

VIRAL HEPERTITIES OUT BREAK IN ELLA, UVA PROVINCE, SRI LANKA

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Abstract:

The study based on Epidemic outbreak of Viral hepatitis in Aluthgama-Kalugalpathana in Ella area. Aluthgama; the small village, five kilometer away from Bandarawela town and it is located in Dova GND in Ella D.S. in Badulla District. The population of Aluthgama village around 750 in 215 number of families. In the month of April 2015 it was reported outbreak of viral hepatitis in Aluthgama area. The investigation study was carried out by National water supply and drainage board with help of health sector of Badulla district. Through the several investigations finally identified the reason for this critical situation as unsafe drinking water supply. Villagers consume water by pipe borne water supply scheme; named kalugalpathana Water supply scheme. The maintains of scheme has been taken over by Ella pradeshiyasabawa since 2013. The small stream flow down from hill-top is based for water project has no proper disinfection process. Study path gave the conclusion as raw water in catchment was contaminated by the people who are deforesting the catchment by living the upper catchment area during that short period. The one of that group was the dieses carrier.

Keywords: safety, hygiene, quality, satisfactory

1. Introduction

Sri Lanka is still under developing country which is having more features in geographically. The highest mountains in the central area whereas the lot of water bodies' start from there and goes towards the sea making several water streams around the country. For serve the nation with treated drinking water, water treatment plants are constructed in several areas according to the geographically and location of crowded areas. Hence nearly 1000 small and big treatment plants are proceeding to achieved the our target of customer satisfaction. Among that Ella region is the one of water treatment area in Badulla District. Out of 18 small water treatment plant in Ella, Aluthgama- Kalugalpathana is serving 20 cubic meters per day of water quantity. The study based on Epidemic outbreak of viral hepatitis in Aluthgama-Kalugalpathana in Ella. Villagers consume water by pipe borne water supply scheme; named kalugalpathana Water supply scheme. The scheme has been taken over by Ella pradeshiyasabawa since 2013.

2. Objectives of the study

The key objective of this study to identify the epidemic outbreak of viral hepatitis in Aluthgama-

Kalugalpathana which is important case study of human heath based water treatment process.

3. Methodology

Aluthgama; the small village, five kilometer away from Bandarawela town and it is located in Dova GND in Ella Divisional Secretary in Badulla District. The population of Aluthgama village around 750 in 215 number of families. In the month of April 2015 it was reported outbreak of viral hepatitis in Aluthgama area. The investigation study was carried out by National water supply and drainage board with help of health sector of Badulla district. Through the several investigations finally identified the reason for this critical situation as unsafe drinking water supply.

The case study conduct in few steps

- Demarcate and map the catmint treatment and water distribution areas.
- Water samples were collected and tested throughout the process including customer drinking point
- Point out and concentrated the houses of reported patients.
- To catch up all the data from Physical health instructor, Grama Niladari and other relevant

supporting services conducted the meeting in the village.

4. Results and Discussion

Water quality data of considered area is in table 1.

Table 1: Water quality of Aluthgama water Supply Scheme

Place	Date	Coliforms/ 100 ml	E-coli / 100 ml	E.C. us/cm	Chloride mg/l	Alkalinity mmol/l	Hardness mmol/l	TDS mg/l
Aluthgama intake 01	03.04.2015	950	105	78	14	38	36	39
Aluthgama intake 02	03.04.2015	10	2	103	16	50	48	51
Stock tank	03.04.2015	750	200	73	14	36	44	36
section A, Chandrapala.No. 31	03.04.2018	200	48	75	10	36	40	37
section B, Damayanthi, No.399	03.04.2015	70	15	75	10	36	40	37
section C, Chamila Warnasooriya	03.04.2015	12	15	76	12	38	40	38
section D, Ramanayaka.No. 309	03.04.2015	10	12	84	12	42	42	42
section E, Lalitha Kumar, No. 265	03.04.2015	15	13	76	12	36	42	38

According to the above results the initiation of the case identified as contamination of catchment.

Therefore the case study turns towards the identifying of the pollution source of catchment. The visual observation of particular field seems the temporary settlers as used woodcutters. Upper catchment land contents the important trees of Department of Forest and they have given the subcontract to deforest to get timber. This subcontract people used the above mentioned huts. Small stream flow down from hill-top is based for water project has no proper disinfection process. Study path gave the conclusion as raw water in catchment was contaminated by the people who are deforesting the catchment by living the upper catchment area during that short period. The one of that group was the dieses carrier.

Problems enclose; The existing water supply scheme has 137 connections and the component of the scheme content 3 km main, 15m³capacity ferrocement storage tank and distribution system. Proper laying of pipes was not observed. There is no proper disinfection system or good understanding of safe water. Only one lady care taker works in pradeshiyasabawa for maintains and

she has no capacity to overcome the water supply problems. Water delivers as intermittence supply and may cause re-contamination within the pipe line. The area belongs to Catchment is 5 acres which do not sufficient to get enough quantity of water. Villagers are very poor and no good hygiene practices.

Problem overcomes; Awareness programs among the villagers done with the help of P.H.I of the area. Apply the Chlorination in proper manner to overcome the fecal contamination of raw water. Water quality testing is carrying out continuously for verify the absence of Bacteriological contamination. Catchment protection program will be introduces.

5. Action taken

- With the help of PHI and the Caretaker proper disinfection process started.
- Follow-up the sample testing continuously.
- Awareness program carried out
- Start to develop the water safety plane for this water supply scheme.
- Under the rules and regulations of NATIONAL WATER SUPPLY AND DRAINAGE BOARD to protect and maintain the above scheme.

6. Recommendation

In order to promote the water safety plane (WSP) staring committee was appoint for wider applications, some key factors shall be addressed. Firstly, proper planning of WSP is important with reference to the specific needs and conditions. This could be facilitated by WSP in local planes for water managements. However, planning needs to be taken with care for all sensitive issues including public health, stakeholders and viability of operation and maintenance. Secondly, economic and financial requirements are also needed to be studied in depth, as less viable schemes for WSP will create a social burden and will not last for long. Thirdly, local capacities including human resources and legal frame work are also very important in achieving sustainable targets of water safety planes.

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