



# NURSING CARE FOR THE MANAGEMENT OF HOSPITALIZED PATIENTS DIAGNOSED WITH COVID-19

CUIDADOS DE ENFERMERÍA FREnte AL MANEJO DEL PACIENTE DIAGNOSTICADO CON COVID-19 EN EL ÁREA DE HOSPITALIZACIÓN

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## ABSTRACT

**Objective:** Collect information for the management of the hospitalized patient with COVID19 to establish concrete and effective nursing care actions that allow conducting the objectives of nursing care, as well as its results. **Methods:** A documentary review of the evidence in relation to nursing management and isolation guidelines for patients with COVID-19 in the hospitalization service, determining the main isolation, and protection measures for health care workers. **Conclusion:** The constant innovations allow nursing professionals and the health team to articulate guidelines that allow establishing concrete care actions for hospitalized patients with COVID19, as well as strengthening the isolation and care measures of the interdisciplinary team to reduce the risk of contagion and propagation.

**Key words:** Hospitalization; Isolation; COVID19; Nursing (source: MeSH NLM).

## RESUMEN

**Objetivo:** Recopilar la información para el manejo del paciente que se encuentra hospitalizado por COVID-19 para establecer acciones de cuidado de enfermería concretas y eficaces que permitan conducir los objetivos de la atención de enfermería, así como sus resultados. **Métodos:** Revisión documental de la evidencia con relación al manejo por parte de enfermería y directrices de aislamiento a los pacientes con COVID-19 en el servicio de hospitalización, determinar las principales medidas de aislamiento y protección de los trabajadores de la salud. **Conclusión:** La actualización constante permite a los profesionales de enfermería y al equipo de salud articular directrices que permitan establecer acciones concretas de cuidado para los pacientes hospitalizados por COVID-19, así como fortalecer las medidas de aislamiento y cuidado del equipo interdisciplinario para disminuir el riesgo de contagio y propagación.

**Palabras clave:** Hospitalización; Aislamiento; COVID-19; Enfermería (fuente: DeCS BIREME).

## INTRODUCTION

The current world situation, in the context of the pandemic declared by the World Health Organization WHO, calls for immediate actions, where the dynamism and constant updating by health personnel translate into effective actions that reduce the contagion and spread of COVID-19. In Colombia today, 2979 cases with 127 deaths

have been reported<sup>(1)</sup>. This shows according to epidemiological reports, that the virus continues to grow exponentially. Among the main actions of the national government, in accordance with epidemiological estimates, it has established measures such as mandatory social isolation at the moment with 34 restrictions, despite the measures that have been implemented since March 16, the

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exponential growth of the epidemic continues to be evident.

Health professionals, and in particular nursing professionals, face a situation that has not been witnessed today, where work overload, the evident lack of protective elements, and invasive devices that allow stabilization of critical patients generate stress and impotence in the care team. In addition, we are facing an exacerbation of discrimination because we are in risk areas, which generates emotional overload for us and our families. This health crisis makes more evident the uncertainty of the conditions of employment and maintenance of nursing professionals, who work for the provision of services, a modality that prevents them from job stability, lack of vacation days, and lack of formalization which hinders stability. In some first world countries, the emotional pressure has made health professionals take drastic decisions such as ending their lives or completely isolating themselves from their support network to avoid infection or becoming possible transmission factors to their loved ones. This highlights the imperative need to establish clear teamwork actions that promote rapid action and promote peer protection, in order to stimulate protection and reduce the risk and spread of SARS-CoV 2. Among the most relevant nursing actions are training staff and adapting spaces to promote the safety of patients and the health team.

## METHODS

The dynamics of the current pandemic show the need for constant updating of nursing professionals for the management of professional practice to minimize the risks of contagion and spread. For the above, a bibliographic review was carried out that seeks to establish the main care actions aimed at the protection of personnel and management of hospitalized patients with COVID-19 in general hospitalization.

For the above, the guidelines established by the World Health Organization (WHO), Pan American Health Organization (PAHO), Asociación Colombiana de Infectología de Colombia, and Instituto Nacional de Salud were used. This review makes it possible to condense the most relevant information to unify the general guidelines of care for this type of population, safeguarding the protection of health workers.

## DEVELOPMENT

On March 11 of this year, the World Health

Organization (WHO) declared a pandemic by COVID-19<sup>(2)</sup>, a decisive aspect in health systems at the international level, which requires immediate actions that show intersectoral coordination aimed at a common goal: to reduce the spread in order to avoid the collapse of health services and thus to provide comprehensive actions. Similarly, it brought to light the adverse conditions of health care, in terms of lack of resources, inappropriately distributed resources, work overload, oversaturation of the system, and the precarious conditions of the vast majority of health workers. This discrimination derived from ignorance, widespread panic, the lack of awareness regarding social isolation, and confinement in homes.

Beyond the adversity that becomes evident during this health emergency, health teams need to provide comprehensive care as has always been done, but with the isolation measures established at the international level to avoid the automation of the processes that can translate into obviousness and errors. Therefore, according to the guidelines established at the international level, care routes are established for the management of the population affected by COVID-19 that require hospitalization.

In European and American research "SARS-CoV-2 has been found to be detectable in aerosols for up to three hours, up to four hours in copper, up to 24 hours in cardboard and up to two or three days in plastic and stainless steel"<sup>(3)</sup>. This has made it possible to identify the reason for the exponential spread of coronavirus and also the high number of people who require in-hospital management. Similarly, it has been identified that droplet transmission of coronavirus occurs at a distance of 1.8 meters, therefore, the definition of close contact has been established as that produced less than 2 meters away for a time interval greater than 15 minutes as a constituent of the high risk of contagion<sup>(4)</sup>.

The analyzes established in the different countries have shown that of the total number of infected people, approximately 80% require outpatient management or hospitalization in a general ward for symptomatic management, 5 to 16% present pneumonia with complications that require management in an intensive care unit with invasive mechanical ventilation, and the remaining 2 to 7% is the mortality rate<sup>(5)</sup>. This becomes a risk factor due to the high transmissibility of the virus due to its permanence on surfaces and the insufficiency of the health systems for the number of the affected population.



It has been identified that the most effective ways to inactivate SARS-CoV2 is at elevated temperatures of approximately 56 degrees for not less than 20 minutes. It has been shown that its lipid layer can be broken with the use of solvents such as 70% ethanol, soapy solutions, organic chlorine among others. It has also been shown that 4% chlorhexidine in solution is not effective<sup>(6)</sup>. This allows establishing effective disinfection measures for common areas, elements that may have contact with the patient, and washable garments such as overalls and masks.

As a note, since it is a new virus in humans, that previously had not generated a spread of this magnitude, at the moment there is no vaccine or with some kind of immunity in the herd, for this reason, the treatment that has been established is symptomatic, leading to a response that seeks to maintain the stability in the air and hemodynamics of the subject of care.

Calvo et al.<sup>(6)</sup>, based on research resulting from previous management, it has established general criteria to define the hospitalization of this type of patient, within which include the acute respiratory distress syndrome (ARDS), and chronic acute respiratory distress syndrome (ARDS) as major criteria for admission to hospitalization and immediate transfer to the intensive care unit. There is also the presence of fever, fatigue, and in some cases, gastrointestinal symptoms. The identification of these symptoms, more the adequate anamnesis, allows the nursing professional to direct their care and provide the patient with a conventional mask, direct them to a closed space with adequate ventilation, and a closed door. According to the guidelines established at the international level, the use of the high-efficiency mask will occur when the diagnosis is confirmed. This has become an important aspect of fear in health workers creating panic when the diagnosis is confirmed and especially with those patients who die. It should be noted that every day the new evidence is allowing essential changes in health care, especially in initial care.

When the hospitalization of the patient is indicated, it is necessary to establish a demarcated route with prior notice to the services where the patient is going to be directed for the adequate protection and disinfection of the areas. The patient will be in a single room unit, with a pre-entry area where there will be space for health professionals to place the established protection barriers depending on the type of procedure to be performed. In the case of

procedures that generate contact with aerosols or secretions, as provided by the WHO, high-efficiency masks, mono glasses, face shields, overalls, apron, or gown will be used as required<sup>(7)</sup>.

The use of these elements and the conscious restriction of touching parts of the body such as the face, which is done unconsciously, has generated stress and pressure in health personnel, for which the World Health Organization emphasizes the need to carry out the procedure of placing and removing the elements with the supervision of a partner or colleague at a distance greater than 2 meters, the above is a strategy to reduce the risk of contagion, of spreading this type of virus<sup>(8)</sup>.

The use of these elements for long periods of time, the restrictions that are strictly given in the care of this population, coupled with the pressure for fear of contagion from the health worker, as well as their relatives, is generating emotional overload and leading to effects on the mental health of workers. For this reason, it is necessary to promote positive mental health with the purpose to feel and be as well as possible within the circumstances in which you find yourself<sup>(9)</sup>. For this to be generated, it is necessary from the administration of health entities, the creation of playful spaces within the entities, in order to improve social relations within this environment and promote activities that release tension due to the current situation.

Within the surveillance established for this type of population in the hospitalization area, there is the need to use exclusive biomedical elements for individualized care, and to carry out disinfection before ending the care, it should be noted that the equipment is of exclusive use, and should not leave the patient's unit. The emphasis is placed on restricting visits to the patient, by caregivers, and by the health care team, restricting assessments according to the imperative need to the same. It's also necessary to restrict transfers to take follow-up examinations after hospitalization is suggested, as it is possible to take these tests in a portable form with the respective disinfection before and after taking them<sup>(8)</sup>.

In relation to the indications established by the medical staff, nursing interventions will focus on monitoring vital signs, mainly temperature, respiratory rate, and the need for supplemental oxygen, avoiding nebulizations that promote the flow of aerosols, therefore it will be necessary to use inhalers with a chamber for this purpose. On



the other hand, according to the symptomatic treatment, it is worth noting that there is a need to carry out an electrocardiographic control to identify early changes in the conduction system of the heart secondary to the treatment<sup>(10)</sup>.

## FINAL CONSIDERATIONS

It highlights the need to manage the emotional pressure to which we are subjected as part of the health team, as first-line responders to this emergency, and to the imminent risk in which we find ourselves. In the same way, it is necessary to continue with the comprehensive training of professionals, in order to attend the emergency in the best way, first safeguarding their own integrity and then that of the subjects of care.

Teamwork and the strengthening of industrial relations in order to assume the health emergency as a team with different functions, but with the same

purpose, is constituted as a protective factor for the emotional health that has been greatly affected by the changes in the life of the population around the world.

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## BIBLIOGRAPHIC REFERENCES

1. Coronavirus Resource Center. John Hopkins University and Medicine. 15 abril 2020. <https://coronavirus.jhu.edu/>.
2. Alocución de apertura del director general de la OMS en la rueda de prensa sobre la COVID-19 celebrada el 11 de marzo de 2020. Organización Mundial de la Salud. Marzo 2020. <https://www.who.int/es/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020>
3. Protocolo de desinfección frente al nuevo coronavirus – COVID 19. Gobierno de España. Ministerio de Sanidad. Marzo 2020. <https://www.mscbs.gob.es/profesionales/saludPublica/ccayes/alertasActual/nCov-China/documentos.htm>
4. Khal G. Laura Osken, Patricia Andreozzi, Silvina Smith, Eugenia Alais. Actualización de COVID 19 y mirada desde la fibrosis quística. Asociación Argentina de medicina respiratoria. Marzo 2020. [https://www.aamr.org.ar/secciones/coronavirus/covid\\_y\\_fq\\_2020\\_fin1.pdf](https://www.aamr.org.ar/secciones/coronavirus/covid_y_fq_2020_fin1.pdf)
5. Recomendaciones de estudio y manejo farmacológico en pacientes adultos con sospecha de infección por SARS-CoV-2 (COVID19). Sociedades chilenas de infectología, medicina intensiva y enfermedades respiratorias. Versión 1; 03.2020. [https://serchile.cl/site/docs/terapia\\_adultos\\_covid.pdf](https://serchile.cl/site/docs/terapia_adultos_covid.pdf)
6. Calvo, C. García-López, M. Recomendaciones sobre el manejo clínico de la infección sobre el "nuevo coronavirus SARS-CoV-2". Grupo de trabajo de la asociación española de pediatría (AEP). Anales de Pediatría. Volume 92, Issue 4, April 2020, Pages 241.e1-241.e11. DOI: 10.1016/j.anpedi.2020.02.001. <https://www.sciencedirect.com/science/article/pii/S169540332030076X?via%3Dihub>
7. Atención en domicilio a pacientes presuntamente infectados por el nuevo coronavirus (COVID - 19) que presentan síntomas leves, y gestión de sus contactos. Organización Mundial de la Salud. Orientaciones provisionales. Febrero 2020. [https://www.who.int/publications-detail/surveillance-case-definitions-for-humaninfection-with-novel-coronavirus-\(ncov\)](https://www.who.int/publications-detail/surveillance-case-definitions-for-humaninfection-with-novel-coronavirus-(ncov)).
8. Carlos Humberto Saavedra Trujillo. Consenso Colombiano de atención, diagnóstico y manejo de la infección por SARS CoV-2 / COVID 19 en establecimientos de atención en Salud. Recomendaciones basadas en consenso de expertos e informadas en la evidencia. Asociación Colombiana de Infectología. Marzo 2020. vol. 24 (3) suplemento 1; 2020. DOI: <http://dx.doi.org/10.22354/in.v24i3.851>. <http://www.revistainfectio.org/index.php/infectio/article/view/851/896>
9. Lluch, M.T. (15 abril, 2020). Cuida la Salud Mental Positiva: un abordaje para afrontar con más fuerza mental la situación generada por la pandemia de Coronavirus Covid-19. Barcelona: Depósito Digital de la Universitat de Barcelona. Disponible en: <http://hdl.handle.net/2445/155397>.
10. Lineamientos para la detección y manejo de casos por los prestadores de servicios de salud, frente a la introducción del SARS-CoV-2 (COVID19) a Colombia. Ministerio de Salud. Repùblica de Colombia. <https://www.minsalud.gov.co/salud/publica/PET/Paginas/Documentos-tecnicos-covid-19.aspx>

