

Novel Coronavirus Disease (COVID-19) Jingfang Prevention and Treatment Recommendation (1st Edition)

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The novel coronavirus pneumonia (Coronavirus Disease 2019, COVID-19) is an infectious disease caused by an entirely new pathogen. The prevention and treatment of this disease is a major challenge facing humanity today. Jingfang, also known as classical formulae in traditional Chinese medicine, is an ancient herbal remedy that was formed in China at about 3,000 BC. These empirical herbal formulae that were solidified through human experimentation by ancient Chinese were mostly recorded in a medical book named *Shāng Hán Lùn* 1800 years ago. *Shāng Hán Lùn* is a recognized clinical guideline for the treatment of acute febrile diseases in the field of Chinese medicine, and most of its experiences has been widely used till present day. Due to high similarities between the symptoms described in *Shāng Hán Lùn* and that of COVID-19 patients, the possibility of crossing the barriers of 2000 years of time and space and apply prescriptions from *Shāng Hán Lùn* to treat the COVID-19 is worth exploring.

When confronted with unfamiliar diseases, the confidence of traditional Chinese medicine (TCM) originates from its unique medical theory and rich clinical experience. TCM is not concerned with what specific pathogen it is, nor is it searching for wonder drugs for killing pathogens. Instead, TCM aims at taking account of patient's response to the disease and utilizing these time tested ancient formulae to relieve patients' pain until a disease is cured and lives are saved. There have been countless plague epidemics in the Chinese history, yet none have been included in the list of the most serious plagues in human history. This may thank to the involvement of Chinese medicine used in prevention and treatment. Mass immunization plus TCM intervention can be considered as the traditional Chinese model for prevention and treatment of infectious diseases. When talking about the intervention of Chinese medicine, the role of Jingfang cannot be ignored. *Xiǎo Chái Hú Tāng*, *Guì Zhī Tāng*, *Má Huáng Tāng*, *Dà Chéng Qì Tāng*, *Bái Hǔ Tāng*, *Huáng Lián Jiě Dú Tāng*, *Gě Gēn Qín Lián Tāng*, *Sì Nì Tāng* and etc. are all ace prescriptions in Jingfang. In the ancient records of traditional Chinese medicine, there have been countless cases which can prove the effectiveness of these prescriptions.

In fact, Jingfang has involved in China's COVID-19 treatment since the beginning of the outbreak. On January 21, 2020, the Chinese central government has already sent Chinese medicine experts to Wuhan to discuss herbal treatment options for COVID-19. On January 22, 2020, the National Health Commission of China proposed a standardized plan for the herbal treatment of COVID-19 (mainly Jingfang) in the diagnosis and treatment procedure. On March 31, 2020, China announced the results of clinical research on various types of COVID-19 treated by traditional Chinese medicine, which served as a preliminary confirmation on the efficacy of Jingfang. ^[1]

To promote and facilitate Jingfang's participation and help in the prevention and treatment of COVID-19, based on study of ancient literature and current clinical research results, we hereby provide Jingfang Intervention recommendations in four aspects: group therapy, individualized therapy, psychological intervention, and general prevention. This Jingfang intervention plan is written for professional reference.

Part I: Group Treatment

When an epidemic breaks out on a large scale, the strategy of one-patient-one-prescription is not realistic. A broad treatment plan is needed to cover common symptoms most patients have. Therefore, TCM has always had the practice of distributing large quantity of pre-cooked herbal medicine to people in need during epidemic outbreaks. *Rén Shēn Bào Dú Sǎn* was once used as a group-standardized formula and was officially

recommended in the Song Dynasty (960-1279) in China, which has demonstrated good curative effect^[2]. After the COVID-19 outbreak in Wuhan, the China Administration of Traditional Chinese Medicine and the National Expert Group on Traditional Chinese Medicine Medical Treatment both formulated group treatment prescriptions to carry out treatment and to enable further clinical observation in Wuhan and all around China.

On February 6, 2020, the National Health Commission and the State Administration of Traditional Chinese Medicine recommended Qīng Fèi Pái Dú Tāng for use in various cities. As of April 12, 2020, 1262 confirmed cases (including 1262 confirmed cases in 57 designated medical institutions in 10 different provinces, including 57 severely ill patients) who were on this formula were observed. Out of these cases, 1253 patients were cured and discharged, which accounts for 99.28% of the total group. Within the 1262 patients, there were no finding of mild case transforming into severe case, or severe case transforming into critical case^[3].

Guangshan County People's Hospital also used Ren Shen Bai Du Tang to treat 22 patients who were suspected of COVID-19 and were showing symptoms of fever and cough. All 22 patients returned to normal temperature, 19 of them were cured from coughing, 3 of them had coughing symptom improved, and 17 of them were improved from fatigue and anorexia. It suggests that Rén Shēn BÀI DÚ Sǎn, as a classic anti-epidemic prescription in TCM, has a good curative effect on COVID-19^[4].

1. Qīng Fèi Pái Dú Tāng

COVID-19 Diagnosis and Treatment Program-Seventh Edition - 《新冠肺炎诊疗方案·第七版》

Corresponding Syndrome: mild, ordinary, and severe patients. It can also be used in the treatment of critically-ill patients along with differentiation and assessment of patient's condition.

Recommended Prescription

Chinese Name	Pinyin	Latin name	Dosage
麻黄	Má Huáng	Ephedrae Herba	9g
炙甘草	Zhì Gān Cǎo	Glycyrrhizae radix et rhizoma praeparata cum melle	6g
杏仁	Xìng Rén	Armeniaca Semen Amarum	9g
生石膏	Shēng Shí Gāo	Gypsum fibrosum	15~30g
桂枝	Guì Zhī	Cinnamomi ramulus	9g
泽泻	Zé Xiè	Alismatis Rhizoma	9g
猪苓	Zhū Líng	Polyporus	9g
白术	Bái Zhú	Atractylodis Macrocephalae Rhizoma	9g
茯苓	Fú Líng	Poria	15g
柴胡	Chái Hú	Bupleuri Radix	16g
黄芩	Huáng Qín	Scutellariae Radix	6g
半夏	Bàn Xià	Pinelliae Rhizoma	9g
生姜	Shēng Jiāng	Zingiberis rhizoma recens	9g
紫菀	Zǐ Wǎn	Asteris Radix et Rhizoma	9g
冬花	Dōng Huā	Farfarae flos	9g
射干	Shè Gān	Belamcandae Rhizoma	9g
细辛	Xì Xīn	Asari Radix et Rhizoma	6g
山药	Shān Yào	Dioscoreae Rhizoma	12g
枳实	Zhǐ Shí	Aurantii fructus immaturus	6g
陈皮	Chén Pí	Citri Reticulatae Pericarpium	6g
藿香	Huò Xiāng	Pogostemonis Herba	9g

Decocting and administration Instruction: Decoct with water. Decoct Shēng Shí Gāo for 30 minutes before add in other ingredients. One dose per day, take while it is warm, twice a day in the morning and in the evening respectively (40 minutes after meal), three doses as a course of treatment. If possible, having a half bowl of rice soup is recommended after taking the medicine, a whole bowl is recommended for patients with dryness of tongue and deficiency of body fluid. (Note: the dosage of Shēng Shí Gāo should be lowered for patients with no

fever, and should be increased for those with high fever and strong heat). If there is improvement with symptoms, continue with another course of treatment. Modify the prescription for the following treatment courses accordingly for patients with special conditions or underlying diseases. Cease taking this prescription if the symptoms disappear.

2. Rén Shēn BÀI DÚ Sǎn

Tài Píng Huì Mǐn Hé Jì Jú Fāng - 《太平惠民和剂局方》

Corresponding syndrome: mild and ordinary patients. It can also be used for preventative purpose.

Recommended prescription			
Chinese Name	Pinyin	Latin name	Dosage
生晒参 / 党参	Shēng Shài Shēn / Dǎng Shēn	Ginseng Radix et Rhizoma / Codonopsis Radix	6g / 10g
羌活	Qiāng Huó	Notopterygii rhizoma et radix	6g
独活	Dú Huó	Angelicae Pubescentis Radix	6g
柴胡	Chái Hú	Bupleuri Radix	6g
前胡	Qián Hú	Peucedani radix	6g
枳壳	Zhǐ Qiào	Aurantii Fructus	6g
茯苓	Fú Líng	Poria	6g
桔梗	Jié Gěng	Platycodonis Radix	6g
川芎	Chuān Xiōng	Chuanxiong Rhizoma	6g
生甘草	Shēng Gān Cǎo	Glycyrrhizae radix et rhizoma	3g
生姜	Shēng Jiāng	Zingiberis rhizoma recens	3g
薄荷	Bò Hé	Menthae Haplocalycis Herba	3g

Decocting and administration Instruction: Boil the above ingredients with 1000ml of water until 300ml of liquid remains, divide the decoction to 2-3 portions and drink while warm. Add Jīng Jiè 10g and Fáng Fēng 10g to the above formula, and there comes Jīng Fáng BÀI DÚ Sǎn.

Part II: Individualized Treatment Formula

Group treatment formula takes care of the universality of the diseased public, however individual difference still exists in clinical setting. Patients may display differences in severity, their symptoms may vary, their physical strengths may differ, and existence of underlying chronic disease for each patient is rarely alike. Individualized treatment is an irreplaceable addition to group-standardized treatment. To satisfy clinical needs, and to target the individuality of each patient, it is crucial to recommend individualized treatment and prevention formulae for COVID-19, all under the guidance of previous experiences from the ancients and the key principle of “correspondence between formula and syndrome”.

Due to limited understanding of the microscopic world, ancient Chinese doctors were only able to grasp the core of disease through macroscopic viewpoint. The book *Shāng Hán Lùn* studied the reaction pattern of diseases on human body, combining symptoms and signs to form an classical-formulae-treatment-system that is based on “correspondence between formula and syndrome”. The syndrome of a formula (Fang Zheng), is the clinical evidence for prescribing such formula, it comes from thousands of years of clinical observation and summarization, it is highly experienced. Closely matching a formula with its syndrome, is the basic assurance of safe and effective use of this formula; it is also a key point in individualized treatment. Due to the complexity and variability of COVID-19, it is important to stick to the guiding principle of “corresponding formula and syndrome” - only use a formula when its matching syndrome appears, never prescribe a formula where the syndrome doesn't match.

The following empirical herbal formulae are recommended for the treatment and prevention of COVID-19.

Category 1. Má Huáng Prescriptions

Chinese ephedra decoctions are a group of Chinese ephedra-centred formulae that treat patients with the common type of COVID-19 - those of good nutritional status and no harm has been found to their major organs. Once contracted the virus, these patients show symptoms of aversion to coldness, fever, absence of sweating and shortness of breath, in Chinese medicine, this is called “the Taiyang Syndrome”. Treatise on Exogenous Febrile Diseases takes the Má Huáng Tāng as the major formula to treatment Taiyang Syndrome, modern medical research indicates that this formula is able to reduce fever, relief asthma, suppress cough, excite central nervous system, increase glandular secretion, resist influenza and etc. It is used for diseases that are characterized by anhidrosis and dyspnea, or anhidrosis, body ache, and floating and forceful pulse.

Má Huáng Xìng Rén Gān Cǎo Shí Gāo Tāng is a traditional dyspnea-reducing formula, modern medical research suggests it is able to reduce heat, alleviate dyspnea, sedate, and resist influenza; it is also anti-inflammatory and anti-allergic. It is used for diseases that are characterized by sweating, dyspnea, thirst and vexation. The effectiveness of Má Huáng Xìng Rén Gān Cǎo Shí Gāo Tāng on Type-A influenza has been proven through clinical research^[5], it is the most used herbal formula in China for COVID-19. Ma Xing Shi Gan Tang is also a key component of Qīng Fèi Pái Dú Tāng. Lián Huā Qīng Wén Jiāo Náng and Jīn Huā Qīng Gǎn Kē Lì both uses Ma Xing Shi Gan Tang as its basic component. The two patent medicine powder can significantly alleviate COVID-19 symptoms like fever, lassitude and cough, all proven in clinical research conducted in Wuhan^[6,7].

It is indicated in *Shang Han Lun* that whenever there is listlessness, lassitude, deep or feeble thready pulse in the initial stage of febrile diseases, Má Huáng Fù Zǐ Xīn Tāng must be used, which has excitatory and strengthening functions. A research conducted in Hokkaido, Japan once treated common cold with Má Huáng Fù Zǐ Xīn Tāng without syndrome differentiation, it is found that this formula excels western medicine at alleviating fever, feverish sensation, sore throat, throat discomfort, coughing and expectoration^[8]. COVID-19 patients that are senior and /or have chronic diseases tend to develop into severe or critical cases, they usually manifest warning indicators like reduced lymphocyte count, increased IL-6 and other cytokines before critical states appear. They may also develop reduced fever, increased aversion to coldness, exhausted state, somnolence, chest oppression and shortness of breath, cold hands and feet, feeble and thready pulse and etc. These symptoms suggests Ma Huang Fu Zi Xi Xin Tang is the effective decoction to prescribe.

If patient shows symptoms of fever with no sweat, poor appetite, diarrhea, fullness in abdomen, white and greasy tongue coating, one may use a formula in the Ma Hung Decoction group that takes care of the digestive dysfunctions, which is Wǔ Jī Sǎn.

1. Má Huáng Tāng

Shāng Hán Lùn - 《伤寒论》

Corresponding Syndrome: absence of sweating, fever, headache, body ache, or dyspnea, floating and tight pulse, most seen in healthy adults and manual workers.

Recommended Prescription			
Chinese Name	Pinyin	Latin name	Dosage
麻黄	Má Huáng	Ephedrae Herba	15g
桂枝	Guì Zhī	Cinnamomi ramulus	10g
炙甘草	Zhì Gān Cǎo	Glycyrrhizae radix et rhizoma praeparata cum melle	5g
杏仁	Xìng Rén	Armeniaca Semen Amarum	15g

Decocting and administration Instruction: Boil the above ingredients with 1000ml of water until 300ml of liquid remains. Divide the decoction to 2-3 portions and drink while warm.

2. Má Huáng Xìng Rén Gān Cǎo Shí Gāo Tāng

Shāng Hán Lùn - 《伤寒论》

Corresponding Syndrome: fever, sweating and dyspnea, sticky and thick phlegm, swelling in the face.

Recommended Prescription

Chinese Name	Pinyin	Latin name	Dosage
麻黄	Má Huáng	Ephedrae Herba	15g
炙甘草	Zhì Gān Cǎo	Glycyrrhizae radix et rhizoma praeparata cum melle	10g
杏仁	Xīng Rén	Armeniaca Semen Amarum	15g
生石膏	Shēng Xí Gāo	Gypsum fibrosum	30g

Decocting and administration Instruction: Boil the above ingredients with 1000ml of water until 300ml of liquid remains. Divide the decoction to 2-3 portions and drink while warm.

3. Má Huáng Fù Zǐ Xì Xīn Tāng

Shāng Hán Lùn - 《伤寒论》

Corresponding Syndrome: fever with prominent aversion to coldness, dry skin without sweating; listlessness, lassitude, extreme exhausted state, or slow reflex including loss of sense of smell and taste; absence of thirst, profuse and clear urine; deep and tense pulse, or deep and thready pulse, or deep and slow pulse, or feeble and thready pulse

Recommended Prescription

Chinese Name	Pinyin	Latin name	Dosage
麻黄	Má Huáng	Ephedrae Herba	10g
制附子	Zhì Fù Zǐ	Aconm lateralis radix praeparata	10~20g
细辛	Xì Xīn	Asari Radix et Rhizoma	10g

Decocting and administration Instruction: Firstly, boil Fù Zǐ for 30-60 minutes in 1000ml of water, then add in the rest of the ingredients and uncap the lid to boil until 300ml of liquid remains. Divide the decoction to 2-3 portions and drink while warm.

4. Wǔ Jī Sǎn

Tài Píng Huì Mǐn Hé Jì Jú Fāng - 《太平惠民和剂局方》

Corresponding Syndrome: sallow facial complexion, white sticky tongue coating, heavy body, abdominal fullness, diarrhea, headache, expectoration, or irregular menstruation.

Recommended Prescription

Chinese Name	Pinyin	Latin name	Dosage
生麻黄	Shēng Má Huáng	Ephedrae herba	15g
肉桂	Ròu Guì	Cinnamomi Cassiae Cortex	10g
甘草	Gān Cǎo	Glycyrrhizae radix et rhizoma	5g
苍术	Cāng Zhú	Atractylodis Rhizoma	40g
厚朴	Hòu Pò	Magnoliae Officinalis Cortex	10g
姜半夏	Jiāng Bàn Xià	Pinelliae Rhizoma	10g
陈皮	Chén Pí	Citri Reticulatae Pericarpium	15g
枳壳	Zhǐ Qiào	Aurantii Fructus	15g
茯苓	Fú Líng	Poria	10g
桔梗	Jié Gěng	Platycodonis Radix	15g
白芷	Bái Zhǐ	Angelicae Dahuricae Radix	10g
当归	Dāng Guī	Angelicae Sinensis Radix	10g
川芎	Chuān Xiōng	Chuanxiong Rhizoma	10g
白芍	Bái Sháo	Paeoniae Radix Alba	10g
干姜	Gān Jiāng	Zingiberis Rhizoma	10g

Decocting and administration Instruction: Boil the above ingredients with 1500ml of water until 300ml of liquid

remains. Divide the decoction to 2-3 portions and drink while warm. It can also be proportionally made into tea bags, steep in boiling water or boil the tea bag, 20g in total, 2-3 times per day.

Category 2. Chái Hú Prescriptions

The prescriptions of Chái Hú is based on the main herb Chái Hú. *Shāng Hán Lùn* recorded that febrile disease can develop into a stage of prolonged disease or enter into a state of chronicity after onset. The manifestations of the disease are continuous and repeating fevers, or alternating chills and fever, or fever onset at a particular time, fullness and discomfort in the chest and hypochondriac region, loss of appetite, depression, bitter taste or irregular taste in the mouth, nausea and vomiting, etc. *Shāng Hán Lùn* described these conditions as “Shaoyang Disease Syndrome” and recommended the use of Chái Hú prescriptions to treat this disease.

A study of 138 cases from COVID-19 in Wuhan showed that the common manifestations of the disease during the onset period were: fever (98.6%), restlessness (69.6%), dry cough (59.4%), loss of appetite (39.9%), myalgia (34.8%), and difficulty in breathing (31.2%)^[9]. It shows that lots of patients suffered from the “Shaoyang Disease Syndrome” during the onset period. In addition, the dominant feature in the clinical manifestation of COVID-19 were great impairment of patient’s immune system, it can be seen in the gradual reduction of lymphocytes, especially those of CD4 and CD8. Therefore, with the development of this disease, more and more patient display signs of Shaoyang disease syndrome.

Xiǎo Chái Hú Tāng is the main formula for treating Shaoyang syndrome. In modern research, study found that Xiǎo Chái Hú Tāng is anti-inflammatory, can dispel heat, and regulate the immune system. During the treatment of influenza A (H1N1), Japanese researchers found that the effectiveness of Xiǎo Chái Hú Tāng in eliminating fever is similar to that of Tamiflu. Xiǎo Chái Hú Tāng can significantly improve the symptoms of throat pain, listlessness, cough with sputum, poor appetite, joint and muscle pain^[10,11], most of which could also be found in COVID-19 patients.

Dà Chái Hú Tāng on the other hand, not only maintained the effectiveness of Xiǎo Chái Hú Tāng in eliminating fever, but is also able to remove fullness and hardness in the abdomen, and purge heat out of the lower warmer. Modern medical research found that it is able to benefit the gallbladder and the liver, lower lipid level, decrease blood pressure, anti-inflammatory, anti-allergic, anti-endotoxin, anti-bacterial, etc. It is applicable to the typical condition of fullness and pain in the upper abdomen, and for those who has excess heat in their body constitution.

Chái Líng Tāng is a formula to treat malaria in ancient time, and also a typical harmonizing formula. This formula has functions of eliminating fever, regulating water metabolism, stopping the diarrhea, and diminishing edema. Modern medical research points out that it can also resist inflammation, induce diuresis, regulate immune defense, and is similar to that of the function of glucocorticoid. It applies to diseases characterized by alternating chills and fever, thirst, diarrhea and dysuria. It is often used to treat autoimmune related diseases nowadays. Chái Líng Tāng is also a major component of Qīng Fèi Pái Dú Tāng.

Chái Hú Guì Zhī Tāng is a traditional harmonizing formula. Modern research suggests that it can relieve fever, resist viral infection, protect liver, resist inflammation, regulate body temperature, sweat glands and gastrointestinal tract bidirectionally, enhance immunity, participate in humoral cell immunity, sedate, reduce pain and etc. It is suitable for diseases characterized by wasting, alternating chills and fever in the body, abdominal pain, arthralgia and skin damage. It is recommended that weak COVID-19 patients use Chái Hú Guì Zhī Tāng.

Blood stasis is an important disease-causing factor in TCM. Wang Qīngren, a doctor in the Qing Dynasty, recognized that blood stasis plays a part in infectious diseases, and established remedies like Xuè Fǔ Zhú Yū Tāng, Jiě Dú Huó Xuě Tāng, and etc. The discovery of pulmonary thrombus and hemorrhage in the autopsy of the patients died from COVID-19 confirmed the role of blood stasis. In a clinical study conducted by academician Zhong Nanshan, on the basis of routine treatment of severe pneumonia, Xue Bi Qīng injection (made of Hóng Huā, Chì Sháo, Chuān Xiōng, Dān Shēn, Dāng Guī and other blood activating herbs) significantly reduced the 28-day-mortality rate by 8.8% and the relative death risk of severe pneumonia patients 35%. The injection also

significantly increased the improvement rate of pneumonia severity index by 14.4%, significantly shortened the time of mechanical ventilation by 5.5 days and ICU hospitalization for 4 days ^[12]. Meanwhile, because COVID-19 may lead to pulmonary fibrosis or SOP (secondary organic pneumonia), the use of blood-activating stasis-removing prescriptions can also prevent and treat this pathological outcome to a certain degree.

1. Xiǎo Chái Hú Tāng

Shāng Hán Lùn - 《伤寒论》

Corresponding Syndrome: alternating coldness and heat, or the condition happens on and off, fullness in the chest and hypochondriac regions, vexation and nausea, quiet and without appetite, or jaundice, or abdominal pain, or cough, or palpitation below heart, or thirsty, or oppressive feeling and dizziness. The patient may have a moderately built or slightly thin body, with yellow or greenish complexion that lack lustre, indifferent facial expression, low desire, poor appetite, low sexual drive, tiredness, aversion to coldness, bitter taste in mouth, dry throat, symptoms mostly focused on chest and hypochondriac region, prone to catch cold and coughing, prone to allergic skin reaction, prone to muscular and joint pain.

Recommended Prescription:

Chinese Name	Pinyin	Latin name	Dosage
柴胡	Chái Hú	Bupleuri Radix	20~40g
黄芩	Huáng Qín	Scutellariae Radix	15g
姜半夏	Jiāng Bàn Xià	Pinelliae Rhizoma	15g
生晒参 / 党参	Shēng Shài Shēn / Dǎng Shēn	Ginseng Radix et Rhizoma / Codonopsis Radix	10g / 15g
炙甘草	Zhì Gān Cǎo	Glycyrrhizae radix et rhizoma praeparata cum melle	5~15g
生姜	Shēng Jiāng	Zingiberis rhizoma recens	15g
红枣	Hóng Zǎo	Jujubae fructus	20g

Decocting and administration Instruction: Boil the above ingredients with 1100ml of water until 300ml of liquid remains. Divide the decoction to 2-3 portions and drink while warm. For common cold and fever, increase the portion of Chái Hú and have it 4 times per day in accordance with the condition of disease, until sweating occurs. For nausea and vomiting, portion of decoction shouldn't be too big.

Modifications: 1) if there is foreign body sensation in the throat or esophagus, profuse phlegm and saliva, combined with Bàn Xià Hòu Pǔ Tāng. 2) if there is dry mouth, dry eyes, thirst without desire to drink much, unsmooth urination, diarrhea, combined with Wǔ Líng Sǎn. 3) If there is persistent fever that is not recovering and spontaneous sweating, combined with Guì Zhī Tāng. 4) If there is coughing with sticky expectoration, chest and hypochondriac pain, pressing pain beneath the heart, combined with Xiao Xiǎo Xiàn Xiōng Tāng.

3. Chái Hú Guì Zhī Tāng

Shāng Hán Lùn - 《伤寒论》

Corresponding Syndrome: alternating coldness and heat, abdominal pain, joint pain, skin damage, complicated and varied clinical manifestations. The patient is usually undernourished, depressed, with poor appetite, spontaneous sweating, tiredness; the patient have continuous fever, skin macula, or soreness and pain at joints and muscles.

Recommended Prescription

Chinese Name	Pinyin	Latin name	Dosage
柴胡	Chái Hú	Bupleuri Radix	20g
桂枝	Guì Zhī	Cinnamomi ramulus	10g
黄芩	Huáng Qín	Scutellariae Radix	10g
姜半夏	Jiāng Bàn Xià	Pinelliae Rhizoma	10g
生晒参 / 党参	Shēng Shài Shēn / Dǎng Shēn	Ginseng Radix et Rhizoma / Codonopsis Radix	10g / 15g
炙甘草	Zhì Gān Cǎo	Glycyrrhizae radix et rhizoma praeparata cum melle	5g

白芍	Bái Sháo	Paeoniae Radix Alba	10g
生姜	Shēng Jiāng	Zingiberis rhizoma recens	10g
红枣	Hóng Zǎo	Jujubae fructus	15g

Decocting and administration Instruction: Boil the above ingredients with 1100ml of water until 300ml of liquid remains. Divide the decoction to 2-3 portions and drink while warm.

4. Dà Chái Hú Tāng

Shāng Hán Lùn - 《伤寒论》

Corresponding Syndrome: alternating coldness and heat or sweating without temperature reduction, pressing full pain beneath the heart. The patient may be robust, prone to depression and anxiety, accompanied by poor appetite, belching, nausea or vomiting, acid reflux, bitter taste in mouth, foul breath and etc., the tongue is greasy, upper abdomen is bloated and tight and forceful when pressed.

Recommended Prescription			
Chinese Name	Pinyin	Latin name	Dosage
柴胡	Chái Hú	Bupleuri Radix	20~40g
黄芩	Huáng Qín	Scutellariae Radix	15g
姜半夏	Jiāng Bàn Xià	Pinelliae Rhizoma	15g
枳壳	Zhǐ Qiào	Aurantii Fructus	20g
白芍	Bái Sháo	Paeoniae Radix Alba	15g
大黄	Dà Huáng	Rhei Radix et Rhizoma	10g
生姜	Shēng Jiāng	Zingiberis rhizoma recens	25g
红枣	Hóng Zǎo	Jujubae fructus	20g

Decocting and administration Instruction: Boil the above ingredients with 1100ml of water until 300ml of liquid remains. Divide the decoction to 2-3 portions and drink while warm.

5. Chái Líng Tāng

Dān Xī Xīn Fǎ Fù Fú - 《丹溪心法附余》

Corresponding Syndrome: alternating coldness and heat, thirst, diarrhea, unsmooth urination. The patient is usually yellow in complexion, oedematous appearance, swollen tongue with tooth marks. Patient has aversion to wind and cold, itchy skin or erythema, thirst but without desire to drink, or vomiting following water intake, diarrhea or loose stools.

Recommended Prescription			
Chinese Name	Pinyin	Latin name	Dosage
柴胡	Chái Hú	Bupleuri Radix	20g
黄芩	Huáng Qín	Scutellariae Radix	10g
姜半夏	Jiāng Bàn Xià	Pinelliae Rhizoma	10g
生晒参	Shēng Shài Shēn	Ginseng Radix et Rhizoma	5g
生甘草	Shēng Gān Cǎo	Glycyrrhizae radix et rhizoma	5g
白术	Bái Zhú	Atractylodis Macrocephalae Rhizoma	20g
茯苓	Fú Líng	Poria	20g
猪苓	Zhū Líng	Polyporus	20g
桂枝	Guì Zhī	Cinnamomi ramulus	15g
泽泻	Zé Xiè	Alismatis Rhizoma	20g
干姜	Gān Jiāng	Zingiberis Rhizoma	10g
红枣	Hóng Zǎo	Jujubae fructus	20g

Decocting and administration Instruction: Boil the above ingredients with 1000ml of water until 300ml of liquid remains. Divide the decoction to 2-3 portions and drink while warm. After taking the decoction, avoid wind, avoid cold food, and better result can be expected with drinking warm water to aid in mild sweating.

6. Xuè Fǔ Zhú Yū Tāng

Yī Lín Gǎi Cuò - 《医林改错》

Corresponding Syndrome: stuffiness and pain at chest, headache, cold limbs, especially patient with dark purple tongue.

Recommended Prescription

Chinese Name	Pinyin	Latin name	Dosage
柴胡	Chái Hú	Bupleuri Radix	15g
白芍 / 赤芍	Bái Sháo / Chì Sháo	Paeoniae Radix Alba / Paeoniae Radix Rubra	15g
枳壳	Zhǐ Qiào	Aurantii Fructus	15g
生甘草	Shēng Gān Cǎo	Glycyrrhizae radix et rhizoma	10g
当归	Dāng Guī	Angelicae Sinensis Radix	15g
川芎	Chuān Xiōng	Chuanxiong Rhizoma	15g
桃仁	Táo Rén	Persicae Semen	15g
红花	Hóng Huā	Carthami Flos	10g
生地	Shēng Dì	Rehmanniae Radix	30g
桔梗	Jié Gěng	Platycodonis Radix	10g
怀牛膝	Huái Niú Xī	Achyranthis Bidentatae Radix	20g

Decocting and administration Instruction: Boil the above ingredients with 1200ml of water until 300ml of liquid remains. Divide the decoction to 2-3 portions and drink while warm.

Category 3. Fù Zǐ Prescriptions

Fù Zǐ is one of the medications with strengthening effect and pain relief effect. Prescriptions containing Aconitum as the main ingredient are commonly used to treat severe pain or critical syndromes like vigorous sweating, vomiting and diarrhea followed by deep and feeble pulse, mental fatigue and cold limbs. Severe COVID-19 patients often display symptoms of dyspnea, palpitation, fatigue, diarrhea, pale tongue, greasy coating, deep thready and forceless pulse. There are two reasons – firstly, COVID-19 attacks the immune system causing multiple-organ injury, which can further aggravate to multiple-organ failure. Secondly, the side effects of antiviral drugs and antibiotics used to treat COVID-19 may cause liver functional injury and diarrhea, which worsens the situation. This gives Fù Zǐ prescriptions a chance to shine.

The typical critical syndrome of COVID-19 is cardiopulmonary functional failure. Sì Nì Tāng and Sì Nì Jiā Rén Shēn Tāng are among the classic prescriptions recommended for this disease. Sì Nì Tāng is traditionally used to restore yang and stem collapses. Based on current laboratory research, Sì Nì Tāng can strengthen heart function, protect cardiopulmonary function, elevate blood pressure, exert anti-shock effect, regulate hypothalamic pituitary adrenal axis, and boost metabolism. The addition of Rén Shēn will prevent functional failure of multiple organs, activate the immune system and shorten virus-cleanup time. The mixture of Aconitum and Ginseng prescription is enlisted into the “Coronavirus Treatment Project” in China, it is known as Shēn Fù Tang Jiā Wèi.

1. Shēn Fù Tang Jiā Wèi

COVID-19 Diagnosis and Treatment Program-Seventh Edition - 《新冠肺炎诊疗方案·第七版》

Corresponding Syndrome: dyspnea, movement-induced asthma or in need of ventilators; accompanied by coma, restlessness, sweating with frosty limbs, purple dark tongue, thick greasy coating or dry coating, and floating, big, rootless pulse.

Recommended Prescription

Chinese Name	Pinyin	Latin name	Dosage
人參	Rén Shēn	Ginseng Radix et Rhizoma	15g
黑順片	Hēi Shùn Piàn	Aconiti Lateralis Radix Praeparata	10g
山茱萸	Shān Zhū Yú	Corni Fructus	15g

Decocting and administration Instruction: Decoct Hēi Shùn Piàn first, add in other ingredients and 600-800ml of water, decoct until 300ml of liquid remains, divide the decoction to 2 portions. It can be taken together with Sū Hé Xiāng Wán or ān Gōng Niú Huáng Wán.

2. Sì Nì Tāng

Shāng Hán Lùn - 《伤寒论》

Corresponding Syndrome: critical syndrome of diarrhea, frosty limbs, feeble disappearing pulse.

Recommended Prescription

Chinese Name	Pinyin	Latin name	Dosage
制附子	Zhì Fù Zǐ	Aconm lateralis radix praeparaia	15~30g
炙甘草	Zhì Gān Cǎo	Glycyrrhizae radix et rhizoma praeparata cum melle	10g
干姜	Gān Jiāng	Zingiberis Rhizoma	10g

Decocting and administration Instruction: Boil the above ingredients with 600-800ml of water. Firstly, boil Fù Zǐ for 30-60 minutes, then add in the remaining ingredients and boil until 200ml of liquid remains. Lastly, divide the decoction to 2-3 portions and drink while warm. If there is shortness of breath and cold sweats, add 15-30g of Rén Shēn.

Category 4. Dà Huáng Prescriptions

Dà Huáng is a well-known purgative, but in the treatment of infectious diseases, the use of rhubarb is not limited to fecal obstruction, its detoxification, anti-inflammatory, hemostatic effects are particularly important. Wu Youke (1582-1652), a plague expert in the Ming Dynasty in China, emphasized that "rhubarb should be used as early as possible" in the treatment of plague. The COVID-19 treatment plan (Seventh Edition) also recommended that patients can be given 5-10g Dà Huáng in the presence of mechanical ventilation with abdominal distention, constipation or poor bowel movements. In case of man-machine asynchrony, 5-10g of Dà Huáng and 5-10g of Máng Xiāo can be used while sedatives and muscle relaxants have already been used.

Limited experience suggests that COVID-19 patients with less bowel movements are likely to develop into severe cases, while those who use mechanical ventilation in critical cases are more likely to have constipation, abdominal distention, and thus affect respiratory function. Early use of Dà Huáng can break the negative circle and improve the survival of patients. In a randomized controlled study in China, 53 patients with exogenous acute respiratory distress syndrome (ARDS) were treated with conventional modern medicine and assisted ventilation. Within the 53, 25 patients in the treatment group received enema with Xuān Bái Chéng Qì Tāng at the same time. It was found that Xuān Bái Chéng Qì Tāng enema can significantly improve lung compliance, make ARDS patients eat earlier, significantly reduce the occurrence and severity of pneumonia and abdominal distention caused by auxiliary ventilation, which boosts the survival rate of patients ^[13].

Traditional purgative prescriptions Dà Chéng Qì Tāng and Táo Hé Chéng Qì Tāng are also recommended in COVID-19 treatment. Dà Chéng Qì Tāng has the effect of defecating, removing abdominal fullness and delirium. Modern research suggests that it can excite intestine, promote intestinal peristalsis, increase intestinal volume and intestinal blood flow, protect intestinal mucosal barrier, prevent endotoxemia and multiple organ function damage, etc. it is commonly used in the extreme stage after febrile diseases or severe trauma. Táo Hé Chéng Qì Tāng is a traditional prescription for reducing blood viscosity, anticoagulation, microcirculation, blood lipid, blood glucose, anoxia, antipyretic and diarrhea.

Some COVID-19 patients also have central nervous symptoms, such as cranial hypertension, headache, hallucination and confusion ^[14]. At this time, there are some application opportunities for Dà Xiàn Xiōng Tāng, Dà Chéng Qì Tāng and Táo Hé Chéng Qì Tāng.

1. Xuān Bái Chéng Qì Tāng

Wēn Bìng Tiáo Biàn - 《温病条辨》

Corresponding Syndrome: fever, absence or difficult defecation, or smooth defecation but with dyspnea, restlessness, phlegm and saliva obstruction.

Recommended Prescription			
Chinese Name	Pinyin	Latin name	Dosage
生大黄	Shēng Dà Huáng	Rhei Radix et Rhizoma	15g
生石膏	Sheng Xhí Gāo	Gypsum fibrosum	30g
杏仁	Xìng Rén	Armeniaca Semen Amarum	10g
瓜蒌皮	Guā Lóu Pí	Trichosanthis Fructus	15g

Decocting and administration Instruction: Boil the above ingredients with 1000ml of water until 400ml of liquid remains. Drink 200ml first (and self-monitoring), drink the remaining decoction if ineffective.

2. Dà Chéng Qì Tāng

Shāng Hán Lùn - 《伤寒论》

Corresponding Syndrome: severe fullness and stuffiness of the whole abdomen with obvious resistance once pressed by hand; difficult defecation, those who have not had bowel movement for multiple days can produce foul flatus, or even produce watery or mucous-like foul stools. The tongue is red with raised papillae or with cracks, the tongue coating is yellow, greasy and dry, or even slimy, or in burnt black color like overcooked rice crust. The pulse is deep, full and forceful, or slippery, or rapid and soft.

Recommended Prescription			
Chinese Name	Pinyin	Latin name	Dosage
生大黄	Shēng Dà Huáng	Rhei Radix et Rhizoma	20g
厚朴	Hòu Pò	Magnoliae Officinalis Cortex	30g
枳实	Zhǐ Shí	Aurantii fructus immaturus	20g
枳壳	Zhǐ Qiào	Aurantii Fructus	30g
芒硝	Máng Xiāo	Natrii sulfas	10g

Decocting and administration Instruction: Boil the above ingredients with 1000ml of water. Firstly, boil Zhǐ Shí, Zhǐ Qiào, Hòu Pò until 500ml of liquid remains. Secondly, add in Dà Huáng and boil until 300-400ml of liquid remains. Lastly, add in Máng Xiāo and stir until it's melted. Divide the decoction to 2 portions and drink while warm. Stop drinking while defecate expedite.

3. Táo Hé Chéng Qì Tāng

Shāng Hán Lùn - 《伤寒论》

Corresponding Syndrome: obvious mental disturbance, mania, restlessness, those with pre-menstrual mania should be particularly considered. The patient has dim red complexion yet with lustre, dark red lip, dark red or purple tongue. The lower abdomen is full and may even be painful when pressed.

Recommended Prescription			
Chinese Name	Pinyin	Latin name	Dosage
桃仁	Táo Rén	Persicae Semen	15g
制大黄	Zhì Dà Huáng	Radix et rhizome rhei preparata	15g
桂枝	Guì Zhī	Cinnamomi ramulus	15g
炙甘草	Zhì Gān Cǎo	Glycyrrhizae radix et rhizoma praeparata cum melle	5g
芒硝	Máng Xiāo	Natrii sulfas	10g

Decocting and administration Instruction: Boil the above ingredients with 1000ml of water until 300ml of liquid remains. Melt the Máng Xiāo into the decoction and divide it to 2-3 portions and drink while warm.

Category 5. Zhǐ Shí Prescriptions

Zhǐ Shí is an ancient medicine for treating chest tightness and pain, and is usually combined with Guā Lóu, Xiè Bái, and etc. When lung infection shows obvious chest tightness and shortness of breath with constipation and abdominal distension, one can choose Jú Pí Zhǐ Shí Shēng Jiāng Tāng, Zhǐ Shí Xiè Bái Guì Zhī Tāng, Sì Nì Sǎn. For example, Qīng Fèi Pái Dú Tāng includes Jú Pí Zhǐ Shí Shēng Jiāng Tāng .

1. Zhǐ Shí Xiè Bái Guì Zhī Tāng

Jīn Guì Yào Lùè - 《金匱要略》

Corresponding Syndrome: Chest tightness and pain, shortness of breath and dyspnea, cough with sputum; abdominal distension, belching, easy to reflux with a lot of sticky phlegm, constipation or difficult defecation. Tongue is fat and dim in color, purple sublingual veins, pulse is deep, slow and weak. Abdominal diagnosis is more common with hardness below heart, and a sense of resistance under the costal arch.

Recommended Prescription:

Chinese Name	Pinyin	Latin name	Dosage
枳实 / 枳壳	Zhǐ Shí / Zhǐ Qiào	Aurantii fructus immaturus / Aurantii Fructus	40g
厚朴	Hòu Pò	Magnoliae Officinalis Cortex	20g
薤白	Xiè Bái	Allii macrostemonis bulbus	40g
桂枝 / 肉桂	Guì Zhī / Ròu Guì	Cinnamomi ramulus / Cinnamomi Cassiae Cortex	20g / 10g
全瓜蒌	Quán Guā Lóu	Trichosanthis Fructus	30g

Decocting and administration Instruction: Boil the above ingredients with 1100ml of water until 300ml of liquid remains. Divide the decoction into 2-3 portions.

2. Jú Pí Zhǐ Shí Shēng Jiāng Tāng

Jīn Guì Yào Lùè - 《金匱要略》

Corresponding Syndrome: Chest tightness and pain, or difficult to expectorate, or abdominal distension and belching.

Recommended prescription

Chinese Name	Pinyin	Latin name	Dosage
枳实 / 枳壳	Zhǐ Shí / Zhǐ Qiào	Aurantii fructus immaturus / Aurantii Fructus	15g
陈皮	Chén Pí	Citri Reticulatae Pericarpium	15g
生姜	Shēng Jiāng	Zingiberis rhizoma recens	20g

Decocting and administration Instruction: Boil the above ingredients with 1000ml of water until 300ml of liquid remains. Divide the decoction into 2-3 portions.

3. Sì Nì Sǎn

Shāng Hán Lùn - 《伤寒论》

Corresponding Syndrome: paroxysmal choking, with no or scanty sputum, chest and hypochondriac pain, depressed facial expression, cold limbs, tense abdominal muscles, and wiry pulse.

Recommended prescription

Chinese Name	Pinyin	Latin name	Dosage
枳实 / 枳壳	Zhǐ Shí / Zhǐ Qiào	Aurantii fructus immaturus / Aurantii Fructus	15g
白芍	Bái Sháo	Paeoniae Radix Alba	15g
柴胡	Chái Hú	Bupleuri Radix	15g
炙甘草	Zhì Gān Cǎo	Glycyrrhizae radix et rhizoma praeparata cum melle	10~15g

Decocting and administration Instruction: Boil the above ingredients with 1000ml of water until 300ml of liquid remains. Divide the decoction into 2-3 portions and drink while warm. The ingredients above can be grinded into fine powder accordingly to the equal portions, mix with porridge when serving, 5g per serving, 2-4 times per day.

Category 6. Other Recommended Formulae

The COVID-19 virus mainly attacks the respiratory system, manifesting as a dry cough. The autopsy of the dead patients revealed that the patient's alveolar cavity exuded and the mucus plugs formed in the small airway which could not be coughed out, causing ventilation disorder, which is one of the main causes of respiratory failure. According to this, western medicine emphasized on thinning phlegm and sucking them. Traditional Chinese medicine should focus on resolving phlegm, driving out phlegm and expelling phlegm. Here we recommend a few prescriptions with anti-phlegm and antitussive properties.

Wěi Jīng Tāng is an ancient formula specialized in treating pulmonary abscess, which is suitable for those who have chest tightness and stinky phlegm. Xiǎo Xiàn Xiōng Tāng is a special prescription for tuberculosis in ancient times, suitable for those with chest pain, yellow sticky sputum, and constipation. Zhú Yè Shí Gāo Tāng, is a regulating formula used in the late stages of febrile diseases. It is mostly used for emaciation, coughing, shortness of breath, scanty sputum and dry mouth. It can be used during the recovery stage of COVID-19. Sān Wù Bái Sǎn is a traditional first-aid formula, "treating excess-cold accumulating in the chest, no heat syndrome, sputum congestion, and difficulty breathing" [15].

The clinical manifestations of acute respiratory distress syndrome (ARDS) in COVID-19 severe patients are mostly acute onset, respiratory distress, and hypoxemia that are difficult to correct with conventional oxygen therapy. In view of the fact that effective treatment methods are lacking, San Wu Bai San can be considered [16]. Due to individual differences and regional differences, COVID-19 also has certain differences in its manifestations. Clinically, it is necessary to consider the selection of more suitable formula based on the principle of correspondence between formula and syndrome.

1. Wěi Jīng Tāng

Jīn Guì Yào Lùè - 《金匱要略》

Corresponding Syndrome: Cough and slight fever, chest stuffiness and pain, expectorate sticky phlegm that smells like pus, irritable.

Recommended prescription			
Chinese Name	Pinyin	Latin name	Dosage
桃仁	Táo Rén	Persicae Semen	20g
干芦根	Gān Lú Gēn	Phragmitis rhizoma	60g
薏苡仁	Yì Yǐ Rén	Coicis Semen	40g
冬瓜子	Dōng Guā Zǐ	Benincasae kernal	20g

Decocting and administration Instruction: Boil the above ingredients with 1500ml of water until 400ml of liquid remains. Divide the decoction into 2-3 portions and drink while warm ; or boil with more water and drink as tea.

2. Xiǎo Xiàn Xiōng Tāng

Shāng Hán Lùn - 《伤寒论》

Corresponding Syndrome: chest stuffiness and pain, expectorate yellow phlegm, constipation, red face color, upper abdominal pain when pressed, slippery and floating pulse.

Recommended prescription			
Chinese Name	Pinyin	Latin name	Dosage
黄连	Huáng Lián	Coptidis Rhizoma	5g
姜半夏	Jiāng Bàn Xià	Pinelliae Rhizoma	15g
全瓜蒌	Quán Guā Lóu	Trichosanthis Fructus	40g

Decocting and administration Instruction: Boil the above ingredients with 1000ml of water until 300ml of liquid remains. Divide the decoction into 2-3 portions and drink while warm.

3. Zhú Yè Shí Gāo Tāng

Shāng Hán Lùn - 《伤寒论》

Corresponding Syndrome: Stuffiness of chest and shortness of breath, dry cough and scanty sputum, excessive sweating, thirst, and poor appetite. Patients are often thin, with dry mouth and tongue, and thin tongue coatings.

Recommended prescription			
Chinese Name	Pinyin	Latin name	Dosage
竹叶	Zhú Yè	Lophatheri herba	15g
生石膏	Shēng Shí Gāo	Gypsum fibrosum	30g
清半夏	Qīng Bàn Xià	Pinellia rhizoma praeparatum cum alumine	10g
麦门冬	Mài Mén Dōng	Ophiopogonis radix	30g
生晒参	Shēng Shài Shēn	Ginseng Radix et Rhizoma	10g
炙甘草	Zhì Gān Cǎo	Glycyrrhizae radix et rhizoma praeparata cum melle	10g
粳米	Jīng Mǐ	Oryza sativa L.	30g

Decocting and administration Instruction: Firstly, boil the above ingredients with 1000ml of water without Jīng Mǐ for 30 minutes and then remove the herbal residue. Secondly, add in Jīng Mǐ, boil until they are fully cooked and remove it. Lastly, serve with the 300ml of liquid remains. Divide the decoction into 2-3 portions and drink while warm.

4. Sān Wù Bái Sǎn

Shāng Hán Lùn - 《伤寒论》

Corresponding Syndrome: For severe or critical COVID-19 patients with shortness of breath, breathing difficulties, or phlegm congestion that is hard to solve by expectoration, however the patient's constitution is still strong.

Recommended prescription			
Chinese Name	Pinyin	Latin name	Ratio
桔梗	Jié Gěng	Platycodonis Radix	3
浙贝母	Zhè Bèi Mǔ	Fritillariae Thunbergii Bulbus	3
巴豆霜	Bā Dòu Shuāng	Crotonis semen pulveratum	1

Decocting and administration Instruction: grind the above ingredients into a fine powder according to the ratio listed above, and pack into 0.25g per capsules.

Take orally or take nasal feeding with rice soup or warm water in the morning on an empty stomach. 4 capsules for the first time, if there is no response after 1 hour, take another 2 capsules. The above is the daily dosage for adults. For those with strong physical constitution yet in critical condition, the dosage can be increased as appropriate. For those with weak constitution, cut the dosage in half.

Warnings: Taking this medicine on an empty stomach will cause nausea, vomiting mucus, diarrhea, and etc. after taking it for about 20 minutes. 3 to 5 times diarrhea is normal. If diarrhea does not stop, drink cold rice porridge. If the diarrhea does not reach the level of 3 to 5 times after the medicine, warm rice porridge can be eaten to promote the effect. If there is still no diarrhea for 3-5 times, the prescription is considered under-dosed if diagnosis is correct, increase the dosage by half the next day. Stop taking this formula once expected bouts of diarrhea is reached.

After diarrhea, use rice porridge to recuperate, at the same time suck sputum as needed, establish water and electrolyte balance to give life support. If still no diarrhea after taking the medicine, take hot gruel or a bowl of hot water to promote vomiting and diarrhea. If one feel prostration, fatigue, and panicking after herbal intake, take Chinese patent medicine Shēng Mài Yīn orally immediately.

Part III. Psychological Intervention Formula

In view of the fact that home isolation is the main COVID-19 prevention and control measure, regions with severe epidemics will be forced to "close city" or enable stricter social distancing rules. People who experienced long periods of indoor isolation or community blockade due to the extremely high infection and mortality rate are prone to panicking emotions and psychological distress like anxiety, depression, and suspicion of contracting the virus if the medical system fails to respond in time. This social phenomenon needs timely intervention and guidance. Formulae from "Jing Fang", such as Bàn Xià Hòu Pǔ Tāng, Chái Hú Guì Zhī Gàn Jiāng Tāng, Wēn Dǎn Tāng, and Chái Hú Jiā Lóng Gǔ Mǔ Lì Tāng can be recommended.

1. Bàn Xià Hòu Pǔ Tāng

Jīn Guì Yào Lüè - 《金匱要略》

Corresponding Syndrome: People with obvious anxiety and depression, having a tendency to suspect illness. Most of them have chest tightness, bloating, foreign body in throat sensation, nausea and profuse phlegm, and sticky tongue coating.

Recommended prescription

Chinese Name	Pinyin	Latin name	Dosage
姜半夏 / 法半夏	Jiāng Bàn Xià / Fǎ Bàn Xià	Pinelliae Rhizoma	25g
茯苓	Fú Líng	Poria	20g
厚朴	Hòu Pò	Magnoliae Officinalis Cortex	15g
苏叶	Sū Yè	Perillae Folium	10g
生姜	Shēng Jiāng	Zingiberis rhizoma recens	25g

Decocting and administration Instruction: Boil the above ingredients with 1000ml of water until 300ml of liquid remains. Divide the decoction into 3-4 portions and drink while warm. This decoction is light brown and slightly spicy, it can be taken consecutively for 3 days, then stop for 2 days. If there is chest tightness, irritability, and red tongue, add Zhī Zǐ, Lián Qiào, and Zhǐ Qiào.

2. Wēn Dǎn Tāng

Sān Yīn Jí Yī Bìng Zhèng Fāng Lùn - 《三因极一病证方论》

Corresponding Syndrome: Anxiety, insomnia, nightmares, trance, chest tightness and shortness of breath, dizziness, palpitation, fatigue, spontaneous sweating, tastelessness, nausea, slippery pulse, etc.

Recommended prescription

Chinese Name	Pinyin	Latin name	Dosage
姜半夏	Jiāng Bàn Xià	Pinelliae Rhizoma	15g
茯苓	Fú Líng	Poria	15g
陈皮	Chén Pí	Citri Reticulatae Pericarpium	15g
炙甘草	Zhì Gān Cǎo	Glycyrrhizae radix et rhizoma praeparata cum melle	5g
枳壳	Zhǐ Qiào	Aurantii Fructus	15g
竹茹	Zhú Rú	Bambusae caulis in taenias	10g
干姜	Gān Jiāng	Zingiberis Rhizoma	5g
红枣	Hóng Zǎo	Jujubae fructus	15g

Decocting and administration Instruction: Boil the above ingredients with 1000ml of water until 300ml of liquid remains. Divide the decoction into 2-3 portions and drink while warm.

3. Chái Hú Guì Zhī Gàn Jiāng Tāng

Shāng Hán Lùn - 《伤寒论》

Corresponding Syndrome: Those who with extreme physical and mental fatigue and anxiety. Most of them are extremely nervous, flustered, palpitation, dry mouth, loss of appetite, easy to sweat, prone to diarrhea etc.

Recommended prescription

Chinese Name	Pinyin	Latin name	Dosage
柴胡	Chái Hú	Bupleuri Radix	20g
桂枝 / 肉桂	Guì Zhī / Ròu Guì	Cinnamomi ramulus / Cinnamomi Cassiae Cortex	15g / 10g
干姜	Gān Jiāng	Zingiberis Rhizoma	10g
天花粉	Tiān Huā Fěn	Trichosanthis Radix	20g
黄芩	Huáng Qín	Scutellariae Radix	15g
牡蛎	Mǔ Lì	Ostreae Concha	15g
炙甘草	Zhì Gān Cǎo	Glycyrrhizae radix et rhizoma praeparata cum melle	10g

Decocting and administration Instruction: Boil the above ingredients with 1100ml of water until 300ml of liquid remains. Divide the decoction into 2-3 portions and drink while warm.

4. Chái Hú Jiā Lóng Gǔ Mǔ Lì Tāng

Shāng Hán Lùn - 《伤寒论》

Corresponding Syndrome: People with sleep disorders and depression, indifferent facial expression, and tongue coating is thick and yellow, stools are dry and difficult to defecate, abdominal aorta is pulsating obviously, and the heart rate tending faster.

Recommended prescription

Chinese Name	Pinyin	Latin name	Dosage
柴胡	Chái Hú	Bupleuri Radix	15g
姜半夏	Jiāng Bàn Xià	Pinelliae Rhizoma	10g
党参	Dǎng Shēn	Codonopsis Radix	10g
黄芩	Huáng Qín	Scutellariae Radix	10g
茯苓	Fú Líng	Poria	15g
桂枝 / 肉桂	Guì Zhī / Ròu Guì	Cinnamomi ramulus / Cinnamomi Cassiae Cortex	10g / 5g
龙骨	Lóng Gǔ	Os Draconis	10g
牡蛎	Mǔ Lì	Ostreae Concha	10g
制大黄	Zhì Dà Huáng	Radix et rhizome rhei preparata	10g
生姜	Shēng Jiāng	Zingiberis rhizoma recens	15g
红枣	Hóng Zǎo	Jujubae fructus	15g

Decocting and administration Instruction: Boil the above ingredients with 1100ml of water until 300ml of liquid remains. Divide the decoction into 2-3 portions and drink while warm.

Part IV. Prevention Formulae

"With righteousness, evil shall not prevail" (*Huáng Dì Nèi Jīng*). In COVID-19, there are a large number of uninfected individuals who are in close contact with the diagnosed, and there are also a large number of "asymptomatic infected people" who have a positive nucleic acid test but no symptoms and have intact lungs. This shows that different people with varied level of immune capacity will have different outcomes when in contact with the virus. A healthy population with optimal immune system can help prevent the spread of COVID-19. For example, all medical staff in Tongxu County People's Hospital of Henan Province who took care of COVID-19 patients intensively took Gān Cǎo Gàn Jiāng Tāng, and not surprisingly, none of the thousands of medical staff were infected with the virus^[17]. Although there is no definite proof that the role of Gan Cao Gan Jiang Decoction is directly linked to the cause, it is a case worth serious attention. In addition to Gān Cǎo Gàn Jiāng

Tāng which warms spleen and stomach to dissipate cold, Jié Gěng Tāng for relieving cough and reducing phlegm, and Huáng Qín Tāng for clearing heat and stopping diarrhea can all be promoted as herbal teas for their simple formulae and relatively good taste. In addition, Guì Zhī Tāng, according to *Shāng Hán Lùn* is the prescription for Taiyang Disease. This traditional reconciliation formula has strengthening and anti-fatigue effects, it deserves attention as a preventative prescription. Of course, the prevention method recommended in this plan does not focus on antiviral properties, because there is no evidence to prove that any medicine can reduce the possibility of infection after exposure to COVID-19. The so-called prevention method is based on physical conditioning according to traditional health preservation experience.

1. Gān Cǎo Gàn Jiāng Tāng

Shāng Hán Lùn - 《伤寒论》

Corresponding Syndrome: Fatigue, aversion to wind and cold, excess saliva in the mouth, absence of thirst, low water intake, clear and long urine, loose stools, pale tongue with slippery watery coating.

Recommended prescription			
Chinese Name	Pinyin	Latin name	Dosage
炙甘草	Zhì Gān Cǎo	Glycyrrhizae radix et rhizoma praeparata cum melle	10g
干姜	Gān Jiāng	Zingiberis Rhizoma	5g

Decocting and administration Instruction: Soak in boiling water and drink frequently as tea.

2. Jié Gěng Tāng

Shāng Hán Lùn - 《伤寒论》

Corresponding Syndrome: Dry and itchy throat, sore throat, pharyngeal swelling, cough with phlegm and difficult to expectorate.

Recommended prescription			
Chinese Name	Pinyin	Latin name	Dosage
桔梗	Jié Gěng	Platycodonis Radix	10g
生甘草	Shēng Gān Cǎo	Glycyrrhizae radix et rhizoma	20g

Decocting and administration Instruction: Boil the above ingredients with 900ml of water until 300ml of liquid remains. Divide the decoction into 2-3 portions and drink while warm; or soak in the boiling water to replace as tea.

3. Huáng Qín Tāng

Shāng Hán Lùn - 《伤寒论》

Corresponding Syndrome: Chest tightness, vexation, insomnia, heated body, profuse sweating, loose or sticky stools, prone to abdominal pain and diarrhea, red tongue and rapid pulse.

Recommended prescription			
Chinese Name	Pinyin	Latin name	Dosage
黄芩	Huáng Qín	Scutellariae Radix	15g
芍药	Bái Sháo	Paeoniae Radix Alba	10g
生甘草	Shēng Gān Cǎo	Glycyrrhizae radix et rhizoma	10g
红枣	Hóng Zǎo	Jujubae fructus	20g

Decocting and administration Instruction: Boil the above ingredients with 1000ml of water until 300ml of liquid remains. Divide the decoction into 2-3 portions and drink while warm.

4. Guì Zhī Tāng

Shāng Hán Lùn - 《伤寒论》

Corresponding Syndrome: The body form is thin, haggard look, pale or yellowish-white face, spontaneous sweating, weak constitution with weak pulse, or those who suffer from aging and body weakness.

Recommended prescription			
Chinese	Pinyin	Latin name	Dosage
桂枝	Guì Zhī	Cinnamomi ramulus	15g
白芍	Bái Sháo	Paeoniae Radix Alba	15g
炙甘草	Zhì Gān Cǎo	Glycyrrhizae radix et rhizoma praeparata cum melle	10g
生姜	Shēng Jiāng	Zingiberis rhizoma recens	15g
紅棗	Hóng Zǎo	Jujubae fructus	20g

Decocting and administration Instruction: Boil the above ingredients with 1000ml of water until 300ml of liquid remains. Divide the decoction into 2-3 portions and drink while warm. Drink a bowl of hot porridge right after the medicine, and pay attention to avoiding wind and keeping warm. Those who with white slippery or white thick tongue coating, dizziness and palpitations, add in Bái Zhú 15g, Fú Líng 15g.

Conclusion:

Although COVID-19 is a new virus, in the view of TCM, body's reaction under the attack of foreign pathogens has a common pattern that can be traced. It can be described as this ancient poem: "flowers unavoidably fall every year, yet it seems the same swallows fly back the next year." Even though currently there is a lack of knowledge about COVID-19, however there is no shortage of experience in dealing with febrile diseases. Many of the clinical manifestations of COVID-19 also coincide with the records of ancient classics such as *Shāng Hán Lùn*. Jing Fang, which has accumulated thousands of years of experience and bore the crystallization of China's struggle against diseases, is a common heritage of human civilization and should benefit all mankind. Correspondence between formula and syndrome is the guiding principle for using Jin Fang and is also the original Chinese way of thinking. In the face of the current complex and changing conditions, it must be preserved and refined. At present, it is a wise choice to introduce Chinese medicine to the combat of COVID-19.

At present, COVID-19 has already become a global pandemic, and prevention and control measures are as stringent as ever. Traditional Chinese medicine has played an important role in disease prevention and control throughout history, today it can still make tremendous contributions to the battle against COVID-19. International Jingfang Institute of Nanjing University of Chinese Medicine is a global education platform for Chinese medicine and related practices. We are willing to provide recommendations for diagnosis and treatment for international epidemic prevention and control.

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