

## **CHAPTER 10**

### **Hepatitis on Dialysis**

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**SECTION A: PREVALENCE**

The current prevalence of Hepatitis B and Hepatitis C in our dialysis population was low and similar between HD and PD patients; 2 % for Hepatitis B and 3% for Hepatitis C in HD and 2% for both Hepatitis B and Hepatitis C in PD.

In HD, the prevalence of Hepatitis B had remained fairly stable for the past 10 years and had reduced gradually to 2 % currently. The prevalence of Hepatitis C was much higher in the earlier years (12 % in 2006) suggesting nosocomial transmission of Hepatitis C within the hemodialysis unit. This had however reduced gradually over the years and was now at 3%, which was comparable to that of Hepatitis B. This reflects that there was increased awareness regarding Hepatitis C seroconversion, and effective infection control measures were in place to minimize nosocomial transmission of Hepatitis C in the hemodialysis unit. In PD, the prevalence of Hepatitis B and Hepatitis C had remained low and reduced further over the years to 2 % currently.

Table 10.1: Prevalence of positive HBsAg and positive Anti-HCV at annual survey, HD patients 2006-2015

Year	Number of patients	Prevalence of HBsAg <sup>+</sup> (%)	Prevalence of Anti-HCV <sup>+</sup> (%)
2006	11294	5	12
2007	12496	5	11
2008	14955	4	9
2009	17361	4	8
2010	18829	4	7
2011	21647	4	6
2012	24891	4	5
2013	28115	4	4
2014	31665	3	4
2015	66309	2	3

Table 10.2: Prevalence of positive HBsAg and positive Anti-HCV at annual survey, PD patients 2006-2015

Year	Number of patients	Prevalence of HBsAg <sup>+</sup> (%)	Prevalence of Anti-HCV <sup>+</sup> (%)
2006	1494	5	4
2007	1731	5	4
2008	2017	4	3
2009	2144	4	3
2010	2280	3	3
2011	2461	3	3
2012	2794	3	2
2013	3160	3	2
2014	3599	2	2
2015	4237	2	2

**SECTION B: CENTER VARIATION**

We continued to see a wide centre to centre variation in the prevalence of Hepatitis B and Hepatitis C among HD centres. This is largely due to many centres practicing the policy of not accepting Hepatitis B or Hepatitis C patients, resulting in the segregation of these patients into a few larger and older centres.

The prevalence of Hepatitis B and Hepatitis C were fairly similar among the PD centres.

Table 10.3: Variation in Proportion of patients with positive HBsAg at annual survey among HD centres, 2006-2015

Year	Number of centers	Min	5 <sup>th</sup> centile	LQ	Median	UQ	95 <sup>th</sup> centile	Max
2006	285	0	0	0	0	6	15	94
2007	309	0	0	0	0	7	14	94
2008	358	0	0	0	0	5	13	79
2009	399	0	0	0	0	4	12	96
2010	437	0	0	0	0	5	12	96
2011	493	0	0	0	0	4	13	93
2012	551	0	0	0	0	4	12	100
2013	609	0	0	0	0	4	12	100
2014	641	0	0	0	0	3	11	100
2015	669	0	0	0	0	4	16	96

Figure 10.3: Variation in proportion of patients with positive HBsAg among HD centres, 2015

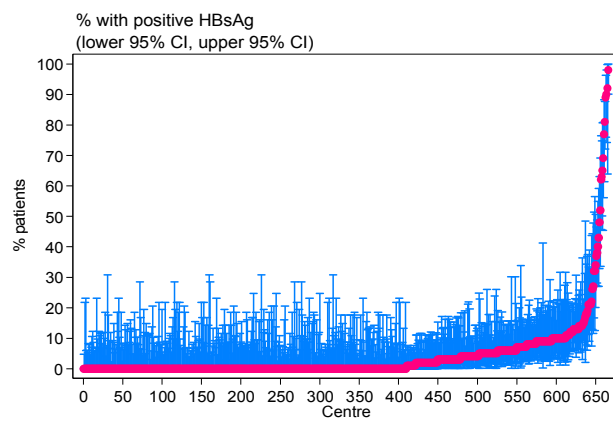


Figure 10.4: Variation in proportion of patients with positive HBsAg among PD centres, 2015

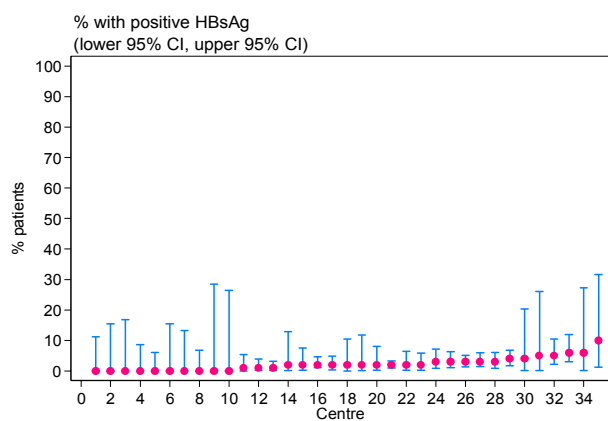


Table 10.4: Variation in proportion of patients with positive HBsAg at annual survey among PD centres, 2006-2015

Year	Number of centers	Min	5 <sup>th</sup> centile	LQ	Median	UQ	95 <sup>th</sup> centile	Max
2006	24	0	0	0	4	5.5	9	13
2007	24	0	0	0	3.5	5.5	8	11
2008	23	0	0	1	3	5	8	11
2009	23	0	0	1	3	5	10	10
2010	25	0	0	1	3	3	5	7
2011	26	0	0	0	2	4	5	10
2012	28	0	0	0	2	3	5	5
2013	28	0	0	1	3	4	6	7
2014	32	0	0	0	1	2.5	5	7
2015	35	0	0	0	2	3	6	10

Table 10.5: Variation in proportion of patients with positive anti-HCV at annual survey among HD centres, 2006-2015

Year	Number of centers	Min	5 <sup>th</sup> centile	LQ	Median	UQ	95 <sup>th</sup> centile	Max
2006	283	0	0	0	7	16	43	100
2007	307	0	0	0	7	14	35	98
2008	359	0	0	0	4	12	30	100
2009	399	0	0	0	3	10	27	95
2010	438	0	0	0	2	9	25	100
2011	492	0	0	0	0	8	20	98
2012	550	0	0	0	0	7	19	100
2013	609	0	0	0	0	5	17	100
2014	642	0	0	0	0	5	14	61
2015	666	0	0	0	0	5	20	96

Figure 10.5: Variation in proportion of patients with positive anti-HCV among HD centres, 2015

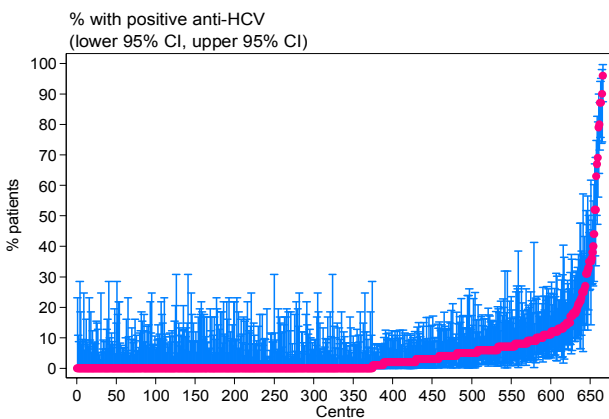


Figure 10.6: Variation in proportion of patients with positive anti-HCV among PD centres, 2015

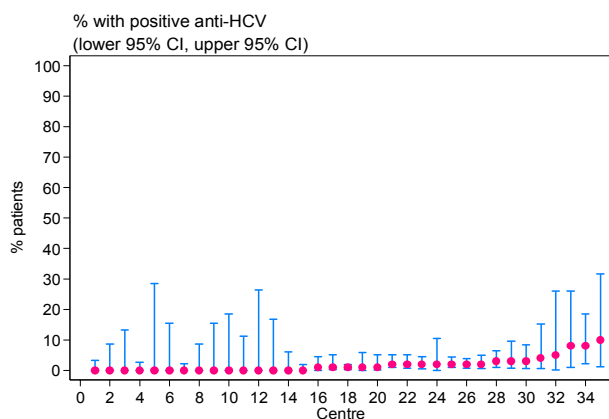


Table 10.6: Variation in proportion of patients with positive anti-HCV at annual survey among PD centres, 2006-2015

Year	Number of centers	Min	5 <sup>th</sup> centile	LQ	Median	UQ	95 <sup>th</sup> centile	Max
2006	24	0	0	0.5	3	7	9	17
2007	24	0	0	1	3	6	9	13
2008	23	0	0	0	3	4	5	9
2009	23	0	0	0	2	4	5	7
2010	25	0	0	0	2	3	5	6
2011	26	0	0	0	2	3	6	9
2012	28	0	0	0	1	3	4	10
2013	28	0	0	0	1.5	3	6	9
2014	32	0	0	0	1	3	6	6
2015	35	0	0	0	1	2	8	10

## CONCLUSION

The prevalence of Hepatitis B has been consistently low throughout the years and do not differ significantly between HD and PD indicating the effectiveness of vaccination, and segregation of Hepatitis B patients. The prevalence of Hepatitis C was higher in HD compared with PD in the earlier years suggesting that nosocomial transmission within the hemodialysis unit plays an important role. This has improved over the years with increased awareness and adherence to infection control measures and the prevalence now is similar between HD and PD patients. We must continue to monitor and pay attention to strict infection control measures and have regular audits to ensure its prevalence remains low.