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BACKGROUND

- Healthcare workers (HCW) are at risk of hepatitis B virus (HBV) infection.
- In the 70s, increased prevalence of HBV markers in hospital personnel performing exposure-prone procedures (EPP) was documented.
- Since then, preventive measures including HBV vaccination of HCW have been taken.
- This seroprevalence survey aims to determine prevalence and predictors of HBV infection among the personnel of three hospitals in Eastern Switzerland.

METHODS

- The study was conducted at St. Gallen Cantonal Hospital, a tertiary care center in Eastern Switzerland, and two affiliated primary care hospitals.
- After recommendation of HBV vaccination in Swiss HCW in 1982, vaccination and documentation of a protective anti-HBs titer was applied to all HCW with patient contact.
- Starting in 2005, this procedure was also offered free of charge to personnel without patient contact (20% of all staff).
- When, after three primary and two booster vaccinations, anti-HBs still ranged <10IU, anti-HBc was determined.
- With positive anti-HBc or report of previous HBV infection, markers of HBV disease activity were determined.
- In personnel with chronic hepatitis B or markers of past infection that were found by this procedure, risk factors for disease acquisition were evaluated.

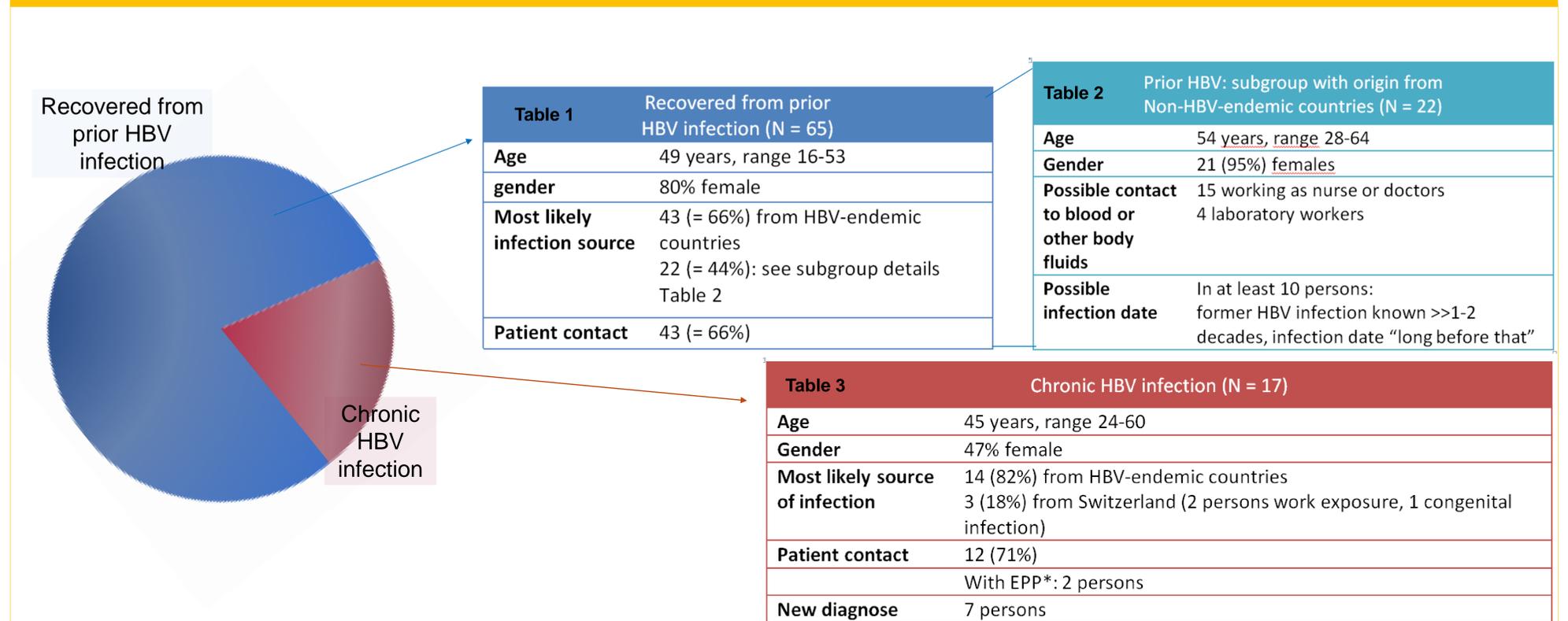
Literature:

European recommendations for the management of healthcare workers occupationally exposed to hepatitis B virus and hepatitis C virus. Eurosurveillance, Volume 10, Issue 10, 01 October 2005.

RESULTS

- Data were collected between 2005 and November 2012. Including those who left the institution during the investigated time, a total of 9357 personnel had been employed for >6 months.
- Among these, anti-HBs results were available from 7808 persons (83%) either after HBV vaccination or if previous HBV infection was already known.
- Among the 82 persons (1%) with positive anti-HBc result, 65 persons (79%) had recovered from prior HBV infection (anti-HBs formation or anti-HBc alone).
- Table 1 lists epidemiological details of the persons who had recovered; interestingly, 66% of them are from countries with endemic HBV infection.
- 22 (34%) of the persons who had recovered from prior HBV infection are from non-HBV-endemic countries. Some of these reported an infection date from times when HBV vaccination for HCW was not yet available. However, these data are incomplete.
- 22 persons suffer of a chronic HBV infection; Table 3 gives additional information with increased HBV prevalence in persons from HBV-endemic countries.

Graph 1 and Tables 1-3:



DISCUSSION

- With a rate of 0,2%, hospital personnel in our area showed a similar or even lower rate of chronic HBV disease than in the Swiss population (rate of 0,3%).
- This likely reflects the high grade of vaccination protection targeting adolescents and HCW.
- The migration background of most of the persons with chronic or past HBV infection and, among them, advanced age especially of the non-migrants are corresponding findings.

CONCLUSION

- The rate of past or present HBV infection is low in HCW of our region.
- The strategy to vaccinate and further investigate those without vaccination success helps to pick HCW with chronic HBV infection.
- Detection of HBV infection is important both on a personal level and to protect patients exposed during EPP.