General office of National Health Commission
Office of National Administration of Traditional
Chinese Medicine

Issuance of Coronavirus Disease (COVID-19)
Pneumonia Treatment Program (Trial Version VII)

Health commission and administration of traditional Chinese medicine of xinjiang production and construction corps, provinces, autonomous regions and municipalities directly under the central government:

In order to further improve the diagnosis and medical treatment of coronavirus disease (COVID-19) pneumonia, we organized experts to revise the treatment plan based on the analysis, judgment and summary of the previous medical treatment work, “coronavirus disease (COVID-19) pneumonia treatment plan (trial version 7)” was formed. It is printed and distributed to you, please refer to the implementation. All relevant medical institutions should actively play the role of traditional Chinese medicine in medical treatment, strengthen the integration of Chinese and western medicine, improve the system of joint consultation between Chinese and western medicine, and promote greater results in medical treatment.
Diagnosis and Treatment of COVID-19 Pneumonia  
(Trial Version VII)

Since December 2019, a COVID-19 pneumonia epidemic has emerged in Wuhan, Hubei province. With the spread of the epidemic, such cases have also been found in other parts of China and many foreign countries. It as an acute respiratory infectious disease, has been included in the “law of the People’s Republic of China on the prevention and treatment of infectious diseases” as a class B infectious diseases, as a class A infectious diseases management. Through the adoption of a series of preventive control and medical treatment measures, the rising trend of the epidemic in China has been contained to a certain extent, and the epidemic has been alleviated in most provinces, but the number of cases outside the country has been on the rise. As the in-depth understanding of the disease clinical characteristics, pathology and clinical experience, in order to further strengthen the early detection of the disease treated early, high cure rate, decrease the rate of deaths, the greatest possible avoid nonsocial infection, at the same time remind note outside imported cases lead to the spread and diffusion of artistic conception, we have for the COVID-19 pneumonia diagnosis and treatment scheme (trial version VI) amended, formed the COVID-19 pneumonia disease diagnosis and treatment scheme (trial version VII).

I . Etiological characteristics

The COVID-19 belongs to the coronavirus of β genera, which has an envelope, the particles are round or elliptic, and they are often pleomorphic, the diameter is 60-140 nm. The genetic characteristics are significantly different from SARS-COV and MERS-COV. At present, the homology with bat coronavirus (bat-SL-2019-COVZ47) is more than 85%. In vitro culture, the COVID-19 can be found in human respiratory epithelial cells about 96 hours, and in Vero E6 and Huh-7 cell lines about 6 days. The understanding of the physical and chemical characteristics of coronavirus mainly comes from the study of SARS-COV and MERS-COV. The virus is sensitive to ultraviolet light and heat, 30 minutes at 56°C, ethyl ether, 75% ethanol, chlorine-containing disinfectant, peracetic acid, chloroform and other lipid solvents can effectively inactivate the virus, chlorhexidine can not effectively inactivate the virus.

II . Epidemiological characteristics

(Ⅰ) Source of infection

At present, the main source of infection is seen in patients infected with the COVID-19. Asymptomatic infections can also be a source of infection.

(Ⅱ) Means of transmission

Transmission by respiratory droplets and close contact is the main route of transmission. It is possible to spread by aerosol when exposed to high concentrations of aerosol for a long time in a relatively closed environment. Since the COVID-19 can be isolated from feces and
urine, attention should be paid to the aerosol or contact transmission caused by feces and urine to environmental pollution.

(III) Susceptible groups

The crowd is generally susceptible.

III. Pathological changes

According to the present limited autopsy and biopsy histopathological findings are summarized as follows.

(I) Lungs.

The lungs show varying degrees of consolidation. Serous fibrin exudate and transparent membrane were observed in alveolar cavity. Exudate cells are mainly mononuclear and macrophage, and polynuclear giant cells are easy to see. Type II alveolar epithelial cells proliferate markedly, with some cells exfoliated. Inclusion bodies are seen in type II alveolar epithelial cells and macrophages. The alveolar septa is congested and edematous. Mononuclear and lymphocyte infiltration and clear intravascular thrombosis are seen. Focal hemorrhage and necrosis of lung tissue may occur with hemorrhagic infarction. Partial alveolar exudate is institutionalized and interstitial fibrosis occurs. Part of the epithelium of the bronchial mucosa in the lung is detached. A few alveolar hyperinflation, alveolar septum rupture or cystic cavity formation. Coronavirus particles were seen in the cytoplasm of bronchial mucosal epithelium and type II alveolar epithelial cells under electron microscopy. Immunohistochemical staining showed that some alveolar epithelium and macrophages were positive for the COVID-19 antigen, and RT-PCR detected the positive nucleic acid of the COVID-19.

(II) Spleen, hilar lymph nodes and bone marrow

The spleen has shrunk markedly. The number of lymphocytes was significantly reduced, focal hemorrhage and necrosis were found, and macrophage proliferation and phagocytosis were observed in the spleen. lymphocytes in lymph node are few but necrosis is seen. Immunohistochemical staining showed a decrease in CD4+T and CD8+T cells in the spleen and lymph nodes. The number of three lines of bone marrow cells decreased.

(III) Heart and blood vessels

The cardiomyocytes are denatured and necrotic, a few monocytes, leucorhea cells or neutrophils are seen in the stroma. Partial vascular endothelial exfoliation, endometritis and thrombosis.

(IV) Liver and gallbladder

Volume increases, dark red. Hepatocyte degeneration, focal necrosis with neutrophil infiltration; hepatic sinus hyperemia, infiltration of lymphocytes and mononuclear cells in the portal area, microthrombus formation. The gallbladder is highly filled.
(V) kidney
Proteinaceous exudate is seen in the glomerular balloon lumen, tubular epithelium is denatured and detached. There is interstitial hyperemia with microthrombus and focal fibrosis.

(VI) Other organs
Brain tissue hyperemia and edema, some neuronal degeneration. Focal necrosis is seen in the adrenal gland. The mucosal epithelium of esophagus, stomach and intestine is denaturated, necrotic and exfoliated to different degrees.

IV. Clinical characteristics

(I) Clinical characteristics
Based on the current epidemiological investigation, the latent optimal period is 1-14 days, mostly 3-7 days.

The main performance is fever, dry cough and fatigue. A few patients were accompanied by nasal congestion, runny nose, sore throat, myalgia, and diarrhea. In severe cases, dyspnea and/or hypoxaemia usually occur one week after the onset of the disease, and can rapidly progress to the combination of acute respiratory distress, septic shock, refractory metabolic acidosis, coagulation dysfunction and multi-organ failure. It is worth noting that in the course of the severe and critical patients, the fever can be moderate or low, or even no obvious fever.

The symptoms of some children and neonates are not typical, presenting as vomiting, diarrhea and other gastrointestinal symptoms or only showing as mental weakness, shortness of breath.

The mild patients only showed low fever, slight fatigue, and no symptom of pneumonia. At present, most patients have a good prognosis and a few are in critical condition. The old and those with chronic underlying diseases have poor prognosis. The clinical course of maternal patients with COVID-19 pneumonia is similar to that of patients have the same age. In children, the symptoms are relatively mild.

(II) Laboratory inspection
1. General inspection
In the early stage of the disease, the total number of peripheral blood leukocytes was normal or decreased, and the lymphocytic count was reduced. In some patients, liver enzymes, lactate dehydrogenase (LDH), myoglobin and myoglobin were increased. Increased troponin is seen in some critical patients. In most patients, C-reactive protein (CRP) and serum sedimentation were increased, and procalcitonin was normal. In severe cases, D-dimer increased and peripheral blood lymphocytes decreased. Severe and critical patients often have elevated inflammatory factors.

2. Aetiology and serological examination
(1). Etiological examination: COVID-19 nucleic acids were detected in nasopharyngeal swabs, sputum and other lower respiratory tract secretions, blood, feces and other specimens by RT-PCR or/and NGS. Detection of lower respiratory tract specimens (sputum or airway extract) is more accurate. Samples will be sent for inspection as soon as possible after collection.

(2). Serological examination: the COVID-19 specific IgM antibody is mostly positive after 3-5 days, and the titer of IgG antibody in the recovery stage is 4 times higher than that in the acute stage.

(III). Chest imaging
In the early stage, there were multiple small patches and stromal changes, and the lung extraneous zone was obvious. Then, it developed into multiple ground-glass shadows and infiltrating shadows in lungs. In severe cases, lung consolidation may occur, and pleural effusion is rare.

V. Diagnostic criteria

(I) Suspected case
Combined with the following epidemiological history and clinical characteristics
1. History of epidemiology
   (1). Travel history or residence history in Wuhan and surrounding areas or other communities with reported cases within 14 days before onset;
   (2). Had a history of exposure to a COVID-19 (nucleic acid positive) infection within 14 days prior to onset;
   (3). In the 14 days prior to onset, the patient had been exposed to fever or respiratory symptoms from Wuhan city and surrounding areas, or from communities with reported cases;
   (4). Cluster (2 or more cases of fever or respiratory symptoms within 2 weeks in a small area such as home, office, school and class).
2. Clinical characteristics
   (1). Fever and/or respiratory symptoms;
   (2). Imaging characteristics of the COVID-19 pneumonia;
   (3). The total number of white blood cells in the early stage of the disease was normal or decreased, and the lymphocyte count was normal or decreased.
It has any epidemiological history and conforms to any 2 clinical characteristics. If there is no clear epidemiological history, it conforms to 3 clinical characteristics.

(II) Confirmed case
The suspected case also has one of the following etiological or serological evidence:
1. Detection of positive nucleic acid of COVID-19 by real-time fluorescence RT-PCR;
2. Virus gene sequencing, highly homologous with known COVID-19;
3. Positive serum novel coronavirus specific IgM antibody and IgG antibody; serum clear COVID-19 specific IgG antibody was increased from negative to positive or more than 4 times in the recovery stage.

VI. Clinical typing

(I) Light weight
The clinical symptoms were mild, and no signs of pneumonia were found on imaging.

(II) Common type
With fever, respiratory tract and other symptoms, imaging evidence of pneumonia.

(III) Heavy type
Adults meet any of the following criteria:
1. Shortness of breath, RR ≥ 30 breaths/minute,
2. At rest, oxygen saturation ≤ 93%;
3. Arterial partial oxygen pressure (PaO$_2$)/oxygen absorption concentration (FiO$_2$) ≤ 300mmHg (1mmHg = 0.133kPa).
Correction of PaO$_2$/FiO$_2$ at high altitudes (above 1000 m) shall be made according to the following formula: PaO$_2$/FiO$_2$ × [atmospheric pressure (mmHg) / 760].
Pulmonary imaging showed significant progression of > lesions within 24-48 hours.
Children meet any of the following criteria:
1. shortness of breath (<2 month age, RR ≥ 60 breaths/minute; 2 ~ 12 months old, RR ≥ 50 breaths/minute; 1 ~ 5 years old, RR ≥ 40 breaths/minute; > 5 years old, RR ≥ 30 breaths/minute), except for the influence of external heat and crying;
2. At rest, oxygen saturation ≤ 92%
3. Assisted breathing (moaning, flapping of nose wing, three concave signs), cyanosis, intermittent inhalation suspension;
4. Drowsiness and convulsions;
5. Food resistance or feeding difficulties, with signs of dehydration.

(IV) Critical type
With one of the following conditions:
1. Respiratory failure, requiring mechanical ventilation;
2. Shock;
3. Complications of other organ failure require ICU care.

VII. Seven, severe, critical clinical early warning indicators

(I) Adults
1. Progressive decline of peripheral blood lymphocytes;
2. Peripheral blood inflammatory factors such as IL-6 and C-reactive protein progressive increase;
3. Progressive increase of lactic acid;
4. Intrapulmonary lesions progress rapidly in a short period of time.

(II) Children
1. Increased breathing rate;
2. Poor mental reaction and drowsiness;
3. Progressive increase of lactic acid;
4. Imaging findings showed bilateral or multi-lobe infiltration, pleural effusion, or short-term lesions rapid progress;
5. Infants under the age of 3 months may have basic diseases (congenital heart disease, pulmonary dysplasia of the airway, malformation of the respiratory tract, abnormal hemoglobin, severe malnutrition, etc.), and have immune deficiency or hypoxia (long-term use of immunosuppressive agents).

VII. Antidiastole

(I) The mild character of the COVID-19 infection should be differentiated from the upper respiratory tract infection caused by other viruses.

(II) The COVID-19 pneumonia is mainly differentiated from influenza virus, adenovirus, respiratory syncytial virus and other known viral pneumonia and mycoplasma pneumonia infection, especially for suspected cases to adopt as far as possible including rapid antigen detection and multiple PCR nucleic acid detection methods to detect common respiratory pathogens.

(III) Still want with non-infective disease, be like vasculitis, skin flesh is phlogistic wait for differentiation with mechanical sex pneumonia.

IX. The discovery and report of cases

All kinds of medical institutions at all levels of medical researchers found that satisfies the definition of cases suspected disease cases, shall be immediately for single isolation treatment, hospital specialists or the attending medical consultation, still consider suspected cases, the network straight newspaper within 2 hours, and the quantitative collection of specimens for novel COVID-19 nucleic acid detection, at the same time, in the premise to ensure transportation safety immediately suspected cases transferred to the designated hospital. In patients who have close contact with the COVID-19 infection, it is recommended to conduct the COVID-19 pathogen detection in time even if the common respiratory pathogen test is positive.

X. Treatment

(I) Determine the treatment site according to the patient's condition.

1. Suspected and confirmed cases should be isolated and treated in a designated hospital with effective isolation and protection. Suspected cases should be isolated and treated in a single room.
2. Critical cases should be admitted to ICU for treatment as soon as possible.

(Ⅱ) General treatment

1. Bed rest, strengthen supportive treatment, and ensure adequate heat; pay attention to the balance of water and electricity to maintain the stability of internal environment; closely monitor vital signs, oxygen saturation, etc.

2. Blood routine, urine routine, CRP, biochemical indicators (liver enzyme, myocardial enzyme, kidney function, etc.), coagulation function, arterial blood gas analysis, chest imaging, etc. Cytokine detection is feasible with the condition.

3. Timely and effective oxygen therapy measures, including nasal cannula, simple face mask, and high-flow nasal cannula (HFNC) oxygen therapy. Where possible, It is better to treat with hydrogen-oxygen mixture gas inhalation \((\text{H}_2:\text{O}_2 = 66.6\% / 33.3\%)\).

4. Antiviral treatment: can try α-interferon (adult 5 million U every time or when the dose, add 2ml sterilizing water for injection, atomization inhalation) 2 times a day, the lopinavir or ritonavir (200 mg/adult 50 mg/grain, every time 2 grain, 2 times daily, cure process of no more than 10 days) and ribavirin (suggestion combined applicate with lopinavir or ritonavir, adult 500 mg/time, 2 to 3 times per day by intravenous infusion, treatment is not more than 10 days), chloroquine phosphate (18 ~ 65 year-old adults, if the weight is more than 50kg, 500mg each time, 2 times a day, 7 days of treatment; if the weight is less than 50kg, 500mg each time on the first and second days, twice daily, 500mg each time on the third to seventh days, once daily), abidor (200mg for adults, three times a day, treatment not exceeding 10 days). Be aware of adverse reactions, contraindications (such as chloro for people with heart disease) and interactions with other drugs.

Evaluating the efficacy of the currently used drugs in clinical practice. It is not recommended to apply 3 or more anti-virus drugs at the same time, and should stop using related drugs when there are intolerable toxic and side effects. The treatment of maternal patients should consider the number of weeks of gestation, as far as possible to choose drugs with little impact on the fetus, and whether to terminate the pregnancy before treatment, and other issues, and informed.

5. Antimicrobial therapy: avoid blind or inappropriate use of antimicrobial agents, especially in combination with broad-spectrum antimicrobial agents.

(Ⅲ) Treatment of severe and critical cases

1. Treatment principle: on the basis of symptomatic treatment, actively prevent and treat complications, treat basic diseases, prevent secondary infection, and timely support organ function.

2. Respiratory support:
   (1) Oxygen therapy: in severe patients, oxygen should be inhaled by nasal cannula or mask, and respiratory distress and/or hypoxaemia should be timely evaluated for remission.
(2). High-flow nasal cannula oxygen therapy or non-invasive mechanical ventilation: in cases where respiratory distress and/or hypoxaemia cannot be relieved after standard oxygen therapy, High-flow nasal cannula oxygen therapy or non-invasive mechanical ventilation may be considered. If the conditions are not improved or worsen within a short period of time (1-2 hours), endotracheal intubation and invasive mechanical ventilation should be performed promptly.

(3). Invasive mechanical ventilation: lung protective ventilation strategy was adopted, that is, neap tidal volume (6-8ml /kg ideal body weight) and low level airway platform pressure (≤ 30 cmH₂O) for mechanical ventilation to reduce ventilator related lung injury. When ensuring the airway platform pressure of ≤ 35 cmH₂O, high PEEP can be used appropriately to keep the airway warm and moist, avoid long-term sedation, and wake the patient early for pulmonary rehabilitation treatment. More patients are not synchronous, should be timely use of sedation and muscle relaxant. According to the situation of airway secretions, closed sputum aspiration was selected, and bronchoscopy was performed when necessary to obtain the corresponding treatment.

(4). Salvage treatment: for patients with severe ARDS, pulmonary reconstruction is recommended, with adequate human resources, prone ventilation should be performed for more than 12 hours per day. If conditions permit, extracorporeal membrane oxygenation (ECMO) should be considered as soon as possible in patients with poor mechanical ventilation in prone position. (1) FiO₂ > 90%, the oxygenation index is less than 80mmHg, lasting more than 3-4 hours; (2) for patients with simple respiratory failure, the VV-ECMO mode is preferred. If loop support is required, VA-ECMO mode is used. When the underlying disease is under control and cardiopulmonary function shows signs of recovery, the machine withdrawal test can be started.

3. Circulation support: on the basis of fully liquid recovery, improve micro-circulation, make with vascular active drugs, close monitoring of patients’ blood pressure, heart rate and the change of urine, and arterial blood gas analysis of lactic acid and alkali, remaining necessary for noninvasive or invasive hemodynamic monitoring, such as ultrasonic doppler, echocardiography, invasive blood pressure or continuous cardiac output (PICCO) monitoring. In the process of treatment, pay attention to the liquid balance strategy, avoid excessive and insufficient. If it is found that the sudden increase in heart rate is greater than 20% of the basal value or the blood pressure drops by more than 20% of the basal value, the patient should be closely observed for the presence of septic shock, gastrointestinal bleeding or cardiac failure, if accompanied by skin perfusion disorder and decreased urine volume.

4. Renal failure and renal replacement therapy: renal injury in critically ill patients should be actively sought for the causes of renal injury, such as hypoperfusion and medication. For the treatment of renal failure patients should pay attention to fluid balance, acid-base
balance and electrolyte balance, in the nutritional support treatment should pay attention
to nitrogen balance, heat and trace elements and other supplements. Continuous renal
replacement therapy (CRRT) is available for severe patients. The indications include: (1)
hyperkalemia;(2) acidosis;(3) pulmonary edema or water overload;(4) fluid management
when multiple organ functions are not complete.

5. Plasma treatment for recovered patients: it is suitable for patients with rapid disease
progression, severe disease and critical disease. Usage and dosage refer to
"convalescent plasma clinical treatment plan for convalescent patients with COVID-19".

6. Blood purification treatment: the blood purification system includes plasma exchange,
adsorption, perfusion, blood/plasma filtration, etc., which can remove inflammatory
factors and block the "cytokine storm", so as to reduce the damage caused by the
inflammatory response to the body. It can be used for the early and middle treatment of
severe and critical patients with fine cell factor storm.

7. Immunotherapy:actedra may be used in patients with extensive bilateral lung lesions
and in patients with severe lung disease, and in those with elevated IL-6 levels detected
in the laboratory. The first dose was 4-8 mg/kg, the recommended dosage was 400mg
and 0.9% saline diluted to 100ml. The infusion time was more than 1 hour. For patients
with poor efficacy of the first drug use, an additional application can be made after 12
hours (the dose is the same as before), the cumulative number of drug administration is
no more than 2 times, the maximum dose of a single dose does not exceed 800mg.
Attention to allergic reaction, tuberculosis and other active infection is prohibited.

8. Other treatment measures: the oxygenation index progressive deterioration, imaging
progress quickly, the body's inflammatory response is excessive activation of the state of
the patients, take into consideration the short term use of glucocorticoid induced,
recommended dose not more than the equivalent of methyl prednisolone 1~2 mg/kg/day,
should pay attention to the larger doses glucocorticoid due to immune inhibition, delay of
coronavirus cleared; Xuebijing can be given intravenously 100ml/time, 2 times a day;
intestinal microecological regulator can be used to maintain intestinal microecological
balance and prevent secondary bacterial infection. Intravenous infusion of gamma
globulin may be considered in children with severe or critical cases. Pregnant women
with severe or critical type of COVID-19 pneumonia should actively terminate the
pregnancy, cesarean is the first choice. Patients often have anxiety and fear, should
strengthen psychological counseling

(IV) Chinese medicine treatment

This disease belongs to the category of "Yi" disease of traditional Chinese medicine,
because of the feeling of "Yishi", according to the conditions, local climate characteristics and
different constitution, according to the following plans for treatment. Excessive
pharmacopoeial doses are involved and should be used under the guidance of a physician.
1. Medical observation period
   - Clinical character 1: fatigue with gastrointestinal discomfort
   - Recommended Chinese medicine: huo xiang zhengqi capsule (pills, water, oral liquid)
   - Clinical character 2: fatigue with fever
   - Recommended Chinese medicine: jinhuaqinggan granules, lianhuaqingwen capsules (granules), shufengjiedu capsules (granules)

2. Clinical treatment period (confirmed case)
2.1 Qingfeipaidu soup
   **Application:**
   Combined with clinical observation of doctors in multiple places, it is suitable for light, ordinary and heavy patients, and can be reasonably used in the treatment of critical patients according to their actual conditions.

   **Basic prescription:**
   Ephedra 9g, processed licorice 6g, almond 9g, gypsum 15 ~ 30g (first fried), cassia twig 9g, alisma 9g, porus 9g, atractylodis 9g, poria cocos 15g, chaihu 16g, huangqing 6g, ginger pinellia 9g, ginger 9g, purple 9g, winter flower 9g, shoot dry 9g, asarum 6g, yam 12g, bitter orange 6g, tangerine 6g, fragrant 9g.

   **Dosage:**
   Decoction of traditional Chinese medicine with water. Once a day, once in the morning and once in the evening (40 minutes after the meal), take it warm, and pay one course of treatment in three.

   Where possible, every time take medicine can add take rice soup half bowl, tongue dry body fluid deficient person can take to a bowl more. (note: if the patient does not have fever, the amount of gypsum should be small, fever or can increase the amount of gypsum). If the symptoms improve but do not heal then take a second course of treatment, if the patient has special conditions or other underlying diseases, the second course of treatment can be based on the actual situation changes the prescription, the symptom disappears stops the medicine.

   **Prescription source:**
   Notice of the office of the state administration of traditional Chinese medicine of the general office of the national health commission on recommending the use of "lung-clearing and detoxification soup" in the treatment of pneumonia with COVID-19 infection by integrated traditional Chinese and western medicine (No. 22 [2020] of the state administration of traditional Chinese medicine).

2.2 Light type
(1) Cold and wet lung stagnation syndrome
   **Clinical characteristics:**
Fever, fatigue, soreness, cough, cough up sputum, chest tight gas, neraze, nausea, vomiting, stool sticky. Tongue quality light fat tooth mark or light red, moss white thick rot greasy or white greasy, pulse moisten or smooth.

Recommended prescription:
Raw ephedra 6g, raw gypsum 15g, almond 9g, qiang live 15g, caolanzi 15g, guanzhong 9g, drilong 15g, xuchangqing 15g, agastache rugosus 15g, peilan 9g, atractylodis atractylodis 15g, yunling 45g, rhizoma atractylodis 30g, jiaosanxian 3°9g, magnolia officinalis 15g, jiao areca 9g, simmer fruit 9g, ginger 15g.

Dosage:
One dose per day, 600ml water, three times in the morning, noon and evening, before meals.

(2) Dampness and heat accumulate lung syndrome

Clinical characteristics:
Low fever or no fever, slight aversion to cold, fatigue, heavy head and body, muscle and flesh ache, dry cough sputum less, sore throat, dry mouth do not want to drink more, or accompanied by chest tightness off, no sweat or sweat is not free, or see vomiting and nausea, then feel or stool sticky. Tongue light red, moss white thick greasy or thin yellow, pulse number or moisten.

Recommended prescription:
Betel nut 10g, grass fruit 10g, magnolia officinalis 10g, anemone anemone 10g, huangqing 10g, bupleurum 10g, red peony root 10g, forsythias 15g, artemisia annua 10g, cang shu 10g, daqing leaf 10g, licorice 5g.

Dosage:
One dose daily, 400ml water decoction, divided into in the morning and in the evening.

2.3 Normal type

(1) Dampness, poison and lung stagnation

Clinical characteristics:
Fever, cough with little sputum, or yellow sputum, stuffy breath, abdominal distension, constipation. Tongue quality dark red, tongue body fat, moss yellow greasy or yellow dry, pulse number or string slip.

Recommended prescription:
Raw ephedra 6g, bitter almond 15g, gypsum 30g, spermatozoin 30g, grass atractyloides 10g, broad bud 15g, artemisia 12g, verbena 20g, verbena 30g, dry reed root 30g, grass orchid 15g, red tangerine 15g, licorice 10g.

Dosage:
One dose daily, 400ml decoction, divided into 2 times, 1 time in the morning and 1 time in the evening.

(2) Cold and wet syndrome of pulmonary obstruction
Clinical characteristics:
Low fever, body heat does not Yang, or not hot, dry cough, little phlegm, tired, chest tightness or hate evil, then tan. Tongue quality light or light red, moss white or white greasy, pulse moisten.

Recommended prescription:
Atractylodis atractylodis 15g, tangerine peel 10g, magnolia officinalis 10g, agastache rugosus 10g, grass fruit 6g, raw ephedra 6g, qiang activity 10g, ginger 10g, betel nut 10g.

Dosage:
One dose daily, 400ml decoction, divided into 2 times, 1 time in the morning and 1 time in the evening.

2.4 Heavy type
(1) Epidemic virus closed lung syndrome
Clinical characteristics:
Fever red, cough, sputum yellow sticky little, or sputum with blood, breathlessness, fatigue, dry mouth sticky, nausea not food, defecate not free, short red urine. Tongue red, moss yellow greasy, pulse slip number.

Recommended prescription:
Huashibaidu formula
Basic prescription:
Raw ephedra 6g, almond 9g, gypsum 15g, licorice 3g, fragrant 10g, magnolia officinalis 10g, atractylodis atractylodis 15g, grass fruit 10g, method pinellia 9g, fuling 15g, raw rhubarb 5g, radix angelicae dahurica 10g, red peony root 10g.

Dosage:
1 ~ 2 doses daily, decoction in water, 100 ml ~ 200ml each time, 2 ~ 4 times a day, oral or nasal feeding.

(2) Qiyingliangfan syndrome
Clinical characteristics:
Hot and thirsty, breathless and short of breath, delirium, confusion of vision, or macular rash, or vomiting blood, maggot blood, or limb convulsions. Tongue purple less moss or no moss, pulse sink fine number, or floating.

Recommended prescription:
Raw gypsum 30 ~ 60g (first fried), anemones 30g, raw land 30 ~ 60g, buffalo horn 30g (first fried), red peony root 30g, xuan shen 30g, forsythiae forsythiae 15g, danpi 15g, coptis coptidis 6g, bamboo leaves 12g, grass house 15g, licorice 6g.

Dosage:
One dose daily, decocted in water, first decocted in plaster and buffalo horn, followed by medication, 100ml ~ 200ml each time, 2 ~ 4 times a day, oral or nasal feeding.
Recommended Chinese medicine:
Xiyangping injection solution, xuebijing injection solution, reduning injection solution, tanreqing injection solution, xingnaojing injection solution. Drugs with similar efficacy may be selected according to individual conditions, or may be used in combination according to clinical symptoms. Chinese medicine injection agent can be used in combination with Chinese medicine decoction.

2.5 Critical type

Neibiwaituo syndrome
Clinical characteristics:
Dyspnea, frequent wheezing or need mechanical ventilation, accompanied by dizziness, irritability, cold limbs after sweating, purple and dark tongue, thick and greasy moss or dryness, large and rootless pulse.

Recommended prescription:
Ginseng 15g, heishun tablets 10g (first fried), cornus officinalis 15g, send suhexiang pills or angongniuhuang pills. People with mechanical ventilation accompanied by abdominal distension, constipation or defecation can use raw rhubarb 5 ~ 10 go to appear the man-machine asynchronous situation, in the use of sedation and muscle relaxant, can use raw rhubarb 5 ~ 10g and glaucoma 5 ~ 10g.

Recommended Chinese medicine:
Xuebijing injection solution, reduning injection solution, tanreqing injection solution, xingnaojing injection solution, shenfu injection solution, shengmai injection solution. Drugs with similar efficacy may be selected according to individual conditions, or may be used in combination according to clinical symptoms. Chinese medicine injection can be used in combination with Chinese medicine decoction.

Note: the use of heavy and critical Chinese medicine injections is recommended
The use of Chinese medicine injections should follow the principle of starting with small dose and gradually adjusting the syndrome differentiation in the drug instructions. The recommended usage is as follows:
Virus infection or mild bacterial infection: 0.9% sodium chloride injection 250ml with xiyangping injection 100mg bid, or 0.9% sodium chloride injection 250ml with reduning injection 20ml, or 0.09% sodium chloride injection 250ml with tanreqing injection 40ml bid.
High fever with disturbance of consciousness: 0.9% sodium chloride injection 250ml with xingnaojing injection 20 ml bido.
Systemic inflammatory response syndrome or/and multiple organ failure: 0. 9% sodium chloride injection 250ml with xuebijing injection 100ml bid.
Immunosuppression: glucose injection 250ml with shenmai injection 100ml or shengmai
injection 20-60ml bid.

2.6 Recovery period

(1) Deficiency of lung and spleen syndrome

Clinical characteristics:
Shortness of breath, fatigue, tolerance vomiting, ruffian man, fecal weakness, then Dan. The tongue is light and fat, and the moss is white and greasy.

Recommended prescription:
Method pinellia 9g, tangerine peel 10g, codonopsis codonopsis 15g, sunburn huangmao 30g, fried atractylodes 10g, poria cocos 15g, agastache rugosus 10g, sand kernel 6g, licorice 6g.

Dosage:
One dose daily, 400ml decoction, divided into 2 times, 1 time in the morning and 1 time in the evening.

(2) Qiyinliangxu syndrome

Clinical characteristics:
Fatigue, shortness of breath, dry mouth, thirst, palpitations, excessive sweating, poor tolerance, low or no heat, dry cough with little phlegm. Dry tongue with little fluid, veins fine or weak.

Recommended prescription:
Nanshashen 10g, beishashen 10g, ophiopogonis 15g, american ginseng 6g, schisandra chinensis 6g, gypsum 15g, bamboo leaves 10g, mulberry leaves 10g, reed roots 15g, salviae miltiorrhiza 15g, licorice root 6g.

Dosage:
One dose daily, 400ml decoction, divided into 2 times, 1 time in the morning and 1 time in the evening.

XI. Discharge standards and matters needing attention after discharge

(I) Discharge standards

1. Body temperature returns to normal for more than 3 days;
2. Respiratory symptoms improved significantly;
3. Pulmonary imaging showed significant improvement in acute exudative lesions;
4. Negative nucleic acid test of respiratory tract specimens such as sputum and nasopharyngeal swabs for two consecutive times (at least 24 hours apart).

Those who meet the above conditions can be discharged from the hospital.

(II) Matters needing attention after discharge

1. The designated hospital should make contact with the primary medical institutions where the patients live, share medical records, and timely push the information of discharged
patients to the area under the jurisdiction of the patients or the neighborhood committee of the residence and the primary medical and health institutions.

2. After the patient is discharged from the hospital, it is recommended to continue the isolation management and health condition monitoring for 14 days, wear a mask, live in a single room with good ventilation, reduce close contact with family members, eat separately, do good hand hygiene, and avoid outdoor activities.

3. It is recommended to visit the hospital for follow-up at 2 and 4 weeks after discharge.

XII. Transshipment principle

In accordance with the national health commission issued by the "COVID-19 infected pneumonia cases transfer work plan (trial)" implementation.

XIII. Prevention and control of infection in medical institutions

In strict accordance with the national health commission "COVID-19 infection prevention and control technical guidelines in medical institutions (the first edition)", "COVID-19 infection in pneumonia protection of common medical protective equipment use range guidelines (trial)" requirement.
Copy to: joint prevention and control mechanism (leading group, headquarters) for the response of provinces, autonomous regions, municipalities directly under the central government and xinjiang production and construction corps to the outbreak of COVID-19 pneumonia.

General office of National Health Commission

2020.3.3