

Chlorination Level of Water and Prevalence of Viral Hepatitis in Flood Affected Areas of Vadodara, India

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Chlorination Level of Water and Prevalence of Viral Hepatitis in Flood Affected Areas of Vadodara, India

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Abstract

Introduction: Recently Gujarat has been attacked by flood in 2005 specifically Vadodara City between June 29 to July 2, 2005. The chlorination level of drinking water is checked through house to house survey post flood and results were compared to hepatitis cases after few months in the same areas.

Objectives: To know the chlorination level of water in administrative ward wise municipality system in Vadodara city post flood and its association with the viral hepatitis cases after few months.

Methodology: Study population includes purposively selected 400 households from each of the 10 wards of Vadodara city. This research has been conducted between July to October 2005 (Chlorination of water - July 4th to July 20th 2005 and Disease prevalence – July '05 to Oct '05.). Chlorination of water is checked through house to house survey while Viral Hepatitis data were collected through municipal corporation monthly reporting system. Statistical analysis was done using Epi info 6.04d.

Results: Measuring the chlorine level in each of the 10 administrative wards of Vadodara city showed initial low level of chlorine (<0.5PPm) in north and east zone followed by east and west zone up to 8th July 2005 which then significantly improved after regular update and follow up action daily till 12th July, but east and north zone continued to a problem of low chlorination level through study period. Higher prevalence of viral hepatitis cases reported in the month of august-Nov. 2005, which is in relation to low chlorination level of water in all zones, significantly higher in east zone through the study period.

Conclusion: Low level of chlorine in water was associated with higher number of viral hepatitis all the wards of Vadodara city.

Keywords: administrative ward, households, chlorination of water

References

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