

Electronic data exchange standard

This standard has been developed by NHSBT in partnership with LIMS and middleware suppliers to support electronic requesting and reporting between organisations practicing in laboratory transfusion in the United Kingdom.

1. Patient Dataset

Characteristic	Detail	Mandatory/Optional	Source	Additional information
National Identifiers :	NHS number for relevant national NHS	O	as per NHS data dictionary	N/A
Local patient Identifier	Hospital Numbers//Temporary numbers eg AE Number, Major Incident/ GUM/ Occ Health identifying the type of number given	Mandatory if national ID not given	N/A	N/A
Patient Surname:	Mandatory includes anonymised identifier eg GUM cases	M	as per NHS data dictionary	N/A
Patient Forename	Mandatory in all non anonymised patients	O	as per NHS data dictionary	N/A
Patient Full Address:	Pre-address line, Address lines 1-5, Postcode	O	as per NHS data dictionary	N/A
Date of Birth:	dd/mm/yyyy, only option when the patient has not been born, mandatory in all other cases	N/A	as per NHS data dictionary	Allow DoB as listed or "not available" anything other than that translated to "not known" through NPEX
Sex:	male/female/ not specified	M	as per NHS data dictionary	N/A
Ethnicity:	as per NHS data dictionary	O	as per NHS data dictionary	N/A
Pregnancy related :	dd/mm/yyyy not accepting gestational age	O	N/A	N/A
Transfusion related history :	Previous blood group ABO	O	N/A	N/A
Transfusion related history :	Previous blood group RhD	O	N/A	N/A

2. Request dataset

Characteristic	Detail	Mandatory/Optional	Source	Additional information
Hospital Code:	ODS (previously NACS code) eg XXX123	M	N/A	N/A
Clinical Details :	Free text box (limited by HL7 capacity only)	O	N/A	N/A
Specimen Type:	See sample type table	M	N/A	N/A
Sample Collection Date	dd/mm/yyyy	M	N/A	N/A
Sample Collection time	xx:yy (24h) if not supplied defaults to 00:01	O	N/A	N/A
Requesting Clinician :	Free text box (limited by HL7 capacity only)	M	N/A	N/A
Profile Name (ie test groupings eg A&E, FBC) :	Group and screen: Routine antenatal screen, Routine antenatal screen plus micro;	O	N/A	N/A

SNOMED CT test code and associated test name	ABO; RhD; antibody screen; HBV screen, HIV screen, Syph screen, HCV screen, ffDNA, FMH screen	M if no profile	N/A	Effective 16/09/19 N/A
Specimen Number (Referring Lab):	It is anticipated that all sample number types are already passing through NPEX. No standard or development required	M	N/A	N/A
Free Text Comment:	Free text box (limited by HL7 capacity only)	O	N/A	N/A
Specimen receipt date	dd/mm/yyyy	M	N/A	N/A
Specimen receipt time	xx:yy (24 hour)	M	N/A	N/A

3. Report Dataset

Characteristic	Detail	Mandatory/Optional	Source	Additional information
Profile Name	Group and screen: Routine antenatal screen, Routine antenatal screen plus micro;	O	N/A	N/A
Test Name(s)	ABO; RhD; antibody screen; HBV screen, HIV screen, Syph screen, HCV screen, ffDNA, FMH screen	M if no profile	N/A	N/A
Specimen Number (reporting lab) :	Hematos sample number, stays in NPEX isn't reported to requestor	M	N/A	N/A
Pos/ Neg/ Not positive/ Equivocal result:	Standard SNOMED codes used listed on separate tab	M (some form of result mandatory)	N/A	N/A
Free Text Result	Free text box (limited by HL7 capacity only)	M (some form of result mandatory)	N/A	N/A
Test specific comment (per test)	Free text box (limited by HL7 capacity only)	O	N/A	N/A
Interpretive comment - Whole Report	Free text box (limited by HL7 capacity only)	O	N/A	N/A
Laboratory identifier	ISO 15189 requirement	M	N/A	N/A
Laboratory Name	ISO15189 requirement	M	N/A	N/A
Date/ Time of report	Optional but desirable if LIMS can supply	O	N/A	N/A

Sample Type

SpecimenID	ConceptID	DisplayName	FullName
Characteristic	Detail	Blood	Source
BloodHeparinised	446272009	Blood (Heparinised)	Blood (Heparinised)
citrateplasmafrozen	N/A	Citrate Plasma Frozen	Citrate Plasma Frozen
ClottedSerum	N/A	Clotted Serum	Clotted Serum
EDTA	N/A	EDTA	EDTA
EDTAPlasma	N/A	EDTA Plasma	EDTA Plasma
plasma	119361006	Plasma	Plasma
redcells	256912003	Red Cells	Red Cells
unknown	119324002	Unknown	Unknown

SNOMED Codes

TEST CODES		RESULT CODES	
Blood group antigen D	876000	Positive	10828004
		Negative	260385009
		Equivocal	42425007
Test	Concept ID	Result	Concept ID
ABO group phenotype	112143006	Blood group A	112144000
		Blood group A1	131149001
		Blood group A2	131150001
		Blood group B	112149005
		Blood group O	58460004
		Blood group AB	165743006
		Blood group A1B	79248008
		Blood group A2B	88942003
Test	Concept ID	Result	Concept ID
Antibody screen	120646007	Positive	10828004
		Negative	260385009
		Equivocal	42425007
Test	Concept ID	Result	Concept ID
Hepatitis B screening test	314099008	Positive	10828004
		Negative	260385009
		Equivocal	42425007
Test	Concept ID	Result	Concept ID
HIV (human immunodeficiency virus) screening test	992781000000103	Positive	10828004
		Negative	260385009
		Equivocal	42425007
Test	Concept ID	Result	Concept ID
Syphilis screening (procedure)	1086341000000103	Positive	10828004
		Negative	260385009
		Equivocal	42425007
Test	Concept ID	Result	Concept ID
Fetal-maternal haemorrhage	71028008	Positive	10828004
		Negative	260385009
		Equivocal	42425007
Test	Concept ID	Result	Concept ID
Cell free fetal deoxyribonucleic acid typing (procedure)	803041000000105	Positive	10828004
		Negative	260385009
		Equivocal	42425007
Test	Concept ID	Result	Concept ID
Hepatitis C screening	413107006	Positive	10828004
		Negative	260385009
		Equivocal	42425007

