# Social characteristics of patients with rabies



#### **INTRODUCTION:**

## **TOPIC BACKGROUND**

In over 100 countries, greater than 2. 5 billion of the masses are in danger as officially reported by the World Health Organization. <sup>(3)</sup> Of all infectious diseases worldwide, Rabies has the tenth highest[Unknown A1]mortality. Even if good post-exposure vaccine as treatment are accessible, every year there are still about 50000 to 60000 human deaths <sup>(4)</sup>. Most cases, greater than 90%, among countries globally are the result of bites from canines, such as dogs with rabies. <sup>(5)</sup>

According to the World Health Organization, among the public health problems in the Philippines, rabies is one of them. This puts the Philippines as one of the top ten countries in the world with this problem. Rabies continues to be the cause for the deaths of 200 to 300 Filipinos per year. 202 patients died of rabies in 2011, and 257 deaths in 2010.

According to the World Health Organization children ages less than 15 years old comprises at least 1/3 of deaths due to human rabies. For the past 5 years, animal bite cases has been increasing. At least 328, 459 persons in 2011, and 266, 220 individuals in 2010 were bitten by animals. School children comprises almost half of rabies exposures and the principal cause of animal bites and rabies cases are dogs. (8) According to the Department of Health, it remains to be accountable for the deaths of 200-300 Filipinos annually. In Davao Region, statistics showed an increasing trend in animal

bite cases from 2009-2013 noting with more than 10 cases of human rabies yearly.  $^{(11)}$ 

At Southern Philippines Medicine Center, the Health Information

Management documented 82 cases of human rabies from 2010 to 2013.

In the management of rabid patients the majority of these patients do not survive for > 3 weeks <sup>(10)</sup>, thus entails a poor prognosis. Managing these cases suggests a palliative intent. Moreover, alleviation of the distressing symptoms and medical complications will be the primary goal. Comfort may be provided to the patient and the family by relieving the neurological symptoms of these patients. The clinical presentation of rabies develops into either encephalitic (furious) or paralytic (dumb) forms of the disease. Hyperexcitability, autonomic dysfunction, and hydrophobia are characteristic of encephalitic rabies, and quadriparesis with sphincter involvement is characteristic of paralytic rabies. These symptoms will be addressed by the use of sedatives, narcotic analgesics, anti epileptic medications, and neuromuscular blockers. Also in carrying out this management, protective nursing skills should always be utilized to prevent exposures of health care workers or family members. Even so, there are no documented rabies virus transmission to a health care worker to date.

It is a standard practice among hospitals that if a patient is diagnosed to be rabid, health care workers tie the patients to the bed because of their violent and infectious nature. These patients were isolated and left on a dark room alone with steel barriers and prevented to be in contact with their families. There were no comfort measures rendered for these patients which may be

distressing to the family members left. Thus, a programme known as the Starfish Palliative Care Programme was established at San Lazaro Hospital to particularly address the difficulty of the patients in the rabies ward noting that rabid patients go through a violent death in a state of psychotic fear of air and water, stricken by excruciating spasms.

In relation to the Starfish Programme of San Lazaro Hospital, a study conducted by Sue C. Marsden and Ceri R. Cabanban entitled "Rabies: a significant palliative care issue" showed that a satisfying symptom management of dying rabies patients was demonstrated by the use of haloperidol which is one of the important foundations of good palliative care. Holistic approach in dealing with these patients were addressed, for which the physical, emotional and spiritual aspects were accounted for providing good quality of care and comfort to these patients and their loved ones left behind.

Southern Philippines Medical center, the largest government hospital in Mindanao based on bed capacity, holds one the Department of Health's programs known as the Rabies Control Program. (12) Among all of the documented cases of human rabies in Region XI from 2010 to 2013, this institution catered 82 of these cases as listed in their database. In relation to this, as a government institution same with San Lazaro Hospital, it is important to know Southern Philippines Medical Center's programs and protocols with regard to human rabies. Since the Starfish Program of San Lazaro Hospital has established the holistic dilemma that the rabid patients and their families dealt with and has produced protocols on how to manage them, this research will be appropriate and will be significant because at the https://assignbuster.com/social-characteristics-of-patients-with-rabies/

present there are no known established nor existing hospice care programs for the dying rabid patients here in our institution. Thus the need to look into and to study the characteristics of these patients to help the hospice and palliative care of this institution in launching a program that will give the best quality of care to these patients, families involved and as well as the health care provider whom will deal with these patients.

## REVIEW OF RELATED LITERARTURE

#### **EPIDEMIOLOGY**

Approximtely greater than 2. 5 billion people are at risk of rabies in over 100 countries reporting the disease. Accounting rabies as one of the top ten causes of mortality of all infectious diseases worldwide.(2) According to the World Health Organization, althoug[Unknown A2]h with available effective vaccine for post exposure treatment, yearly there are still about 50000 to 60000 human deaths. Approxiamtely 26, 000 people died from rabies, in 2010, down from 54, 000 in 1990, majority came from Asia and Africa.(1) Due to the rampant stray dogs in India, the country has the world's highest recorded rate of human rabies. Seconded by Vietnam, and with Thailand as the third on 2007 from which the virus are primarily transmitted through canines. In Beijing on 2006, the government launched the "one-dog" policy to control the rabies problem in their country. (1)

In the Philippines, Rabies continue to be a public health issue putting the country among the the top 10 countries with rabies problem. Rabies has become the cause of death among Filipinos recording 200 to 300 deaths

annually. 257 died of rabies in 2010 and 202 deaths were reported in 2011. (8)

Children less than 15 years old comprise one third of cases to have died due to rabies. In the past five years, animal bite cases has been rising. In 2010, at least 266, 220 and in 2011 328, 459 persons were bitten by animals. School children comprise almost half of rabies exposures. Dogs remain the principal cause of animal bites and rabies cases. Recorded in 2011, Region 5 has 26 rabies, the highest among the regions and among the provinces, highest is recorded in Bukidnon which registered 13 cases. (8) According to the Department of Health, in Davao Region, statistics showed an increasing trend in animal bite cases from 2009-2013 noting with more than 10 cases of human rabies yearly. (11) According to the Regional Epidemiology Surveillance Unit of the Center for Health Development Region XI, from January 1 to December 2013, 16 human rabies cases were reported and gathered from the ten Sentinel SurveillanceHospitals of the region. (13) At Southern Philippines Medicine Center, the Health Information Management documented 82 cases of human rabies from 2010 to 2013.

## **MANAGEMENT**

The use of haloperidol in the management of dying rabies patients was considered as one of the foundation of good palliative care as it showed good symptom management. It has achieved and addressed the physical and personal care of the rabid patients and their psychosocial aspect as well. Stories such as families being able to have emotional and spiritual healing with their dying rabid patients rather than looking at them traumatically

strapped to a bed and locked in a steel barred cell has provided them with a less fearful environment.  $^{(14)}$ 

According to a study entitled "Management of Rabies in Humans" by Alan C. Jackson, et. al they noted even with intensive care, most of the patients with rabies do not survive for > 3 weeks even with intensive care although one patient died 133 days after the onset of illness. One hundred percent mortality and painful symptoms were reported for previously unvaccinated patients with rabies. Thus give little encouragement for heroic measures. Since rabies have a poor prognosis, palliative intent of treatment should be the routine management. Anticipation of the symptoms and complications must be taken into account so that appropriate preventive and treatment measures can be taken. Comfort may be provided to the patient and the family by relieving the neurological symptoms of these patients. The clinical presentation of rabies develops into either encephalitic (furious) or paralytic (dumb) forms of the disease. Hyper-excitability, autonomic dysfunction, and hydrophobia are characteristic of encephalitic rabies, and quadriparesis with sphincter involvement is characteristic of paralytic rabies. These symptoms will be addressed by the use of sedatives, narcotic analgesics, antiepileptic medications, and neuromuscular blockers. Also in carrying out this management, protective nursing skills should always be utilized to prevent exposures of health care workers or family members. Even so, there are no documented rabies virus transmission to a health care worker to date. (15)

According to The Starfish Programme by Anne Dickinson, it was noted that the use of anti-psychotic drugs is very crucial in controlling the acute

psychosis undergone by the rabies patients thus entails its immediate administration on admission to decrease their combative state hence no need for the use of restraints. However, the major barrier to this is the availability of the drugs. Patients can not be given their vital first dose soon enough to control the psychotic symptoms.(16)

Restraining of patients under the starfish program will only be practiced until medication has contained the psychotic symptoms. It was considered a breakthrough in the medical practice since the parents and relatives can attend to the needs of their dying loved ones and correct nursing care can take place. In addition, communicating to these patients has been handled openly by the palliative care team since the aggression and hostility is already controlled paving way to the patients acceptance of the truth and their families. (16)

# **RESEARCH QUESTION:**

This research asks the question, "Among those patients clinically diagnosed with rabies, what are their clinical and demographic characteristics?"

## SIGNIFICANCE OF THE STUDY:

There are a number of reasons why this study is needed and what contributions it will provide to the institution, medical personnel, and the community as well.

This study tends to identify the different characteristics both clinically and demographically of patients clinically diagnosed with rabies which will be used as a guide for developing hospice and palliative protocols which will https://assignbuster.com/social-characteristics-of-patients-with-rabies/

provide a holistic approach for dying rabid patients. Since rabid patients already have poor prognosis and high fatality rate, comfort and hospice care is the most realistic intervention in this case. At present, there is no specific program for these type of patients in our institution. Thus it is very important to establish baseline information so that the program will be tailored according to the findings in this study.

**OBJECTIVE OF THE STUDY:** 

GENERAL OBJECTIVE:

The general objective of this study is to determine the clinical and demographic characteristics of patients clinically diagnosed with rabies admitted at Southern Philippines Medical Center from 2010-2013.

SPECIFIC OBJECTIVES:

To describe the demographic data of admitted patients diagnosed with rabies from 2010-2103 as to:

To describe the clinical data of admitted patients diagnosed with rabies from 2010-2103 as to:

If with palliative medications:

<u>METHODOLOGY</u>

RESEARCH DESIGN

This research is a retrospective cross sectional study design, which all charts of clinically diagnosed rabies admitted patients will be evaluated and audited at post treatment.

#### SETTING AND TIME FRAME

The study will be conducted at Southern Philippines Medical Center starting

June 2014 – July 2014.

# PARTICIPANTS/SUBJECTS

Inclusion: This study will include subjects meeting all of the following criteria.

1. All charts of patients clinically diagnosed with rabies with an ICD-10 code of A82. 9 for rabies, unspecified and A82. 1 for urban rabies admitted at Southern Philippines Medical Center from January 2010 to December 2013

Exclusion criteria: Excluded in this study are the following subjects.

## 1. No exclusion criteria

# SAMPLING PROCEDURES

This study utilizes purposive sampling of medical charts that fit the inclusion criteria since the investigator consciously chooses particular subjects that have certain characteristics pertinent to the study. Purposive sampling targets a particular group of subjects which in this case are medical charts of admitted patients clinically diagnosed with rabies from January 2010 to December 2013 at Southern Philippines Medical Center. The specified time is

indicated for a reason of the active implemen[Unknown A3]tation of the rabies program in the said institution.

#### DATA GATHERING:

The researcher will provide the certificate of the approved research protocol to the head of the medical records to be permitted to access the medical charts of all admitted patients clinically diagnosed with rabies from January 2010 to December 2013. Rabies diagnosis will be based on the ICD-10 code A82. 9 for unspecified Rabies and A82. 1 for urban Rabies and and final diagnosis written in the cover sheet. Once permitted, the medical charts will be audited using a data collection tool provided by the researcher that will characterize both the clinical and demographic data of the subjects and anonymization process will be utilized by removing the patient's name and hospital number whi[Unknown A4]ch could identify the patient. The data variables to be gathered are the demographic data such as age on admission as of last birthday, sex, marital status and job description which will be taken from the patients information sheet filled up by the patient or the family member. The clinical data is subdivided into the following: type of animal, number of days from date bitten up to manifestation of symptoms, with or with out post exposure prophylaxis depending on the category if active or passive immunization are given or passsive immunization only and has completed the scheduled regimen, clinical symptoms on and before admission per patient's and watcher's account and source of bite (type of animal such as dog, cat, rat, pig and horse) will be extracted from the patient's history record. To add up, site or location of bite, number of bite and patient's category of bite, will be extracted from the patient's physical

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examination sheet. Moreover, to be taken from the patient's progress notes and front of chart is the number of hours spent in the hospital. Medical order sheet, side notes, and nursing notes, will be reviewed to extract if counseling is rendered or not also this include pastoral support. Lastly, to review if the patient is given or not with palliative medications which include administration of neuroleptics or antipsychotics, administration of sedatives, administration of anti-secretory agents, administration of antipyretics and administration of opioids for terminal dyspnea; course in the ward, progress and doctor's side notes, nurses notes, medicating sheet and doctors order will be reviewed.

#### SAMPLE SIZE COMPUTATION:

Total enumeration will be used in this study.

#### DATA HANDLING AND ANALYSIS OF DATA

A data collection tool for demographic and clincal profiling of subjects will be used and analysed.

The socio-demographic and biomedical data were encoded using Microsoft Excel 2007. Baseline description of the patients' characteristics using means, percentages and standard deviations were computed using Epidemiologic Information Software (Epi Info) Version 7. 1. 0. 6 (August 9, 2012) Microsoft Excel 2007 data was imported using Epi Info Version 7. 1. 0. 6 (August 9, 2012).

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[Unknown A3]Sampling procedures edited

[Unknown A4]The anonymization process is described