

PLASMA INCIDENT REPORTING: HEPATITIS-B

1. Introduction

Between August and October, the inclusion of Hepatitis-B contaminated plasma in fractionation batches resulted in withdrawal and destruction of products to the approximate value of £1 million.

At the time of inclusion into fractionation, records showed the plasma to be negative for HBsAg although one donor had been under investigation for over 12 months without notification to BPL and two other plasma units were from known HBsAg positive donations where the red cells had been discarded but the plasma issued.

2. Table 1 summarises hepatitis reports for the last six years and details 1988 reports.

1) Plasma reports for last five years:

1983	28 hepatitis reports from RTCs
1984	35 " "
1985	28 " "
1986	51 " "
1987	31 " "
1988	30 " " to date from RTCs.

2) Hepatitis risk/infected plasma fractionated in last five years:

1983	1 incident
1984	6 incidents
1985	3 " "
1986	5 " "
1987	4 " "
1988	4 " to date.

3) Breakdown of hepatitis reports in 1988:

Jan. 88	4 hepatitis contact reports (4 from Manchester) - Discarded 1 high ALT report (from Lewisham) - Discarded
Feb. 88	1 hepatitis B +ve pack from Mersey - returned to RTC
Mar. 88	3 hepatitis +ve past donations from Wessex, Leeds and Trent 1 raised ALT report from N.W. Thames - all discarded
Apr. 88	1 hepatitis report from Wessex - Discarded
May 88	1 hepatitis B report from N.W. Thames - Discarded 2 NANB reports from N.E. Thames - Discarded
June 88	No hepatitis reports
July 88	1 hepatitis contact from N.E. Thames - Discarded 3 NANB contacts from N.E. Thames - Discarded
Aug. 88	2 post RBC transfusion Hep.B + Hep.B markers in donors from N.W. Thames and Trent. Plasma fractionated from incidents and implicated product held/rejected/recalled. 1 electrolysis report from S.E./S.W. Thames.

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- Sep. 88 1 post RBC transfusion Hep.B from N.W. Thames - Discarded
 1 hepatitis A report from Trent - Discarded
- Oct. 88 1 hepatitis B +ve plasma pool at BPL - all implicated product discarded.
 1 acupuncture report from N.W. Thames - Discarded
 1 raised liver enzymes from Manchester - Discarded
 2 hepatitis reports from N.W. Thames and Trent - Discarded.

Two donations received in August and two in October were included in fractionation pools.

3. Intermediate and Final Product Disposal

W88/363 8Y 3611 1877 vials all issued and all recalled
 Fraction V -> Albumin ADB 0044 and 0045
 8821 bottles 250 ml 4.5% albumin - held
 Fraction II -> LF 0042A 16.5 kg)
 LF 0042B 17.5 kg)
 LF 0042C 17.5 kg) held
 LF 0042D 15.5 kg)
 B+1 precipitate -> external researcher - informed

D88/374 8Y 3614 1998 vials destroyed - not issued

 Fraction V LF 0044 273 kg - held
 Fraction II LF 0044A 24.5 kg - held
 LF 0044B 18.5 kg - held

PR88/31 8Y 3648 2237 vials destroyed - not issued
 Fraction V LF 0068 550 kg - held

4. The plasma incident in PR88/31 necessitated enquiry to eleven RTCs on 20th October. At the time of writing, six RTCs have replied.

1 Centre has identified two HBsAg positive donations recorded at the Centre but sent to BPL

1 Centre has identified two donations on which there are no recorded microbiological data. These donations were sent to BPL and included in pool PR88/31.

Both Centres with documentary failures are to be visited by BPL QC and Production staff.

5. Figures 1 and 2 show the fate of HBsAg in pool PR88/31. Unfortunately, the A+1 paste was destroyed before further fractionation to Fraction II and Fraction III.

This study is probably unique as a large-scale in-process validation of virus partition and separation using Hepatitis-B virus.

The calculated dose of virus in the start-pool was 10 mg.

6. GMP procedures for plasma testing and transfer must be reviewed if further losses and risks to product and patients are to be avoided.

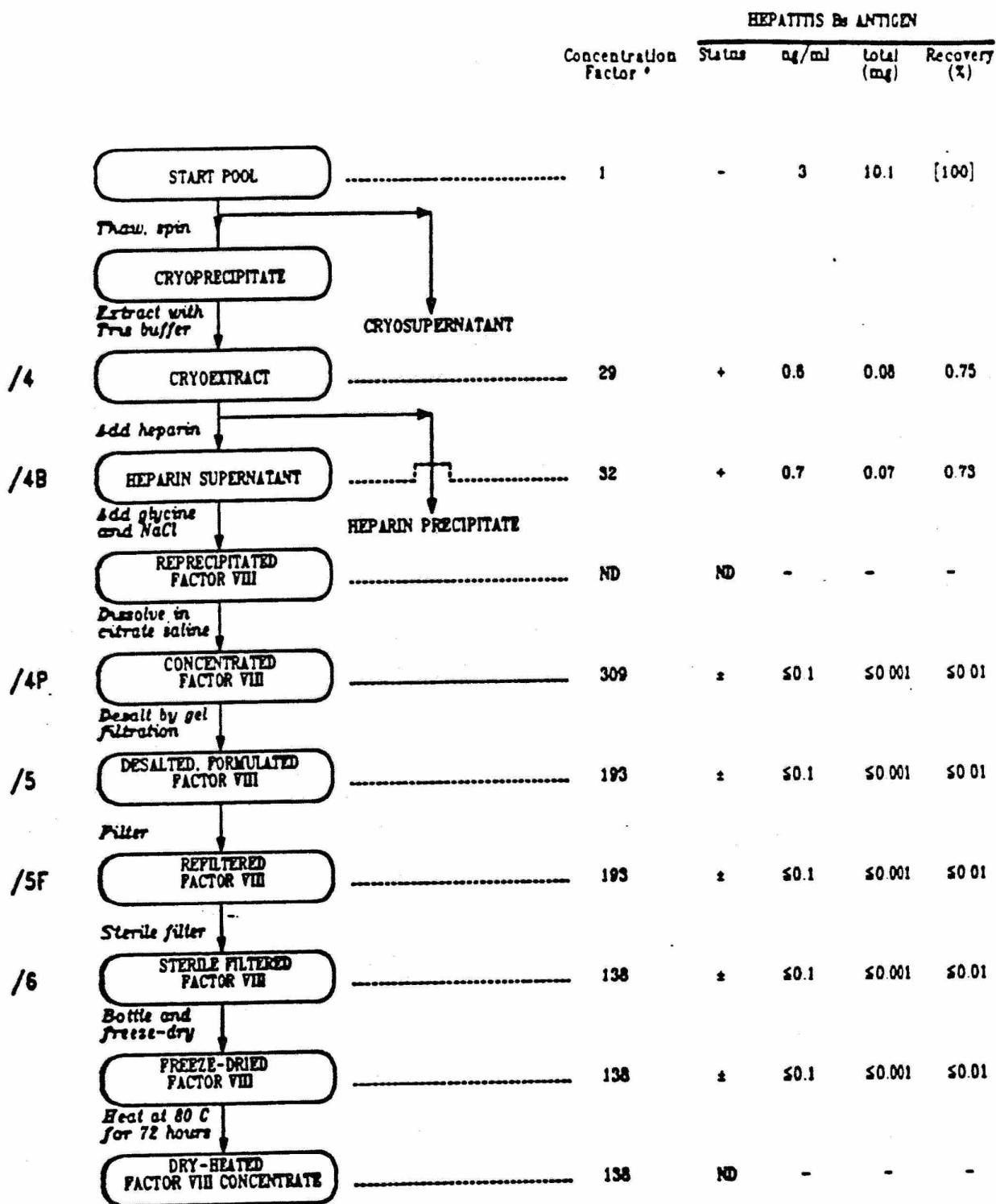
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The documentation of the incident was available to the Medicines Inspectorate at their recent inspection of BPL.

While the inclusion of virus contaminated plasma is serious, it is of real significance that an inspection of one random pool revealed two plasma units without any documentation on microbiological testing.

R. S. LANE,
31 October 1988.

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* Concentration factor calculated relative to the start pool assuming 100% recovery at each stage

± HBs Ag status : antigen detectable but at the very limit of assay sensitivity

ND Not determined ~~ND~~ NOT YET TESTED

FIGURE 1 : PROCESS RUN 8Y 3648

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		HEPATITIS B _e ANTIGEN			
	Concentration Factor *	Status	ng/ml	Total (mg)	Recovery (%)
START POOL SP 3648	1	+	3	10.1	[100]
START POOL SP 3649	-	-	< 0.1	< 0.35	-
CRYOSUP'NT 8Y 3648					
CRYOSUP'NT 8Y 3649					
PYROGEN-FREE WATER					
START POOL LF 0068	0.49	+	1.2	7.9	78
A + I PRECIPITATE	8.9	ND	-	-	-
A + I SUPERNATANT	0.42	+	0.45	3.6	36
FRACTION IV PRECIPITATE	21.2	ND	-	-	-
FRACTION IV SUPERNATANT	0.34	-	< 0.1	< 1	< 10
FRACTION V SUPERNATANT	0.34	ND	-	-	-
FRACTION V PRECIPITATE	6.1	±	≤ 0.1	≤ 1	≤ 10

* Concentration factor calculated relative to the start pool SP 3648 assuming 100% recovery at each stage

± HBs Ag status : antigen detectable but at the very limit of assay sensitivity

ND ~~Not determined~~ NOT TESTED NO SAMPLE AVAILABLE

FIGURE 2 : FRACTIONATION RUN LF 0068

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