.

72 of these that exhibited best practices were nominated and interviewed and site visits conducted. The information was used to further develop and improve the CCM as the elements of the successful programs were captured in the chronic care model.

The Model can be applied for the management of diabetes, depression, asthma, CHF, CVD, arthritis, and geriatrics

The model has been adopted by the PAHO as the basis for the action plan for managing chronic conditions and has been used in many countries and by health care organizations around the world.

It has been shown to be useful in organizing strategies to improve patient outcomes and reduce costs for many chronic conditions. It has been implemented, partially or as a whole, in a large

number of healthcare organizations in several developing countries and has also been recommended by the WHO to be used in health care systems worldwide. The approaches advocated by CCM change the environment in which doctors and patients make healthcare decisions and, through this, can have an impact on the nature and quality of the doctor–patient relationship and on health care more broadly.

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The CCM is composed of six key elements as shown in this diagram. The elements are the health system, delivery system design, decision support, clinical information systems, the community, and self-management support.

Starting from the lower section of the diagram, the premise of the model is that to achieve optimal outcomes (which include good clinical outcomes, patient and provider satisfaction, reduced hc costs and efficient processes), there needs to be productive interactions between an informed activated patient and a prepared proactive practice team. To have productive interactions, the system needs to have four areas at the level of service delivery (shown in the middle) that are functioning efficiently: These four areas are - self-management support, delivery system design, decision support and clinical information systems. These four aspects of care reside in a health care system which exists within a wider community. We will look at each of the elements in greater detail.

General Principles of Good Chronic Care
When patients are more informed, involved, and empowered, they interact more effectively with healthcare providers and strive to take actions that will promote healthier *outcomes.*
What characterizes a “prepared” practice team?

At the time of the visit, they have the patient information, decision support, people, equipment, and time required to deliver evidence-based clinical management and self-management support. Who is an “informed, activated” patient?

Patient understands the disease process and realizes his/her role as the daily self-manager. Family and caregivers are engaged in the patient’s self-management.

We need to help our patients become more involved in their care. We need to allow for cultural and age cohort variations and personal preference in the amount of involvement. Our interactions need to foster the patient’s sense of control and responsibility.

The provider is viewed as a guide on the side, not the sage on the stage.

How do we recognize a productive interaction? Productive interactions involve the following. There is assessment of the patient’s self-management skills and confidence as well as assessments of the patients clinical status. The clinical management is conducted in a stepwise process ustilizing approved protocols or guidelines. There is collaborative goal-setting and

problem-solving resulting in a shared care plan. All of this is supported by active, sustained follow-up.

The Chronic Care Model (CCM) identifies the six essential elements of a health care system that encourage high-quality chronic disease care.

Recall that these elements are: the health system, delivery system design, decision support, clinical information systems, the community and self-management support

Now let's look at each in more detail. **Health System Organization.** The CCM aims to create an organization that provides safe, high-quality care. For this to happen there needs to be a plan in place that reflects a commitment to apply the CCM across the organization.

Leaders in the health system should visibly support improvement at all levels. There should be promotion of effective improvement strategies aimed at comprehensive system change. Leaders should encourage open and systematic handling of problems. And provide incentives based on quality of care. There should be development of agreements that facilitate care coordination within and across organizations.

The next element, **Delivery System Design** aims to ensure effective, efficient care through regular, proactive planned visits which incorporate patient goals help individuals maintain optimal health and allow health systems to better manage their resources. This involves patient visits in which the skills of several team members are utilized. For this to occur roles have to be clearly defined with effective distribution of tasks amongst team members. Patient interactions should be planned and supported by evidence-based care. There should be provision of clinical case management services, regular follow-up and patients should be provided with care that they are able to understand and that fits their cultural background

The next element is **Decision Support.** This deals with the Promotion of care consistent with scientific data and patient preferences. Clinicians should have convenient access to the latest evidence-based guidelines for care for each chronic condition. There should be continuous educational opportunities that reinforces established and accepted guidelines. Therefore, the use of evidence-based guidelines should be a part of daily clinical practice with integration of specialist expertise and primary care. There should be use of proven provider education methods. As well as the sharing of evidence – based guidelines and information with patients to encourage their participation.

The next element is **Clinical Information System**. This refers to the process of Organizing data to facilitate efficient and effective care Health systems. This may be paper-based or electronic. With the generation and utilization of patient registry data to guide clinical and health systems decision-making. A registry also provides the information necessary to monitor patient health status and reduce complications. A Clinical Information System should provide timely reminders for providers and patients, Identify relevant patient subpopulations for proactive care, Facilitate

individual patient care planning, share information with providers and patients to coordinate care. and monitor performance of the team and the health system.

Community Resources and Policies is the next element. This refers to methods of mobilizing community resources to meet the needs of patients. It includes Community resources such as schools, non-profits and faith-based organization, which can bolster health systems efforts to keep chronically ill patients supported, involved and active. Healthcare providers should encourage patients to participate in effective programs within their communities. The health facility should form partnerships with community organizations to support or develop programs if they do not already exist and Advocate for policies to improve patient care.

The last element is **Self-management Support**. It involves Empowering and preparing patients to manage their health care. Patients are encouraged to set goals, identify barriers and challenges, and monitor their own conditions. A variety of tools and resources provide patients with visual reminders to manage their health. It emphasizes the patient's central role in managing his or her health. Uses effective self-management support strategies that include assessment, goal-setting, action planning, problem-solving and follow-up and organizes resources to provide support.

Good chronic illness care comprises of assessment and tailoring of care plan to meet patient's needs. The healthcare team should aim for the:

- Collaborative determination of gaps and problems.
- Ensure that there is Evidence-based clinical management
- Participate in Goal-setting and problem-solving
- Develop Shared care plan
- And ensure Active, sustained follow-up

Success Factors for the CCM include having:

- A continuous relationship between patients and their care team;
- Individualization of care according to patient needs;
- Providing Care that anticipates patient needs; and
- Is based on scientific evidence and cooperation amongst clinicians to improve the care of chronically ill patients.