

Chapter 10

HEPATITIS ON DIALYSIS

Clare Tan Hui Hong
Chow Yok Wai
Lawrence Hii Wei Soon
Loh Chek Loong
Teo Sue Mei

SECTION A: PREVALENCE

The prevalence of Hepatitis B (HepB) infection had remained stable and low among our HD (3%) and PD (2%) patients in 2014.

The prevalence of Hepatitis C (HepC) infection was much higher among HD compared to PD patients suggesting nosocomial transmission within the HD facilities. This had however reduced gradually over the years. Its prevalence in HD patients in 2014 was 4%, which was only marginally higher compared to the 2% prevalence in PD patients. This showed that we had been successful in increasing awareness among our staff and effective in our infection control measures to minimize Hepatitis C cross infection within the HD units.

Table 10.1: Prevalence of positive HBsAg and positive Anti-HCV at annual survey, HD patients 2005-2014

Year	Number of patients	Prevalence of HBsAg ⁺ (%)	Prevalence of Anti-HCV ⁺ (%)
2005	8956	4	14
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

Table 10.2: Prevalence of positive HBsAg and positive Anti-HCV at annual survey, PD patients 2005-2014

Year	Number of patients	Prevalence of HBsAg ⁺ (%)	Prevalence of Anti-HCV ⁺ (%)
2005	1318	4	5
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

SECTION B: CENTER VARIATION

There continued to be a wide centre-to-centre variation in Hepatitis B (HepB) and Hepatitis C (HepC) prevalence among our HD centres, with more than 50% of HD centres with no Hepatitis B (HepB) or Hepatitis C (HepC) patients. This largely reflected the policy of not accepting Hepatitis B (HepB) or Hepatitis C (HepC) patients in many HD centres, resulting in segregation of these patients to a few larger or older centres.

For PD centres, there was not much variation in the prevalence of Hepatitis B (HepB) or Hepatitis C (HepC) patients among the centres.

Table 10.3: Variation in Proportion of patients with positive HBsAg at annual survey among HD centres, 2005-2014

Year	Number of centres	Min	5th Centile	LQ	Median	UQ	95th Centile	Max
2005	230	0	0	0	0.5	6	13	100
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

Figure 10.3: Variation in proportion of patients with positive HBsAg among HD centres, 2014

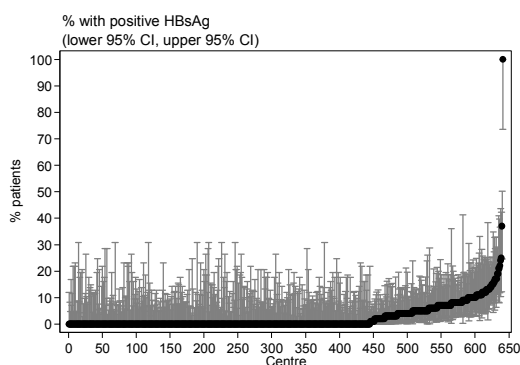


Figure 10.4: Variation in proportion of patients with positive HBsAg among PD centres, 2014

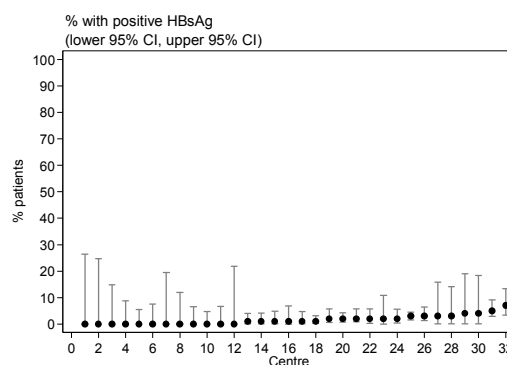


Table 10.4: Variation in proportion of patients with positive HBsAg at annual survey among PD centres, 2005-2014

Year	Number of centres	Min	5th Centile	LQ	Median	UQ	95th Centile	Max
2005	18	0	0	2	3	5	9	9
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

Table 10.5: Variation in proportion of patients with positive anti-HCV at annual survey among HD centres, 2005-2014

Year	Number of centres	Min	5 th Centile	LQ	Median	UQ	95 th Centile	Max
2005	231	0	0	0	9	17	42	100
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

Figure 10.5: Variation in proportion of patients with positive anti-HCV among HD centres, 2014

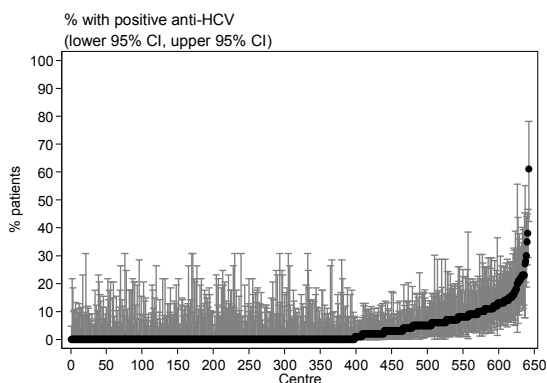


Figure 10.6: Variation in proportion of patients with positive anti-HCV among PD centres, 2014

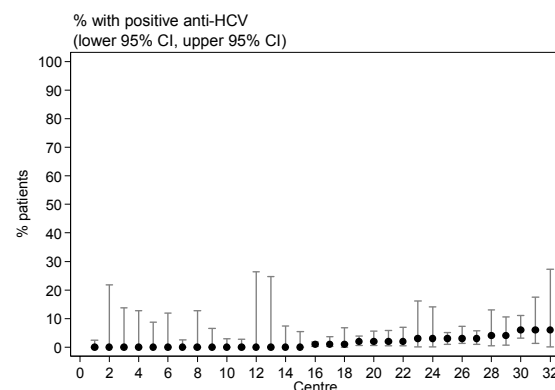


Table 10.6: Variation in proportion of patients with positive anti-HCV at annual survey among PD centres, 2005-2014

Year	Number of centres	Min	5 th Centile	LQ	Median	UQ	95 th Centile	Max
2005	18	0	0	3	4	8	11	11
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

CONCLUSION

Hepatitis B prevalence had been low among our HD and PD patients over the years reflecting the effectiveness of Hepatitis B vaccination, isolation policy and infection control measures. The prevalence of Hepatitis C infection was much higher among HD patients compared to PD patients in the earlier years suggesting nosocomial transmission within the HD facilities. It is encouraging to note that its prevalence had reduced gradually over the years and is now comparable between HD and PD. However, we must continue to pay full attention, monitor and audit our infection control measures to ensure no nosocomial transmission occurs within the dialysis facilities, and the prevalence of Hepatitis B and Hepatitis C remains low.