

## A simple, quick and effective treatment that kills all bacteria and viruses

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### **ABSTRACT:**

The use of ethanol is low toxicity, almost harmless to the human body, and has the characteristics of fast absorption of virus, bacteria protein in the water, so that protein water loss and coagulation, resulting in the virus, bacteria fast death. Spray the mask or towel square folded into the size of the mask with a high degree of liquor. Using the characteristic that ethanol can also volatilize quickly at room temperature, the spraying side covers the mouth and nose of the patient, so that the ethanol gas can be inhaled into the respiratory tract or the empty digestive tract directly to quickly kill virus or sterilize the treatment method. It is used to treat all kinds of respiratory and digestive tract infections caused by viral or bacterial infections containing protein structures. Have the advantage of efficient and rapid cost is very low. In addition, the residual virus or bacteria will stimulate the body's immune system to automatically form antibodies, equivalent to automatic vaccination.

*Key words: ethanol gas, respiratory tract and digestive tract, direct anti-virus or sterilization, rapid cure of various infectious diseases, automatic formation of antibodies*

### **INTRODUCTION:**

This paper presents a new method for the treatment of various respiratory and digestive tract diseases infected by bacteria and viruses, which has non-toxic side effects and broad-spectrum rapid sterilization in vivo. The existing domestic and foreign medical health and epidemic prevention systems do not have a set of simple, universal and rapid treatment methods for patients with various respiratory and digestive tract infections caused by bacteria and viruses. The main use of a variety of broad-spectrum antibiotics and anti-inflammatory anti fevers or targeted antibiotics or specific drugs to treat a variety of infectious diseases by bacterial infection. Use a variety of targeted vaccines or specific drugs to treat a variety of infectious diseases infected by the virus. To all sorts of infectious disease that infect by bacterium, because medical profession USES all sorts of antibiotic

for a long time, cause the resistance of a lot of bacterium to strengthen gradually, curative effect drops. For infectious diseases infected by viruses, the development and production of a variety of targeted vaccines, specific drugs, including animal experiments and clinical tests, require a large amount of time and human and material investment. As a result, the prevention and cure ability of the new outbreak of viral infectious diseases of the whole mankind lags behind seriously, and drug enterprises monopolize the nearly sky-high price vaccines or specific drugs, which also makes the majority of patients fearful. Therefore, for sudden new outbreaks of large-scale acute infectious diseases with high mortality, such as THE SARS virus in the last decade, which is one of the corona viruses, it should be transmitted to humans through some animal to host, and it is highly virulent. MERS in the Middle East is the

second highly virulent corona virus, and Wuhan novel Corona virus (CoVID-19) is the third. Both create regional and global fears. In view of the existing human respiratory tract, digestive tract bacteria, virus infection of patients with treatment methods. They all have the disadvantages of poor curative effect, long time and high cost. The high alcohol liquor of the invention is heated by water bath, and the ethanol in it is directly vaporized and mixed with air (and oxygen) to make a therapeutic mixture containing appropriate ethanol concentration. It has the advantages of good curative effect, short time, low cost and easy popularization. Further details are provided below.

**The medical principle and the extended reasoning basis of clinical trial effect of rapid disinfection and sterilization by inhaling ethanol steam into respiratory tract or digestive tract directly:**

First of all, this novel Corona virus (CoVID-19) epidemic in Wuhan has already spread and formed a sudden global pandemic public health event. It is anticipated that "Novel Corona virus is sensitive to ultraviolet light and heat, and lipid solvents such as ethyl ether, 75% ethanol, chlorine-containing disinfectant, per acetic acid and chloroform can effectively inactivate the virus for 30 minutes, while chlorine cannot effectively inactivate the virus" is clearly stated in the Novel Corona virus Diagnosis and treatment scheme for Icarus

infection by the National Health Commission. Alcohol kills viruses because it can dissolve the viral "lipid envelope", so it has to be something like a corona virus that has a coat of proteins in it for it to work effectively. 75% alcohol can absorb the water in the protein of bacteria and virus shell, making it dehydrated, denatured and solidified, thus achieving the effect of killing bacteria and viruses. If a higher concentration of alcohol is used, the bacterial virus protein will be dehydrated too quickly, making the protein on the surface of the bacterial virus denature and solidify first, forming a solid envelope. On the contrary, the alcohol cannot penetrate into the internal of the bacterial virus well, thus affecting its ability to kill the bacterial virus. 75% of alcohol similar to bacteria and viruses of osmotic pressure, can be in bacterial virus surface protein defenestration gradually to bacterial virus before solidification body internal infiltration, dehydrating all proteins in bacteria, virus, modified solidification, eventually kill bacteria and viruses, alcohol concentration less than 75%, due to the lower permeability, may also affect kill bacteria and viruses. Quite a few scholars have conducted comparative experiments in this field, and the results are shown in Table 1. Further analyzing the sterilization mechanism of 75% ethanol disinfectant, we searched the following results from the Internet:

**Table 1 experimental results of action time required by different concentrations of alcohol to kill bacteria**

Alcohol concentration	Escherichia coli	Staphylococcus aureus	Pseudomonas aeruginosa	Hemolytic streptococcus
100%	24 hour	7 Day	2 hour	15 minute
90%	15 hour	30 minute	5 minute	5 minute
80%	1 hour	2 minute	2 minute	10 second
70%	30 second	5 minute	1 minute	10 second
60%	20 second	30 minute	30 second	10 second
50%	20 second	30 minute	30 second	20 second
40%	22 minute	4 hour	2 minute	2 minute
30%	2 minute	4 hour	30 minute	30 minute
20%			24 hour	24 hour

As can be seen from the experimental results in Table 1, for different bacteria, the time required to kill them varies with different alcohol concentrations. But the overall trend is for 50 to 80 percent alcohol to kill bacteria the fastest. Therefore, the medical theory and

clinical trial basis of the present invention for the effective treatment of the COVID-19 epidemic is concluded as follows: In the Novel Corona virus Diagnosis and Treatment Protocol for pneumonia infected with Corona virus by the National Health

Commission, it has been confirmed that the novel Corona virus can be killed by the novel Corona virus with a concentration of 75%.

**(1) Distribution characteristics of microorganisms, bacteria and viruses in the human body and the medical theoretical principles designed by the invention:**

According to the experimental results in table 1, we can preliminary assumption: if vaporization in 75% alcohol disinfectant directly mixed with air (oxygen) and made with appropriate treatment of mixture of ethanol concentration, applied to inhaled the body inside the respiratory tract, enter on, as the mixture diffusion treatment, direct contact with the internal organs for antivirus sterilization, a new method of treatment, for as long as you like "corona virus" this kind of "lipid coat membrane (envelope)" virus protein most bacteria, virus and all... , it is possible to effectively sterilize the virus within seconds to minutes. Because medical alcohol disinfectants contain etchers, formaldehyde... And other harmful impurities, can not be oral drinking. According to the test results in Table 1, alcohol concentration of 50% to 80% can kill all kinds of bacteria the fastest. Therefore, for the application of alcohol vaporization and vaporization for internal suction in families and hospitals, it should be considered to directly use a high number of edible liquor (without methanol, formaldehyde, ether. Such as harmful impurities to human body. Liquor with alcohol content of 45~62%vol and 2~5 liters of transparent plastic bottles are common in supermarkets. Because the boiling temperature of alcohol is 78.2°C, and the boiling temperature of water is 100°C, using the water bath heating method commonly used in chemical laboratory, as long as the boiling hot water temperature is more than 80°C, the ethanol molecules in liquor can be vaporized. There are about 50 trillion cells in the human body, and the total number of microbes living in the human body, according to incomplete estimates, should be more than 10 times the number of human cells, at least more than 500 trillion. Together, these microbes have about 200 times more genes than the human genome, which has more than 20,000. Note that microbial cells are usually small, about one-tenth to one-hundredth the size of tissue cells in human organs, but because of their abundance, they weigh about one-thirtieth of an adult's body weight. Characteristics of the distribution of microorganisms

(bacteria) in the human body. The gastrointestinal bacteria associated with the present study differ from site to site. Due to the bactericidal effect of gastric acid, the stomach and jejunum of healthy people are generally free of bacteria. If you are infected with a bacterial virus, you have associated viruses, bacteria and inflammation. If the stomach function is impaired, such as the secretion of gastric acid is decreased, especially in gastric cancer, streptococcus, lactobacillus, bacillus often appear... And so on. In adults, bacteria in the jejunum and upper ileum are rare or even sterile, and bacteria in the lower segment of the intestine gradually increase. Large intestine accumulates to have food residue, have proper acidity alkalinity again, be suitable for bacterium reproduction, bacterium amount occupies 1/3 of excrement about. There are many kinds of microorganisms in E. Coil, including Escherichia coil, fragile bacillus, bacterium, anaerobic coccus, and other lactobacillus, staphylococcus, Pseudonym dinosaur, Proteus, fungi... And so on. The bacteria in the respiratory tract, nasal cavity and pharynx are often staphylococcus, diphtheria bacteria... And so on. In larynx and tonsil mucous membrane, mainly a Streptococcus and catharsis dominant. In addition, there are often potentially pathogenic microorganisms such as streptococcus, influenza bacillus, Streptococcus Type B... And so on. Normal bronchi and alveolar are sterile. Of course, if the respiratory tract is infected with the associated bacteria or virus, naturally there will be associated bacteria or virus and various corresponding inflammation or lesions. Please note that the microbe cells in the human body, also known as bacteria, are generally 0.2 to 100 microns in size, only one-tenth to one-hundredth of the size of the tissue cells in human organs. Most viruses typically range in size from 2 manometers to 100 manometers, and are only about one-hundredth to one-thousandth the size of bacteria. Comparing with the results in Table 1, it is possible to kill bacteria in alcohol disinfectant with concentration of 50% to 80% within a few seconds to several minutes. A virus that is only about one hundredth to one thousandth the size of a bacterium can be killed in a few seconds. By comparing the size of human cells, bacteria and viruses, it can be known that the therapeutic mixture prepared by mixing 0.05g/L of ethanol with air (or a certain proportion of oxygen) has little historicity and killing effect on human organs and tissues. Even if some of the cells in the surface layer of the inner wall of each

organ are killed after being infected by bacteria and viruses, they can still be repaired through the automatic regeneration of the organ's own emergency response system. According to the distribution characteristics of bacterial virus in respiratory tract and digestive tract of healthy people and sick people infected by bacterial virus. Patients can simply selectively inhale the therapeutic mixture into the respiratory tract or the fasting digestive tract, breathing twice as often (or half as often) as usual. Each treatment lasts for 20 seconds to 2 minutes. Sterilizing the surface and shallow layer of the tissue cells in the inner wall of the organ infected by the bacteria virus by means of direct contact with the gas diffusion in the body of the treatment mixture. Such treatment not only has negligible toxic and side effects on human body, but also has an immediate sterilizing effect on the surface and superficial layers of the tissues and cells in the inner wall of the respiratory or digestive tract system of patients. That is to say, a fairly inexpensive liquor of ordinary height is heated in a scalding hot water bath to vaporize the ethanol in it and make it into a therapeutic mixture by inhaling the gas in the body and diffusing it in direct contact with the treatment method of sterilization. It can be used to treat almost all kinds of infectious diseases caused by bacteria and viruses in respiratory tract and digestive tract, and it has good curative effect, short time, low cost and very easy to popularize and popularize.

## **(2). The design of the clinical trial effect of the drug dose estimation and the evaluation of toxic and side effects is based on expanded reasoning**

The main components of alcoholic beverages consumed by humans are different concentrations of aqueous alcohol. According to relevant statistics, the average lethal dose of ethanol for adults is as high as 250 ~ 500 grams. Most alcoholics, even those who get drunk from drinking too much, save their lives by throwing up too much alcohol and food through their body's natural emergency response. After entering the body, ethanol is absorbed by 70% of the stomach, 25% of the duodenum and a small amount of the rest of the small intestine. When there was nothing in the stomach, ethanol intake in the blood peaked at 30 to 90 minutes. The toxicological test of acute toxicity showed: LD50 7060mg/kg(rat trans oral); 7340 mg/kg(rabbit percutaneous); LC50 37620 mg/m<sup>3</sup>, 10 h (rat inhalation); Human inhalation of 4.3mg /L (L) (the same below)×50

minutes, head and face fever, cold limbs, headache; Human inhalation 2.6 mg/L×39 minutes, headache, no aftereffect. Further, we can assume that the upper safe limit of the medicinal dose is 2.6 mg/L×39 min inhalation, headache and no aftereffect. Then, when the inhalation time is reduced by about 40 times, the concentration of ethanol can be increased by about 40 times! Up to 0.1g/L\*1 minute! Alternatively, reduce the concentration and dose by half again and take 0.05g/L\*2 min as the reference dose of sterilization for general adults. The liquid density of ethanol is 0.789g/cm, the gas density of ethanol is 1.59g/L, and the boiling point is 78.2°C. The temperature of healthy people is 36~37°C, and fever is 37~41°C. The density of air in the standard state (25°C, one atmosphere pressure) is 1.29kg/m<sup>3</sup>=1.29g/L. This is approximately 25 times the concentration of a therapeutic blend that can be safely adjusted for use with ethanol concentration <0.05g/L! So the temperature of the concocted cure mixture is only slightly higher than the temperature of the air. A person normally breathes 20 times a minute in a calm state, each time about 0.5 liters of air. The total amount of air that can be inhaled in 2 minutes is 20 lit-res, the total amount of ethanol is about 1 gram, and the volume based on the specific gravity of ethanol is about 1.25 ml. White wine with about 50%vol should be 2.5 ml. If the alcohol concentration of the liquor is reduced to 25%vol after heating, the amount of liquor required for each treatment is about 5 ml. As for the specific time of inhalation, the actual needs of the patient can be determined by clinicians and nurses on the spot according to the type of infectious disease. Generally take 20 seconds to 2 minutes. If the curative effect is insufficient, it can be continued after appropriate rest. Because air has some moisture in it, in terms of humidity. At room temperature, it is about 0.01g/L. The human respiratory tract and digestive tract wall, also naturally have a layer of moisture protective film. Therefore, the mixture is treated directly by boiling liquor in a high-volume way. When the therapeutic mixture is inhaled into the respiratory or digestive tract of the human body, the vapor ethanol molecules will rapidly diffuse into the water-containing protective film on the surface of the inner wall of the organs, and gradually increase the concentration of ethanol in the water-containing film with continuous respiration. When the concentration of ethanol reaches 50% to 80%, it will naturally carry out rapid and efficient sterilizing effect

on the virus bacteria attached to the inner wall of organs and the infected cells. The concentration of ethanol decreases as water is absorbed from the viruses and bacteria lining the organs and proteins in infected human cells. At this point, through continuous breathing, the concentration of ethanol in the water-containing film is supplemented to maintain the concentration balance and sterilization function.

### **3. Device design and operation technique methods for specific clinical treatment:**

In the practical application of treatment, we can first consider most of the patients in the family and in the outpatient department with moderate or mild cases of infectious diseases caused by viruses and bacteria. These patients can breathe on their own. **Because ethanol can evaporate rapidly at room temperature, ordinary people who suffer from respiratory or digestive tract infections in daily life can treat themselves in the following simple and direct ways: use a mask or clean and dry towel, handkerchief or paper towel, and fold it into a mask size square. Spray 2 to 5 ml of liquor with an ethanol concentration of about 50% (half the dose for children) on it. Then cover the mouth and nose with the spray side for inhalation, and directly inhale the volatile ethanol gas into the respiratory tract or digestive tract to play a virus-killing or sterilization effect. If the effect is insufficient, the above methods should be continued after proper rest.** A small number of critically ill patients are unable to breathe on their own and need to rely on ventilators. According to the above principle of liquor water bath heating evaporation and vaporization, a water bath heater similar to a stainless steel hot kettle can be added to the interior or exterior of the existing multi-function ventilator, and the hot water temperature can be stabilized at 80~90°C by the temperature controller design. Liquor containers heated internally in water baths should be designed to facilitate both continuous supply and timely replacement of residual liquor (or direct use without formaldehyde, ether, methanol... And other harmful impurities such as anhydrous alcohol), and can be convenient for the ethanol steam flow to regulate the setting. The invention will be researched and developed by the ventilator manufacturer, and the manufacturer who takes over the invention patent will apply for it separately. **The use of ethanol is low toxicity, almost harmless to the human**

**body, and has the characteristics of fast absorption of virus, bacteria protein in the water, so that protein water loss and coagulation, resulting in the virus, bacteria fast death. Spray a towel square folded into a mask size with a high degree of liquor. Using the characteristic that ethanol can also volatilize quickly at room temperature, the spraying side covers the mouth and nose of the patient, so that the ethanol gas can be inhaled into the respiratory tract or the empty digestive tract directly to quickly kill virus or sterilize the treatment method. It is used to treat all kinds of respiratory and digestive tract infections caused by viral or bacterial infections containing protein structures. Have the advantage of efficient and rapid cost is very low. In addition, the residual virus or bacteria will stimulate the body's immune system to automatically form antibodies, equivalent to automatic vaccination. The inventor often suffered from a heavy cold before, and was also an old patient with long-term chronic sinusitis. Since the beginning of this year, he experienced the treatment method of internal inhalation with high amount of liquor vaporization and applied in the body to disinfect and sterilize the virus, the symptoms of cough, cold and sinusitis that he often had in previous years all disappeared. Even if there is a cold cold symptoms, not 1-2 hours will disappear naturally. This indicates that if the medical field carries out clinical trials as soon as possible, the therapeutic effect can be expected.** The current situation of coVID-19 pneumonia (COVID-19) prevention and control is grim, saving lives like putting out a fire. Experts are requested to carry out clinical trials as soon as possible to evaluate the efficacy.

### **CONCLUSION:**

From what has been discussed above, we may safely draw the conclusion that... Use of ethanol is low toxicity, almost harmless to human body, but also has fast protein in moisture absorption viruses, bacteria, make clotting protein filtration, killed viruses, bacteria, fast characteristics, can be widely used in the human respiratory tract or the digestive tract, directly for antiviral or sterilization, quickly and efficiently to cure all kinds of methods of infectious diseases, is worth clinical trial. If clinical trials prove effective, it could be extended further. For other viral and bacterial infectious diseases other than respiratory tract and digestive tract, the appropriate concentration of ethanol solution can be

used to directly implement the needle injection sterilization treatment for viral and bacterial infection aggregation sites or tumor masses in the internal organs of the body, which is also worthy of clinical testing. Similarly, for viruses and bacteria in blood, we can also consider the use of appropriate concentration of ethanol solution for infusion titration to carry out antiviral or sterilization. If all of the above methods prove effective in clinical trials, then we can further infer that appropriate concentrations of ethanol solution or gas should be applied to the treatment of sterilization in vivo. With each course of treatment, it is impossible to sterilize quickly and completely. There must be residual viruses and bacteria lurking in human cells, just enough to trigger the body's immune system to form antibodies, equivalent to automatic vaccination. **In addition, each infection with a new virus, once cured, will automatically generate new antibodies. They all volunteered to get the new vaccine. In particular, single-stranded RNA molecules such as COVID-19 (COVID-19), which quickly mutate to resist existing vaccines or preexisting antibodies, can't escape ethanol, and the body automatically generates new antibodies.** Finally, the inference can be further extended: all the tuberculosis bacilli containing protein soft tissue structure, smallpox, syphilis, Ebola, rabies, AIDS... Almost all bacteria and viruses, no matter how fast they mutate, the appropriate concentration of ethanol solution or gas, in vitro or in vivo, have a simple, rapid, efficient anti-viral and sterilization medical effect. At the same time, the remaining bacteria and viruses have the ability to stimulate the body's immune system to automatically produce antibodies.

#### **REFERENCES:**

1. Invention patent request (application number: 202010101405.X form 2020.2.11)
2. Invention patent specification (published on Bluestar New Times website on February 12, 2020)
3. Invention patent request (application number: 202011396871.1 form 2020.11.24)
4. Invention patent specification (2020.11.24)
5. Invention patent claims (2020.11.24)