

## **CHAPTER VI**

### **CONCLUSION AND RECOMMENDATIONS**

This cross – sectional descriptive study was aimed at studying the customers and the providers' opinions toward risk incidence in anesthetic service at Maharaj Nakhon Si Thammarat Hospital

#### **Sample Groups**

There are two sample groups namely:-

##### **Customers**

The customers who had undergone an operation and who have been given general anesthesia and regional anesthesia at the anesthetic unit at Maharaj Nakhon Si Thammarat Hospital for more than one day were later removed to stay in the general surgical department, the orthopedic department, the obstetric-gynecologic department and the EENT department. They were well conscious based on American Society of Anesthesiologist (ASA) physical status class 1, 2 and 3. Most of them were between 20 – 65 years old. They were aware of the time, the place and remember the people they knew. They were completely conscious and able to answer the questions. This sample group consisted of 400 people.

### **Providers**

The chief and the mainstay of the providers against the risk incidences who gave the patients anesthesia and an operation in Maharaj Nakhon Si Thammarat Hospital consisted of a general surgical doctor, an orthopedist, an obstetrician, an EENT specialist, an anesthesiologist, a nurse anesthetist and a surgical nurse. They were seven – person teamwork.

The researcher had made up the questionnaires based on the theories and the risk management guideline of the hospital accreditation the validity, the accuracy, and the reliability of the questionnaires had been checked by 5 well qualified people and later they had been tested on the patients who had come for a surgery and anesthesia. This sample group consists of 30 patients. The means of the validity was calculated by Cronbach 's coefficient alpha basis. The validity means of measuring the customers' opinions toward the safety effect from anesthetic risk was at .9351, and the customers' satisfaction toward the anesthetic service was at .8816 since then the researcher and the assistant researcher had been collecting data from June 15 to July 15, 2003 by interviewing the sample group of 400 people, which were 100%. Then the data had been analyzed by the SPSS/FW program to figure out the percentage, the average and the standard deviation of the sample group, and the relationship between the customers' opinions toward the anesthetic and operative services and the sociodemographic features and the anesthetic services. There data were analyzed by of Chi – Square test and Spearman Correlation Coefficient method.

The characteristics of the sample group of this study was divided into 2 groups namely:-

### **1. The Customer aspect**

**1.1 The sample group of this study** consisted of 400 cases, 60.0% of respondents were female, and 40.0% were male. 50.3 % of respondents were between 20 to 35 years old, this was the highest group. The biggest education group was the primary school level, which was 32.8%. The income of the biggest group was between 3,500 – 10,00 baht a month, which was 64.8 % and 62.0% of respondents had come for the services during the official working period. 62.3% of them had come for non- urgent operations, and the highest group, 72.3% had been assessed to be ASA physical status class I, most of respondents 60.8% have been given a general anesthesia. 39.8% of them had been admitted at the obstetric- gynecologic ward. 68.0% of them had been given anesthesia the first time. The patients without cigarette – smoking and alcohol drinking history were 70.5% and 68.5 % respectively. 98.2% of respondents had aware of operation bearing disease. 37.8% of respondents felt the most fearful toward the anesthetic complication.

**1.2 The Data Analysis Outcome of the customers' opinions toward the safety from anesthetic service risk were preciously divided into 3 periods as following :**

### **Pre- anesthetic period.**

In average, the customers' opinions toward the safety effect from anesthetic service risk were medium and high ( $\bar{x} = 3.58$  and  $4.18$ ) in every anesthetic activity. 90.0% of the customers thought being given information every time before and medical practices made respondents felt the most secure ( $\bar{x} = 4.18$ ), while 2.5% of them felt the least secure and not secure at all toward being informed about the possible anesthetic complications, and 1.8% of respondents felt the least secure or none at all toward pre – operation explanation.

### **Peri- anesthetic period**

86.9 % of the customers felt the most secure toward the through and careful body check up before being given anesthesia. ( $\bar{x} = 4.11$ ), while 79.5% of respondents felt very secure if they were not left alone while waiting for an operation. And 1.3% of the respondents felt least secure when they were informed about how to inhibit the pain after an operation.

### **Post – anesthesia period**

The customers' opinions toward the safety effect from anesthetic services were very high. 94.2 % of respondents felt the most secure when they are visited by the anesthetic staff. ( $\bar{x} = 4.28$ ), and 92.4% of them felt the most secure when the staff called their names, woke them up, stimulated them to move their limbs in the recovery room ( $\bar{x} = 4.26$ ). 2.3% of the respondents felt least secure or not secure at all toward the explanation after being given anesthesia and operation.

82.8% and 80.0% of the respondents felt very secure toward general anesthesia and spinal block respectively ( $\bar{x} = 4.05$  and 4.00).

**1.3 The relationship between the socio demographic features and the utilization of anesthetic services** by using the Chi – Square statistics, the researcher had found out that there was statistically significant relationship between fear and the level of customers’ opinion toward the anesthetic service safety (p– value < 0.05).(Table 5). 89.47% of the customers felt the most fearful toward the safety effect from anesthetic services, while 32.69% of respondents felt moderately fearful. But the other factors were not found to be related to the customers’ opinions.

There was statistically significant relationship between fear and post - anesthetic period (p–value < 0.05) (Table 6) But There was not statistically significant relationship between fear and pre, post – anesthetic period.

The correlation coefficient of the average scores of the opinions toward anesthetic services in pre, peri and post anesthesia and the age, and income factors was not found to be statistically correlated.

#### **1.4 The outcome of the data analysis on the customers’ satisfaction toward anesthetic services**

When considering the customers’ satisfaction toward anesthetic services in each aspect and in each item, the researcher had found out the following conclusions :-

### **The aspect of anesthetic service system**

The anesthetic service which 94.0% of the customers felt the most satisfied was the readiness of medical appliances and facilities. ( $\bar{x} = 4.18$ ). 90.2 % of them felt the most satisfied toward the quality of the overall anesthetic services, while 1.1 % of them felt the least satisfied or none at all toward receiving pre - operation information.

### **The aspect of anesthetic staff**

86.6% of the respondents felt the most satisfied toward both the relationship of anesthetic staff who were eloquently polite and tender and who were capable of their work, and 77.4% of them felt the most satisfied to the anesthetic staff who were ready and willing to do their work, while 2.3% of them felt the least satisfied or not satisfied at all toward being given a chance to ask and answer the questions.

### **The aspect of the quickness and convenience of the services**

79.9 % of the respondents felt the most satisfied toward the promptness in help care ( $\bar{x} = 3.94$ ). 77.7 % of them felt the most satisfied toward the quick and none complicated services while 13.3% of them felt the least satisfied or none at all toward not being allowed to contact other people.

### **1.5 The customers' comments and needs of customers toward anesthetic services.**

98.0% of the respondents who came for anesthesia and an operation at Maharaj Nakhon Si Thammarat Hospital were likely to recommend their relatives or friends to come for medical treatments at this hospital again., but only 2.0 % of them were not

sure whether to advise their friends or relatives to come here or not, while 95.8% of them would come here again if they wanted an operation, while 4.3% were not sure whether to come or not. 36.3% of them wanted to know most about anesthesia was the complication circumstances, while 10.5% of them wanted to know about the type of anesthesia, but the smallest group, 0.8% wanted to know what they had to do when they had painful operative wound.

89.3% of the respondents thought that anesthetic services were already good. They didn't need improving, while 65.1% thought that what needs improving most was giving advice and information, and 16.3% wanted a pre- operation visit, while 4.7% of them thought that the least important thing to improve was prescribing analgesic drug.

### **1.6 The problem and complication after being given anesthesia.**

The number of the respondents without complications after being given anesthesia was higher than that with complications. They were 61.5 % and 38.5 % respectively. 26.3 % had painful wound . The rarest complications were the cough, constipation, low blood pressure and nausea vomiting, low blood pressure and painful operative wound, and backache, high blood pressure, a rash and oliguria, nausea vomiting and a painful operative wound, oliguria and urinary retention. The percentage of each symptom group was 0.7%.

## **2. The aspect of the chief providers and the mainstay of risk Incidences.**

Seven of the chief providers and the mainstays of the risk incidences, aged between 30 - 40 years, had been interviewed. The team was made up of a general

surgeon, an orthopedist, an obstetrician, an E.E.N.T specialist, an anesthesiologist, nurse anesthetist and surgical nurse. The chief providers and the mainstays have 1-5 year working experience. Two of them had never attended a risk incidence conference. Five of them had taken part in the conference about the doctors' risk of being sued, fire hazard, the safety of the customers, and the risk management in the hospital.

The questions used to interview the chief providers and the mainstays in risk management for the anesthetic and operative customers' safety are divided into six items as following categories :

### **2.1 The customers' risk who came for an operation and anesthesia in the anesthetic services.**

The obstetrician and the anesthesiologist relevantly concluded that the customers had to take the risk of aspiration . The general surgeon and the anesthesiologist shared the same idea that the customers had a risk of complication resulting from high spinal block. The orthopedist indicated that the customers' lives were risky if they were not properly or safely prepared for an operation and anesthesia. For example, their underlying diseases had not been cured to be in a safe condition before an operation. The nurse anesthetist and the surgical nurse thought that the customers had a risk of burn from the body warmer. Besides this, the anesthesiologist had a different idea from the others that the customers had to take risks against cardiac arrest, bronchospasm, and a mis-operation.



## **2.2 Regulating the policy of the risk management on the basis of the safety of the anesthetic customers**

The obstetrician, the E.E.N.T specialist, and the anesthesiologist, 3 out of 7 staff members, suggested that the anesthesiologist together with the surgeon and the specialists should assess the customers before an operation and giving anesthesia in case that they had cardiac condition. Besides this, the general surgeon suggested that the surgical department and the anesthetic department should explain the steps and methods of administering anesthesia to the customers before the real practice.

## **2.3 Organizing a seminar and giving knowledge to anesthetic staff.**

The anesthesiologist and the nurse anesthetist relevantly suggested that there should be a seminar to give some knowledge to the risk incidence staff of the department. The orthopedist recommended that a risk scale should be regulated and informed to the risk incidence staff, and the risk incidences should be reported to every stakeholder.

## **2.4 Risk incidence report.**

The general surgeon and the E.E.N.T specialist relevantly suggested that the staff should report the risk incidences, analyze, interpret and assess the outcome and find a way to solve and improve it. The anesthesiologist and the surgical nurse preferred that the staff should report the risk incidences to the quality center once a week so that to can collect all the problems for further improvements. Besides this, the anesthesiologist and the integrated patient care team should hold a morbidity and mortality conference to discuss the problem cases in order to find a conclusion and prevention against risks.

## **2.5 The action to manage risk incidence that happens to the anesthetic and operative customers**

The orthopedist, the anesthesiologist and the surgical nurse, 3 out of 7 staff members, suggested that the staff should probe into the cause of risks, analyze the problems to find solution and prevention, and co-ordinate with the agencies involved. Besides this, the E.E.N.T. specialist suggested that the staff should set up a prevention measure to uphold the current risk incidences, and a risk watchdog against the diseases for which the patients came to the hospital.

## **2.6 Planning and Developing continuous service quality for the customers' safety.**

In conclusion, the E.E.N.T. specialist and the surgical nurse suggested that there should be an enforcement to set up an integrated operative team and risk incidence conference every month, a collection of the data and the data assessment. Besides this, the anesthesiologist suggested that the data should be analyzed in term of the frequency, the quantity, and the seriousness including the expenses. Then the guideline is set up for continuous development.

## **3. The recommendation for further uses**

- 3.1 According to the result of this research, it was found out that the customers' fear and anxiety were related to the opinions toward the safety effect from anesthetic services including what the customers need to know about anesthesia, so the anesthetic providers should bring the results of this study to improve a way of pre- anesthetic

visit to prepare and ready the patients before administering anesthesia for the safety of the patients against the risk incidences and for the continuous development.

- 3.2 The staff should improve the way to give the patients information focusing on the important things they need or are interested to make them feel satisfactory.
- 3.3 The chief providers and the mainstays should hold a seminar to update the staff's knowledge on risk management, to stimulate the staff to write a report of risk incidences to detect the risks and find a measure to control the risks. This is in fact the anesthetic service quality assurance and the hospital quality assurance.
- 3.4 There should be a guideline of the customers' rights according to the declaration of the rights of the patients. The medical staff should realize and respect the rights of the patients, such as the rights to know the medical data, the rights to sign the legal consent form for an operation. If the patients' rights are violated, the doctors might risk being sued, and sentenced to pay for the damage recovery.

#### **4. The recommendation for further research**

- 4.1 The research should be done in the model of analysis design and the risk management of anesthetic services.
- 4.2 The research should be establish risk control measures in anesthetic services.

4.3 The research should be done to study the factors which are related to the risk incidences of the anesthetic which are related to the risk incidences of the anesthetic providers, and the customers, such as the communication and the relationship between the providers and the customers. These data should be tested to see whether they have any effects on the risk management or not.