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Blood Transfusion Laboratory Practice Exercise Instructions 26R5 or 2R65P

Distributed 18/05/26 - Closing 01/06/26

Italian participants will receive 26R5P
All other participants will receive 26R5

Material Provided

- 3 'patient' whole blood samples for ABO grouping (**forward and reverse group**), D typing, and Rh and K phenotyping only, **i.e. not for antibody screening, crossmatching or ID**
- 3 matched 'patient' serum/plasma samples for antibody screening, antibody identification and serological crossmatching only**, i.e. not suitable for reverse grouping**
- 3 'donor' red cell samples, labelled with ABO/D types and assumed to be High Titre Negative, for crossmatching (and phenotyping **only** if required as part of the crossmatch process). These are supplied at 7 to 10% in modified Alsever's solution and should be prepared for use with your technology.

Donor W = O D Neg **Donor Y =** A D Neg **Donor Z =** B D Neg

Please refer to the COSHH sheet provided for all Health and Safety aspects of the samples.
https://haembtlp.ipassportqms.com/document_download/M2ZlYWMzMTEtNTYwNi00YjEzLTg3YTItYTNmMzAzN2FiMGY5
Please note that plasma may contain antibodies to low frequency antigens (LFAs), with a frequency of <1%, in addition to the current maximum of two specificities. On the rare occasion that your panel contains a cell positive for an LFA, which results in you being unable to conclusive identify the antibodies present, we will accept a UI submission. There is no need to exclude the presence of antibodies to LFAs if all reactions are accounted for by the specificities identified.
The whole blood samples are prepared from pooled donations, usually phenotypically matched only for ABO, D, C, c, E, e and K, and are therefore unsuitable for further phenotyping or for use as an 'auto control' unless otherwise stated. We recommend that all plasma samples are centrifuged prior to testing.
Where relevant, theoretical phenotypes and clinical/demographic details for the 'patients', and any other exercise related information/instructions are given below:

Clinical/demographic details

Patient 1: Female, age 69
Patient 2: Female, age 67
Patient 3: Female, age 96

Theoretical 'Patient' red cell phenotypes 26R5/26R5P

Patient Sample	Rh					MNS				P	Lu	Kell			Lewis		Duffy		Kidd	
	C	C^w	c	E	e	M	N	S	s	P_1	Lu^a	K	k	Kp^a	Le^a	Le^b	Fy^a	Fy^b	Jk^a	Jk^b
1						+	+	+	0	+	+		+	0	+	0	+	+	+	+
2						0	+	+	+	+	+		+	+	0	+	0	+	+	+
3						**0**	+	**0**	+	**0**	**0**		+	**0**	**0**	+	+	+	+	+

Additional information

None for this exercise.

Testing

Using your routine method, perform the following tests for which you are registered:

- ABO/D typing
- Antibody identification
- Phenotyping for Rh (C, c, E, e) and K
- Antibody screening
- Compatibility testing (serological or theoretical – see overleaf)

Reporting of results

Reaction grades

Record reaction strengths, where applicable, and for antibody screening record the strongest reacting screening cell.

Abbreviations used on the data entry screens

DRT: Direct Room Temperature, IAT: Indirect Antiglobulin Test, NISS: Normal Ionic Strength Saline, LISS: Low Ionic Strength Solution, UI: Unable to Identify or Unable to Interpret or Inconclusive.

Interpretation of results

Crossmatching section: The interpretation recorded may be reached either as a result of serological crossmatching, theoretical *deselection* of the 'donor' unit(s) for 'patients' with atypical antibodies following phenotyping of the donations, or theoretical *selection* as in electronic issue. To indicate that a serological crossmatch has been performed, record the reaction grades and interpretations. Where the unit has been selected/deselected on the grounds of theoretical compatibility/incompatibility, record only the interpretation.

Units may be '**deselected'** in the following circumstances ONLY:

- Major ABO *incompatibility*
- Unit antigen positive for an antibody **positively identified** in patient's serum/plasma
- Units are D positive, and the patient D negative with atypical antibodies
- **DO NOT 'DESELECT'** as a result of policy, e.g. do not deselect K or D positive units for K or D negative patients with **no** atypical antibodies, or group O units for a group A, B or AB patient, or because no group check sample is available. **This may only be applicable in the context of UK NEQAS exercises.**

Antibody identification section: We appreciate that in a routine situation, where additional antibodies cannot be excluded, samples would be referred to confirm or exclude their presence before selecting units for crossmatching. However, as this referral step cannot be assessed, we must ask that in this situation the serological crossmatch be used to determine compatibility.

Return of results

- Please enter your results via **www.ukneqasbtlp.org** and ensure that you have clicked the '**Submit**' button on the data entry page. At this stage, a summary of the results submitted will be displayed, and can be printed for checking and as a record of submission. Any change after this time (and before the closing date) will require a request to the scheme to re-set the web page for re-submission.
- The distribution will be closed on the web on the published closing date/time, and all results 'saved' but not 'submitted' will be collected and assessed.
- **Any antibodies recorded as "not excluded" will not be taken into consideration for scoring unless a UI submission is made.**
- If you wish to send antibody ID and screening panel profiles as part of a 'UI' submission for antibody identification, please complete your results on the web as usual. Selecting the UI box in antibody identification will open an additional box for recording the reason for UI submission. Scanned images of your panel and screening cell profiles/results should be uploaded to the website.
- If you wish to make a comment regarding this exercise, click on the 'Email Scheme' link at the top of the data entry pages.
- Detailed instructions for completion of the web data entry pages can be found on-line https://haembtlp.ipassportqms.com/document_download/ZjFlOTUwNGItMGJmNi00MTJmLTkyMzYtOTg0ZTI3YjQzNDI4

It is important that EQA samples are treated in the same way as clinical samples so that EQA errors can accurately reflect potential problems in clinical practice. This applies to all steps in the laboratory process, not only serological testing. Therefore we strongly advise that, as far as possible, routine 'booking-in' and checking procedures are followed with UK NEQAS samples. In order to make this work, the laboratory manager may need to 'prepare' the exercise in some way such as by making request cards, or setting up codes so that the samples can be entered into a computer system, and/or any routine manual checks made to detect result transcription/sample transposition errors.

If you have any problems with the exercise material or any queries regarding completion of the exercise or submission of results, please contact the BTLP team for advice.