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Does a "Healthy Carrier" Really Exist?

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Abstract

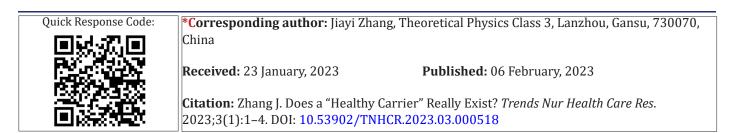
The COVID-19 could cause SARS and we have to respond to it to keep ourselves healthy. The infection is serious and therefore we have to keep zero Covid-19 goal to live in a safe and healthy environment without a pandemic. We have to quarantine to stop further spreading of the viruses; however, our quarantine and other responses were also excessive sometimes, the nucleic acid test, which is one of them, always broke our quarantine that could stop the spreading of the viruses and tested out more infected individuals without symptom and that made them be quarantined. The nucleic acid test made more people be infected and be quarantined away from their family. Questions came when thinking how to make the infected healthy and not infectious again so that they could go back to live in our society again, and whether one who recovered health and had no symptom was still infectious, does a "healthy carrier" really exist? Using mathematics, it could be proved that one definitely is not infectious as long as he was healthy and had no symptom, otherwise he must infect himself first and make him have symptoms, and this not true for a "healthy carrier". Therefore, it definitely is impossible for a healthy individual who had no symptom to be infectious, this is also valid for Mary Mallon who was the first one labelled by "healthy carrier", the infectious source is the dirty water but not herself. One definitely is not infectious as long as he was healthy and no symptom, and he would even be less infectious if he recovered health from an infectiou and had no symptom, because that is same to that he had a vaccination. Nucleic acid test is unnecessary, it can't definitely show one was infectious and sometimes it causes infection by itself; thence, we must exam whether one was not infectious only by whether he was healthy and had no symptom, but can absolutely not test nucleic acid for a healthy human without symptom.

Keywords: COVID-19, Healthy carrier, Healthy and no Symptom, Not infectious, Nucleic acid

Mary Mallon, The First Healthy Carrier

The concept of individual who was infected but has no symptom originated from a typhoid pandemic at New York in 1906. An Irish cooker Mary Mallon was hired by a wealthy New York banker Charles Henry Warren, and a pandemic impacted the family when she was working there, from 27th August to 3rd September, 6 of 11 people lived in the house where she was working was infected by typhoid, it has 10% of death rate at that time. Thereafter, Warren committed a sanitary engineer, George Sober, to investigate the event and his results believed it was the freshwater clams Mary and others ate involved to the infection, Mary also got infected but recovered health then;¹ however, since not all of those who ate the clams got stricken, he then explained the mystery as Mary Mallon was a "healthy carrier", she coexisted with the typhoid pathogen, she was infected but she was healthy, she could infect other people while she had no symptom by herself. Sober once demanded Mary, then by a female medicine worker, to test her infection, Mary refused but finally she was forced to be tested, and it showed positive result of *Salmonella typhi* in her excretes; thereby, they concluded that Mary is a "healthy carrier" who could infect other people while she could keep healthy by herself.¹

Questions come when thinking about the infectivity of an individual who recovered health from infection and had no symptom anymore, does the "healthy carrier" who could infect other people



while keeping himself healthy really exist? Is Mary the true culprit for the contagion, is she infected before the contagion? Is one still infectious after he recovered health from being infected by an infectious disease and had no symptom? And could such a "healthy carrier" totally recover health so that he could be not infectious again and return to our society if the "healthy carrier" exists?

Using mathematics, it could be proved that "healthy carrier" doesn't exist: if one carried the infectious pathogen but has no symptom, that is he is healthy while he could infect others with the infectious disease. However, he is same a human being and always the first one who contacts himself; therefore, he would always be the first one to be infected if he was infectious, that would make him be infected and have symptoms, but this is not true for a "healthy carrier", so he could absolutely only not be infectious, and infectivity can absolutely not coexist with health. One can absolutely not carry the pathogen by himself while keeping healthy, i.e., a "healthy carrier" doesn't exist, one could absolutely only be in one state between healthy and infected. One definitely is not infectious as long as he was health and had no symptom; moreover, if one defeated the invading pathogen and recovered health from an infection, he could get better immunity and stay in a healthier state that is harder to get infected, what he could infect others would only be a healthier infectious field that is adapted to his healthier state and makes him less infectious than before he was infected, it is the viruses and bacteria field he emitted get evolved and such field could also affect other human being to stay in healthier states that approaches him, he actually is less infectious if he recovered health from an infection and had no symptom anymore.

In conclusion, a "healthy carrier" who was infected and could infect others while he could keep himself healthy is absolutely impossible, one must have symptom if he was infected or could infect other people; otherwise, one is absolutely not infectious if he recovered health from an infection and had no symptom anymore. Mary is impossible to be the infectious source by herself as she was healthy and had no symptom, and before the pandemic which made her to be Typhoid-Mary she was not infected, she also was less infectious after she recovered health from the infection she got by the pandemic, when she kept healthy and had no symptom anymore. What caused the contagion could only be what she used to cook food or other environment factors in that house. Typhoid is caused by Salmonella Typhi which could spread only via food or water, hardly via direct person-to-person contact, and human also has gastric acid that could kill pathogenetic bacteria and viruses taken from the food, only when the gastric acid was diluted, such as one just drank a lot of water, it would enable the infection of enteric disease to happen, this was true for cholera which is another enteric infectious disease,² therefore should be valid for typhoid as well. Therefore, only the drinking water is the possible infectious source in that typhoid pandemic which was attributed to Mary Mallon at New York in 1906, she was not infectious by herself as she is healthy and has no symptom, it is just because the water she and the family used in that house, probably their tap water was contaminated by the toilet water which contains *Salmonella Typhi*, caused the infection.³ And her positive test result possibly is from that water where she was tested, not from herself, or just some fragments of the pathogen after she recovered health from infection, but that doesn't mean she carries the pathogen, she is not infected or infectious as long as she was healthy and had no symptom. She was healthy and not infectious by herself; it was just because the water got contaminated but people didn't know how to disinfect the water before drinking.

Traditionally, Chinese people must boil water before drinking (drink it after it cooled down to acceptable temperature), and cook food by heating, this could disinfect potential existed pathogen that could spread by food or water ingestion, Mary could have a different fate if she came to China to pursue her career.

Is Nucleic Acid Test for Novel Covid Necessary? How Should we Properly Treat the Infected?

People who were infected by infectious diseases have problems not only in health, but also in society. They would be thought same to the pathogens (viruses or bacteria which caused the infectious diseases) that could infect other people and cause them to be infected and ill as well, people used to treat them same to the pathogens, this is also true for the novel covid infection.

When one was infected by the Covid-19, people fear of being infected by them as well, and people who were infected by the covid would usually get rejected, discrimination and even isolation from the society therefore. This would remain even they recovered health, because the society still worry that they might still be infectious. However, people who were infected are same human being as us, how to do with it if we were them? Could they totally recover health and to be not infectious again to be accepted by our society again?

However, the research in this paper gives us good news, it proves that an individual who was healthy and had no symptom definitely is not infectious no matter whether he once got infected; moreover, a one who recovered health from infection and had no symptom anymore is less infectious because he defeated the invasion of pathogens and got stronger immunity, he becomes healthier and is harder to be infected by the infectious disease, his infection field would be more adapted to his healthier state, which may affect others to be more approached to his healthier state, and it definitely is healthy. He is totally not and in fact less infectious than before. Therefore, the infected would be totally not infectious anymore once they recovered health and had no symptom, an individual definitely is not infectious as long as he is healthy and has no symptom, at least when he was healthy about the infectious disease and had no symptom thereof, an individual who got infected definitely would be not infectious as long as he defeated the invading pathogens and had no infectious disease (no symptom) anymore.

People should treat the infected properly, we definitely are same human being and they definitely are not infectious once they recovered health and had no symptom anymore. One definitely is not infectious as long as he was healthy and had no symptom, one definitely is less infectious once he recovered health from infection and had no symptom anymore. A "healthy carrier" doesn't exist and one definitely could totally recover health from infection and be not infectious again to go back to the society, he definitely is not infectious as long as he recovered health and had no symptom anymore, and he actually is less infectious same to that he just got a vaccination.⁴

Therefore, nucleic acid test is not necessary for healthy people who had no symptom, one definitely is not infectious as long as he was healthy and had no symptom, and he definitely is healthier and less infectious if he once got infected but recovered to health and had no symptom anymore. Absolutely only the individual who is still suffering from the infection and having a symptom is infectious, they should have good rest and nutrition, and moderately drink alcohol (absolutely only good alcohol with only ethanol CH_CH_OH but no toxic methanol CH_OH which could lead to blind and death, alcohol is a beverage to drink with friends in traditional China) combined with protein-rich food⁵ if there was no special case that banned one from ingestion of normal food and drink, to help them recover health. They definitely are not viruses by themselves and could recover health by good mood (love definitely could defeat anything), nutrition including the alcohol combined with protein-rich food and adequate rest. And one definitely would not be infectious anymore as long as he recovered health and had no symptom, at least when he was healthy about the infectious disease and had no symptom, he definitely is not infectious.

Therefore, whether one was infected or might be infectious definitely could only be judged by whether he was not healthy or had symptom, it is not necessary to test nucleic acid for a healthy individual who had no symptom, and nucleic acid test could also risk the tested to be infected because that is also a chance to contact the viruses, and even positive results could not definitely show whether one is infectious, sometimes there is just part of the nucleic acid about the viruses but that's not same to the viruses which could cause infection, many healthy people who were not infectious got unnecessary treatment as "healthy carrier" while one definitely is not possible to be carrier when he was healthy.

There definitely could be no nucleic acid test for healthy people who had no symptom, one definitely is not infectious as long as he was healthy and had no symptom, and would be less infectious if he once recovered health from an infection and had no symptom anymore, that is same to he got a vaccination.

The criteria of whether one is not infectious and safe to enter China should only be whether he was healthy and had no symptom, but can absolutely not test his nucleic acid when he was healthy and had no symptom, a "healthy carrier" doesn't exist and the nucleic acid test can't definitely show whether one was infectious, it is not necessary and might cause infection since it gives the chance for the viruses to spread. What we want is to make all people healthy and absolutely nobody could be abandoned by the society, not to wait people to get ill so that we could sell them curation.

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Thanks to the journal team's, they inspired me to work for my submission. Thanks to my professors and my parents for what they spent on me. Thanks to my other friends for their approval. This is a birthday gift to my girlfriend, she likes Chinese culture and wants to come to China, she once was unluckily infected by the COVID-19 as well but now recovered health and had no symptom anymore. However, when China cancelled the zero Covid-19 response that indulged the viruses to spread in the country, it restricted foreigners to come with a nucleic acid test at the meantime, only who had negative result in 48h could enter. A nucleic acid test can't definitely show one was infectious even it was positive result, and it sometimes could cause the tested be infected since that's a chance to contact other infected people, or make the tested carry the viruses at somewhere he didn't know. One definitely is not infectious as long as he was healthy and had no symptom; therefore, a requirement for nucleic acid test negative is unnecessary and we definitely can only examine whether one was not infectious by whether he was healthy and had no symptom, but can absolutely not test it for a healthy human without symptom. Wish she could keep healthy and come to China without such unhealthy requirement, she definitely is not infectious as long as she had no symptom. Wish all people over the world healthy, the pandemic could end as long as everyone recovered health together and had no symptom anymore, thereby we could be together again to live as usual. Thanks to everyone.

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Conflicts of Interest

Authors declare that there is no conflict of interest.

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