# Integrated Care model: Transition from acute to chronic care

Modelo de cuidados integrados: transição de cuidados agudos para crônicos Modelo de atención integral: transición de la atención aguda a la crónica

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#### **ABSTRACT**

**Objective:** Description and discussion dimensions of Integrated Care Model. **Methods:** A descriptive study is done that describe a technological innovation, intervention strategies for professional performance. **Results:** Integrated Care Model (ICM) has two main categories include individual and Group-and disease-specific Model. First, is used for risky patients or with comorbidities. In second category; Chronic Care Model (CCM) is common form of Integrated Care Model to improve resultants in the patients with chronic condition, to move from acute care to integrate, regular, long-lasting, preventative and community-based nursing. **Final considerations:** It is important to consider patient as an active member of the treatment team. It seems to be essential to monitor performance of care system. On the other hand, offer multidisciplinary care leads to present desirable care, tailored to the specific needs of patients regarding safety, patient-centered care and their culture.

**Descriptors:** Long-Term Care; Advance Care Planning; Nursing Models; World Health Organization; Nurses.

#### **RESUMO**

**Objetivo:** Descrever e discutir dimensões do Modelo Integrado de Atenção. **Métodos:** Estudo descritivo que descreve uma inovação tecnológica, estratégias de intervenção para atuação profissional. **Resultados:** O Modelo de Cuidados Integrados (ICM) tem duas categorias principais: Modelo individual e Modelo específico para grupos e doenças. Primeiro, é usado para pacientes de alto risco e / ou com várias doenças. Na segunda categoria; O Modelo de Cuidado Crônico (CCM) é a forma mais conhecida de Modelo de Cuidados Integrados para melhorar os resultados em pacientes com condição crônica, para passar do cuidado agudo para a enfermagem integrada, regular, duradoura, preventiva e baseada na comunidade. **Considerações finais:** É importante considerar o paciente como um membro ativo da equipe de tratamento. Parece ser essencial monitorar o desempenho do sistema de atendimento. Por outro lado, oferecer assistência multidisciplinar leva a apresentar cuidados desejáveis, adequados às necessidades específicas dos pacientes quanto à segurança, ao cuidado centrado no paciente e à sua cultura.

**Descritores:** Cuidados de Longo Prazo; Planejamento Avançado de Cuidados; Modelos de Enfermagem; Organização Mundial da Saúde; Enfermeiros.

#### RESILMEN

Objetivo: Descripción y dimensiones de discusión del Modelo de Atención Integrada. Métodos: Estudio descriptivo que describe una innovación tecnológica, estrategias de intervención para el desempeño profesional. Resultados: El modelo de atención integrada (ICM) tiene dos categorías principales, que incluyen el modelo individual y grupal y específico de la enfermedad. Primero, se usa para pacientes de alto riesgo y / o con múltiples condiciones. En segunda categoría; El Modelo de Cuidados Crónicos (CCM) es la forma más conocida de modelo de atención para mejorar los resultados en los pacientes con enfermedad crónica, para pasar de cuidados agudos a una enfermería integral, regular, duradera, preventiva y comunitaria. Consideraciones finales: Es importante considerar al paciente como un miembro activo del equipo de tratamiento. Parece esencial monitorear el desempeño del sistema de atención. Por otro lado, ofrecer una atención multidisciplinar conduce a presentar una atención deseable, adaptada a las necesidades específicas de los pacientes en cuanto a seguridad, atención centrada en el paciente y su cultura.

**Descriptores:** Atención a Largo Plazo; Planificación Anticipada de la Atención; Modelos de Enfermería; Organización Mundial de la Salud; Enfermeras.

#### **INTRODUCTION**

The integrated care model is introduced by the World Health Organization (WHO), that is used to improve resultants of care in patients' condition by integrated, regular, long-lasting and society-based nursing. According to the evidence, the resultants obtained from this model were desirable to make the caring qualities preferment and costs parsimony<sup>(1)</sup>. Regarding this model credibility and its opportune in situations that patient is in transition from acute to chronic condition and because it's unknown for nurses, we will discuss dimensions and benefits of this model briefly.

#### **Integrated Care Model**

Integrated care model is used opposed to fragmentarycare and for once care and synonymous with coordinated care or seamless care<sup>(2)</sup>. Integrated care includes continuous process. The World Health Organization defined an integrated care model as people-based care during the life regarding multi-dimensions; this care is given by multi-disciplinary team in various settings and various care levels. This care needs to effectively manage and use credible resources based to present evidence, is also aligned to the feedback continuums to ensure about the quality of the care. It could be planned limited to hospitalization period or for the whole life of the patient in chronic cases<sup>(1)</sup>. The viewpoints make the concept are built by outlook and expectancy of different stakeholders in the medical team (Figure 1).

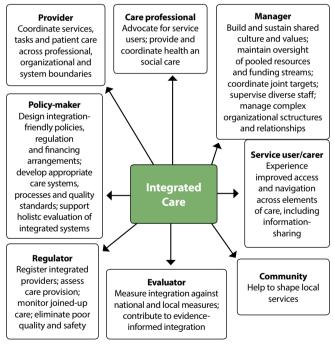


Figure 1 - Perspectives shaping Integrated Care Model (WHO,2016)(1)

#### **OBJECTIVE**

Description and discussion dimensions of Integrated Care Model.

### **METHODS**

A descriptive study is done that describe a technological innovation, intervention strategies for professional performance.

#### **RESULTS**

#### Models of integrated care

There are various models to offer integrated care that is mentioned in two main categories:

#### Individual integrated care model

This model is used for risky patients or with comorbidities and caregivers, thus it prevents to discontinuity in the care by different caregivers. Also, thus care to the patient will not be one episodic, but it can be done across the life-course. This model fits the patients who go to the hospital a lot, so care can be done in the house. The services include evaluation of the patient and giving care if it is necessary, regular patient visit and set a care plan. Although this model reduces the looking up to the hospital, but might not be economical in terms of costs.

#### Group-and disease-specific Model

In this Category, Chronic Care Model(CCM), is common and used form of integrated care model, CCM was first developed in 1998 by MacColl Institute in USA<sup>(3)</sup>. Chronic Care Model(CCM) is used to improve resultants in the patients with the chronic condition. This model proposes to move from acute and reactive care to integrate, regular, long-lasting, preventative and community-based nursing. According to the evidence, the resultants obtained from this model were desirable and qualified care, also better in patient's outcomes and costs parsimony for patients. It also affirms to offer patient safety, regarding culture and special needs focused care (Figure 2).

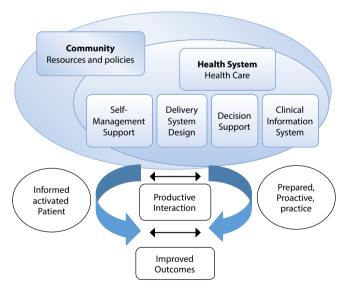


Figure2- Chronic Care Model(WHO, 2016)

This model includes six main dimensions: Community, Health System, Health Management Support, Delivery system design, Decision Support and Clinical Information system. In the revised version, cultural adaptability, considering community policies, coordination in giving care is added to the model (1) (Chart 1).

Chart 1 - Key strategies of Chronic Care Model

Domain	Objective/description	Strategies
Community	Moving community resources to encounter needs of patients	Persuade patients for participation in efficient community plans; Form cooperation with community organizations to assistant interventions that fill gaps in needed services Advocate policies to ameliorate patient care*
Health System	Develop culture, organization and mechanisms ameliorate safe, high quality care	Help improvement at all levels of organization starting with senior leader; Increase effective strategies goal wide system change; Support open and systematic handling of errors and quality problems to ameliorate care*
Delivery System Design	Be sure delivery of effective , efficient clinical care support and self- management assistant	Introduce roles and tasks among members; Utilize planned interactions to assist evidence-based care; Give clinical case management services for complicated patients*; Be sure of constant follow-up by medical team; Give care in understandable way for patients and according to their cultural
Self- management Support	Enable patients for managing their health status and health care	Accent patient's central role for managment their health status; Use efficient self-management assistant strategies that include assessment, goal-setting, action plann, problem-solving and follow-up; Manage internal and resources in community for providing ongoing self-management support to patient
Decision Support	Improve clinical care that is according with last version of evidence and patient priorties	Using guidelines with evidence-based approach for every day clinical practice Give informations and evidence-based guidelines with patients to facilitate participation; Use approved methods for education; Combine expertise of specialist and primary care
Clinical Information System	Arrange patients and data to help efficient and effective care	Plan schedule reminders for care provider and patient; Introduce relevant sub-populations for active care; Improve planning for patient care; View performance of clinical team and care system; Give data to patients and caregivers for harmonic care*

Note: \* Strategies that were added to the original Chronic Care Model after 2003 revision.

#### **DISCUSSION**

Reviewing relevant studies in term of chronic and long term conditions, showed that the most used model is chronic care model of the integrated care model; which is appropriate for various conditions include transition from acute to chronic heart failure<sup>(4)</sup>, re-integration to normal life in patients following upper extremity amputation<sup>(5)</sup>, care of stroke and patients with transient ischemic attack <sup>(6)</sup>, patients with Multimorbidity<sup>(7)</sup>, case management of patients care at home<sup>(8)</sup>, chronic kidney disease patients <sup>(9)</sup> and patients with chronic obstructive pulmonary disease(COPD)<sup>(10)</sup>.

In this model, it is important to consider patient as key member of the medical team. It seems to be essential to supervise

function of clinical team and care system. On other hand, offer multidisciplinary care leads to present desirable care, tailored to the specific needs of patients by defining the role of each person in team, regarding safety, patient-centered care and according to patient culture. Eventually, the given care plan is appropriate for patients in their own culture.

### **FINAL CONSIDERATIONS**

Multidisciplinary care with considering patients as an active member of the treatment team, according to patient culture tailored to the specific needs.

#### **REFERENCES**

- World Health Organization (WHO). Integrated care models: an overview. Copenhagen: WHO Regional Office for Europe; 2016: World Health Organization; 2016.
- 2. Gröne O, Garcia-Barbero M. WHO European Office for Integrated Health Care Services. Integrated care: a position paper of the WHO European Office for Integrated Health Care Services. Int J Integr Care. 2001;1:e21. Available from: https://pubmed.ncbi.nlm.nih.gov/16896400/
- 3. The Improving Chronic Illness Care Program. The chronic care model: improving chronic illness care [Internet]. 2020 [cited 2020 Sep 20]. Available from: http://www.improvingchroniccare.org/index.php?p=The\_Chronic\_Care\_Model&s=2
- 4. Comín-Colet J, Enjuanes C, Lupón J, Cainzos-Achirica M, Badosa N, Verdú JM. Transitions of care between acute and chronic heart failure: critical steps in the design of a multidisciplinary care model for the prevention of rehospitalization. Rev Esp Cardiol (Engl ed). 2016;69(10):951-61. https://doi.org/10.1016/j.rec.2016.05.001
- 5. Matourypour P. Designing and evaluation of care plan to facilitate reintegration to Normal Living, in patients with upper limb amputation: Tehran University of Medical Science; 2020.

- Towfighi A, Cheng EM, Ayala-Rivera M, McCreath H, Sanossian N, Dutta T, et al. Randomized controlled trial of a coordinated care intervention to improve risk factor control after stroke or transient ischemic attack in the safety net: secondary stroke prevention by Uniting Community and Chronic care model teams Early to End Disparities (SUCCEED). BMC Neurol. 2017;17(1):24. https://doi.org/10.1186/ s12883-017-0792-7
- Boehmer KR, Abu Dabrh AM, Gionfriddo MR, Erwin P, Montori VM. Does the chronic care model meet the emerging needs of people living with multimorbidity? a systematic review and thematic synthesis. PloS One. 2018;13(2):e0190852. https://doi.org/10.1371/journal. pone.0190852
- Garland-Baird L, Fraser K. Conceptualization of the Chronic Care Model: implications for home care case manager practice. Home Healthc Now. 2018;36(6):379-85. https://doi.org/10.1097/NHH.000000000000699
- Llewellyn S. The Chronic Care Model, Kidney Disease, and Primary Care: a scoping review. Nephrology Nurs J [Internet]. 2019[cited 2020 Sep 20];46(3):301-28. Available from: https://pubmed.ncbi.nlm.nih.gov/31199097/
- 10. Smidth M, Sokolowski I, Kærsvang L, Vedsted P. Developing an algorithm to identify people with Chronic Obstructive Pulmonary Disease (COPD) using administrative data. BMC Med Inform Decis Mak. 2012;12:38. https://doi.org/10.1186/1472-6947-12-38