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## A study to assess the patient knowledge and awareness about risk and management of surgical site infections

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### Abstract

**Background:** Assessing the knowledge of patient helps the doctor to understand his knowledge level and train him about the hygiene procedures.

**Aim:** The present study was undertaken to assess the patient knowledge and awareness about risk and management of surgical site infections.

**Materials and Methods:** The study recruited 30 patients with in the age group of 20-60 years. Patients who underwent the surgical procedure were recruited in the study. Demographic parameters were recorded and the knowledge of patient was assessed using a standard questionnaire.

**Results:** Majority of patients belongs to age group of 41-50 years. There were more males than females in the study. There were many patients having employment in the study. Many patients were in group of higher secondary education. Majority of patients are residing in rural areas. More patients admitted to hospital 1-5 times previously. Majority of patients replied that they have not learned about the surgical site of infection previously. Majority of patients reported that they are interested to improve the knowledge about the surgical site infections if any training program is arranged.

**Conclusion:** The present study adds to the existing knowledge about the knowledge and awareness of patients about the surgical site infection. Majority of patients explained that their knowledge levels are poor in this area and exhibited willingness to improve the knowledge. The study recommends more studies in this area and also recommends increasing the patient's awareness about the surgical site infection.

**Keywords:** surgery, infection, post surgery, awareness

### Introduction

Patient knowledge and attitude is most important in clinical point of view. It influences the outcome of the treatment <sup>[1]</sup>. Preparing the patient for surgical procedure is most important aspect. Further post-surgical management and incidence of infections has to be explained to the patient in forehand <sup>[2]</sup>. The knowledge of surgical site infections is most important as these infections may cause death of the patient. Further the infections in the surgical site are considered as public health issue and there is a strong need to manage these infections effectively <sup>[3]</sup>. At the same time patients has to be mentally prepared about the infections. There are several factors that can cause the infections which may be intrinsic and extrinsic <sup>[4]</sup>. Some factors include obesity, alcohol consumption and mal nutrition etc <sup>[5]</sup>. Hence, awareness of these factors helps to modify the pre and post-surgical procedures. This also favors the prevention and management of infections effectively. Also assessing the knowledge of patient helps the doctor to understand his knowledge level and train him about the hygiene procedures. The present study was undertaken to assess the patient knowledge and awareness about risk and management of surgical site infections.

### Materials and Methods

**Study design:** Observational study

**Sampling method:** Convenient sampling

**Study population:** The study recruited 30 patients with in the age group of 20-60 years. Patients who underwent the surgical procedure were recruited in the study. Participants who were willing voluntarily were included in the study with proper informed consent. Those unwilling were not recruited in the study. Those with severe complications were also not included in the study.

**Data collection:** Demographic parameters were recorded and the knowledge of patient was assessed using a standard questionnaire.

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**Ethical considerations:** The study proposal was approved by the institutional ethics committee after satisfying the queries adequately. The study followed all the guidelines as per the ICMR guidelines. Written informed consent was obtained from all the participants before the commencement of the study. Information related to the patients was kept confidential.

**Data analysis:** The statistical software SPSS 18.0 version was used to analyze the data. The significance of difference was tested using the Student t-test. The probability value less than 0.05 were considered significant.

**Results:** Table no 1 presents the demographic data of the patients age wise distribution. Majority of patients belongs to age group of 41-50 years. Table no 2 presents the demographic data of the patient's gender wise distribution. There were more males than females in the study. Table no 3 presents the demographic data of the patient's employment wise distribution. There were many patients having employment in the study. Table no 4 presents the demographic data of the patient's education wise distribution. Many patients were in group of higher secondary education. Table no 5 presents the demographic data of the patient's residence wise distribution. Majority of patients are residing in rural areas. Table 6-8 presents the frequency and percentage of patients knowledge and awareness about surgical site infection. More patients admitted to hospital 1-5 times previously. Majority of patients replied that they have not learned about the surgical site of infection previously. Majority of patients reported that they are interested to improve the knowledge about the surgical site infections if any training program is arranged.

**Table 1:** Demographic data of the patients age wise distribution

S. No	Age in years	Number of patients (n=30)
1	20-30	6 (20)
2	31-40	5 (16.66)
3	41-50	10 (33.33)
4	51-60	9 (30)

Data was presented as frequency and percentage

**Table 2:** Demographic data of the patients gender wise distribution

S. No	Gender	Number of patients (n=30)
1	Males	20 (66.66)
2	Females	10 (33.33)

Data was presented as frequency and percentage

**Table 3:** Demographic data of the patient's employment wise distribution

S. No	Employment status	Number of patients (n=30)
1	Employed	16(53.33)
2	Un employed	14 (46.66)

Data was presented as frequency and percentage

**Table 4:** Demographic data of the patient's education wise distribution

S. No	Education	Number of patients (n=30)
1	No school	3 (10)
2	School	2 (6.66)
3	Higher secondary	10 (33.33)
4	Graduation	6 (20)
4	Post-graduation and above	9 (30)

Data was presented as frequency and percentage

**Table 5:** Demographic data of the patient's residence wise distribution

S. No	Residence	Number of patients (n=30)
1	Rural	18 (60)
2	Urban	12 (40)

Data was presented as frequency and percentage

**Table 6:** Frequency and percentage of patient's knowledge and awareness about surgical site infection

S. No	Number of hospital admissions previously	Number of patients (n=30)
1	1-5	22 (73.33)
2	>6	8 (26.66)

Data was presented as frequency and percentage

**Table 7:** Frequency and percentage of patient's knowledge and awareness about surgical site infection

S. No	Learned about surgical site infections	Number of patients (n=30)
1	Yes	11(26.66)
2	No	19 (63.33)

Data was presented as frequency and percentage

**Table 8:** Frequency and percentage of patient's knowledge and awareness about surgical site infection

S. No	Would like to improve knowledge about surgical site infection	Number of patients (n=30)
1	Yes	24(80)
2	No	6 (20)

Data was presented as frequency and percentage

## Discussion

Assessing the knowledge of patient helps the doctor to understand his knowledge level and train him about the hygiene procedures. The present study was undertaken to assess the patient knowledge and awareness about risk and management of surgical site infections. Majority of patients belongs to age group of 41-50 years. There were more males than females in the study. There were many patients having employment in the study. Many patients were in group of higher secondary education. Majority of patients are residing in rural areas. More patients admitted to hospital 1-5 times previously. Majority of patients replied that they have not learned about the surgical site of infection previously. Majority of patients reported that they are interested to improve the knowledge about the surgical site infections if any training program is arranged. Though majority of the patients were educated, their level of awareness about the surgical site infection is very poor as it was observed that many of the patients expressed that they have not aware of such infections. However, they were ready to improve their knowledge. Earlier studies reported that patients are well aware of all the procedures and infections [6-7]. This may be possible as the study was conducted at a tertiary care hospital and most patients are well educated. It was recommended that there should be a discussion or counseling session to the patient that has to be conducted before the surgery [8-11]. This will serve two purposes one is to understand his knowledge level and second is to make him aware of the upcoming procedure and its effects and chances of infections and hygiene procedures to be followed to avoid these infections.

Because to limit infection, it is not only the clinician to strive but at the same time patients has to follow the hygiene procedures that were directed to them without fail. The study recommends more studies in this area and also recommends increasing the patient's awareness about the surgical site infection.

### Conclusion

The present study adds to the existing knowledge about the knowledge and awareness of patients about the surgical site infection. Majority of patients explained that their knowledge levels are poor in this area and exhibited willingness to improve the knowledge. The study recommends more studies in this area and also recommends increasing the patient's awareness about the surgical site infection.

**Conflicts of interest:** None declared

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