

Clinical Symptoms of Patients with SARS-CoV-2 Virus: A Systematic Review

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Introduction

SARS-CoV-2 virus attacks the respiratory system and gradually disrupts this system. Its symptoms can be cough, and severe fever leading to lung inflammation and renal failure. Given that different studies have reported different prevalence of clinical symptoms in patients with this virus, the present study was conducted aimed to investigate the general prevalence of clinical symptoms in patients with SARS-CoV-2 virus.

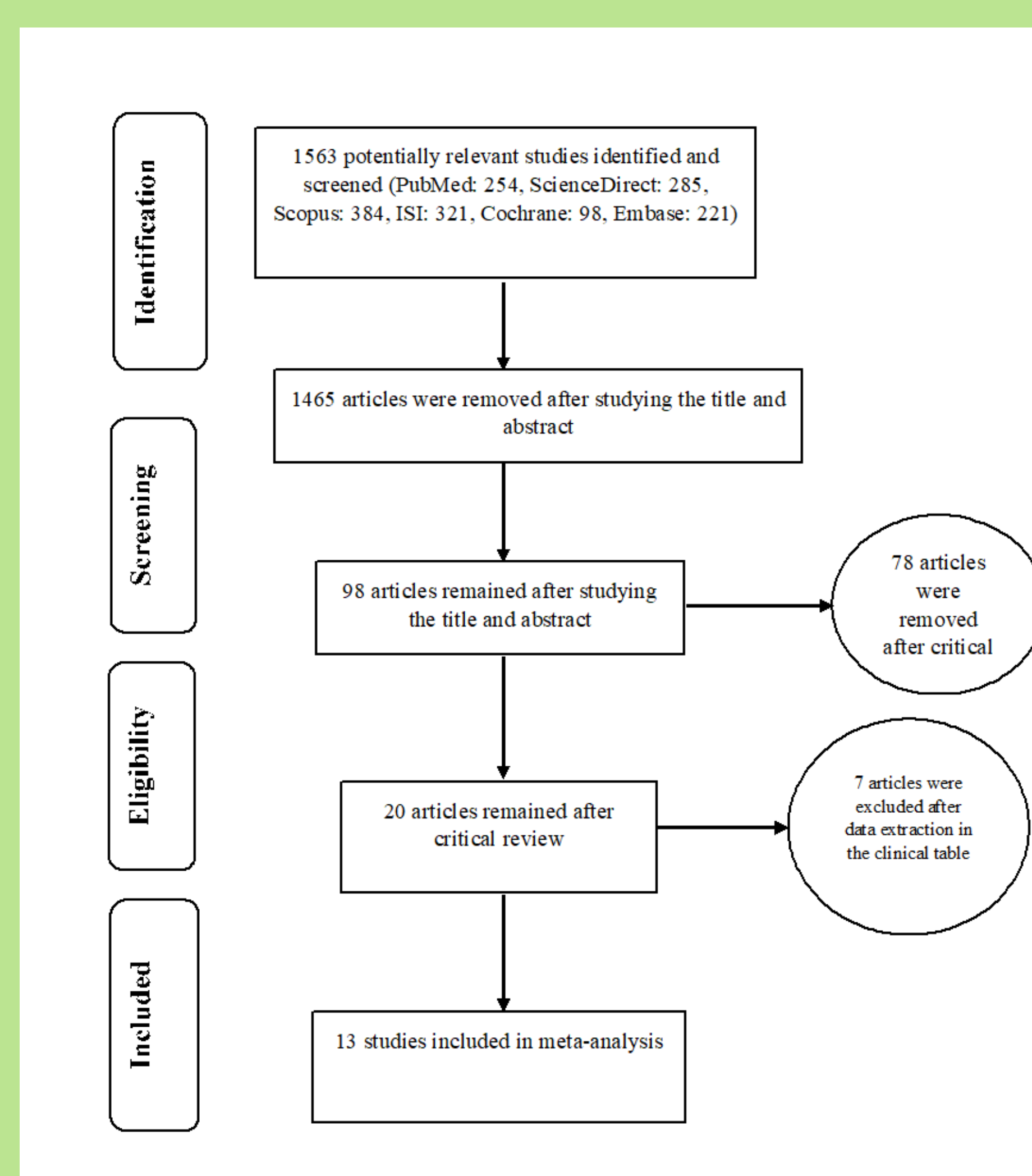
Study Objectives

This systematic review aimed to investigate the general prevalence of clinical symptoms in patients with SARS-CoV-2 virus.

Methods

This study was conducted as a systematic review and meta-analysis by searching Embase, ScienceDirect, Scopus, PubMed and Web of Science (WoS) international databases. The study selection criteria were observational (non-interventional) studies and full text availability. First, all papers referring to the prevalence of clinical complications of SARS-CoV-2 virus were collected by researchers and accepted based on the study inclusion and exclusion criteria. The study exclusion criteria included unrelated cases, case reports, interventional studies, repeated studies, unclear methodology, and no access the full text of the study. In order to reduce bias, the papers were searched independently by two researchers, and if the study disagreed, the paper was reviewed by the main reviewer. All final papers entered meta-analysis were extracted by a pre-prepared checklist. The checklist included paper title, first author's name, year of publication, study area, sample size, prevalence of clinical symptoms, and mean age. Random effects model was used for analysis and heterogeneity of studies was investigated by I^2 index. The data were analyzed using Comprehensive Meta-Analysis (Version 2).

Figure 1: The process of searching and extracting articles based on the PRISMA process



Results

The study results showed that the total prevalence of SARS-CoV-2 virus symptoms was 78.2% fever, 54.9% cough, 15.5% asthma, 23.1% sputum, 9.4% rhinorrhea, 12.5% headache, 4.6% vomiting, 5.7% diarrhea, 27.9% fatigue and 4.5% chest pain.

Figure 2: Visual representation of the prevalence of symptoms of covid-19 in the body

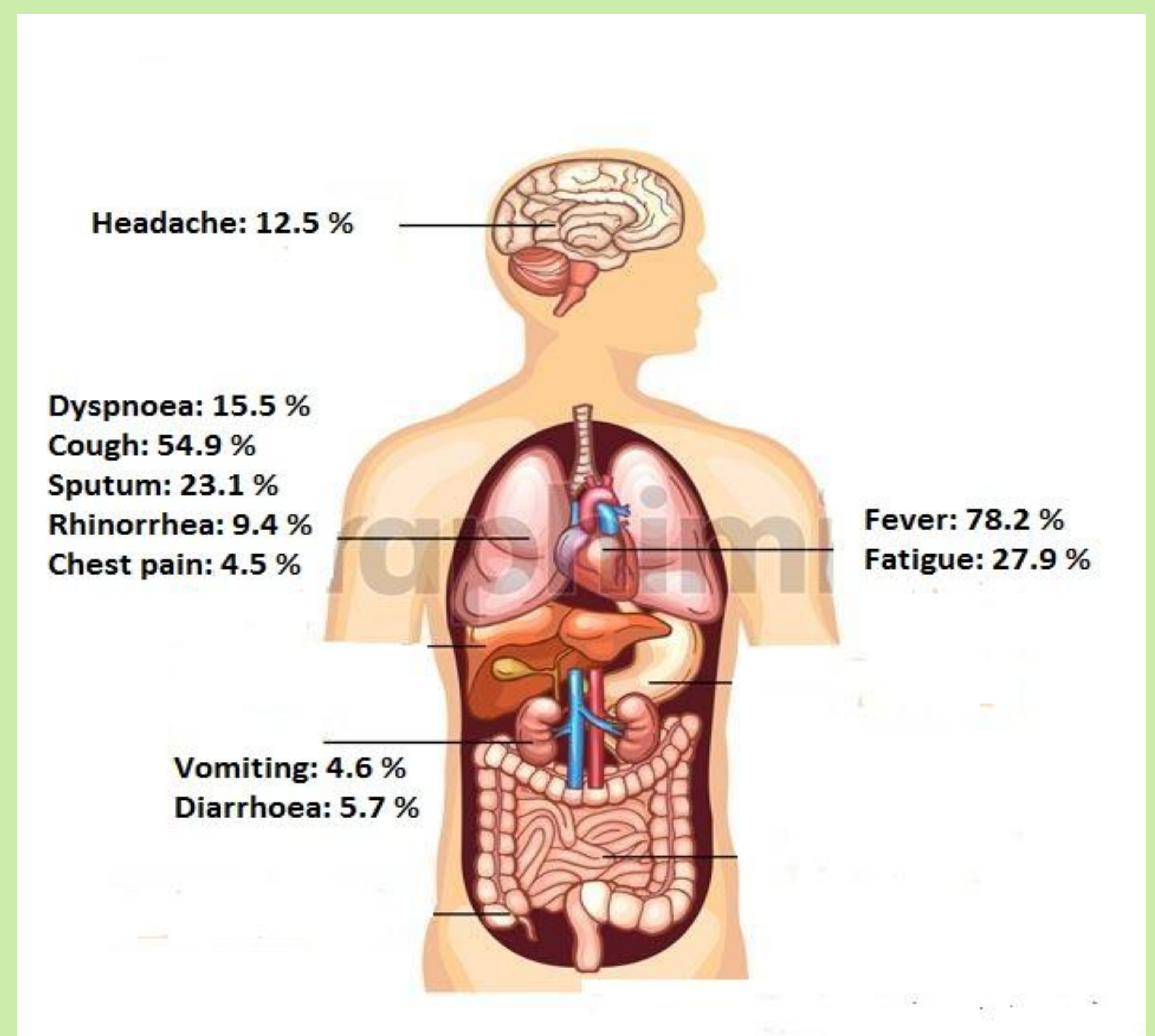
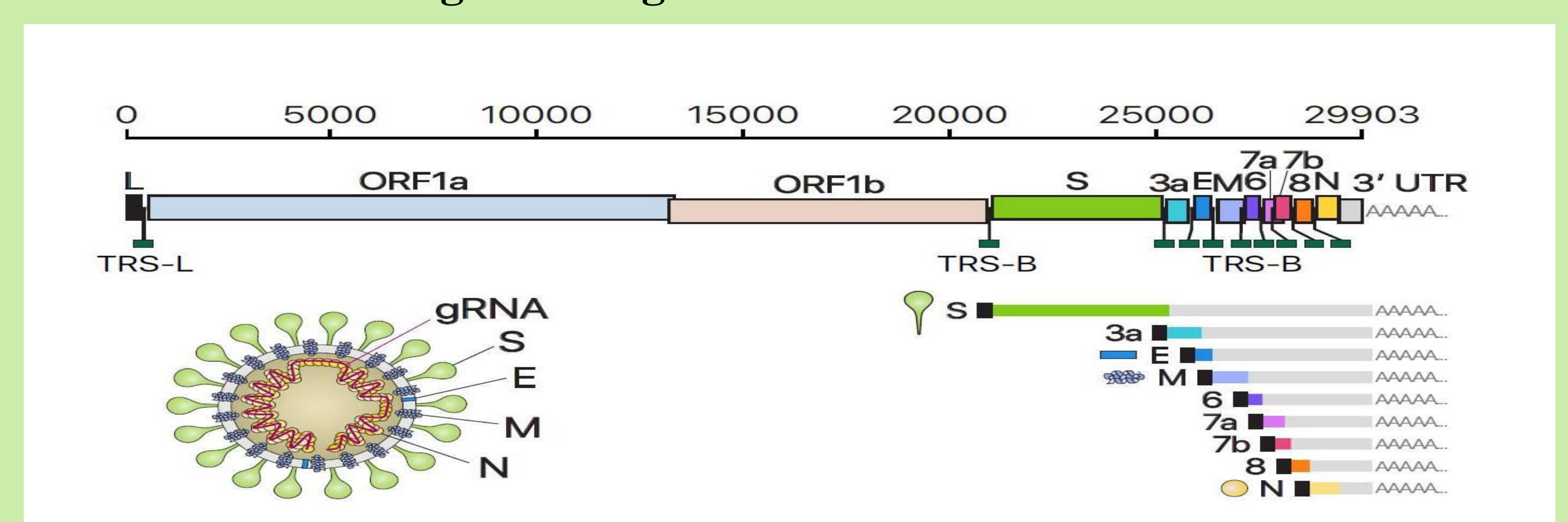


Figure 3 Organization of SARS-CoV-2 Genome



Conclusions

The study results show that fever, cough, fatigue, sputum and asthma are the most important symptoms of patients with SARS-CoV-2 virus. Hence, appropriate solutions should be taken to improve, trace and monitor the aforementioned situation by providing feedback to hospitals at all levels.