

CHAPTER 5

DISCUSSION AND CONCLUSIONS

Discussion

The study was performed during 6 month from May to October in 1997 at Chulalongkorn Hospital. The objectives of this study was to assess the situation of medical service utilization under the Social Security health program at Chulalongkorn Hospital. Utilization rate, type of health problems or illness, medical care cost consumed, and patient satisfaction with the service provided were examined. The insured patients who got services from both outpatient and inpatient services during the study period were included in the study. Each point of data was discussed.

1. General Characteristics of the insured patients

The total number of insured outpatients was 8,707 while of insured inpatients was 427. The results found that the ratio of male and female who got medical service at Chulalongkorn Hospital were almost equal (51:49). Even most of outpatients were female though of inpatients were male. The majority group of age (> 90%) were 16 – 55 years old. Most of them (about 65%) lived in Bangkok. Among them, 54% used to get service and had experience at Chulalongkorn Hospital more than 1 year.

2. Number of insured patient visits and an average visits per one insured patient.

Outpatient service :

During 6 month of study period, there was 22,556 outpatient visits made by 8,707 insured patients. It might be conclude that an average outpatient used rate among the

insured users at Chulalongkorn Hospital was 2.6 visits/insured patient/6 month (or 5.2 visits/insured patient/year). This figure is 1.6 times higher than the illness rate estimated by the Social Security Office (3 visits/person/year).

Inpatient service :

There was 505 admissions used by 427 insured patients. It might be conclude that an average inpatient used rate among the insured users at Chulalongkorn Hospital was 1.2 admissions/insured patient/6 month (or 2.4 admissions/insured patient/year). This figure is 4.8 times higher than the admission rate estimated by the Social Security Office (0.5 admissions/person/year).

This findings are very interesting, it is likely that the insured patients of Chulalongkorn Hospital had high accessibility to get the medical care. It could be explained by several reasons. One of these is people who had insurance coverage tend to seek for health care service more than who had not as supported in previous that insured workers received the medical care 20% higher than non-insured workers (Kovindha, 1996). These followings possibly reasons are insured workers who registered with and come to Chulalongkorn Hospital have higher risk of illness or have more chronic disease which need to get regularly follow up; there is changing of patients from other schemes and from other hospitals (workman's compensation scheme and car accident victims) utilize social security health benefit scheme . Although evidences was not available in this study and out of scope of the study, but it is possible to occur. From these result, further studies on investigating the factors affected the medical service utilization at the hospital are need to be done.

3. Medical service utilization rate of the insured workers at Chulalongkorn Hospital

Outpatient service :

From the study, it revealed that 22,556 visits made by 8,707 insured patients from the total of 76,664 registered insured workers were used. So, the outpatient service utilization rate among the registered insured workers was 294.2 visits/ 1000 insured workers/ 6 months

or 113.6 persons/ 1000 insured workers/ 6 months. This could be said that during 6 months about 11.4% of the registered insured workers came to use the service at Chulalongkorn Hospital.

Inpatient service :

The results revealed that 505 visits made by 427 insured patients from the total of 76,664 registered insured workers were used. So, the inpatient service utilization rate among the registered insured workers was 6.6 admissions/ 1000 insured workers/ 6 months or 5.6 persons/ 1000 insured workers/ 6 months. This could be said that during 6 months only 0.56% of the registered insured workers came to use the service at Chulalongkorn Hospital.

After implementation the program for 4 years, the Social Security Office reported that outpatient utilization rate of public hospital was 1.13 visits/insured worker/year and that of the inpatient utilization rate was 0.167 admissions/insured worker/year. If we compare the results of the study to the Social Security Office report, the utilization rate of the study shown lower than that. It might be conclude that service used rate at Chulalongkorn Hospital was quite low. The possibly reasons could be explained due to low utilization rate were indicated as following : the insured patients were dissatisfied with the services received, did nit know where was their main contractor, used other health benefits scheme, lived fare from the hospital and felt inconvenience to travel, still sought care by self prescribed drugs or used services in the workplace/non-registered hospitals, etc. However due to limited scope of the study, it is difficult to define and draw the conclusion about that. Therefore, further study should be performed.

4. Group of illness or health problems of the insured patients

Outpatient service :

Among 22,556 outpatient visits, it was found that 70.6% were utilized by 5 clinics: social security clinic (37.6%), general medicine clinic (13.8%), surgery clinic (7.2%), orthopedics and rehabilitation clinic (6.4%), and specialized clinic (5.6%). It could be

indicated that more than half of them (57%) came to visit medicine clinic. Therefore, this kind of service (medicine clinic) was a major role to providing the service.

The 5 leading health problems of the insured outpatients which caused them using the hospital services were problems of respiratory system (13%), musculoskeletal system (11%), endocrine system (10%), circulatory system (8%), and genitourinary system (7%). This finding is agree with several studies (Tubtimtes et al., 1987; Kankeow,1994; Tangcharoensathein et al,1993) that the most health problems which caused people using the hospital services were problems of respiratory , circulatory and musculoskeletal system.

Inpatient service :

Among 505 admissions, 94.4% of them were used by medicine unit (35.2%), followed by surgery unit (34.1%), orthopedics unit (12.5%), obstetrics & gynecology unit (7.3%), and otolaryngology unit (5.3%).

As for inpatient, 60% of these insured patients were admitted from the problems of digestive system (15%), genitourinary system (13%), circulatory system(11%), neoplasm (10%), and musculoskeletal system (8%). This finding is almost in the same way as outpatient service except the problem of neoplasm. This may be because neoplasm is a serious illness that need regularly of care and treatment more than others.

From these results, it is very interesting as we can use to assume for estimating the type and expenses of medical service provision for the insured employees if we know further about unit cost of each health problem or disease.

Hospital days and length of stav :

The total hospital days made by the insured patients at Chulalongkorn Hospital was 5,073 which made by 505 episodes. The average hospital day per episode for insured patients was 10.14 days. The longest average LOS was from the health problems of neurological system (14.5 days), followed by mental and behavioral system (12 days), musculoskeletal system (10.5 days), and genitourinary system (10 days). The inpatient units

that made the longest average LOS were orthopedics (12 days), followed by surgery (8 days), gynecology and radiology (6 days).

5. Medical care cost consumed by the insured patients

Outpatient service :

The findings indicated that an average medical cost per outpatient visit, cost per outpatient case during 6 month, cost per inpatient admission and cost per case of inpatient during 6 months were 338.80 baht, 877 baht, 6,582.85 and 7,767.76 baht respectively. The result showed that the medical cost of service provided to the insured patients at Chulalongkorn Hospital found to be higher than other studies. These may be explained that the diseases of insured patients treated at this hospital may be more serious and need more cost of drugs, laboratory tests, and radiological investigation. It would be supported by the above result about the value of used rate among the users (5 visits/person/year). The patients who come more visits was the one who had chronic disease, and would consumed high service cost as well. It can conclude that medical care cost per one insured patients which incurred by the hospital was higher than the amount of capitation (800 baht/one insured workers/year) which it may effected to the financial situation of the hospital.

The possibly reasons could be explained due to high value of medical cost were indicated as following : the insured had chronic disease or more severe illness which need high cost of drugs or investigation, slowness of inpatient process caused longer of hospital days, drug prescription behavior of physicians due to dispense expensive items, and pharmacy department purchasing drugs in high cost . Moreover, it may be because using of high technology treatment, more severe illness that need high cost of drugs. In addition, duration of treatment that mentioned above was quite long which is one of the factors that increases the cost of drug treatment.

This results implies that the managers of the hospital should keep in mind ways to avoid and solve the problem of shifting patients from other scheme to utilized social security

health benefits, otherwise, they might have to face an unnecessary burden and lose their potential benefits. Another is the administrative costs which include others such as capital costs, recurrent costs, monitoring and supervision costs, labor costs and opportunity costs is quite high and do not include in the study. So the hospital administrators should find the way to reduce these costs.

6. Patient satisfaction with health service at Chulalongkorn Hospital

One of objectives of this study was to assess the insured patient satisfaction with hospital service at Chulalongkorn Hospital. The patients who got services at Chulalongkorn Hospital during May – October 1997 were interviewed by using questionnaire. The patient satisfaction was assessed in 5 service units (registration, nurse, doctor, pharmacy and laboratory unit) with regard to 5 aspects : waiting time, courtesy of hospital staffs, medical information, step of service (or service system) and quality of care.

The finding showed that percentage of satisfaction was 49.2% and the overall degree of insured patients satisfaction with Chulalongkorn Hospital services was moderate ($x = 3.50$, $s.d. = 0.43$).

According to the 5 aspects of satisfaction, the results showed that patients' satisfaction with courtesy of hospital staffs ($x = 3.61$, $s.d. = 0.44$), medical information ($x = 3.70$, $s.d. = 0.62$), step of service or service system ($x = 3.80$, $s.d. = 0.56$) and quality of treatment ($x = 3.55$, $s.d. = 0.59$) were in high level. Except the degree of satisfaction in waiting time was moderate ($x = 2.79$, $s.d. = 0.78$) with percentage of satisfaction was the lowest (18.1%).

From above, it showed that most insured patients were less satisfied with waiting time compare to the others. This could be explained that most patients were workers. They worried about waiting time more than other factors. The reasons might be like that service opening time was 8.30 – 16.30 hr and it was the working time so the patients had to leave their work and may be lost their payment. In addition, the longer waiting time made them

dissatisfied because they thought it lost their time. Jumdermpadetsurk et al. found that people felt difficulty if they had to attend hospital during their work time. Several studies (Durongpisitkun, 1982; Treethitikun, 1989; Pasook, 1996) supports that waiting time was the most satisfaction factor made the patients unsatisfied, especially the waiting process for medical examination, diagnosis and receiving drugs. Moreover, these could be confirmed by interviewing about the main problems or obstacles they met, most of them (59%) said long waiting time as the first problem. So, if we reduce the waiting time, patients would be more satisfied with the services. Thus, the hospital administrator or anyone who have responsibility on it should try the way to improve it.

Among the satisfaction factors, the rating of patient satisfaction in service system (step of services) was the highest ($x = 3.80$, $s.d. = 0.56$) with high percentage (73.3%) of the respondents. This could be discussed that there were special service units providing medical care to the insured patients separately them from other patients to avoid queue. It made them more convenience and comfortable.

In addition, the insured patients who had health problem could be treated by general practitioners would be given medical care earlier and wasted their time shorter. This makes insured patients more comfortable. So, this is a strong point of the hospital that should be encouraged.

Considering the degree of satisfaction among service units, it was found that service of pharmacy department was the lowest ($x = 3.29$, $s.d. = 0.60$) with low percentage (32.4%) of satisfaction. These may be because of the pharmacy unit was the last unit giving medical service. Before they reach pharmacy unit for receiving drugs, they had to wait for several times of each service step i.e. register unit, physical examination unit, laboratory unit. As mention above, waiting time was the most factor affected patients satisfaction, the longer the waiting time the lower the satisfaction. The findings is supported by previous studies (Jumdermpadetsurk et al, 1981; Chlapirom, 1981; Techapunyarat, 1985 ; Siriwong, 1990). Another possibly reasons may be due to lot of noises around, insufficient of waiting

area for getting drugs and inaccessibility of medical service at lunch time. Moreover, the location of pharmacy unit was not on the same floor and far from the physical and examination unit, it made them feel dissatisfied when pharmacists required them going back to see the doctor again.

From the results given, medical services by pharmacy, doctor and laboratory unit made percentage of patients' satisfaction less than 50%. It can conclude that the hospital should primarily improve the quality of these service units as well as waiting time and the courtesy of staffs.

About the results of problems mentioned by insured patients for using hospital Services, it found that most of them (59.0%) complained about long waiting time , poor courtesy and health care performance of hospital staffs (12%), inadequate of officers and equipments (9.7%), drugs limitation (5.2%), and lacking of service information (4.5%).

For the main reasons of using services at the hospital, the results showed that most of them (29%) was due mainly to contractual agreement and save their money, trust in doctors and quality of care (17.8%). good service (17.4%), need continuity of treatment (15.7%), near to their home & convenience for travelling (14.8%).

From the data bearing on patients' reasons, it is rather clear that faith in the institution and confidence in physicians were the substantial pulling force in making decision to select Chulalongkorn Hospital as the main contractor. It is therefore, suggested from the study that the hospital should improve their quality of services, improve the services that match the patient's need or add some services that once were ignored to effectively create positive image and patients' satisfaction.

From the results above, although the degree of patient's satisfaction was moderately but it's still questionable that the low utilization rate was due to low satisfaction. Since there are many factors affected it. Then, it need to have more studies further in detail about each factor affected the utilization rate and drop out rate of both the insured workers and non-insured.

Conclusions

The medical service utilization of the insured patients at Chulalongkorn Hospital was assessed during 6 – month since May – October 1997. The outcome measurement in this study was utilization rate, medical cost consumed, type of illness or health problems of the insured, and the patient satisfaction with medical care received of hospital services. The information about utilization rate and medical cost was assessed from provider perspective, while the information about patient satisfaction was assessed from patient perspective. A survey on patient satisfaction was designed to measure the percentage and level of satisfaction of the insured who came to treated at Chulalongkorn Hospital during the researching period.

The total number of insured outpatients and inpatients were 8,707 and 427 respectively. The total number of outpatient visits was 22,556 while inpatient admissions was 505. The use rate among users were 2.59 visits per person per 6 months. The most common group of diseases for outpatient were respiratory system, followed by musculoskeletal and connective tissue, endocrine and metabolic system, circulatory system and skin disease. For inpatient, the use rate among users were 1.18 admissions per person per 6 months. The most common group of diseases for inpatient were digestive system, followed by genitourinary system, circulatory system, neoplasms, and musculoskeletal and connective tissue.

An average medical cost per visit for outpatient was 338.80 baht, cost per case was 877.67 baht. Of which 85.78 % was drugs, 7.38 % was radiological investigation, 6.75 % was laboratory, 0.06 % was EKG and 0.03 % was medical supplies. For inpatient, an average medical cost per admission was 6,582.85 baht, cost per case was 7,767.76 baht. Of which 51.76 % was drugs, 5.95 % was radiological investigation, 3.81 % was laboratory, 0.05 % was EKG and 38.43 % was medical supplies. An average length of stay was 10.14 days. The median LOS of insured workers with neurological system was the longest (14.5 days) while

with drug abuse or drug allergy was the shortest (3.0 days) . An average cost per hospital day of insured patients who had problem with blood and blood-forming organ was the most costly (3,350.97 baht).

Information about patient satisfaction was assessed in the same period of time. The findings found that the degree of insured patient satisfaction was moderately ($\bar{x} = 3.50$, s.d. = 0.43). The mean score of patient satisfaction with waiting time and pharmacy service was the lowest while with step of service or service system was the highest. The main problems and obstacles for using medical services by the insured patients were long waiting time, poor courtesy of hospital staffs and health care performance, inadequate of officers/hospital beds and equipments, drugs limitation, lack of service information, no network/overtime service, inadequate of car park, no air-conditioner and poor quality of food.

Limitations

This research was conducted under time constraints. SO, some aspects could not be studied in detail as it should be. For the cost in this research, the secondary data were used, therefore the possibility of over or under reporting ca not be avoided. Primary data were collected by questionnaire but only done in the group of insured patients who come to use the health service at the hospital, making the bias sample, affecting the acceptability of the results. That means the results of this research might be changed if a non-user group of insured workers could be conducted.

Recommendation for further studies

This study was carried out for 6 months period, that means only short term effects can be determined. Then, for more information should be conducted in further studies:

1. The study about factors affected the medical service utilization at the hospital.
2. The study about patient satisfaction both of the users and non-users insured workers at the hospital.
3. The study about drop out rate of both users and non-users insured workers at the hospital.
4. The study about unit cost of the insured outpatients and inpatients at the hospital.
5. Financial analysis due to implementation the Social Security Program in the hospital.