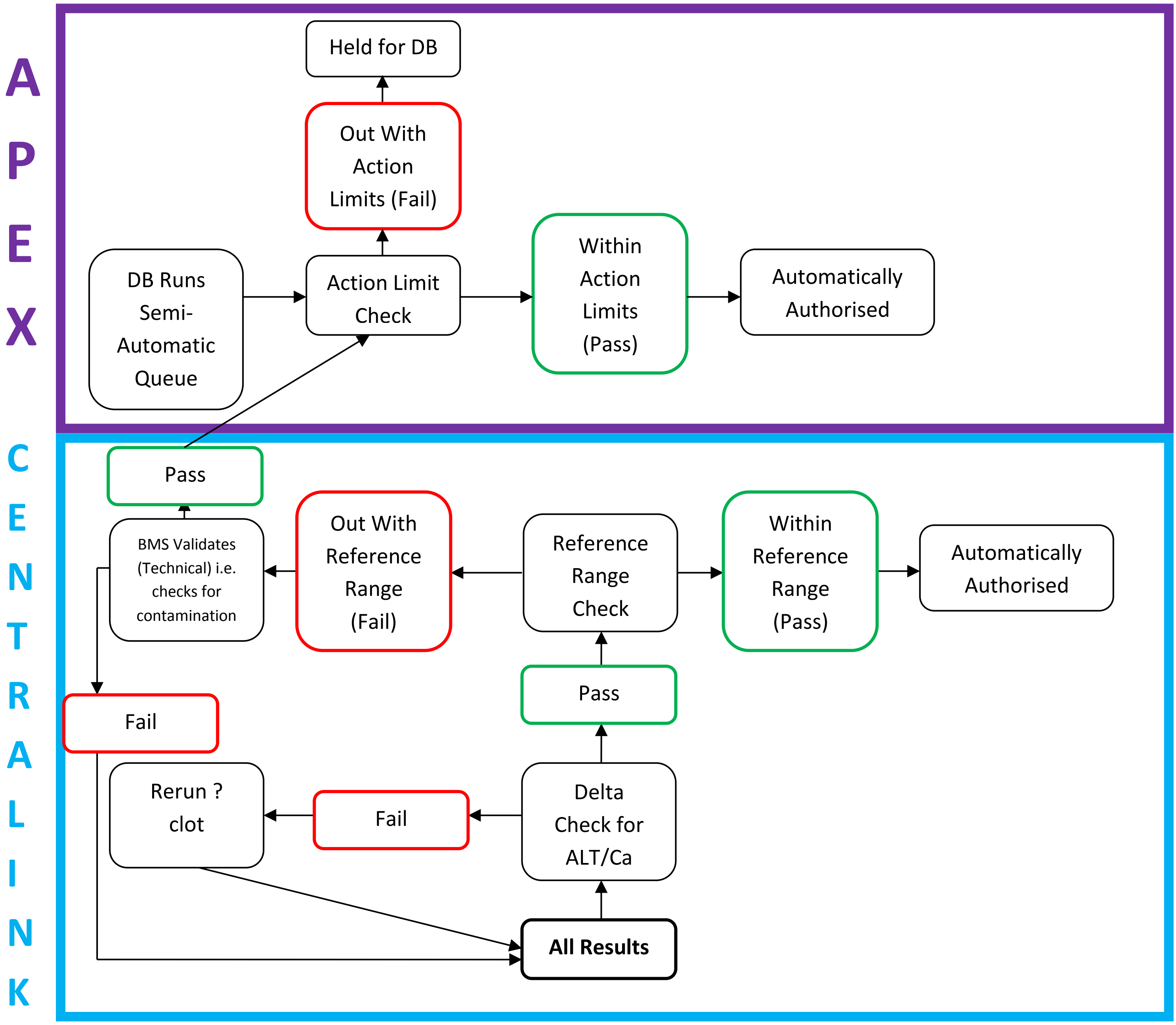
Produce reports using validated results on common clinical biochemistry investigations - CB-1-C-8

I worked with the Duty Biochemist for the day to produce validated reports on various common clinical biochemistry investigations.

Reports are prepared and sent electronically or as paper copies. Results are technically validated by BMS staff and results within the reference ranges are authorised whereas results out with reference ranges are flagged up to duty biochemists for validation (see flow chart below).



Results in APEX are colour coded to highlight the degree of abnormality; results within the reference ranges are grey. Results that are out with laboratory reference ranges but are within laboratory action limits appear in yellow font. Any results out with the laboratory reference ranges and the laboratory action limits are in red font.

The DB role is to clinically authorise results, adding comments when required, which will help users interpret the results. In addition any result that falls out with the critical phone limits (see attached document regarding telephone policy), the duty biochemist can phone results to the appropriate hospital ward/GP practice and then record in the phone browser who they spoke to and the result(s) that were phoned. Technical validation of results is carried out by state registered BMS staff and results out with the action limits are authorised by state registered Clinical Scientists of GMC registered medical staff.

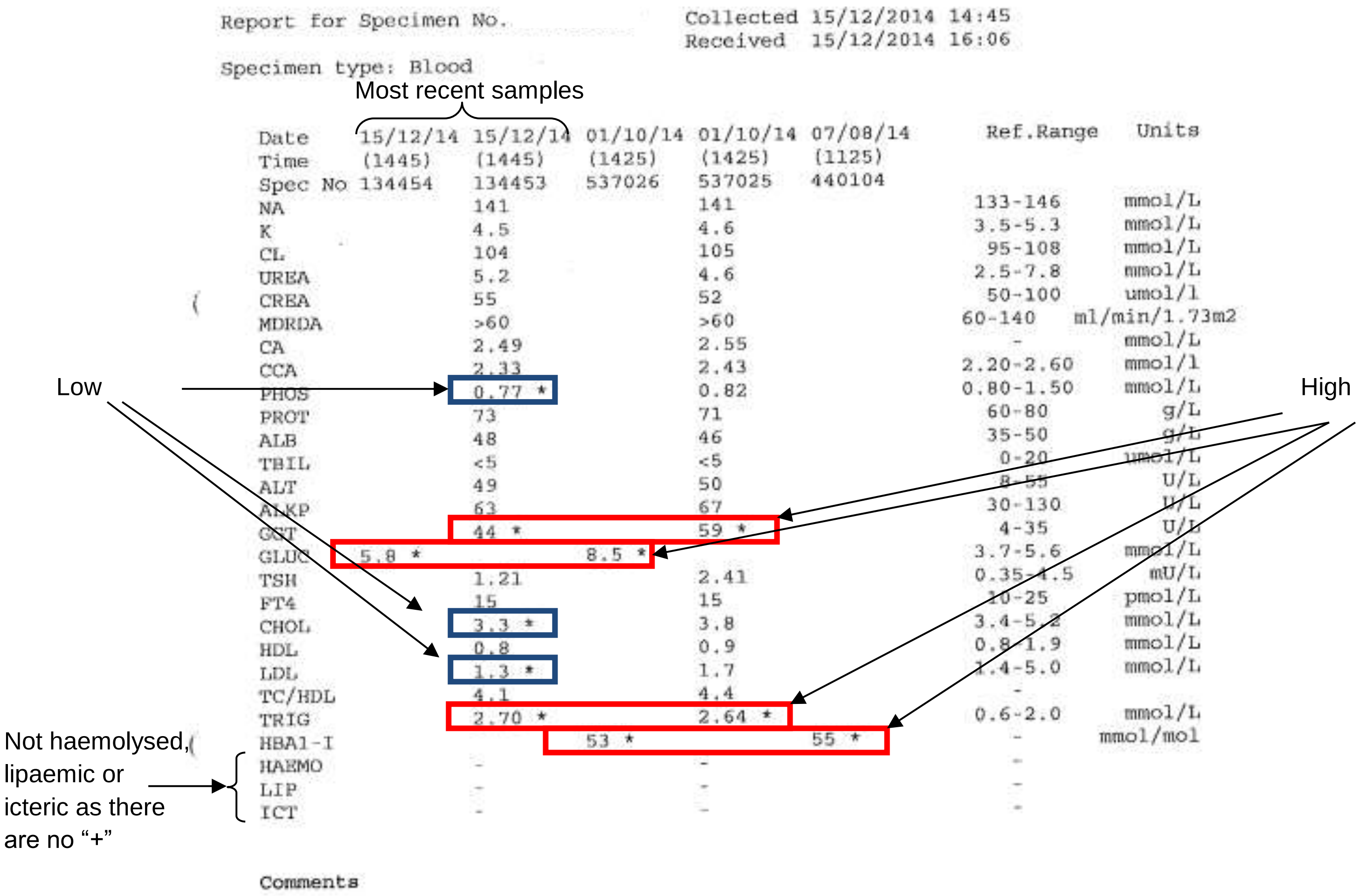
In APEX results are held at 4 different levels depending on the stage of analysis that has occurred:

- E = awaiting analysis
- F = analysed
- N = technically validated by BMS staff.
- S = clinically validated by DB.

An additional level (R) is used if the result are part of a series of results and have not all been completed i.e. a dynamic function test.

Only results that have been clinically validated (level S) will be sent to Trak (Secondary Care Patient Management System), ICE (Primary Care Patient Management System) and SciStore (Primary and Secondary Care Patient Management System) enabling users to see the results.

Out with 9am-9pm Monday to Friday and 9am-1pm on Saturday results are clinically authorised by BMS staff. However, a consultant is on call for advice if required.



Report for Specimen No. Collected 15/12/2014 14:45
Received 15/12/2014 16:06

Specimen type: Blood

Date	15/12/14	15/12/14	01/10/14	01/10/14	07/08/14	Ref.Range	Units
Time	(1445)	(1445)	(1425)	(1425)	(1125)		
Spec No	134454	134453	537026	537025	440104		
NA		141		141		133-146	mmol/L
K		4.5		4.6		3.5-5.3	mmol/L
CL		104		105		95-108	mmol/L
UREA		5.2		4.6		2.5-7.8	mmol/L
CREA		55		52		50-100	umol/l
MDRDA		>60		>60		60-140	ml/min/1.73m2
CA		2.49		2.55		-	mmol/L
CCA		2.33		2.43		2.20-2.60	mmol/l
PHOS		0.77 *		0.82		0.80-1.50	mmol/L
PROT		73		71		60-80	g/L
ALB		48		46		35-50	g/L
TBIL		<5		<5		0-20	umol/L
ALT		49		50		8-55	U/L
ALKP		63		67		30-130	U/L
GGT		44 *		59 *		4-35	U/L
GLUC	5.8 *		8.5 *			3.7-5.6	mmol/L
TSH		1.21		2.41		0.35-4.5	mU/L
FT4		15		15		10-25	pmol/L
CHOL		3.3 *		3.8		3.4-5.2	mmol/L
HDL		0.8		0.9		0.8-1.9	mmol/L
LDL		1.3 *		1.7		1.4-5.0	mmol/L
TC/HDL		4.1		4.4		-	
TRIG		2.70 *		2.64 *		0.6-2.0	mmol/L
HBA1-I			53 *		55 *	-	mmol/mol
HAEMO		-		-		-	
LIP		-		-		-	
ICT		-		-		-	

Comments

This patient is known to have type 2 diabetes mellitus and is being monitored at diabetic clinic. Results show poor diabetic control as blood glucose and HbA1c are elevated above the reference ranges (highlighted by *). Cholesterol and LDL are just below the reference ranges. The triglycerides have been elevated in samples taken in October and December. Gamma-glutamyl transferase is also raised above the reference range.

There is no interpretive comment added to this report, as results fit with known clinical condition.

These results were not phoned to the requesting clinician as they were similar to previous results and did not exceed the critical phone limits.

I have also read, acknowledged (electronically on Q-Pulse) the following documents:

QM-POL-024 **5.8 Reporting of results**

C-LP-000 009 **Procedure for entering and confirming test results in APEX**

LP-890 015 **LABORATORY TELEPHONE POLICIES AND PROCEDURES**