0043

Minutes of ad hoc meeting at UCMSM on 12th February 1991, to discuss the provision to the Blood Transfusion Services of confirmatory testing for HCV, including PCR amplification of HCV RNA.

Present: Dr PP Mortimer, Dr JF Peutherer, Dr RS Tedder, Dr P Simmonds, Dr EAC Follett, Dr J Craske, Dr B Dow, Dr JP Clewley

The meeting was called to discuss confirmatory serological and PCR tests on blood donations screen reactive for HCV antibody. The main areas for discussion were the nature and volume of work involved in HCV testing; the significance of the test results; the need for a standard request/result form; arrangements for performance assessment; arrangements for evaluation of new serological assays; and estimated cost of the confirmatory testing.

The following recommendations were made:

1. Donations found to be repeatedly anti-HCV positive in screening tests at RTCs should be referred to one of 3 confirmatory laboratories for testing by RIBA-2, and for other serological tests at the discretion of the confirmatory laboratory. The directors of Transfusion Services for England and Wales and for Scotland will be asked to agree with regional directors where specimens should be referred so that the work load is equally divided between PHLS Virus Reference Laboratory, Division of Virology, UCMSM and Regional Virus Laboratory, Ruchill Hospital. (What arrangements for Northern Ireland?).
2. Request/report form
   A draft triplicate form should be prepared by Dr Mortimer which would allow RTC to request serological confirmation by RIBA 2 of repeatedly anti HCV positive donations and, in the event of a positive or indeterminate RIBA 2 result being received, to allow them to use a second sheet to refer a plasma, sent on dried ice if possible, for examination by PCR.

   A draft report form will be circulated for comment shortly. The possible results and suggested wording of reports are as follows:

	RESULT	*FINAL REPORT*
A.	Not repeatedly screen reactive	(not referred)
	for repeatedly screen positive referred donations:	
B.	RIBA 2 negative	Unreactive by RIBA 2 anti HCV <u>not</u> confirmed
C.	RIBA-2 reactive PCR negative	Reactive by RIBA 2 anti HCV confirmed HCV RNA <u>not</u> detected by PCR
D.	RIBA-2 reactive PCR positive	Reactive by RIBA 2 anti HCV confirmed HCV RNA detected by PCR
E.	RIBA-2 indeterminate PCR positive	RIBA 2 result indeterminate anti HCV <u>not</u> confirmed HCV RNA detected by PCR
F.	RIBA-2 indeterminate PCR negative	RIBA 2 result indeterminate anti HCV <u>not</u> confirmed HCV RNA <u>not</u> detected by PCR

(note that in the recent pilot study there were 1056 specimens in category A, 60 in B, nil in C, 5 in D, 1 in E and 2 in F).

As soon as a repeatedly reactive screen test result was found in the RTC plasma from the donation would be stored at -20°C, or -70°C if available. The plasma would be stored in Sarstedt tubes (2ml, catalogue no 72. 694.006) as two 1ml aliquots. For optimal results these samples would require transportation in dry ice. The serum sample would be submitted as soon as available (not frozen). The plasma sample would then be sent to the Reference Laboratory only if the RIBA 2 test was positive or indeterminate (the minority). The logistics of this process may be complicated at both RTC and Reference Laboratory and should be kept under review.

Follow Up: Donations in category B would not need to be referred for PCR. Donors whose initial donations were in categories C,D and E should be recalled for a second screening test at the RTC. If this were also positive it would not need to be referred for confirmatory tests. Donors in categories B and F should be recalled and a second serum specimen referred for confirmatory tests.

3. PCR and its proficiency assessment
It was recommended that the choice of primers and detailed methods would be left to the discretion of specialists in each of the confirmatory laboratories. It was expected that 'difficult' samples would be interchanged.

Ms Moya Briggs would be asked to prepare and circulate to the three laboratories a performance control HCV RNA panel consisting in the first instance of a series of dilutions of a known positive serum.

4. Further evaluations of anti HCV assays
It is known that new generations of the Ortho and Abbott anti HCV kits and new Organon and other kits are likely to become available soon. It was recognised that as far as possible these should be applied to the existing donor specimens investigated in the pilot study.

5. Cost of confirmatory testing
It was recommended that both serological and PCR confirmation tests should be available for a minimum of a full year of routine donor screening at which point procedures could be reviewed.

While the cost of serological confirmation could be readily forecast in view of the known cost of the main consumable (RIBA 2) and the straightforward procedure, the cost of PCR would be heavy in terms of labour, consumables and overheads, and less easy to predict precisely.

It was suggested that serological confirmatory testing could be provided at a cost of £50 per specimen. This takes account of a RIBA 2 kit cost of approximately £30 per specimen and includes additional serological screening assays used in the confirmatory centre.

It was further recommended that each of the three centres doing PCR should be enabled to appoint a member of staff at MLSO 2 or comparable scientific grade for 2 years. They would be trained to do HCV PCR and each then expected to process up to 500 specimens per year. These appointments would have to precede routine provision of the service. To cover consumables and overheads a charge of £100 per specimen would have to be made.