Research Journal of Applied Sciences 9 (12): 975-978, 2014
ISSN: 1815-932X

Condition on Infectious Waste Management of Tambon Health Promoting Hospital in Don Chan District Kalasin Province

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Abstract: This research is having a purpose to study condition on infectious waste management of Tambon Health Promoting Hospital in Don Chan District Kalasin Province. The population consisted of 6 responsibilities to collected the infectious waste officers form 6 Tambon Health Promoting Hospital in Don Chan District. The interviews were developed and used to collect data. The major findings revealed the following: all Tambon Health Promoting Hospital in Don Chan District Kalasin Province have separate infectious waste from general waste in a separate syringe out of 100% of infectious waste but most infections are not required by the management of infectious waste. Mostly Tambon Health Promoting Hospital in Don Chan District Kalasin Province collected infectious waste in stainless tank 66.66% and they have red plastic bag support in tank 100% and were collected infectious waste 1 time/day 100%. The employee of Tambon Health Promoting Hospital was collection all infectious waste. Mostly Tambon Health Promoting Hospital in Don Chan District Kalasin Province don't have disposal process of infectious waste by yourself 100% included the accommodation infectious waste at the sanitary standards of the Ministry of Health and the private collection agency were responsible for infectious waste disposal. Tambon Health Promoting Hospital in Don Chan District Kalasin Province have infectious waste average 1,199.08 g/office/day (SD = 203.16). The infectious waste of Tambon Health Promoting Hospital in Don Chan District Kalasin Province mostly of include that general infectious waste 46.33% and least were hazardous infectious waste 9.19% by weight.

Key words: Infectious waste, management, tambon health promoting hospital, condition, quantity

INTRODUCTION

For five decades small health stations nationwide have served their communities with minimal equipments and personnel as well as acted as the think tank for community health. Recently, many of these health stations are being upgraded to Tambon health promotion hospitals with facility renovation, new medical equipments and ambulances as well as modern technology enabling prompt diagnosis and consultation from senior physicians in the districts and cities via internet communication. The newly revamped Tambon health promotion hospitals provide not only health care but also serve as medical hubs providing health care to community members from the first to the last days of their lives. The direct beneficiaries of this major facelift are public health officers, residents and communities. The upgrade brings new and modern medical equipment to practitioners together with access to new medical science and technology and the internet with coaching from large hospitals. The patients are spared travel expenses to and queuing at large hospitals. Ambulance home pick-up can be arranged for serious cases which require referral to larger hospital. In addition, the community can take a more active part in overseeing their own hospitals. However, it remains to be seen if the upgrade of rural public health service systems to the new Tambon health promotion hospitals will become the turning point in sustainable progress or a merely attractive political propaganda tool where the quality of health care services remain unchanged (Kanchanachitra *et al*., 2010).

Infectious waste or medical waste problem in most hospitals also known as clinical waste, normally refers to waste products that cannot be considered general waste, produced from healthcare premises such as hospitals, clinics, doctor's offices, veterinary hospitals and labs. A main point of this presentation is medical waste. Medical waste is part of a larger solid waste problem. Most waste generated in a healthcare facility can be classified as medical waste (Sowmya *et al*., 2012) which is accorded to Yong *et al*. (2009) and Da Silva *et al*. (2005). Medical wastes are defined to include all types of wastes produced by health facilities such as general hospitals, medical centres and dispensaries. Medical wastes

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represent a small amount of total residues generated in a community. However, such residues can potentially transmit diseases and present an additional risk to the staff of the healthcare facilities, patients and the community when the wastes are not managed properly.

In Thailand, the Ministry of Public Health is the main organization setting policies and controlling health care industries and the health of the people. The principle legislation related to infectious waste management is the Public Health Act 1992 and the Healthcare Facility Act 1998. The Public Health Act specifies that local government shall provide disposal facilities for infectious and industrial non-hazardous waste. The Department of Health and the Department of Pollution Control have claimed that the procedure for collection, transportation and disposal of clinical waste is the responsibility of each health care provider who must comply with criteria specified by the Department of Health. Approximately, 10-25% of the waste generated by health care providers is hazardous waste (Niyompanitpatana and Bonollo, 2012).

Therefore, researcher as an university' lecturer had studied the condition on infectious waste management of Tambon Health Promoting Hospital in Don Chan District Kalasin Province by surveying to solving those problems.

The research's purposes:

- To studies condition on infectious waste management of Tambon Health Promoting Hospital in Don Chan District Kalasin Province
- To studies quantity and composition of infectious waste of Tambon Health Promoting Hospital in Don Chan District Kalasin Province

MATERIALS AND METHODS

The population of this research were a 6 officers who were of Tambon Health Promoting Hospital in Don Chan District Kalasin Province. The research instrument were divided in to two kinds which are: the interview form about condition on infectious waste management of Tambon Health Promoting Hospital in Don Chan District Kalasin Province. The contents of interview form were importantly divided into four sections which are Section 1: general data are 3 items. Section 2: separation of infectious waste are 3 items. Section 3: collecting of infectious waste are 12 items. Section 4: disposal of infectious waste are 4 items. Equipment to collect data on the quantity and composition of infectious waste were divided in to three kinds which are: equipment to collection infectious waste include:

- Trash can with a lid, 10 L
- The 10 L red plastic garbage bag
- The 500 mL thick plastic cans
- Tie a rope bag
- Ice bucket for chilling
- Resolution 0-1000 g with a spring balance weights 1,000 g

Equipment to separation infectious waste include:

- Tongs
- Scissors
- Blanket
- Optional stainless steel
- Lysol and Hypochlorite

Protective:

- Thick gloves
- Coat the plastic sleeve
- Boots
- Mask
- Glasses

RESULTS AND DISCUSSION

Condition on infectious waste management of Tambon Health Promoting Hospital in Don Chan District Kalasin Province.

Tambon Health Promoting Hospital in Don Chan District Kalasin Province separation of infectious waste from general waste using separate syringes out of infectious waste 100% but the separation of most infectious waste not correct principles of management of infectious waste mixed with other solid waste disposal of infectious waste in storage tanks make more volume which may result from a practitioner or related personnel are knowledgeable in the separation of infectious waste completely wrong and not understanding the definitions and guidelines make clear infectious waste separation at source not effective which is accorded to Sanawang (2013) research who found that the all Tambon Health Promoting Hospital in Namon District Kalasin Province have separate infectious waste from general waste in a separate syringe out of 100% of infectious waste but most infections are not required by the management of infectious waste.

Tambon Health Promoting Hospital in Don Chan District Kalasin Province collecting of infectious waste by stainless tank 66.66%, plastic tank 33.34% and they have red plastic bag support in tank 100% and were collected infectious waste 1 time/day 100%. The employee of Tambon Health Promoting Hospital was collection all infectious waste which is accorded to Chakeekrua (2007)

Table 1: Quantity of infectious waste of Tambon Health Promoting Hospital in Don Chan District Kalasin Province

Tambon Health Promoting Hospital	Weeks	Quantity (g day^{-1}) Monday	Tuesday	Wednesday	Thursday	Friday	$\bar{x}$ (g/office/day)	SD
Kudkrong	1	1,200.00	1,120.00	1,250.00	930.00	1,200.00	1,053.00	205.59
	2	870.00	750.00	980.00	1,380.00	850.00		
Sa-ardsri	1	1,965.00	1,560.00	2,000.00	1,750.00	2,300.00	1,847.50	246.03
	2	1,700.00	1,500.00	1800.00	2,100.00	1,800.00		
Dongcharoen	1	900.00	700.00	930.00	700.00	930.00	824.00	166.81
	2	1,050.00	600.00	650.00	1,050.00	730.00		
Banmuang	1	1,800.00	1,000.00	1,500.00	900.00	980.00	1,396.00	542.90
	2	1,900.00	900.00	1,500.00	2,500.00	980.00		
Nachampa	1	1,200.00	600.00	600.00	520.00	450.00	634.00	222.67
	2	800.00	600.00	600.00	520.00	450.00		
Nongwangsan	1	2,000.00	1,000.00	1,400.00	2,200.00	1,000.00	1,440.00	469.52
	2	2,000.00	1,000.00	1,400.00	1,400.00	1,000.00		
$\bar{x}$ (g day^{-1})	-	1,448.75	944.17	1,217.50	1,329.17	1,055.83	1,199.08	203.16
SD	-	486.56	327.95	467.35	676.55	525.59		

Table 2: Composition of infectious waste of Tambon Health Promoting Hospital in Don Chan District Kalasin Province

Tambon Health Promoting Hospital	Composition (g day^{-1}) General	Sharp	Liquid or secretions	Hazardous	Organs or parts of organs	$\bar{x}$ (g/office/day)
Kudkrong	688.00	30.00	300.00	26.00	929.00	1,053.00
Sa-ardsri	481.00	368.00	547.00	236.00	217.00	1,847.50
Dongcharoen	587.00	191.00	31.00	15.00	-	824.00
Banmuang	759.00	309.00	-	328.00	-	1,396.00
Nachampa	240.00	44.00	276.00	74.00	-	634.00
Nongwangsan	1,005.00	268.00	100.00	67.00	-	1,440.00
Total	3,759.00	1,209.00	1,255.00	746.00	1,146.00	8,115.00
$\bar{x}$ (g day^{-1})	626.57	201.49	209.15	124.26	190.97	270.49
Percentage	46.33	14.90	15.46	9.19	14.12	100.00
SD	259.57	139.95	206.84	127.56	371.83	221.15

Collected on 1 January 2014 to 28 February 2014

research who found that garbage selection and collection all health offices in Amphur Muang, Phetchabun Province had methods in selecting and collecting the infectious waste by using the stabilized garbage bin. Almost health offices were firstly selecting all the sharpen equipment out of the infectious waste. Mostly, there were 2 infectious waste bins with their covers the size of 20 L.

Mostly Tambon Health Promoting Hospital in Don Chan District Kalasin Province don't have disposal process of infectious waste by yourself 100% included the accommodation infectious waste at the sanitary standards of the Ministry of Health and the private collection agency were responsible for infectious waste disposal which is accorded to Preeporn (2007) research who found that mostly health offices in Muang District Kalasin Province don't have a total of infectious waste.

Quantity and composition of infectious waste of Tambon Health Promoting Hospital in Don Chan District Kalasin Province. Quantity of infectious waste of Tambon Health Promoting Hospital in Don Chan District Kalasin Province had average 1,199.08 g/office/day (SD = 203.16) (Table 1).

Composition of infectious waste of Tambon Health Promoting Hospital in Don Chan District Kalasin Province mostly include that general infectious waste 46.33% and least were hazardous infectious waste 9.19% by weight (Table 2).

CONCLUSION

From this research, infectious waste management of Tambon Health Promoting Hospital in Don Chan District Kalasin Province mostly not properly implemented at principle of Ministry of Public Health. The health officers should be training on infectious waste management and environmental pollution.

ACKNOWLEDGEMENTS

This research has completed perfectly with a support and kindness of Assistant Dr. Yanyong Inmuang from Faculty of Public Health Khonkaen University, Dr. Supasak Mueangprom, Dr. Lampoon Sanawang, Dr. Somsak Sripugdee from Ministry of Public Health and Dr. Rittirong Junggoth from Faculty of Environmental and Resource Studies Mahasarakham University who have greatly given a useful advice and weakness verification from the beginning till its

completion. The study was supported by funds from Kalasin Rajabhat University and National Research Council of Thailand (NRCT).

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