

**Original article:**

## **Cross sectional study of HBs Ag reactivity in patients referred for the same attending Government Stanley Medical College Hospital**

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### **Abstract:**

**Objective:** To find out the HBsAg reactivity status of Patients referred by clinical departments of Govt Stanley Medical College Hospital for 3 months period

**Methodology:** Daily collection and assessment on the reports of blood samples sent for HBs Ag reactivity status for a three months period.

**Results:** Total samples received from Jan 2016 to March 2016 were 5734 and 129(2.2%) samples were positive for HBsAg. Routine screening only pick up asymptomatic individuals.

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### **Introduction**

Chronic Hepatitis B infection accounts for 40-50% of Hepatocellular carcinoma & 10-20% cases of cirrhosis in India.<sup>1</sup>Routine screening done prior to surgery, blood donation, antenatal period and for willing patients.

Most of the Infective Hepatitis cases are anicteric and after a prodromal flu like or mild GIT symptoms the disease is left unnoticed and untreated.<sup>2</sup> There is a risk of these patients going for chronic hepatitis B infection and associated morbidity & mortality. Chronic Hepatitis patients are treated with peg interferon, tenofovir, adefovir, lamivudine to protect against further liver damage.<sup>3</sup> Anicteric chronic Hepatitis patients are deprived of standard treatment for want of screening.

**Chronicity:** There are 100% chances of chronicity in patients with HDV super infection over HBV (HBV-

HDV co-infection have 1-10% chances), while perinatal HBV and HCV has 90% and 85% chances of chronicity, respectively.<sup>4</sup>

There is also risk of partner infection and transplacental transmission in the absence of screening and counseling.<sup>5</sup>

So routine screening of patients needed rather than only for blood donors, antenatal mothers, pre surgically even when there is no past history of jaundice.

### **Aim**

To find out the HBsAg status of Patients attending Govt Stanley Medical College Hospital for 3 months period

### **Methods**

This cross sectional study was done from January 2016 to march 2016.

### Specimen collection

Only fresh human serum or plasma were collected and stored. The samples were transported in compliance with current govt regulations regarding transport of etiologic agents. Analysis was done by Hepalisa kit- it is a microwell ELISA test for detection of HBsAg.

### Results

Patients were referred for HBsAg reactivity status from general surgery, ENT, orthopaedics, nephrology, urology and other departments including various OPDs, Paediatric, vascular surgery, psychiatry and gynaecology wards. Patients

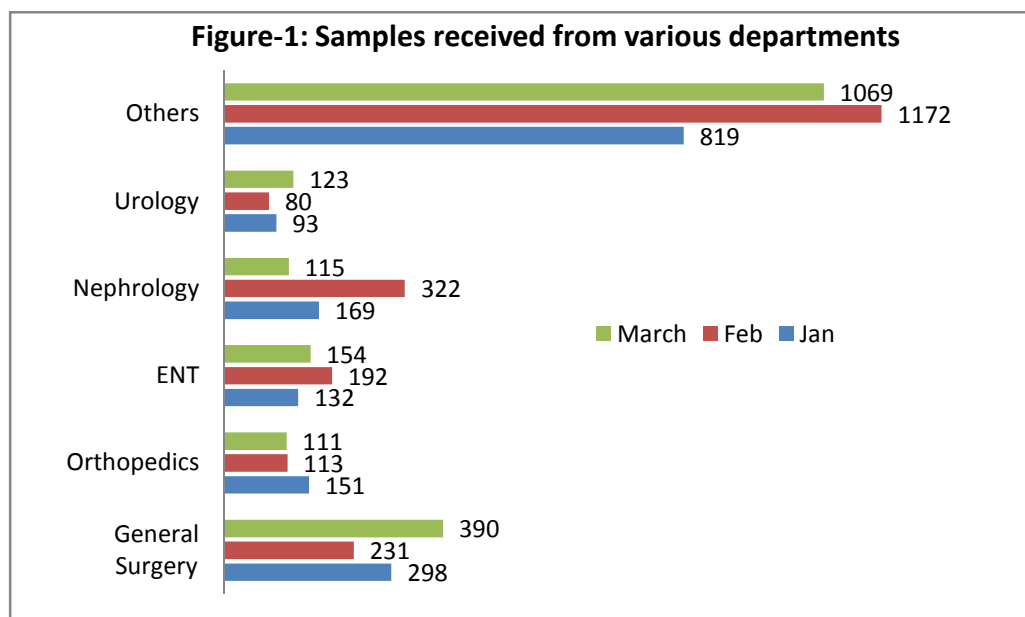
undergoing haemodialysis were sent for repeated evaluations periodically.

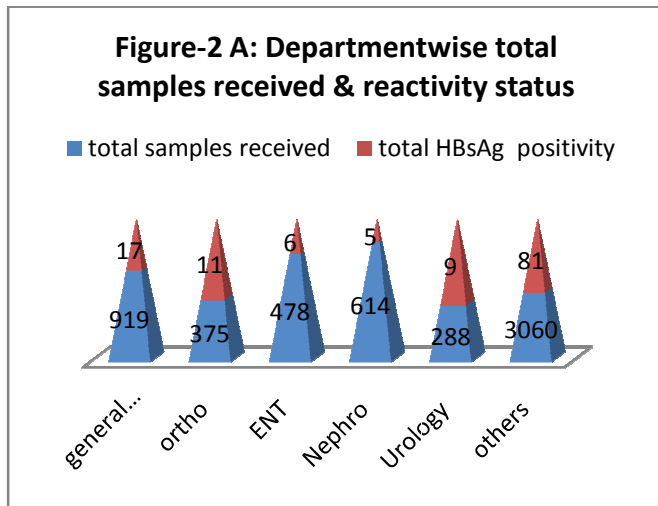
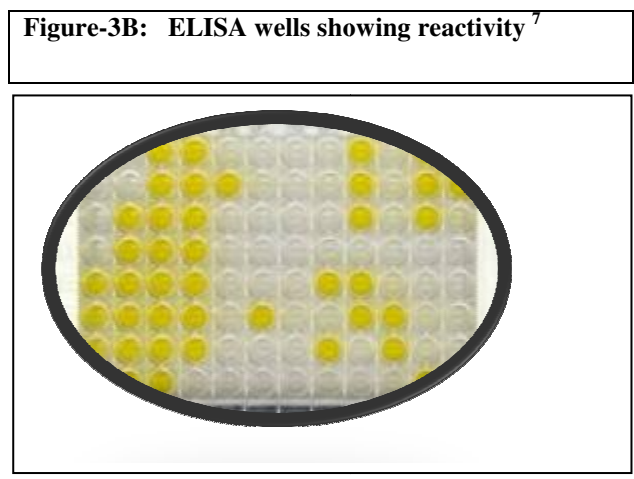
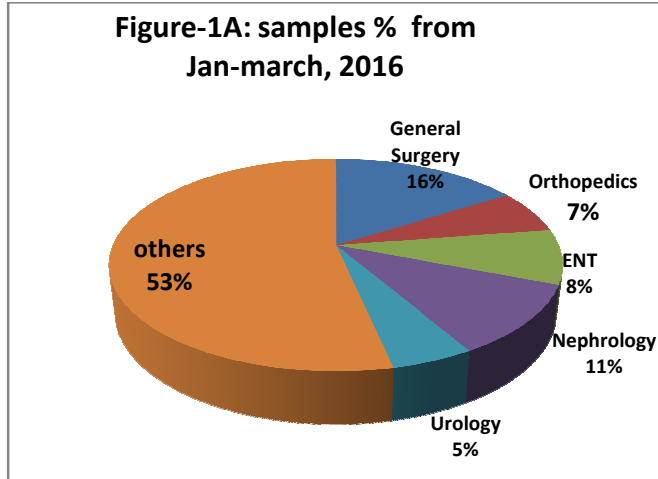
919 (16%) samples were received from general surgery department for the three months period and 17 (1.8%) were positive. Out of the 614 (11%) samples received from nephrology department, 5(0.8%) were found to be reactive. 375 (7%) patients were sent for HBsAg reactivity from ortho department and 11 (2.9%) were positive. 288 (5%) patients from urology department were tested and 9 (3.1%) patients found to be HBsAg reactive.

Samples from other departments account to 3060 (53%) of which 81 (2.6%) patients found to be reactive.

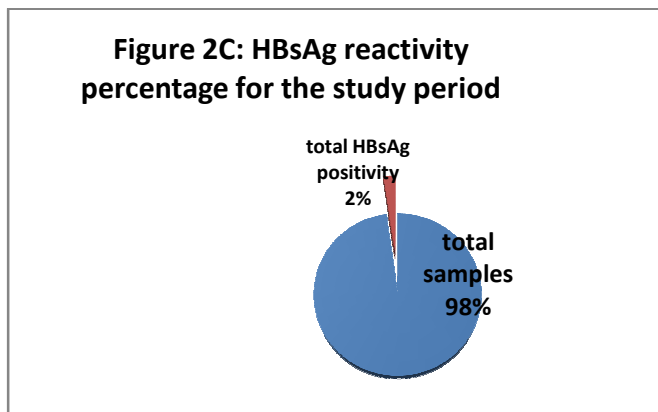
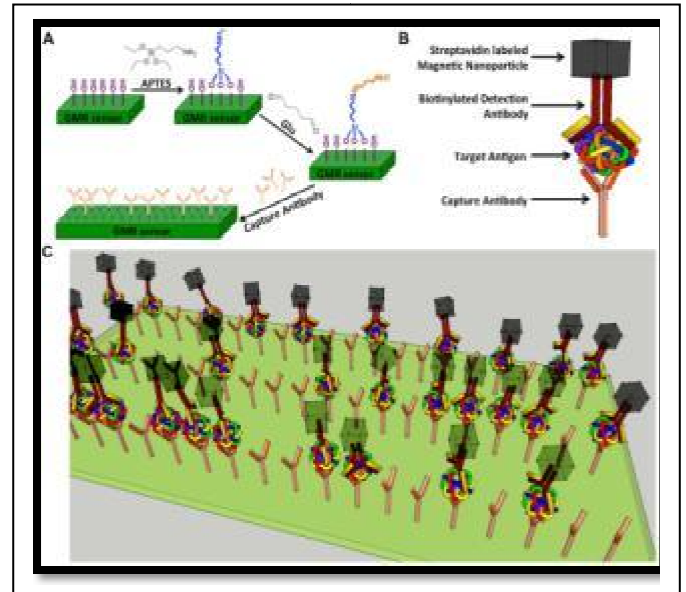
**Table-1: Samples received from various departments**

Month-2016	General Surgery	Orthopedics	ENT	Nephrology	Urology	Others
Jan	298	151	132	169	93	819
Feb	231	113	192	322	80	1172
March	390	111	154	115	123	1069
Total	919	375	478	614	288	3060





**Figure-3A: Principle of ELISA**<sup>6</sup>



**Conclusion**

Routine screening can only pick up asymptomatic infective individuals pretest and post test counseling help the affected to understand the disease and seek

appropriate medical help. Non infected individuals, non infected partners counselled to complete the 3 doses of hepatitis B vaccine.

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