

CHAPTER 3

METHODOLOGY

3.1 Research Method

Data collection

There are two methods that this study was collected after informed and consented from the director of National blood center and King Chulalongkorn Memorial Hospital during the year 1998 - 2000 to analysis benefit of screening in the donors to prevent spending of HCV.

Descriptive method

To study the past history of the patients, incident for HCV, method for treatment and the component for the Cost-Benefit of screening blood donors for (Screening test). To evaluate the analysis and the benefit of screening the blood donors.

Quantitative method

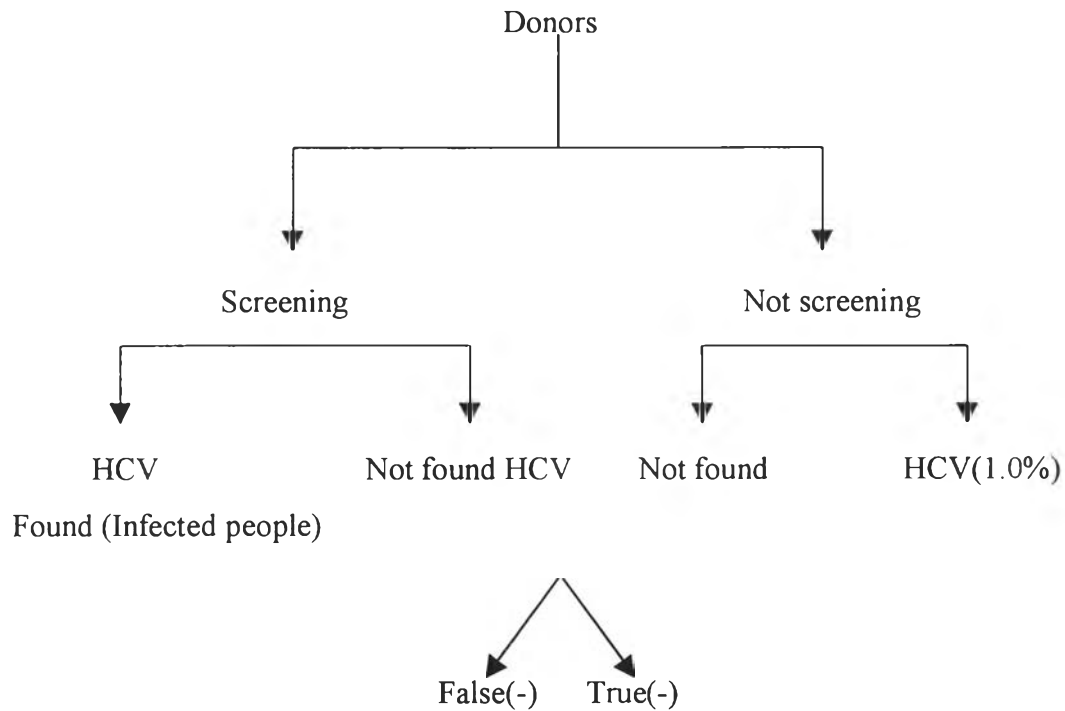
Use the analysis in benefit of screening to find out for the infected population for HCV in blood donors. We use Cost-Benefit analysis theory to answers the benefit of screening for the infected for HCV is blood donors.

3.2 Conceptual Framework

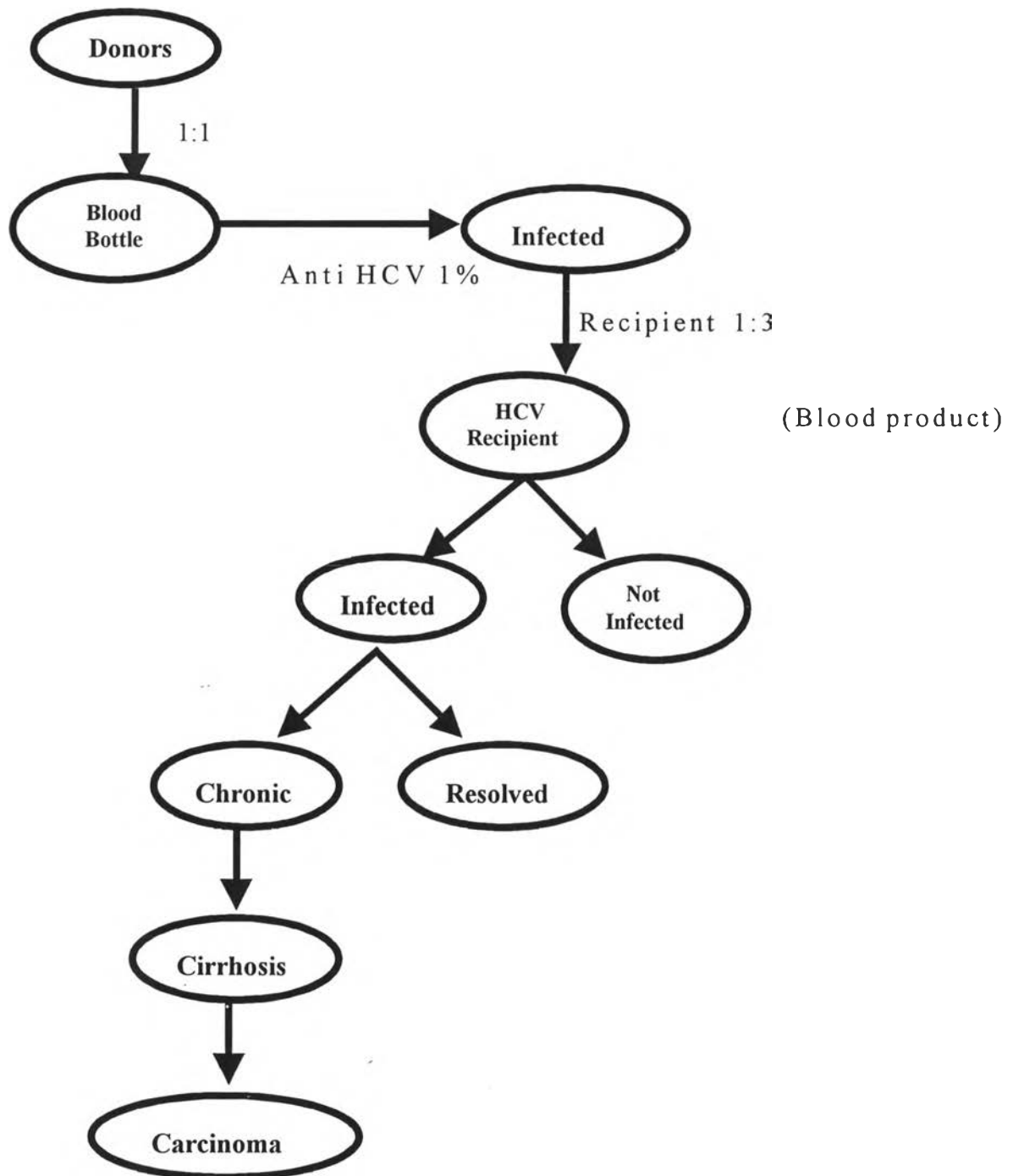
To evaluate the benefit of screening blood donors at Thai Red Cross to find the infected population for HCV. The data was calculated between years 1998-2000 and was analysis by using Cost-Benefit Analysis (CBA) and Cost-Benefit Ratio (B/C) theory.

Figure 3.1 Conceptual Framework

Conceptual Framework



All blood donors as framework was divided into two parts for screening process. The benefit for blood donors that had been screened had helped to find infected person and prevented the spreading of the disease and early treatment was provided.. In the case for diagnosis of hepatitis C, and found false positive had waste the cost and time for the confirming but, it is very rare to occurs due to the effectiveness of the Elisa test. In the second part for not screening we had found infected rate to be at 1%. This infected rate will not get the treatment and will result in lost income saved, and loss life later on.

Figure 3.2 Prevented populations**Prevented population**

The method to find prevented population is from blood donors. One person per unit of blood. Donor's population found the prevalence HCV infection 1%. The infected unit can distribute to three persons. HCV infected will develop to chronic, cirrhosis and carcinoma.

3.3 Data Collection

Will be using the primary and secondary data.

Primary data

For the first state (Acute) and second state (Chronic) were by using the interview, the patients for 16 persons at the OPD, that came to get treatment at the King Chulalongkorn Memorial Hospital between the year 1998-2000.

Secondary data

The method will be by collecting the entire information statistic.

1. Anti - HCV, labour cost, and other expenditure cost were be collected from The National Blood Center.

2. For the third (Cirrhosis) and fourth (Carcinoma) state were be collected at King Chulalongkorn Memorial Hospital.

3. The information for HCV were collected by the use of other thesis to be as a guideline (Chulalongkorn , Mahidol University , and Ministry of public health).

3.4 Data analysis

To analyses the data were use the cost benefit analysis of screening HCV, ELISA method was used. The cost-benefit analysis was applied 2 methods.

3.4.1 Cost-Benefit analysis

TF = Total benefit – Total cost

Total benefit = Lost income saved + cost saved

Total cost = Cost of screening test + other cost

$$TF = [(Lost\ income\ saved + cost\ save) - (Cost\ of\ screening\ test + Other\ cost)]$$

The first method was occurred from summing up lost income saved and cost saved minus from the total of cost of screening test and other cost.

Concluded : Benefit in screening for all the donors - Not benefit in screening for all the donors

3.4.2 Cost-Benefit Ratio

Ratio = sum of benefit / sum of cost

Some of benefit = lost income saved and cost save

Some of cost = cost of screening test and other cost

The second method occurred from sum of benefit divided by sum of cost

Conclusion: result test > 1 is Benefit and result test < 1 is not benefit.

3.5 Definition

Benefit

1. Lost income saved

The lost income saved is the HCV infected population who have received the right intervention for self care to delay the reaching of the last stage for the patients.

2. Cost saved

Cost saved was the resource that had been saved for the population that can prevent blood transfusion from the infected donors of HCV virus; therefore the HCV virus can be preventable from spreading.

COST

1. Cost of screening test

It only cost is that of ELISA (Enzyme Linked immune Sorbent Assay) in performing blood test at Thai Red Cross, National blood center.

2. Other cost

The cost which excluded the cost of screening test but is the cost which involved with the screening process.

2.1 Labour cost which mean the salary that had been paid to the staff for each department to appreciated the outcome of the work of screening for HCV.

2.2 Other expenditure cost mean the money that had been paid out such as the equipment and the building, the lights and water expenditure.

3.6 Assumption

1. The method for screening process were using the ELISA test which is very practically effective for HCV screening.

2. Every patient that comes to get the treatment for HCV at Chulalongkorn memorial hospital should pass all the steps of examinations.