

WHO Report on COVID-19 signs, symptoms, disease progression and severity

The symptoms of COVID-19 are non-specific and the disease presentation can range from no symptoms (asymptomatic) to severe pneumonia and death. As of February 20th, 2020 and based on 55,924 laboratory confirmed cases, typical **signs and symptoms** include:

Fever (87.9%), dry cough (67.7%), fatigue (38.1%), sputum production (33.4%), shortness of breath (18.6%), sore throat (13.9%), headache (13.6%), myalgia or arthralgia (14.8%), chills (11.4%), nausea or vomiting (5.0%), nasal congestion (4.8%), diarrhea (3.7%), hemoptysis (0.9%), and conjunctival congestion (0.8%).

People with COVID-19 generally develop signs and symptoms which include mild respiratory symptoms and fever, on an average of 5-6 days after infection (mean incubation period 5-6 days, range 1-14 days).

Most people infected with COVID-19 have a mild disease presentation and recover.

Approximately 80% of laboratory confirmed patients have had a **mild to moderate disease presentation**, which includes non-pneumonia and pneumonia cases, 13.8% have a **severe disease presentation** (dyspnea, respiratory frequency ≥ 30 /minute, blood oxygen saturation $\leq 93\%$, PaO₂/FiO₂ ratio < 300 , and/or lung infiltrates $> 50\%$ of the lung field within 24-48 hours) and 6.1% are in **critical condition** (respiratory failure, septic shock, and/or multiple organ dysfunction/failure).

Asymptomatic infections have been reported, but the majority of the relatively rare cases who are asymptomatic on the date of identification/report went on to develop the disease. The proportion of truly asymptomatic infections is unclear but appears to be relatively rare and does not appear to be a major driver of transmission.

Comparison with other viruses (<https://www.worldometers.info/coronavirus/coronavirus-death-rate/>)

For comparison, the case fatality rate with seasonal flu in the United States is [less than 0.1%](#) (1 death per every 1,000 cases). (<https://www.cdc.gov/flu/about/burden/past-seasons.html>), the mortality rate for SARS was 10%, and for MERS 34%.

| Virus | Death Rate |
|-------------------------------------|-----------------|
| Wuhan Novel Coronavirus (2019-nCoV) | Estimate 2%* |
| SARS | 9.6% |
| MERS | 34% |
| Swine flu | 0.02% |

“As of February 20th, **2,114 of the 55,924** laboratory confirmed cases **have died** (crude fatality ratio [**CFR: 3.8%**]) (Note: at least some of whom were identified using a case definition that included pulmonary disease)”.

The overall CFR varies by location and intensity of transmission (i.e. 5.8% in Wuhan vs. 0.7% in other areas in China).

Feb. 8th deaths / Feb. 1st cases = 813 / 14,381 = 5.7% CFR (correct formula, and estimating T=7).

T could be estimated by simply looking at the value of (current total deaths + current total recovered) and pair it with a case total in the past that has the same value. For the above formula, the matching dates would be January 26th/27th, providing an estimate for T of 12 to 13 days. This method of estimating T uses the same logic of the following method, and therefore will yield the same result.

An alternative method, which has the advantage of not having to estimate a variable, and that is mentioned in the [American Journal of Epidemiology study](#) cited previously as a simple method that nevertheless could work reasonably well if the hazards of death and recovery at any time *t* measured from admission to the hospital, conditional on an event occurring at time *t*, are proportional, would be to use the formula:

CFR = deaths / (deaths + recovered) which, with the latest data available, would be equal to:

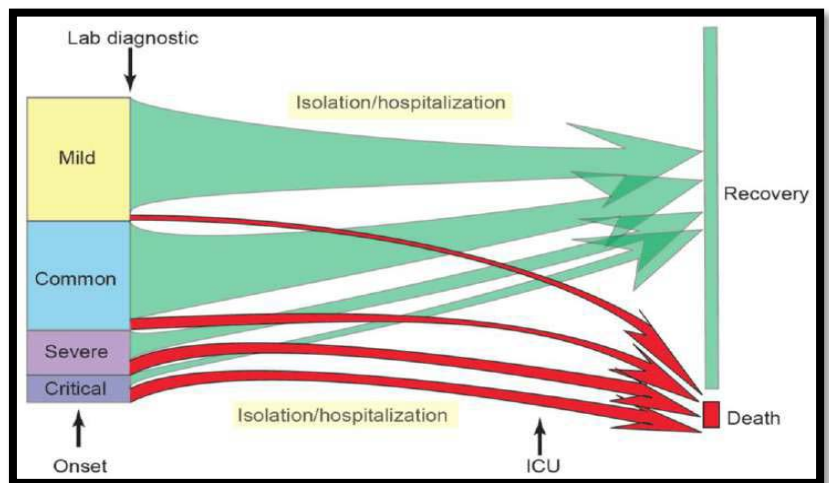
21,295 / (21,295 + 114,642) = 16% CFR (worldwide)

18,008 / (18,008 + 40,591) = 30.7% CFR (outside of mainland China)

March 28th: Italy CFR: (10 023/ (10 023+12 384))=43.85%, US CFR: (2221/(2221+3231))=44.73%

The sample size above is limited, and the data could be inaccurate (for example, the number of recoveries in countries outside of China could be lagging in our collection of data from numerous sources, whereas the number of cases and deaths is more readily available and therefore generally more up to par).

Figure 5. Pattern of disease progression for COVID-19 in China. Note: the relative size of the boxes for disease severity and outcome reflect the proportion of cases reported as of February 20th, 2020. The size of the arrows indicates the proportion of cases who recovered or died. Moderate cases have a mild form of pneumonia.



Early and moderate stages with mild to severe symptoms treatment formula (2.7.2020)

On February 5th this formula was given to 214 infected patients with mild to severe symptoms starting for 3 days of observation. There was improvement in 90% of the patients, where 60% showed significant improvement and 30% were stable without aggravation.

Qing Fei Pai Du Tang 清肺排毒汤 (Ma Xing Shi Gan Tang+ Wu Ling San+ Xiao Chai Hu Tang (minus Da zao and Dang shen) and She Gan Ma Huang Tang (- Wu wei zi) plus Shan yao, Zhi shi, Chen pi, and Huo xiang.

Ma huang 9g, Zhi gan cao 6g, Xing ren 9g, Sheng shi gao 15~30g, Gui zhi 9g, Ze xie 9g, Zhu ling 9g, Bai zhu 9g, Fu ling 15g Chai hu 16g, Huang qin 6g, Jiang ban xia 9g, Sheng jiang 9g, Zi wan 9g, Kuan dong hua 9g, She gan 9g, Xi xin 6g, Shan yao 12g, Zhi shi 6g, Chen pi 6g, Huo xiang 9g.

Since February 14th, "Qing Fei Pai Du Tang" has been promoted and used in four mobile cabin hospitals in Wuhan. On February 25th, reporters at the front line in Wuhan have successively received transcripts of "Qing Fei Pai Du Tang" for participating in the treatment:

- 1) Jiangxia Fangcang Hospital, Tianjin Medical Team ward and Henan Medical Team ward admitted 182 patients which took this formula. Among them, the Tianjin Medical Team ward totally treated 96 patients, in which 96 patients disappeared fever in three days, with fever remission rate of 100%. The total number of patients of Henan Medical Team was 86. There were 85 people without fever in three days, and the fever remission rate was 99%.
- 2) Jiangnan Fangcang hospital treated a total of 1874 patients and fully achieved treatment by using "Qing Fei Pai Du Tang". The overall effective rate of integrated Chinese and western medicine treatment was over 89.28%.
- 3) A total of 312 patients were admitted to Tongkou Fangcang Hospital. Except for 5 patients under 18 years of age, the other 307 patients took the "Qing Fei Pai Du Tang". As of February 25th, a total of 117 patients have been discharged from hospital.
- 4) Jingkai (Sports Center) Fangcang hospital admitted 1,040 patients, all taking "Qing Fei Pai Du Tang" and certain western medicine treatment. The patients' fever, fatigue, and cough symptoms were significantly improved. The patients currently in the hospital are in good condition.

COVID-19 Understanding

Invasion of epidemic toxic damp cold to all three levels affecting the lung, stomach, intestines, and bladder is the chief cause of coronavirus pneumonia this time.

COVID-19 In stages

1. **Incubation stage:** Patients have mild to no symptoms but they are carriers and infectious. Mild symptoms include mild fatigue and general discomfort in the body. 2 to 14 up to 27 days in a person.
2. **Mild stage:** Some low appetite, fatigue, heaviness and body aches and pain, glomus after eating and drinking, mild loose stools.
3. **Moderate stage:** Cough with low-grade fever alternating with chills, or persistent fever with aversion to heat, nausea, low appetite, no energy, heaviness and aches of the body and limbs. At this stage there can be some chest tightness, and diarrhea. Most patients have symptoms of dry and sore throat, and some patients also have dry cough without phlegm. This process usually lasts 5 to 7 days, during which patients do not have fever or only low fever, and the body temperature is over 37°C, and rarely exceeds 38.5°C.
4. **Pneumonia stage:** Within two or three days of the moderate stage, patients' body temperature suddenly rises above 39°C, the condition will often become critical at once, with wheezing, shortness of breath, poor oxygenation, and a large amount of exudation shown on lung CT scans. At this stage patients need assistance to breath. This stage lasts from 2 to 14 days.
5. **Recovery stage:** Once breathing and oxygenation are normal, and the body temperature is normal, patients gradually enter the recuperation stage. There are symptoms of fatigue, dryness and mild dampness.

Important during treatment:

1. The presentation of the **symptoms comes and goes** and patients might seem to have recovered but if the treatment is not continued the symptoms will return more aggressively.
2. Once there is **difficult breathing and poor oxygenation, send patients to the ER** for ventilation and respiratory assistance.
3. **Never** use Ibuprofen, antipyretics, and antibiotics to treat this viral infection.
4. In China, mild to moderate cases were treated with Chinese medicine herbs. These are the formulas that have been recorded to be useful. The pneumonia stage was treated by combining Chinese and biomedicine.
5. Focus on boosting digestion and transformation, expel dampness by urination, occasionally by stools, harmonize the half and half syndromes, and nourish body fluids to prevent from dryness in all three areas.

Table 1 Formulas to Prevent Early signs from Aggravating

| | | | | |
|--|--|--|---|--|
| <p>Early Stage Formula to Prevent Aggravation #1 Mild fatigue with mild cough but without fever</p> | <p>Mild decreased appetite, epigastric fullness after eating, sore throat, mild cough.</p> | <p>Tai yang Tai yin concurrent syndrome</p> | <p>Cang zhu 10g, Zi su ye 10g, Chen pi 20g, Ge gen 10g, Ban lan gen 10g, Sheng jiang 20g</p> | <p>Often combined with Huo Xiang Zheng Qi capsules or pills. (modern patent formula recommended by the health administration) Modifications: Add Huo xiang 10g, Hou po 10g, ban xia 15g for chest oppression, Add Da fu pi 15g and fu ling 15g for urinary issues, Add Jie geng 12g for throat pain.</p> |
| <p>Early Stage Formula to Prevent Aggravation #2 Mild fever with body aches but no cough</p> | <p>Mild fever with aversion to cold, mild body aches, muscle soreness, common cold symptoms, blocked sinuses, runny nose, headache. (No Cough)</p> | <p>Tai yang Tai yin concurrent syndrome</p> | <p>Gui Zhi Jia Ge Gen Tang plus Fu Ling Yin modified, Shan zha, Ban xia, Bai zhi, Mu hu die, Shi chang pu Gui zhi 15g, Bai shao 10g, Sheng jiang 20g, Zhi gan cao 5g, Da zao 10g, Ge gen 15g, Fu ling 15g, Cang zhu 15g, Chen pi 20g, Nan shan zha 15g, Fa ban xia 15g, Bai zhi 12g, Mu hu die 12g, Shi chang pu 15g</p> | <p>Jin Hua Qing Gan Ke Li 金花清感颗粒 Lian Hua Qing Wen Jiao Nang 连花清瘟胶囊 Shu Feng Jie Du Jiao Nang 疏风解毒胶囊 Fang Feng Tong Sheng Wan 防风通圣丸 (modern patent formulas recommended by the health administration) Require immediate medical attention if the symptoms worsen with fever, shortness of breath and severe weakness.</p> |

Table 2 Early signs with mild Fever and Dry Cough

| | | | | |
|--|--|--|---|---|
| <p>Early Stage Formula #1 Low grade fever with moderate symptoms</p> | <p>Fever with aversion to cold, dry cough, dry throat, extreme fatigue, chest oppression, severe glomus, nausea, loose stools, large pale tongue, white and greasy coating, soggy pulse.</p> | <p>Three yang Tai yin concurrent syndrome</p> | <p>Xiao Chai Hu Tang, San Ren Tang modified Chai hu 15g, Huang qin 10g, Sha ren 15g, Sheng gan cao 5g, Xing ren 10g, Bai dou kou ren 10g, Yi yi ren 15g, Ban xia 15g, Hou po 10g, Tong cao 10g, Hua shi 10g, Zhu ye 10g, Sheng jiang 15g</p> | <ol style="list-style-type: none"> 1. For no sweating, cough, chest distention, add Ma huang 5-10g; 2. For high fever, aversion to heat add Shi gao 45g; 3. For headache and severe body aches, add Xiang ru 15g and Huo xiang 15g; 4. For thick and greasy yellow tongue coating, add Cao guo 6g and Qing hao 10g. |
| <p>Early Stage Formula #2 Low grade fever with moderate symptoms (fever without sweating)</p> | <p>Fever with aversion to cold without sweating, or aversion to heat, dry cough, dry throat, fatigue, chest oppression, epigastric glomus, nausea, loose stools, large and pale tongue, white greasy coating, soggy pulse.</p> | <p>Tai yang Shao yang Yang ming Tai yin concurrent syndrome</p> | <p>Chai Hu Gui Zhi Tang + She Gan Ma Huang Tang modified Chai hu 10g, Ban xia 10g, Huang qin 10g, Dang shen 12g, Gui zhi 10g, Bai shao 10g, Sheng jiang 15g, Da zao 20g, Sheng gan cao 6g, Ma huang 6g, She gan 10g, Kuan dong hua 10g, Xi xin 3g, Zi wan 10g, Jie geng 10g, Lian qiao 10g</p> | <ol style="list-style-type: none"> 1. For high fever with aversion to heat, irritability, dry mouth or tongue, add Sheng shi gao 30-45g |

San Ren Tang: Yang ming concurrent syndrome

Xing ren 15g, Hua shi 18g, Bai dou kou ren 10g, Tong cao 6g, Zhu ye 6g, Hou po 10g, Sheng yi ren 20g, Ban xia 15g.

Xing Ren, Bai kou ren, Hou po, Ban xia: Descend qi, clear dampness from the upper, middle and lower and stop cough;
Hua shi, Sheng yi ren, Zhu ye, Bai tong cao: Expel dampness, clear heat and promote urination.
Sheng yi ren, Xing ren, Bai kou ren, Zhu ye: **Clear dampness while nourishing fluids.**

Medicinal Application:

Xing ren: Descends qi from the upper to stop cough and wheezing, moistens the intestines, unblocks the bowels.

Hua shi: Promotes urination, resolves dampness, clears heat, moves blood stasis.

Bai tong cao: Promotes urination, resolves dampness, and clears heat.

Bai kou ren: Transforms dampness, warms the middle, stops vomiting, descends qi, moves qi, and transforms stagnation.

Zhu ye: Clears heat in the upper and middle, eliminates irritability, promotes urination, and clears damp heat.

Hou po: Warms the stomach, tonifies qi, descends qi to resolve shortness of breath and chest oppression.

Sheng yi ren: Dissolves dampness, clears heat and moistens skin and intestines.

Ban Xia: Warms the middle to clear dampness from the upper, middle and lower by promoting urination, treats nausea and shortness of breath.

Wen Bing Tiao Bian, clause 43: “Headache, aversion to cold, body heaviness and pain, white tongue coating, lack of thirst, wiry, thin and soggy pulses, lusterless yellowish complexion, chest oppression, lack of appetite, heat sensations in the afternoon, appearing as yin deficiency, difficult diseases which resolve quickly; this is the damp warm [syndrome]. Deafness and loss of consciousness after sweating, in severe cases, there is heaviness of the eyelids and lack of desire to speak, purgation leads to severe diarrhea, moistening aggravates the symptoms and prevents resolution, the treatment is the same in the summer, autumn, and winter days; *San Ren Tang* governs”.

Dr. Hu Xi shu commented on this clause, stating headaches with aversion to cold, body heaviness and pain are similar to *Shang han* syndromes. However, if the pulse is wiry and soggy it is different from *Shang han* syndromes. A white tongue coating without thirst and a lusterless yellow complexion are not caused by summer heat syndrome, but they actually occur due to internal toxic damp.

Chest oppression with lack of appetite demonstrates an obstruction of dampness preventing the flow of clear yang. “Afternoon heat sensations, appearing as yin deficiency” reflect a yin pathogen, dampness, which invades the interior (yin areas) with a sticky and greasy quality, preventing the natural function of the organs. This is different from cold pathogens which resolve by sweating as seen in *Shang han* syndromes.

Dr. Hu warns us not to strongly promote sweating without tending to the internal dampness to prevent from aggravating the symptoms and depleting body fluids. When encountering fullness of the middle with lack of appetite, practitioners will often purge the middle. However, this damages the internal fluids and strongly inhibits digestive functions, increasing the retention of dampness leading to explosive diarrhea which further depletes body fluids and weakens the patient.

The sweating and diarrhea lead to internal dryness. Practitioners might give moistening and nourishing herbs. This only increases the accumulation of internal dampness and causes more severe stagnation in the body, mixing with the body fluids which further damages the function of the organs.

Giving *San Ren Tang* in these cases can clear dampness from the upper and middle *jiao*, restore the movement of lung qi, restore digestion and transform the dampness by restoring organ function. However, pathogenic dampness qi is formless and can reach all areas of the body,

Dr. Hu on Treating Infectious Pneumonia

After reading many cases of Dr. Hu treating and discussing infectious pneumonia, four formulas repeat themselves:

1. *Ma Xing Shi Gan Tang* modifications: When the disease presents as fever with aversion to cold, wheezing and shortness of breath, lack of sweating, incomplete sweating or night sweating.
2. *San Ren Tang* modifications: When the disease has moved in the interior with dampness blocking the lung, stomach and intestines. *San Ren Tang* not only dries dampness but also expels pathogenic fluids, used for treating water retention in the stomach, with panting and wheezing, chest and stomach fullness, cough and shortness of breath and is effective in treating damp warm external syndromes without promoting sweating.
3. *Xiao Chai Hu Jia Shi Gao Jie Geng Tang*: When the disease has reached the half-external half-internal layers, presenting as alternating fever and chills with excessive fever, irritability, nausea, lack of appetite, sweating and constant sweating with chest oppression, shortness of breath, stabbing chest pain and thick yellow sputum.
4. *Zhi Zi Chi Tang*: Used for expelling internal damp heat and resolving lingering fever and heaviness due to warm damp syndromes moving in the interior leading to internal stagnation of dampness.

Pneumonia stage: the patient has difficulty breathing ranging from mild to severe, with infections in the alveoli which fill with fluid or pus, and symptoms of short superficial breathing, chest oppression and pain when breathing, fatigue, loss of appetite, cough with phlegm or mucus.

| | | | | |
|---|--|--|--|--|
| <p>Pneumonia Stage Formula #1 Moderate symptoms</p> | <p>Persistent fever, or alternating fever and chills, cough, yellow phlegm, shortness of breath, constipation, chest oppression, irritability, yellow greasy coating, slippery rapid pulse.</p> | <p>Three yang Tai yin concurrent syndrome with dampness stasis in the interior</p> | <p>Xiao Chai Hu Tang, Shuang Huang Lian Chai hu 15g, Huang qin 10g, Zhi ban xia 15g, Nan sha ren 15g, Sheng gan cao 6g, Sheng jiang 15g, Sheng shi gao 30g, Lian qiao 30g, Jin yin hua 15g</p> | <p>1. For dry and difficult stools, add Jiu da huang 10g, for dry stuck stools boil Sheng da huang, and add in the last 5 minutes. 2. For high fever and aversion to heat after sweating, increase Chai hu to 30g, Huang qin to 15g, Shi gao to 60g, Sheng gan cao to 10g, and Lian qiao to 35-50g.</p> |
| <p>Pneumonia Stage Formula #2 Severe symptoms: High fever, aversion to cold and heat, wheezing, severe shortness of breath without sweating.</p> | <p>Persistent fever with aversion to cold and heat, edema, without sweating, severe wheezing, cough, or yellow phlegm, chest oppression, constipation, shortness of breath, wheezing which increases with movement, sore throat, irritability.</p> | <p>Three yang Tai yin concurrent syndrome with severe stasis on the exterior</p> | <p>Formula #1 Ma Xing Shi Gan Tang plus Da Yuan Yin modification Sheng ma huang 6g, Sheng shi gao 35g, Xing ren 10g, Xiang huo 15g, Ting li zi 15g, Di long 15g, Xu chang qing 15g, Huo xiang 15g, Pei lan 9g, Cang zhu 15g, Fu ling 30g, Sheng bai zhu 30g, Jiao San Xian (Shan zha, Mai ya, Shen qu) 9g each, Hou po 15g, Bing lang 9g, Cao guo 9g, Sheng jiang 15g</p> | <p>Formula #2 Qing Fei Pai Du Tang modification Ma huang 6-10g, Zhi gan cao 6g, Xing ren 10-15g, Sheng shi gao 15-30g, Gui zhi 10-15g, Ze xie 10g, Zhu ling 10g, Bai zhu 10-20g, Fu ling 15-30g Chai hu 16-24g, Huang qin 10g, Jiang ban xia 10-15g, Sheng jiang 15g, Zi wan 10g, Kuan dong hua 10g, She gan 10g, Xi xin 6g, Shan yao 10-15g, Zhi shi 6g, Chen pi 10-20g, Huo xiang 10-15g.</p> |
| <p>Modifications:</p> | | | | |

1. For severe aversion to cold, body soreness and back pain, add Gui zhi 9-30g;
2. For severe aversion to cold without sweating and high fever, increase Ma huang to 9-15g, Shi gao to 45-90g, and add Lu gen 30-120g, Zhi mu 15g;
3. For alternating heat and cold sensations, add Chai hu 15-30g, Huang qin 15-30g;
4. For extreme fatigue and body heaviness, add Huang qi 15-30g, Ren shen 6-9g or Dang shen 9-20g;
5. For excessive phlegm, yellow phlegm, or phlegm which is difficult to expectorate with chest oppression add Gua lou ren 30g, Huang qin 15g, Yu xing cao 30g, Lian qiao 30g, Ban lan gen 30g;
6. For glomus with loss of appetite, add Lai fu zi 15g, Chen pi 30g;
7. For severe nausea, add Ban xia 9-15g, Huang lian 3g, Su ye 9g, and increase Sheng jiang to 20-30g;
8. For diarrhea, add Huang lian 10g, increase Sheng jiang to 30g, Fu ling to 30g;
9. For constipation, add Zhi shi 10-15g, Da huang 6-15g
10. For red dry tongue, add Lian zi xin 6g, Mai men dong 30-60g.

| | | | | |
|--|---|---|--|--|
| <p>Stage Formula #3 Severe symptoms: damp heat stasis in the lower leading to wheezing, cough, constipation, abdominal distention</p> | <p>and tightness, abdominal distension, difficulty breathing, shortness of breath with movement, needing a ventilator, aversion to heat, irritability, cold limbs, dark purple tongue, thick greasy coating, a floating and long pulse.</p> | <p>yang Tai yin syndrome</p> | <p>Wei Jing Tang plus Ma Xing Shi Gan Tang modified Chai hu 24g, Huang qin 10g, Bai shao 10g, Ban xia 15g, Sheng jiang 15g, Zhi shi 10g, Da zao 10g, Da huang 6g, Lu gen 30g, Sheng yi ren 18g, Tao ren 10g, Dong gua ren 15g, Xing ren 10g, Jie geng 10g, (Gui zhi 10g/Ma huang 6g), Yu xing cao 30g, Lian qiao 10g, Sheng shi gao 30g</p> | <p>add Jiu da huang 10g, for dry stuck stools boil Sheng da huang, and add in the last 5 minutes. 2. For high fever and aversion to heat after sweating, increase Chai hu to 30g, Huang qin to 15g, Shi gao to 60g, Sheng gan cao to 10g, and Lian qiao to 35-50g. 3. Replace Ma huang with Gui zhi 10-15g when there is sweating.</p> |
| <p>Pneumonia Stage Formula #4 with severe symptoms: Damp heat stasis in the upper leading to wheezing, cough and shortness of breath.</p> | <p>Fever, excessive sweating, aversion to heat, irritability, difficult breathing, shortness of breath needing ventilator, fainting, sweating with cold limbs, purple tongue, thick greasy or dry coating, floating and large pulse without a root.</p> | <p>Three yang Tai yin concurrent syndrome: Internal stagnation dampness stasis, heat toxicity with deficiency</p> | <p>Xiao Chai Hu Jia Shi Gao Tang, Da Yuan Yin, San Ren Tang Chai hu 18g, Huang qin 10g, Ban xia 15g, Sha ren 15g, Gan cao 6g, Sheng jiang 15g, Shi gao 30g, Bing lang 15g, Hou po 15g, Cao guo 10g, Zhi mu 10g, Bai shao 10g, Lian qiao 30g, Jin yin hua 20g, Xing ren 15g, Hua shi 18g, Tong cao 6g, Zhu ye 15g, Yi yi ren 20g</p> | <p>San Ren Tang: Xing ren 15g, Hua shi 18g, Bai dou kou ren 10g, tong cao 6g, Zhu ye 6g, Hou po 10g, Sheng yi ren 20g, Ban xia 15g. Da Yuan Yin: Sheng gan cao 6g, Bing lang 15g, Hou po 10g, Cao guo 10g, Zhi mu 10g, Bai shao 10g, Huang qin 10g. Shuang Huang Lian: Jin yin hua 15g Huang qin 10g, Lian qiao 10g.</p> |

Wei Jing Tang: Yang ming syndrome with slight blood stasis.

Comes from the Jin Gui Yao Lue, Chapter 7 Pulses, Patterns and Treatments of Degenerative Lung Diseases, Lung Abscesses, Cough, and upsurging qi disorders Annex 6.

Treats internal dryness with pus accumulation due to blood depletion and stasis, causing stasis in the upper and middle, such as lung abscesses, cough, panting and difficult stools.

Lu gen 10-20g, Sheng yi ren 15-30g, Tao ren 10-15g, Gua ban (Dong gua ren) 10-20g: These four medicinals nourish internal fluids and clear heat from the upper, while expelling dampness from the lungs and stomach. Increase to 60g when there is severe heat in the middle.

Lu gen: Clears heat, expels pus, as well as nourishes healthy fluids in the stomach.

Sheng yi ren: Clears heat, drains dampness, as well as releases boils and carbuncles from the skin, expels damp heat by promoting urination. According to the Shen Nong Ben Cao Jing treats tight tendons and chronic wind damp bi syndromes. Raised to 30g when there is abundant pus.

Tao ren: Moves blood, expels stasis, treats stabbing pain, moistens intestines, treats constipation due to dryness, clears heat associated blood stasis.

Gua Ban: Tonifies the middle, nourishes qi, expels dampness and pus from the upper and lower, treats cough with turbid phlegm and panting, treats appendicitis, and dark spots on the skin. Add Jie geng for stagnation of pus in the lungs.

Da Yuan Yin: Yang ming Tai yin syndrome with blood depletion

Sheng gan cao 6g, Bing lang 15g, Hou po 10-20g, Cao guo 10g, Zhi mu 10-20g, Bai shao 10-30g, Huang qin 10-15g.

Comes from the Wen Yi Lun (1802), fitting a Yang ming damp heat syndrome.

Wu You ke 吳又可 states: “Da Yuan Yin: Expels internal turbid phlegm in the upper and middle, clears heat, expels toxic dampness, and nourishes blood.

Bing lang: Transforms and disperses dampness, expel pathogens, treats diarrhea and dysentery, while treating southern epidaemics.

Hou po: Brakes stasis and nodules.

Cao guo: Acrid and vigorously moves qi, strongly expels pathogens.

These three medicinals work together to expel pathogens from the internal membranes. This is where the name of the formula comes from. Heat injures body fluids, **Zhi mu** is added to nourish yin [fluids]; heat also injures the *ying qi*, **Bai shao** is added to harmonize the blood, **Huang qin** clears dry heat, and **Gan cao** harmonizes the middle; these last four medicinals harmonize the formula.”

“Early stage *Wen yi* (Epidemic diseases), first there will be aversion to cold followed by heat sensations, in the following

days there will be heat sensations without aversion to cold. The early stage will last 2-3 days, the pulses are not floating or deep and rapid. There will be heat sensations day and night, which will be more severe at dusk, with headaches and body aches. At this time, the pathogen is pressing in front of the spine and behind the intestines, even though there are headache and body aches, this is caused by pathogenic heat floating outwards to the channel, this cannot be mistaken for a *Shang han* external syndrome, using medicinals such as *Ma huang* and *Gui zhi* to promote sweating. This pathogen is not in the channel, sweat promotion will damage the exterior qi, and the heat will not resolve. Purgation method is also inappropriate, the pathogen is not in the interior, promoting purgation will damage stomach qi, increasing the thirst. *Da Yuan Yin* is appropriate.”

Recuperation Stage

At this stage the patient is able to breathe freely, there is only dry cough without sputum or phlegm, chest CT scans show no ground glass opacity. The pneumonia stage has resolved completely. Patients will still experience fatigue and low appetite. There are two main presentations at this stage: One shows deficient heat signs of unquenchable thirst, irritability, dry eyes and mouth and the other shows deficient cold signs of cold chills, weakness of the limbs and no thirst or appetite.

| | | | | |
|--|---|--|---|-------------------------------|
| Recovery Stage Formula #1 with cold sensations | Cold sensations of the body, severe fatigue, excessive salivation, loose stools, low appetite and thirst. | Tai yin deficiency syndrome | Si Ni Jia Ren Shen Tang plus Bai zhu Zhi gan cao 10g, Gan jiang 10g, Pao fu zi 15g, Dang shen 15g, Bai zhu 15g | |
| Recovery stage Formula #2 with deficient heat sensations | Heat sensations at night, persistent fever and irritability, severe unquenchable thirst, severe fatigue, dry stools, and thready rapid pulse. | Yang ming Tai yin concurrent syndrome | Zhu Ye Shi Gao Tang Zhu ye 10g, Sheng shi gao 30g, Fa ban xia 15g, Mai men dong 15g, Dang shen 15g, Zhi gan cao 6g, Jing mi 15g | Dryness in the middle stomach |

| | | | | |
|---|--|---|--|---|
| <p>Recovery stage Formula #3 with dry heat in the upper</p> | <p>Severe dryness of the upper orifices: eyes, nose, mouth and throat, night sweating, heat sensations at night, severe unquenchable thirst, fatigue, dry stools, and thready rapid pulse.</p> | <p>Yang ming Tai yin concurrent syndrome</p> | <p>Sha Shen Mai Men Dong Tang Sha shen 10-15g Mai men dong 15-30g Yu zhu 15g Sang ye 15g Tian hua fen 12g Bai bian dou 15g Zhi gan cao 6g</p> | <p>Dryness in the upper lung and orifices</p> |
|---|--|---|--|---|