

Supplementary Table 1. Quality indicators (QI) assessed in the preanalytical phase

Serial number	Quality indicators (QI)	Description
QI-1	Number of improperly/ mislabelled BCT	Wrong patient identification and/or Wrong test selection and/or Old barcode regenerated and/or Improper pasting of barcode and/or Poor quality of print on barcode and/or Unlabelled BCT
QI-2	Number of inappropriate BCT (wrong BCT for the requested test)	BCT with EDTA received for coagulation/ biochemical tests or Citrate BCT received for CBC/ biochemical tests or Plain BCT received for CBC/coagulation tests
QI-3	Number of BCT with insufficient volume	Plain BCT or BCT with EDTA containing inadequate blood volume for all the requested tests and/or Blood volume lesser than the dead volume required to run in the (haematological/biochemical) autoanalyser
QI-4	Number of BCT with inadequate sample-anticoagulant ratio	Under filled or overfilled citrated BCT (with or without visible clot)
QI-5	Number of samples clotted	Visible clots seen either floating inside or stuck on the walls of the anti-coagulated BCT (EDTA or citrate)
QI-6	Number of samples haemolysed	Colour of the serum or plasma obtained after centrifugation is visually inspected (pink to red colour is suggestive of haemolysis) in citrated BCT or plain BCT
QI-7	Number of samples with lipaemia	Colour of the serum or plasma (in plain BCT or citrated BCT respectively) obtained after centrifugation is visually inspected; turbid or white/creamy colour is suggestive of lipaemia. Pinkish to creamy colour of whole blood in BCT with EDTA is also suggestive of lipaemia

BCT - blood collection tube. EDTA - ethylenediaminetetraacetic acid. CBC - complete blood count

Supplementary Table 2. Summary of probable reasons for increased frequency of preanalytical errors during the pandemic

Steps	Logistics in the prepandemic phase	Logistics in the pandemic phase	Probable impact on the frequency of preanalytical variables in the pandemic phase
Specimen collection	Fixed number of dedicated residents and nurses performed phlebotomy	Increased turnover of medical professionals performing phlebotomy	Overall increase in frequency of pre-analytical errors
	Regularly trained medical professionals (surgical and medical residents) are posted	Heterogeneity in specialty of medical professionals (from clinical and non-clinical branches)	Increased frequency of mislabelled specimens, insufficient specimens and clotted samples
	Not applicable	Decreased field of vision, reduced manual dexterity due to PPE	
	Not applicable	Increased fear and mental stress amongst healthcare professionals	
Specimen packaging, delivery system	No special packaging required	BCT packed in biohazard zip-lock bags	Not applicable
	Specimen transport box used if specimen hand-delivered	Bags kept in leak-proof closed rigid container (specimen transport box) with a clearly visible biohazard label	
	Barcoded BCT and BCT with requisition forms were accepted	Only barcoded BCT are accepted in laboratory	Increased frequency of mislabelled samples

	Most samples delivered by pneumatic tubes, some hand-delivered	BCT are hand-delivered only, use of pneumatic tubes is forbidden to prevent aerosolisation in case of accidental leaks	
	Healthcare professionals were familiar working with the 10 years old LIS and barcoding system	Introduction of new LIS and barcoding system, new test panels	Increased frequency of poor quality prints on barcodes, improperly pasted barcode, old barcodes, etc.
	Not applicable	Separate 'COVID corridors' and 'COVID lifts' designated for smooth ward/ICU-laboratory workflow	Decreased frequency of haemolysed samples due to more standardised transport protocol
	Most specimens delivered by pneumatic shoots	BCT from ward are kept in a box outside the laboratory premises for contactless-delivery	
	Increased urgency to fetch reports for patients like in the red and the yellow areas of the emergency department during trauma-care	A laboratory personnel collects the BCT from the designated box kept outside the laboratory	Decreased frequency of haemolysed samples
	Not applicable	Person transporting and handling specimens to wear complete PPE	
Sample handling in the laboratory	Not applicable	Separate specimen receiving and processing room	Not applicable

Not applicable	Processing samples in class 2 biological safety cabinet wearing PPE only <ul style="list-style-type: none"> All specimens are treated with ultraviolet rays All BCT are wiped with 0.1% hypochlorite solution using tissue paper. 	Added difficulty in reading/scanning an already improperly labelled samples. Relative delay in detecting haemolysed samples.
De-capping of plain BCT to collect serum to run on manual mode to reduce dead volume in case of low sample volume	No BCT is de-capped during the entire testing process	Increased frequency of BCT with insufficient volume

PPE - personal protective equipment. BCT - blood collection tube. LIS - laboratory information system. ICU - intensive care unit.