

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

| Serial number | Quality indicators (QI) | Description |
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| 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 Citratd 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 |
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| 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 |

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| | 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 |

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| 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.