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Combined treatment from existing drugs might combat COVID-19

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Chinese researchers are trying to prevent mild COVID-19 cases turning into severe cases, by promoting Chloroquine Phosphate, Familavir and traditional Chinese medicine (TCM) to bypass the prolong time and cost involved until a specific COVID-19 drug is developed



There is no specific drug which can fight against COVID-19 yet. Developing a specific drug is quite tough. It is not practical when R&D works of new drugs usually take too long and expensive too.

Chinese scientists realized screening existing drugs for new uses is a faster approach to combat COVID-19.

The researchers quickly selected 5,000 potentially effective drugs from more than 70,000 drugs or compounds and then screened 100 drugs to carry out in vivo experiments of novel coronavirus activity. Every essential step of clinical trials and safety evaluation for drug development should be ensured in the process of new uses for existing drugs. All related R&D activities adhere to the principles of safety, efficacy and accessibility.

"All the current drugs used in clinical application have undergone rigorous safety research and evaluation. The indications, contraindications and adverse reactions are specified in the drug instructions. Users' safety can be guaranteed if they strictly follow treatment methods listed in the instructions and the diagnosis and treatment plan," Zhang Xinmin, Director of the Biology Center of the Ministry of Science and Technology (MOST), told Science and Technology Daily.

"To prevent mild and ordinary cases turning into severe cases, we focused on promoting Chloroquine Phosphate, Familavir and traditional Chinese medicine (TCM). The clinical application of convalescent plasma therapy, Tocilizumab, stem cells therapy and artificial liver therapy are promoted to treat patients in severe and critical condition. So far, we have achieved progress in both situations," Zhang Xinmin said.

The antimalarial drug Chloroquine Phosphate and the anti-influenza drug Arbidol have been included in the sixth version of the COVID-19 diagnosis and treatment guidelines. Tocilizumab, which was originally used to treat moderate to severe

rheumatoid arthritis, has been included in the seventh version of the guidelines. Currently, it is used to treat severe patients. Fapiravir has completed clinical research and shown good efficacy. After being fully demonstrated, it has been officially recommended to be included in the COVID-19 diagnosis and treatment guidelines as soon as possible.

Zhang said, "It is worth mentioning that traditional Chinese medicine (TCM) plays an important role in Chinese approach to fight against COVID-19.

At present, Zhang Boli's team has collected 65 kinds of marketed Chinese patent medicines for anti-influenza and anti-pneumonia, and completed the preparation of Chinese patent medicine components, virtual screening combined with in vitro evaluation, cytokine storm cell model and anti-pulmonary fibrosis cell model establishment.