

## Patient satisfaction on COVID and not COVID wards – A cross-sectional comparative pilot study

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### Abstract

**Introduction:** Staying in COVID wards is different from in regular internal wards where non-COVID patients are treated. The objective of this study was to evaluate the impact of the COVID-19 pandemic on patient satisfaction in comparison with patient satisfaction in non COVID-19 departments.

**Methods:** Two public regional Hospitals were included in this cross-sectional study. Half of the patients were from the COVID-19 department and half were from the Department of Internal Medicine. An adapted COVID-19 patient satisfaction survey was used.

**Results:** The COVID-19 department had a range of positive answers to the questions, between 72 and 96 percent, and the NON COVID department had a range of positive answers to the questions between 68 and 96 percent. A small number of positive answers were on the question of pain control (COVID-19 department 50% positive answers; NON COVID department 38% positive answers).

Only in the question “Have your medications and possible side effects been discussed with you?” were the differences in the positive answers statistically significant (COVID-19 department 86% vs NON COVID with 68% positive answers). There were no statistical differences on other questions. The average assessments given by patients were very high (COVID-19 4.58 and NON COVID 4.4).

**Conclusion:** Patients of both departments show a high degree of satisfaction, with small differences between different areas. Where differences arise, however, further care is needed in improving the results.

### Introduction

The World Health Organization (WHO) on March 11, 2020, declared the novel coronavirus (COVID-19) outbreak a global pandemic [1].

15% of people with COVID-19, the disease caused by SARS – CoV-2, required hospital care [2]. Rates were highest among persons aged ≥65 years, ranging from 12.2 in those aged 65-74 years to 17.2 in those aged ≥85 years [3]. Staying in COVID wards is different from in regular internal wards where non-COVID patients are treated. The use of protective equipment, reduction or even inability for relatives to visit and frequent deterioration of health, are elements that describe the stay in

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COVID wards. Satisfaction is a unit of similarity between patient beliefs of ideal care and their observations of real care [4]. Satisfied patients are more likely to comply with treatment [5]. The effect of COVID-19 has been reducing procedure and adherence, increasing treatment dissatisfaction, and discontinuing their treatment follow-up [6].

Patient satisfaction is considered one of the anticipated outcomes of healthcare, and it is related directly to the utilisation of health services [4]. The objective of this study was to evaluate the impact of the COVID-19 pandemic on patient satisfaction in comparison with patient satisfaction in non COVID-19 departments.

## Materials and methods

### Sample

This cross-sectional study respected the Declaration of Helsinki (World Medical Association, 2013) with particular emphasis on the anonymisation of the data collected, confidentiality, and non-discrimination of participants. This study was authorised by the Research Ethical Committees of the our hospital (01/3-81/11-21).

The data were collected in December 2021 at the fourth peak of the Covid-19 pandemic in Slovenia. The participants completed the questionnaires with a pen. Two public regional Hospitals were included in Slovenia. Their departments are very similar. Half of the patients were from the COVID-19 department and half were from the Department of Internal Medicine.

### Inclusion criteria

Patients admitted to hospitals with virologically confirmed COVID-19 were eligible to participate. Virological confirmation was by PCR on upper respiratory tract samples. Patients from the Department of Internal Medicine admitted to hospitals for other NON COVID reasons.

### Exclusion criteria

People were excluded with COVID-19 who were receiving non-invasive or mechanical ventilation at the time of enrolment, lacked capacity, or did not give verbal consent to participate.

### Survey

An adapted COVID-19 patient satisfaction survey (7) was used. The survey questions covered topics including safety, privacy, medications (including analgesia), sleep and communication.

Recruitment was intended to be systematic on-discharge.

### Analysis

The SPSS software, version 22, was used for statistical analysis. The characteristics of the sample were described using descriptive statistics. An independent-sample t-test and one-way ANOVA test were used for analysis. The p values less than 0.05 were considered significant.

## Results

The sociodemographic of respondents who provided complete survey responses are shown in (Table 1). In the COVID-19 department 29(58%) patients were male and 21(42%) patients were female with a mean age of 62.5 years. The average length of stay for a patient in hospital in the COVID-19 department was 8.8 days. In the NON COVID-19 department 20(40%) patients were male and 30(60%) patients were female, with a mean age of 59.8 years. The average length of stay for a patient in hospital in the NON COVID-19 department was 7.5 days.

The distribution of answers in the questionnaire is shown in (Table 2) according to the department.

Regardless of the type of department, patient responses were high. The COVID-19 department had a range of positive answers to the questions of between 72 and 96 percent, and the NON COVID department had a range of positive answers to the questions of between 68 and 96 percent.

A small number of the positive answers were on the question of pain control (COVID-19 department 50% positive answers; NON COVID department 38% positive answers).

Only in the question "Have your medications and possible side effects been discussed with you?" were the differences in positive answers statistically significant (COVID-19 department 86% vs NON COVID with 68% positive answers).

There were no statistical differences on other questions.

Also, the average assessments given by patients were very high (COVID-19: 4.58 and NON COVID: 4.4).

**Table 1:** Characteristics of the study participants.

	COVID-19 patients (n=50, %)	NON COVID patients (n=50, %)
<b>Gender</b>		
Male	29 (58%)	20 (40%)
Female	21 (42%)	30 (60%)
<b>AGE (Mean ± SD in years)</b>		
	62.46±13.69	59.96±17.20
<b>The average length of stay for a patient in hospital (Mean ± SD in days)</b>		
	8.8±8.7	7.5±5.04

**Table 2:** Distribution of answers in the questionnaire according to the department.

Question	Covid department	Covid department	No Covid department	No Covid department	Statistically significant difference (P)
	N (%) Yes	N (%) No	N(%) Yes	N(%) No	
Did you find someone to talk to about your worries and fears	41(82)	9(8)	41(82)	9(8)	>0.05
Did you feel safe on the ward	47(94)	3(6)	48(96)	2(4)	>0.05
Were you given enough privacy when discussing your condition or treatment	47(94)	3(6)	47(94)	3(6)	>0.05
Were you involved as much as you wanted to be in decisions about your care	43(86)	7(14)	43(86)	7(14)	>0.05
Have your medications and possible side effects been discussed with you	<b>43(86)</b>	<b>7(14)</b>	<b>34(68%)</b>	<b>16(32%)</b>	<b>0,032</b>
Was your pain managed effectively	25(50)	25(50)	19(38)	31(62)	>0.05
Was the environment calm and quiet enough for you to be able to sleep	36(72)	14(28)	40(80)	10(20)	>0.05
Have you been kept informed of your discharge plans	38(76)	12(24)	44(88)	6(12)	>0.05
Are you likely to recommend our Hospital to friends and family if they need similar care or treatment	48(96)	2(4)	47(94)	4(6)	>0.05

## Discussion

The pandemic has changed the way we work in hospitals. Fear of a new disease is present, both among patients and employees. Due to the changed circumstances of hospital treatment of COVID-19 patients, we were interested in whether patient satisfaction had changed towards patients who were not hospitalized in the Covid department, for which we used an adapted COVID-19 patient satisfaction survey [7]. The survey questions covered topics including safety, privacy, medications (including analgesia), sleep and communication.

Regardless of the type of department, the results were good. The average assessments given by patients were very high (COVID-19: 4.58 and NON COVID: 4.4). Wu et al. [7] used the same questionnaire. Their average score was also very high (4.7).

A small number of positive answers were on the question of pain control (COVID-19 department 50% positive answers; NON COVID department 38% positive answers). The virus not only invades the respiratory system, but also causes individuals to experience many pain symptoms, such as headache, dizziness, abdominal pain, chest pain and muscle joint pain [8]. As noted in the literature, the presence and severity of somatic symptoms during acute infection may be related closely to the development of chronic fatigue and pain after infection [9]. Pain is accepted as one of the most important determinants of the quality of life [10]. There is a pain service in our hospital, but it did not work to the same extent during the pandemic. This may be the reason for poorer pain management.

Only in the question “Have your medications and possible side effects been discussed with you?” were the differences in positive answers statistically significant (COVID-19 department 86% vs NON COVID with 68% positive answers). The results in the NON COVID department are similarly as poor as the results which Kathy Oxtoby reported [11]. Obviously the staff at the Covid department which was set up, made a new effort to do more with this element of the quality of work. Also in the aforementioned study, Wu et al. [7], only 63 percent of respondents answered with a positive answer to the question on the description of drugs and side effects.

To increase patient satisfaction, Baidya and Maitra [12] made the following recommendations:

- 1. Daily update at the time of rounds:** During the rounds, an update on the clinical condition should be provided to the patient and due assurance should be made. Important aspects should be discussed, such as current clinical condition, therapy instituted, progression (improvement) of his/her illness and the possible time required for discharge from the COVID 19 department. Any intervention which requires the patient's cooperation should be explained well, and all attempts should be made to gain confidence. Certain interventions, such as the awake prone position, have shown promise in improving outcome, and are being used commonly in the Covid-19 department. A patient should be informed of and encouraged repeatedly to continue using awake prone positioning.
- 2. Communication by bedside nurses:** The bedside nurses in each shift should be encouraged to communicate with the patients.
- 3. Audio/video calls with family members:** The bedside nurses should make the patient talk to the family using audio or

video calls at least once a day. Specific mobile phones may be kept in the Covid department for this purpose. This should improve the physical and mental well-being of the patients and alleviate anxiety among family members.

- 4. Use of hearing aids or spectacles:** Any patient who is not sedated and on mechanical ventilation can communicate better when his/her visual and auditory functions are optimal. Employers should enquire about the use of such essential devices on admission, particularly for elderly patients. The use of these devices may improve comfort and reduce delirium in elderly patients.
- 5. Light and music:** Patients should be oriented daily with exposure to sunlight if possible. Ambient light should be dimmed, and monitor and ventilator alarm volumes should be reduced at night. Soothing music played at the bedside and provision for watching relaxing programmes on television if available may go a long way in reducing stress.
- 6. Discharge education and follow-up support:** Patients should be educated during discharge about the possibility of a respiratory sequel, the risk of post-traumatic stress disorder and any other case-specific issues and the need for follow-up.

The weakness of the study is the size of the sample. The research can serve only as a pilot study. The questionnaire is simple, which also has weaknesses, as it certainly does not measure all the elements of satisfaction. The non-use of the Likert scale reduces the possibility of comparisons with other studies and quality statistical processing.

## Conclusion

Patients of both departments showed a high degree of satisfaction with small differences between different areas. Where differences arose, however, further care is needed in improving the results.

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