Annexure 1 Checklist for the troubleshooting of problem analyte

Problem analyte	Phase of total testing process	Type of error	Corrective actions/ Preventive actions	Comments
	Preanalytical/ Presurvey factors	1. Receipt of quality control material		
		• Sample identifiers match the documentation.		
		• Visual appearance of the sample for quantity and physical integrity		
		• Error in packaging the samples: ✓ Temperature in which it is received ✓ Leakage		
		• Expired QC material received		
		2. Handling of quality control material		
		• Instructions for handling of QC material not followed.		
		• Inappropriate storage of QC material till use.		
		• Problems with reconstitution of QC material.		
		• Problem with sample stability: ✓ Repeated freeze thaw cycles ✓ Aliquoting not done. ✓ Expired QC material in use		
		• Error in sample labeling during aliquoting and storage		
		• Sample temperature not maintained prior to run.		
	Analytical factors	• Problem with the equipment: ✓ Equipment breakdown ✓ Problems due to maintenance ✓ Problems due to test settings ✓ Calibration failure		
		• Problem with reagents: ✓ Differences in lot number ✓ Crisis arising out of a particular lot ✓ Using reagents post expiration dates ✓ Reconstitution problems ✓ Improper storage		
		• Problems during test performance: ✓ Insufficient sample volume processed ✓ Undetected failure in quality control ✓ Wrong assay use ✓ Procedure not followed		
		• Random error		
	Post analytical phase: data handling, interpretation, and reporting error	• Transcription error ✓ Incorrect value entered ✓ Mixing up of test results while reporting from the instrument		
		• Incorrect units used		
		• Error in reporting the test result to the EQAS organizer.		
		• Incorrect methodology/equipment selected during EQAS result entry		
		• Wrong entry of the report by the EQAS provider		