CHALLENGES FACING NURSING FACILITIES DURING THE COVID 19 PANDEMIC

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Abstract: *The COVID-19 pandemic has had a massive impact on all healthcare services. Against this background, elderly and multimorbid people in need of care have a much higher risk of becoming infected with this virus and showing severe courses of disease. Therefore, nursing facilities are faced with major challenges. On the one hand, they must implement the pandemic-specific measures prescribed by law, and on the other, they are confronted with the consequences of isolation, contact restrictions, physical distance and partial isolation. The aim is to minimize the risks of infection while keeping the lives of patients in care facilities as normal as possible. In this context, nursing facilities are challenged to develop essential strategies that both protect patients from infection and ensure a self-determined life with a good quality of life.*

Key words: *nursing facilities, elderly, prevention strategies.*

1. INTRODUCTION

At present, there are about 15,380 nursing homes and 14,688 outpatient care services in Germany, caring for more than four million people in need of care (Statista 2021). Due to their age as well as their previous illnesses, this group belongs to a group of people with an increased risk of COVID-19 infection. Furthermore, due to the existing high risk, a severe course of disease can be expected in this group of persons. The risk of infection with COVID-19 increases even more due to the shared physical accommodation as well as shared activities, which usually implies close physical contact. Against this background, nursing homes face a major challenge in preventing and spreading infections on the one

hand, and in ensuring that people live together in nursing homes as normally as possible on the other (Robert Koch Institut 2021).

The aim of the present study is therefore to develop appropriate strategies to protect patients while ensuring a good quality of life. The following research question is derived from this:

- Can wide-ranging internal and external strategies to prevent the occurrence and spread of COVID-19 infection ensure the maintenance of a good quality of life for patients in nursing facilities?

From the research question, the following hypotheses can be formed:

Hypothesis 1: Pervasive internal and external strategies can minimize the occurrence and onward spread of COVID-19 infection in nursing facilities.

Hypothesis 2: Enforcement of internal and external strategies to prevent COVID-19 infection affects the quality of life of patients in nursing facilities.

To answer the research question and hypotheses, the following approach is taken: After a brief overview of the disease and symptoms of COVID-19, the strategies to prevent the risk of infection with COVID-19 in nursing facilities are developed. The concentration is only on those strategies that focus on the prevention or minimization of the risk of infection in relation to the quality of life of the patients. In the final conclusion, the results of the study are summarized, the research question is answered, and the hypotheses stated at the beginning are either supported or refuted.

2. COVID-19: DISEASE AND SYMPTOMS

COVID-19 is an infectious disease that first appeared in Wuhan (China) in December 2019 and spread rapidly worldwide in the form of a pandemic. By May 20, 2021, more than 164 million people worldwide had already been infected; more than 3.4 million people had died as a result of the infection (World Health

Organization 2021). Infectious disease is a notifiable infectious disease transmitted by droplet infection or by inhalation of virus-laden aerosols. Closed or poorly ventilated rooms as well as contaminated surfaces or smear infections favor infection, which is why social distancing, contact restrictions, the wearing of a protective medical mask, and strict hygiene measures are generally recommended to prevent infection (Robert Koch Institute 2021a, Honey 2021).

After an infection with the COVID-19 virus has occurred, the first symptoms can appear after only 24 hours. In many cases, however, the incubation period lasts on average about five days, although the first symptoms may not appear for two weeks. According to available estimates from the Robert Koch Institute, up to 85% of all infected individuals have noticeable symptoms or combinations of symptoms. These range from cough and fatigue, sore throat and limbs, conjunctivitis, diarrhea, loss of taste and smell, to mild fever or mild pneumonia (World Health Organization 2021a). For the remaining infected persons, there are also no symptoms at all and the infected persons do not even notice that they have been infected with the virus at all.

A significant problem is that an infected person can infect third parties at any time during all stages throughout the infection period and thus spread the infection further (Baud et al. 2020). In about 14% of all cases that occur, the course of the disease is so severe that patients must be treated in an intensive care unit with artificial respiration (Wu / McGoogan 2020), where disease symptoms such as bilateral pneumonia or acute respiratory failure must be treated. Patients may also die as a result of the infection (World Health Organization 2021a).

3. STRATEGIES FOR THE PREVENTION OF INFECTION RISKS WITH COVID 19 IN CARE FACILITIES

Due to the high concentration of patients in nursing facilities, this group of people is particularly predestined for infection with COVID-19. In this chapter, therefore, various measures are developed which, on the one hand, are intended to protect the patients and employees in the care facilities and, on the other hand, are not intended to impair the patients' quality of life.

3.1 Basic measures in care facilities

In principle, identical basic measures for the prevention of infection risks with COVID-19 apply in nursing facilities as in any other public facility. In particular, these include the following measures (Federal Ministry of Health 2021):

- Patients in nursing facilities must wash their hands thoroughly with soap, which should take at least twenty seconds and must always be done after prolonged contact with other people, after eating, after using the toilet, after coughing and sneezing, and after coming home.
- Patients' living quarters as well as common areas must be ventilated regularly, paying attention to the outside temperatures and to the patients' state of health.
- In public rooms, wearing a mouth-nose protection or an everyday mask is obligatory.
- If there is any suspicion that surfaces may be contaminated, these surfaces must be disinfected immediately with disinfectant.
- A minimum distance of up to two meters from other patients, nursing staff or visitors is mandatory. Intensive physical contact must be avoided.
- Coughing or sneezing must not be done into the hand, but always into a disposable handkerchief or into the crook of the arm.

The World Health Organization also recommends that eyes, nose or mouth should not be touched with unwashed hands. Similarly, patients or caregivers should stay home if they feel ill or show even mild symptoms of illness. Under no circumstances should affected individuals visit a doctor's office, but should call a physician where they will receive instructions for further action (World Health Organization 2021b).

3.2 EXTENDED MEASURES IN CARE FACILITIES

Due to the health risk potentials of elderly patients in care facilities already mentioned at the beginning, extended measures for hygiene and infection measures must apply there. In general, disinfectants, disposable handkerchiefs, disposable towels and waste garbage cans should be made available in all areas of care facilities and checked regularly. Likewise, wipe disinfection of hand contact surfaces should be performed several times daily. Any medical devices such as clinical thermometers, blood pressure monitors or stethoscopes must be used on a person-specific basis and always disinfected after use (Robert Koch Institut 2021, 6 f.).

Patients suspected or proven to be infected must be isolated from other residents of the home and from visitors in a separate room with its own wet room. Participation in community activities is excluded. The nursing staff is obliged to care for infected groups of persons with personal protective clothing. This includes, in particular, disposable gloves, a mouth-nose protection (FFP2 masks) and protective goggles. This protective equipment must be put on in a separate lock before entering a resident's room and left there after leaving. Disposable clothing must be disposed of in a separate container at all times. Furthermore, nursing staff must constantly disinfect their hands (Robert Koch Institut 2021, 8 f.).

Dishes used regularly must be transported to the dishwasher in closed containers and cleaned there as usual. Laundry and textiles must be cleaned in a separate

disinfecting washing process. Beds and mattresses must be covered with special disinfectable covers (Robert Koch Institut 2021, 10).

Waste disposal also takes on a high priority. However, liquid waste does not pose a particular risk of infection if suitable protective clothing is worn. However, this waste must always be stored and transported sealed in the containers prescribed for this purpose. Solid waste, on the other hand, must always be disinfected and stored and transported in sealed and tear-proof containers before disposal (Robert Koch Institut 2021, 10 f.).

Finally, it should be noted that extended occupational health and safety measures must be implemented for nursing staff, which must be done in consultation with the local health authority and the employers' liability insurance associations (Robert Koch Institut 2021, 6 f.).

3.3 SPECIAL MEASURES IN CARE FACILITIES

In nursing facilities, special measures apply to new admissions and transfers, as well as to transporting and receiving visitors.

3.3.1 New patient admission and transfer

New admissions and transfers of patients should always take place in consultation with the health department. As a general rule, newly admitted and transferred patients should be housed separately for a period of seven to fourteen days as a precautionary measure and extended protective measures should be applied. If symptoms appear, a PCR test or antigen test must be performed as soon as possible. Non-vaccinated patients should be offered vaccination as soon as possible. Similarly, newly admitted patients should be administered at least one vaccination prior to admission. Insofar as a patient exhibits any type of symptoms upon admission or transfer, these patients must be isolated from the other group of persons (Robert Koch Institut 2021, 11 f.)

3.3.2 Transportation of patients

When transporting patients, a distinction must be made between transport within and outside the care facility. In the case of internal patient transport, the destination area must be informed in advance. During transport, encounters with third parties must be avoided as far as possible. In addition, both patients and caregivers must wear mouth/nose protection. Likewise, contaminated contact surfaces must be disinfected immediately. In the case of transport outside the care facility, the destination area must be informed in advance. In most cases, this is a hospital. Mouth/nose protection is mandatory, insofar as the patient's state of health permits. Personnel must wear appropriate protective clothing throughout the transport process. After completion of the entire transport process, all surfaces and objects must be cleaned with an appropriate disinfectant (Robert Koch Institute 2021, 13).

3.3.3 Visitor regulations

In general, each nursing facility should establish written visitor rules to which all visitors must adhere. General visitor rules must include that visitors with cold symptoms and their contacts are not allowed to enter the nursing facility. Each visitor must register and undergo COVID-19 screening. In. If in doubt, an antigen test must be performed. Furthermore, the minimum distance to other persons must be maintained, a mouth-nose protection must be worn and hands must be disinfected before entering and leaving the visitor's room. The number of visitors per patient must be kept as low as possible. To protect all groups of people, it is also advisable to schedule visits individually (Robert Koch Institut 2021, 15).

Insofar as patients and visitors already have a vaccination status, the distance rules as well as the wearing of a mouth-nose protection can be waived. Likewise, a group of persons with complete vaccination protection can be allowed closer physical contact with the patient, provided the patient wears a mouth-nose

protection. However, in doing so, it must be explained to the entire group of individuals that they are at some risk of infection despite their vaccination status. Notwithstanding this regulation, visitors and patients must continue to be provided with the option of isolation and disinfection, since at any time the risk of infection is possible even from other patients to whom the visitors approach only insignificantly. Ultimately, nursing facility orders must also be followed if an outbreak of infection occurs. Even if the vaccination status is complete, the extent of visitor restriction is based on the number of infected persons in connection with the outbreak of infection (Robert Koch Institut 2021, 15 f.).

4.CONCLUSION

The aim of the present study was to develop appropriate strategies to protect patients while ensuring a good quality of life. The research question should be answered whether far-reaching internal and external strategies can prevent the occurrence and spread of COVID-19 infection and ensure the maintenance of a good quality of life for patients in nursing homes.

The study's findings indicate that it cannot be ruled out in principle that patients, employees in nursing homes, and visitors may become infected with the COVID-19 virus or transmit it to other persons. However, according to the current state of knowledge, transmission from vaccinated groups of people is significantly lower than from non-vaccinated people. In a nursing facility, not all persons are usually vaccinated, and this is not possible for various reasons.

The hypotheses formed at the beginning can therefore be answered as follows: Hypothesis 1: *Pervasive internal and external strategies can minimize the occurrence and onward spread of COVID 19 infection in nursing facilities.*

The occurrence and spread of COVID 19 infection can be targeted in nursing facilities, but is not always achievable. Therefore, a continuously high level of

vaccination protection must be maintained in every nursing facility. Therefore, the hypothesis posed can only be partially answered in the affirmative.

Hypothesis 2: *Enforcement of internal and external strategies to prevent COVID-19 infection affects the quality of life of patients in nursing facilities.*

The restrictive handling of visitor numbers, the isolation of patients in the event of infection from other patients and visitors, as well as the patients' fear of possible infection and the higher stress level generated by the disinfection measures massively impair the patients' quality of life. The hypothesis can therefore be fully affirmed.

To make patients' lives more comfortable, unvaccinated patients should be offered vaccination prior to admission. If possible, newly admitted patients should have received at least one primary vaccination prior to their admission. Patients who have already received a primary vaccination should receive a secondary vaccination as soon as possible. Genesee patients should receive additional vaccinations at the recommended intervals, if possible. The vaccination status of each patient must be documented (Robert Koch Institut 2021, 36).

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