UNIVERSITI TEKNOLOGI MARA

A SURVEY ON SNAKEBITE CONSULTATION MADE TO REMOTE ENVENOMATION CONSULTATION SERVICES (RECS) MALAYSIA FROM 2012 TO 2014

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Dissertation submitted in partial fulfilment of the requirements

for the degree of

Bachelor of Pharmacy (Hons.)

2015

ACKNOWLEDGEMENT

All praises to Allah SWT for the strength and blessing in completing this thesis. Special appreciation to my supervisor AP. Dr. S.Vellayan for all his effort and guidance in helping this thesis complete without fail. All his comments and suggestion throughout the process for completing this thesis has contributed to the success of this thesis. Not forgotten, special appreciation to my co-supervisor Dr. Ahmad Khaldun Ismail for allowing me to use his data from Remote Envenomation Consultation Services (RECS) Malaysia as my thesis project. My deepest gratitude goes to my beloved parents Mohd Zain Bin Hussein and and also my siblings for their endless love, prayers and encouragement. To my dear friends Anis Zafirah, Norsaadah, Mardhiah and Azizah, sincerely thanks for their help and also for their kindness and moral support. I also want to thank Dr. Kesavan for his advices and supports towards me and my other fellow friends. Everyone is involved in contributing to success in this thesis, your kindness mean a lot to me. Thank you so much.

CONTENT

ABSTRACT

RECS consultations from 2012 until June 2014 is showing increasing trend (Table 1). Majority of the consultation involves cases related to snakes. Data for the second half of 2014 is still being extracted from consultation log and not included into this report. The number of snakebite consultation is higher in the second half of the year. The percentages of the unrecorded data on time of incident are decreasing from 95% to 40.4%. The majority of incident in 2012 and 2013 occurred during daytime between 6.00 am and 6.00 pm. For the first half of 2014, the majority of incident occurred between 12.00 pm and 12.00 am. All the data on age and sex of patient were not recorded in year 2012. In year 2013 and first half of 2014, the majority of patients were male. Most of the incident occurred in the 18 to 39 years old group (young adult). No infant below 1 year old was recorded for snake related cases. The trend on the unrecorded data on age is decreasing from 100% in 2012 to 36.2% in first half of 2014. The percentages of unrecorded data on sex are also decreasing from 100% to 29.1%. Naja sumatrana species have highest number in identified cases in year 2012, 2013 and 2014. In year 2012, percentages of identified and unidentified species for diagnosis are equal. While in 2014, percentages of unidentified are slightly higher than identified diagnosis. Geolocation of the snakebite incident has highest number at Kuantan Pahang in year 2013 and 2014. While in 2014, Kulim, Jempol and Kuala Terengganu have highest numbers of snake related cases. In overall for three years consulted cases, Selangor and Wilayah Persekutuan Kuala Lumpur are the states that having highest snake related cases being consulted. Pusat Perubatan Universiti Kebangsaan Malaysia (PPUKM) is the common treating hospital for snake related cases in year 2012 and 2013. In year 2014, Ipoh Hospital has highest number of snake related cases being treated.

CHAPTER 1: INTRODUCTION

1.1 Background &Literature Review

Snakebite is a medical emergency and affects human populations especially in the tropics. World Health Organization (WHO) estimated, approximately 421,000 envenoming and 20,000 deaths occurring worldwide from snakebite every year (WHO, 2010). In another report, it is estimated approximately 100 000 and 20 000 deaths occur per year in Asia and Africa, respectively. In India, more than 200 000 cases of snakebites envenomation are reported each year with 35 000-50 000 deaths (Cruz, Vargas, & Lopes, 2009). Highest number of snakebite cases were reported from Southeast Asia and Sub-Saharan Africa (Kasturiratne et al., 2008). Among the Southeast Asia countries; India and Sri Lanka have the highest incidence. Snakebite is a neglected public health disease and the incidence is under estimated due to lack of epidemiological data (Kshirsagar, Ahmed, & Colaco, 2013). Snakebite is considered an occupational hazard.

Snakes of medical importance in Malaysia are found on land and sea (Reid, 1968). It has been identified that more than 17 land snake and 22 species of sea snakes species in Malaysia are venomous (Das, 2012; Lim, 1990). Venomous snakes are mainly those equipped with specialised venom gland and front fangs (solenoglyph and proteroglyph). A few of the rear fanged snakes (ophistoglyph) are considered to be of medical significance. Though all of the non-fanged snakes (aglyph) do not produced harmful secretion or venom, some may cause significant