CONCLUSION
Prevention of transfusion associated infections and supply of safe blood are ever increasing challenges. In developing countries like India, huge requirements of blood (because of large population size and frequent use of whole blood rather than blood products), economic constraints and failure to disseminate information add further to the problem. For supply of safe blood, careful selection of blood donors and effective laboratory screening of the donors, prior to transfusion are key factors.

The present study therefore aims to measure the seroprevalence of hepatitis B and C in blood donors and to determine their relation with donor's blood group, age and sex, to reduce the risk of transfusion associated hepatitis.

The study was conducted in the department of pathology and blood bank, G.S.V.M. Medical college, Kanpur. Following conclusions were drawn from the study.

1. A total of 20,000 blood donors were screened for the presence of HBsAg and HCV in their blood.
2. All blood donors were asymptomatic apparently healthy.
3. Out of total 20,000 blood donors visiting blood bank, male outnumbered female in study. Male constituted 96.18% and female constituted 3.81%.
4. Donors aged 25-35 years were over represented in the study.
5. Out of 19,235 male blood donors, 9655 belonged to the age group of 25-35 years.

6. Out of 765 female blood donors, 339 belonged to the age group of 25-35 years.

7. Most common blood group among male blood donors was B-positive and among female blood donors was O-positive.

8. Blood group distribution among donors was as follows: A-positive 22.02%; B-positive 35.53%; AB-positive 9.7%; O-positive 28.39%; A-negative 1.08%; B-negative 1.6%; AB-negative 0.46%; O-negative 1.23%.

9. Most common Rh-group among donors was Rh-positive. Out of total 20,000 donors 19127(95.64%) were Rh-positive and 873(4.37%) were Rh-negative.

10. Out of 20,000 blood donors, 450(2.25%) were found to be HBsAg positive.

11. Out of 450 HBsAg positive donors 440 were male and 10 were female. The seroprevalence of HBsAg among male blood donors was 2.28% and among female blood donors was 1.30%.

12. Study shows that highest seroprevalence was found in the age group of 35-45 years(3.03%) and lowest among donors aged 19-25 years(1.78%).
13. Among male blood donors maximum prevalence of HBsAg was found in 35-45 year age group (3.10%) and among female blood donors in 25-35 year age group (1.76%).

14. Maximum seroprevalence of HBsAg was found in donors having blood group B (2.34%) and minimum in blood group AB donors (1.87%).

15. HBsAg seroprevalence was found to be higher (2.40%) in Rh-negative group donors and lower (2.24%) in Rh-positive group donors.

16. Among Rhesus-positive group maximum prevalence of HBsAg was found among group B donors (2.39%) and among Rhesus-negative group donors belonging to group O showed maximum prevalence (3.65%).

17. Maximum prevalence of HBsAg was seen in male donors belonging to blood group O-negative (3.78%) and in female donors belonging to blood group B-positive (2.04%).

18. Study shows that in 20,000 blood donors, 68 (0.34%) were found to be HCV positive.

19. Out of 68 HCV positive donors 67 were male and 1 was female. The seroprevalence of HCV among male blood donors was 0.35% and among female blood donors was 0.13%.
20. Study shows that highest seroprevalence was found in the age group of 35-45 years (0.44%) and lowest among donors aged 19-25 years (0.23%).

21. Among male blood donors maximum prevalence of HCV was found in 35-45 year age group (0.46%) and among female blood donors in 25-35 year age group(0.29%).

22. Maximum seroprevalence of HCV was found in donors having blood group O (0.42%) and minimum in blood group AB donors (0.04%).

23. HCV seroprevalence was found to be higher (0.35%) in Rh-positive group donors and lower (0.23%) in Rh-negative group donors.

24. Among Rhesus-positive group maximum prevalence of HCV was found among group B donors (0.42%) and among Rhesus-negative group donors belonging to group O showed maximum prevalence (0.81%).

25. Maximum prevalence of HCV was seen in male donors belonging to blood group O-negative (0.84%) and in female donors belonging to blood group B-positive (0.40%).

This is the matter of concern that healthy donors come out to be carrier of HBsAg and HCV. Thus screening of blood for these infections has become mandatory in blood banks.

At present the only means of preventing new cases of hepatitis C are to screen the blood supply, encourage health professionals to take
precautions when handling blood and body fluids and inform people about high risk behaviours. Vaccines and immunoglobulin products do not exist for hepatitis C and development seems unlikely in the near future because these products would require antibodies to all the genotypes and variants of hepatitis C. Nevertheless advances in immunization make it likely that some form of vaccine for hepatitis C will eventually be developed.

The high rates of progression to chronic infection and the lack of effective means of prevention require that HBV and HCV infection be differentiated from other causes of viral hepatitis. Despite recent progress, efforts to develop more effective therapies must remain a high priority. Worldwide, the best hope for a solution to the epidemic of HCV infection is the development of an effective vaccine. For those who are already infected with HCV, new therapeutic approaches can be expected in the future.

The study shows that despite all the efforts made to reduce the risk of transfusion transmitted hepatitis, there is still need to strengthen the immunization programs. Blood banks should also inform the donors, tested positive for HBV and HCV and should encourage and guide them for proper treatment. Also blood banks should permanently defer the infected individuals for blood donation. Education of such subjects may limit further spread and in case of hepatitis B, lead to vaccination of susceptible contacts.