CHAPTER I

INTRODUCTION

1.1Background

In developing countries of Asia, and South East Asia, tetanus has become a major concern of health problem. Reports show up to 1 million cases annually; mostly in developing countries case fatality rate ranges from 10-80% and is highest among infants and the elderly. Neonatal tetanus accounts for 50% of the tetanus-related deaths in developing countries (Dire, 2011).

Tetanus is a serious illness caused by tetanus bacteria. The bacteria live in soil, saliva, dust and manure. These bacteria usually enter the body through a deep cut or even through a small injury and often neglected by the patients, thus leading to small muscle stiffness and spasms and also fever which is normally neglected by the patients. But as the disease starts to progress the patients turn to the hospital with severe symptoms of muscle spasms all over the body (Zieve, 2010). Due to the muscle spasms caused by the toxin, the airway can close down, causing the patients to die as a result of not getting enough oxygen (Bupa, 2010).

The tetanus disease should be assessed for the clinical signs, trismus, or stiffness in the jaw muscles (also known as lockjaw) is assessed as the mild onset. Followed by a stiff neck, shoulder, or back, trouble swallowing and fever without the disruption in breathing is assessed as moderate onset. Meanwhile, the severe onset of the disease is when there is heavy muscle spasms all over

the body and there is breathing becomes difficult or impossible and death can occur without life-support measure (Bupa, 2010).

The site of infection also can be used to assess the severity of the disease, based on Phillips score where it explains that the infection in internal and umbilical area is more severe compared to the infection to the head, neck and body wall regions. According to Philip's score the shorter incubation time causes higher severity of this disease (Edlich dkk., 2010).

The current interventions taken in RSUD dr. SAIFUL ANWAR, for the treatment of tetanus is the patients are diagnosed with tetanus by using the Albert's score for children and Hadi's scoring for adults (Gotet dkk., 2005). Phillip's and Land's scoring cannot be used in Indonesia because there is a variable in immunization amongst the civilians in Indonesia as Phillip's scoring has immunization as one of its components (UNICEF, 2009). In RSUD dr. SAIFUL ANWAR, Hadi's score is being used to diagnose trismus which has a score of 1 (Subantoro, 2003).

In the study done by Subiantoro in the year 2003, it is reported that during the period of the year 2000 to 2002, about 81 patients were admitted into, RSUD dr. SAIFUL ANWAR, Malang and a total number of 42 patients died due infection of tetanus which is about 51.85%. This shows that the mortality rate of tetanus patients seeking treatment in RSUD dr. SAIFUL ANWAR, is high (Subiantoro, 2003).

Based on the data collected from the previous study conducted on tetanus patients, shows that elderly patients who suffered focal infection in the leg with

short incubation time and breathing muscle spasms has the highest mortality rate (Subiantoro,2003).

Therefore, we are interested to know the number of tetanus patients' seeking treatment in RSUD dr. SAIFUL ANWAR, influenced by the variables as stated above and other variables that could be obtained from the medical records. To obtain optimum results of this study these are the guidelines drawn about the problems.

1.2 Problem Formulation

What is the profile of *tetanus* patients hospitalized in RSUD dr. SAIFUL ANWAR, Malang in the period of the year 2008 to 2010?

1.3 Objectives of study

1.3.1 Primary objective

To obtain the profile of tetanus patients in RSUD dr. SAIFUL ANWAR, Malang in the year of 2008 to 2010.

1.3.2 Specific Objectives

1.3.2.1: To identify the number of tetanus patients based on focal infection.

1.3.2.2: To identify the number of tetanus patients based on cause of infection

1.3.2.3: To identify the number of tetanus patients based on incubation time.

1.3.2.4: To identify the number of tetanus patients based on the age factor.

1.3.2.5: To identify the number of tetanus patients based on gender

1.3.2.6: To identify the number of tetanus patients based on clinical severity of tetanus

1.3.2.7: To identify the number of tetanus patients based on cause of death.

1.3.2.8: To identify the number of tetanus patients based on total number of deaths

1.3.2.9: To identify the number of tetanus patients based on treatment received.

1.3.2.10: To identify the number of tetanus patients based on length of hospital stay.

1.4 Benefits of study

1.4.1 Academic Benefits

The results of this study could be used by other teaching institutions as guidance for medical information regarding tetanus disease and for future investigations regarding tetanus disease.

1.4.2 Practical Benefits

The data of this study can be used by the management of RSUD dr. SAIFUL ANWAR, Malang to enhance the level of treatment and care for the tetanus patients.