Hypothesis:

Hospital and LTCF deaths in persons with SARS-CoV-2 PCR(+) are more probably due to Gram negative bacterial endotoxin sepsis and multi-organ failure

By Carl R. Hansen, Jr., M.D.

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The following article may be of interest, regarding a HYPOTHESIS relative to the natural history of the Coronavirus Infectious Disease 2019, COVID-19, a zoonosis with Pandemic global dimensions through **respiratory** transmission. (See links below.)

SIMPLE SYNOPSIS FOR SAFETY:

You, the young and old don't need this race:

- 1. Stop COVID-19 contamination of air and space.
- 2. End death by germs causing sepsis and organ shutdown.

MEDICAL SCIENCE:

Some older vulnerable and young persons, who lack mature immune functions, develop acute SARS-CoV-2 PCR(+) infections in their lower respiratory tissues deep inside the lungs.

Such older vulnerable and young persons, who lack mature immune functions, are placed on mechanical ventilators in the hospital's Intensive Care Unit (ICU) and Pediatric Intensive Care Unit (PICU).

While in the ICU and PICU, these older vulnerable and young persons, who lack mature immune functions, develop nosocomial gram negative bacterial endotoxin sepsis and multi-organ failure.

Similarly, some of these older vulnerable who lack mature immune functions are discharged to community congregate care LTCF, more accurately categorized as transitional care facilities (TCF), intermediate care facilities (ICF) and skilled nursing (SNF) facilities.

Laboratory identification of endotoxins and their cellular and molecular biology is essential to safe patient therapeutics and diagnostics.

THEREFORE:

Sepsis, multi-organ damage and death from RNA respiratory viral zoonoses, e.g., *influenza*, *coronavirus, measles, and other contagious RNA viruses* often begin with an upper respiratory infection, e.g., a *sore throat, "runny nose," stomach ache, fever, eye irritation, etc.*

It is essential to prevent the development of lower respiratory infections, gastroenteritis and development of secondary gram negative as well as gram positive infections (e.g., strep throat) given the potential life-threatening risks of sepsis and multi-organ failure.

Nota bene:

Recombinant C Factor (rFC, Lonza, Inc. "PyroSense") is derived from the hemolymph components that are produced by the horseshoe crab (e.g., the Atlantic Ocean *Limulus polyphemus*) amoebocytes, an archaic immunological "defender" of this saltwater distant cousin of the scorpion.

Prior to the exploitation and consequent endangered status of the Limulus, I utilized another antiinflammatory Limulus extract in persons with infection-triggered and their associated rheumatic disease manifestations.

Not uncommonly, some developed reactions to other shellfish and cold saltwater fish-derived Long-chain Polyunsaturated Fatty Acids (LC-PUFA).

Such reactions are similar to those seen with lamb, pork and beef.

Similar reactions are also part of the inflammatory sequelae of various tick bites. Hematological pathology is common and some even develop antiphospholipid antibodies found in a group of coagulation disorders (grouped as *Antiphospholipid Antibody Syndrome, APS*).

The terminal alpha-galactose unit appears very relevant to these reactions in the above reactions to meats.

Other compounds are relevant with other animals, plants, protists, and other parasitic or microbial species.

LINKS:

1. Limulus Amebocyte Lysate <u>https://www.chemistryworld.com/podcasts/limulus-amebocyte-lysate/3010453.article</u>

2. Detection – from Limulus Amebocyte Lysate to RecombinantFactor C <u>https://www.researchgate.net/publication/44890024Endotoxin</u>

SIMPLE SAFETY SYNOPSIS:

You, the young and old don't need to count on luck to defeat microbial diseases:

- 3. Stay clear of germs that contaminate air and living spaces.
- 4. Eliminate contact with germs that then cause sepsis and organ shutdown.

HYPOTHESIS:

Hospital and Long-Term Care Facilities (LTCF) deaths in persons with Severe Acute Respiratory Syndrome Coronavirus-2 Polymerase Chain Reaction Positive Test Result, SARS-CoV-2 PCR(+), are more probably due to Gram negative bacterial endotoxin sepsis and multi-organ failure.

NULL HYPOTHESES:

These never occur.

THEREFORE:

One respective case disproves each through the application of sound, safe scientific medical diagnostic and therapeutic practices in the best interests of each patient.

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Carl R. Hansen, Jr. M.D. Biographical Summary

Carl R. Hansen, Jr., M.D., is a preeminent medical expert, specializing in the field of child, adolescent and adult developmental neuropsychiatry. His insights, systematic formulations and recommendations were developed over the last 48 years.

Dr. Hansen has diligently worked to advance the study, clinical practice and basic research as related to complex medical and developmental neuropsychiatric conditions.

Dr. Hansen has extensive experience with rare and traumatic conditions. His work has included ground-breaking work with heritable and neuroimmunological conditions that are often triggered or worsened by infections.

His molecular genetic studies and expertise gave him a deep understanding of RNA viral pathology, including the type of complex problems, now observed with SARS-CoV-2 COVID-19 acute infections, complications and chronic diseases.

Dr. Hansen is a 1979 graduate of the University of Minnesota Medical School where he also received advanced study in Physiology, focused on spinal cord and cerebellar disease and neuroprosthesis.

Dr. Hansen finished his psychiatric training in 1984. As a child and adolescent psychiatry fellow at the Yale Child Study Center, Dr. Hansen was awarded both the Berger Research Fellowship and the Merck Fellowship.

Along with his clinical training in analytically-grounded developmental psychiatry, Dr. Hansen was involved in cutting-edge research on rare conditions, using basic neuroscientific, gene cloning and other molecular genetic methodologies.

Dr. Hansen has decades of experience with rare diseases, neural trauma and both acquired and inherited neuroimmunological conditions.

Dr. Hansen was involved in the care of a child who developed an HIV-associated immunodeficiency from the in utero transfer of the mother's HIV infection.

Dr. Hansen has been a sought after expert and consultant. He has published articles in the areas of toxicology, neurobiology and developmental neuropsychiatry.

Dr. Hansen is a senior medical doctor with advanced medical knowledge and clinical expertise relevant to the management of the SARS-CoV-2 COVID-19 pandemic.