

Justification for additional testing of blood samples collected from antibody therapy comparisons in the RECOVERY Trial

Baseline blood samples were collected at recruitment from RECOVERY participants in two evaluations of antibody therapy that have now closed: convalescent plasma and the Regeneron monoclonal antibody cocktail (casirivimab + imdevimab).

The purpose of blood collection was to assess whether baseline biomarkers could predict which (if any) participants would benefit from the treatments being tested. The consent form and Participant Information Sheet asked for consent to test blood samples “for measurement of coronavirus and antibodies against it” and testing has so far been limited to these things. In the casirivimab + imdevimab comparison this testing turned out to be crucial to determine which patients would respond to treatment, and led to antibody testing being incorporated in UK treatment guidelines.

We have been approached by investigators from the REMAP-CAP trial, which tested similar treatments to those used in RECOVERY, and who have published results that identify another type of blood test that may predict whether patients would respond to convalescent plasma.¹ They would like to confirm this using the RECOVERY samples, but this test is based on the levels of immune proteins in the blood, so it is a different measure of the individual’s immune response than the antibody testing that was planned. As such, although the proposed test is for the same general purpose as that for which the blood was taken, we do not have explicit consent (and the RECOVERY investigators weren’t aware of this type of testing when the ICF was drafted).

We are requesting approval to perform this immune profile testing on samples already collected from participants in these two antibody therapy comparisons. This would not involve any testing for purposes unrelated to the reason the samples were collected, and it would not involve any participant DNA analysis. Although this testing is proposed only for samples from the two closed comparisons, we would like to update the protocol (section 2.3.1.1) and the PIS/ICF to refer to ‘coronavirus and immune responses against it’. This would cover both the current antibody testing and the exploratory immune profiling testing, so that the latter could be used on current samples if it proves useful.

Of note, it would not be possible to return to participants for re-consent, as a significant proportion (>25%) have died since providing samples, and the immune profiling could not be informative without including samples from these patients.

1. Fish M, Rynne J, Jennings A, et al. Coronavirus disease 2019 subphenotypes and differential treatment response to convalescent plasma in critically ill adults: secondary analyses of a randomized clinical trial. *Intensive Care Med.* 2022 Nov;48(11):1525-1538. Epub 2022 Sep 14. PMID: 36102943