**Supplementary material 1.** Diagnostic testing for COVID-19 and testing for SARS-CoV-2 variants in the Korean military

Confirmed coronavirus disease 2019 (COVID-19) cases were defined as those diagnosed with severe acute respiratory coronavirus 2 (SARS-CoV-2) infection by real-time reverse transcription polymerase chain reaction (PCR) tests of respiratory specimens. PCR tests and rapid antigen tests were conducted in accordance with Korean Disease Control and Prevention Agency guidelines using commercial kits, approved by the Ministry of Food and Drug Safety of the Republic of Korea. Prior to March 14, 2022, the military used only PCR as a diagnostic test, but from March 14, 2022, rapid antigen testing was also approved for confirmatory testing. The test of COVID-19 variants was performed using 2 methods. One involved nucleic acid amplification and sequencing of the spike protein gene region of SARS-CoV-2, for the region encoding residues 95 to 681 of the spike protein. Given the length of this section, nucleic acid amplification was performed by dividing it into 2 parts. The other involved amplification of major single nucleotide polymorphisms (SNPs) by PCR. Using the kit for S-gene mutation detection (PowerChek™ SARS-CoV-2 S-gene Mutation Detection Kit Ver 3.0 by Kogene Biotech, Korea), we screened variants using 7 major SNPs (N501Y, K417N, E484K, P681R, E484A, L452R, T547K). These 2 variant tests were conducted by the Armed Forces Medical Research Institute.