



Let's be smart about it....

KARL STONECIPHER, MD

CLINICAL ASSOCIATE PROFESSOR OF OPHTHALMOLOGY,
UNIVERSITY OF NORTH CAROLINA

MEDICAL DIRECTOR PHYSICIAN'S PROTOCOLS

MEDICAL DIRECTOR THE LASER CENTER

MEDICAL DIRECTOR LASER DEFINED VISION

*There is a better
way to do it. Find it!*

THOMAS EDISON

THIS IS SERIOUS STUFF!

REMIND FAMILY AND FRIENDS
AND COLLEAGUES THIS IS NOT A
DRILL....



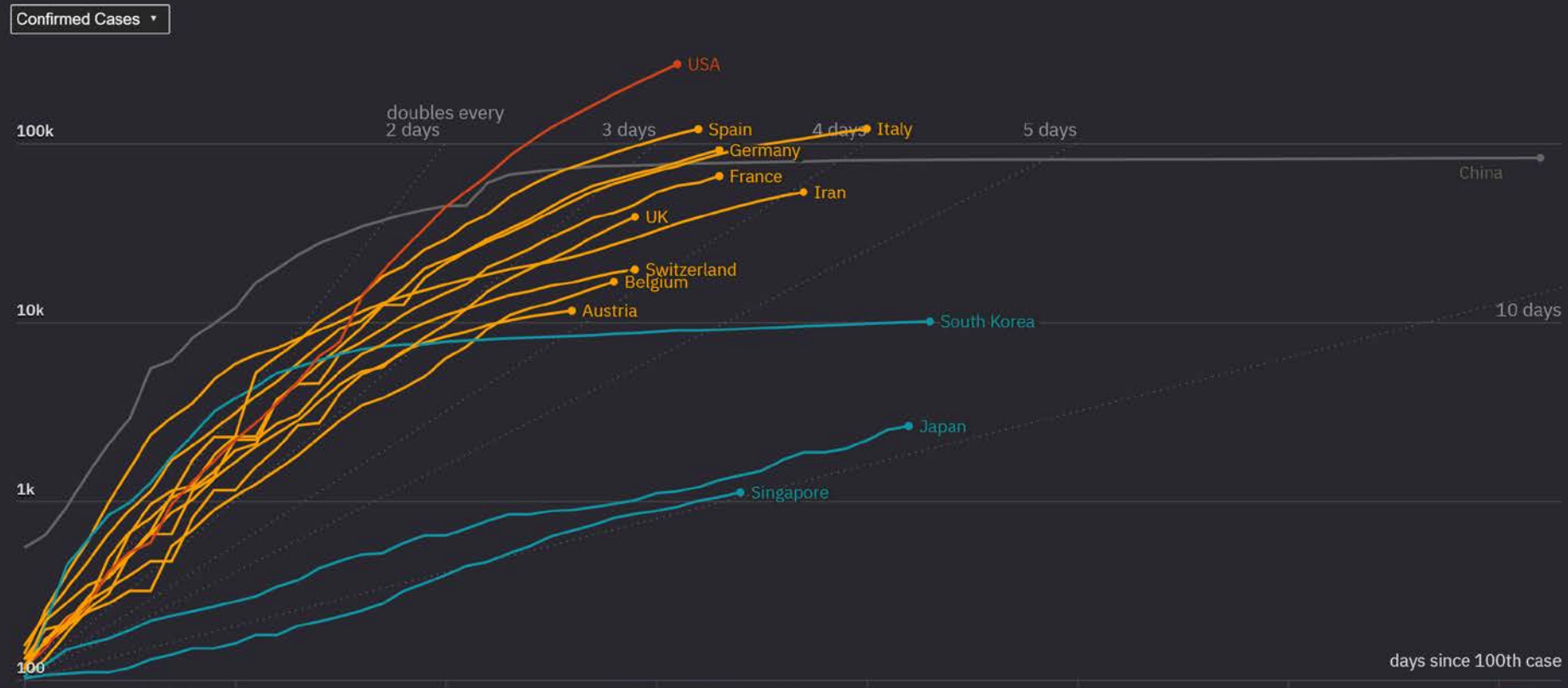
2 WEEKS LATER.....



Coronavirus Infection Trajectories

Growth of Outbreaks

updated 4 Apr 2020

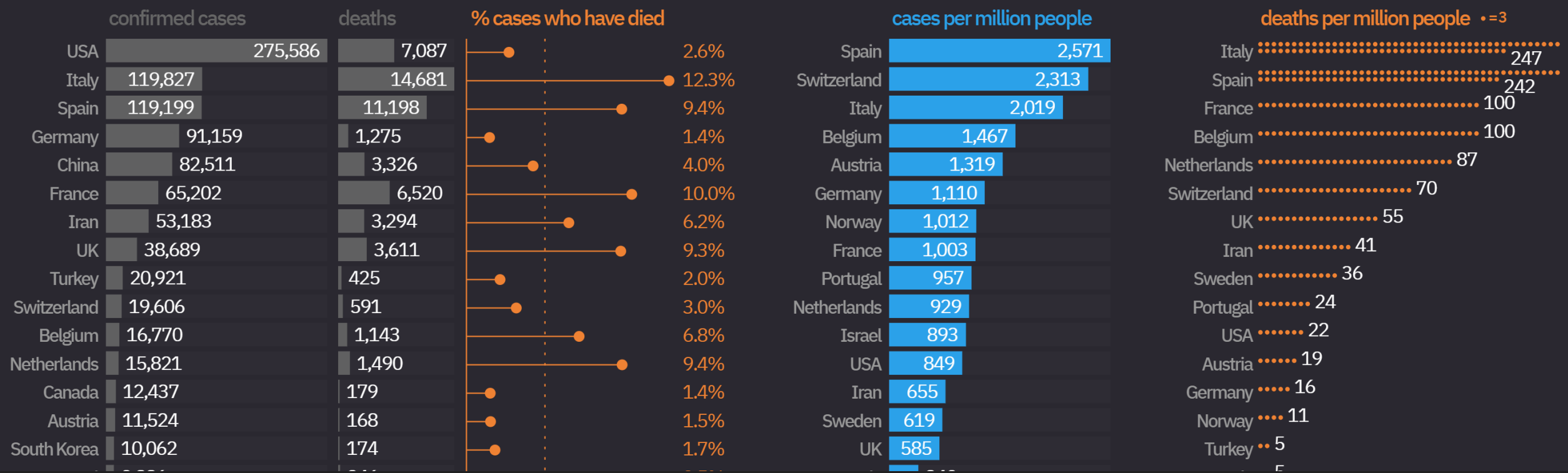


LET'S TRY TO SEE THE POSITIVE

SOUTH KOREA HAS FLATTENED THE CURVE! WHAT ARE THEY DOING DIFFERENTLY? ISOLATING AND WEARING MASKS. MORE ABOUT THAT LATER.

Infection & Fatality Rates Vary by Country

Quality of healthcare, average age of population – both factors



YES, WE HAVE A HIGHER NUMBER OF CONFIRMED INFECTIONS BUT THAT IS BECAUSE WE ARE DOING MORE TESTING.

The Majority of Infections are Mild

Seriousness of symptoms

80.9%



MILD
Like flu, stay at home

13.8%



SEVERE
Hospitalization

4.7%



CRITICAL
Intensive care

study of 44,672 confirmed cases in Mainland China
sources: China Center for Disease Control & Prevention; Statista

Those Aged 60+ are Most At Risk...

% confirmed cases who died (in Italy & China)



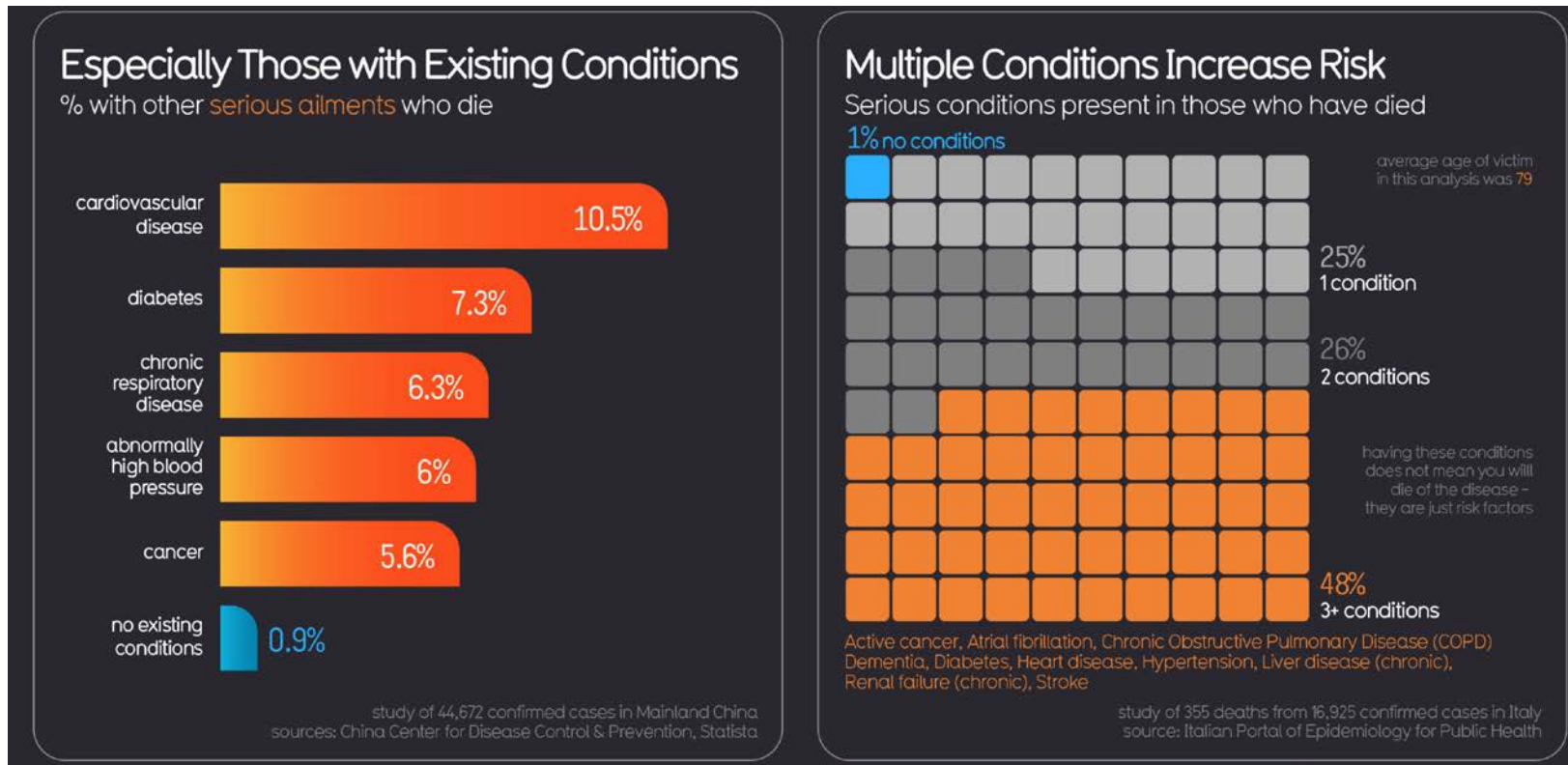
study of 44,672 confirmed cases in Mainland China & 16,925 cases in Italy
sources: China CDC, Italian Portal of Epidemiology for Public Health

MORE GOOD NEWS. 81% ARE MILD INFECTIONS.

CONVINCE YOUR HIGH-RISK POPULATIONS AND OLDER PARENTS TO STAY HOME.

HOWEVER, YOUNGER PATIENTS CAN GET IT AS WELL!

STRESS STAYING AT HOME. MY WIFE HAS BAD ASTHMA AND SHE HAS BEEN AT HOME FOR OVER 21 DAYS



Day 7 of the quarantine
My wife took up gardening but won't tell what she's going to plant



WHEN TO WORRY☺

TIPS FOR HEALTHY LIVING

FIRST

PRAY

MEDITATE

LAUGH

DO YOGA

GET SLEEP

THESE ARE ESSENTIAL
THINGS IN TIMES LIKE
THESE



SABBATICAL (NOUN)

**EXTENDED PERIOD OF LEAVE FROM ONE'S CUSTOMARY
WORK, ESPECIALLY FOR REST, TO ACQUIRE NEW
SKILLS AND TRAINING**

SOCIAL ISOLATION

IT DOES NOT MEAN
THIS.....REALLY GOLFING IN A
GROUP IS NOT SOCIAL ISOLATION.
EVEN IN SEPARATE CARTS. YOU
STILL APPROACH EACH OTHER AT
SOME POINT. IF YOU ARE TOTALLY
BY YOURSELF THAT IS A
DIFFERENT STORY.



Can you help
me understand
the need for
isolation?

The Math Behind Social Distancing



Credit:

Robert A.J. Signer Ph.D.,
Assistant professor of Medicine at the University of California, San Diego
Gary Warsaw, Art Director

MY NEW FOOD PYRAMID

A Hemagglutinin from Northeast Red Beans with Immunomodulatory Activity and Anti-proliferative and Apoptosis-inducing Activities Toward Tumor Cells

Yau Sang Chan,^a Jack Ho Wong,^a Evandro Fei Fang,^b Wenliang Pan,^a and Tzi Bun Ng^{a,*}

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The publisher's final edited version of this article is available at [Protein Pept Lett](#)
See other articles in PMC that [cite](#) the published article.

Abstract

Go to: 

A 64-kDa hemagglutinin from a *Phaseolus vulgaris* cultivar, the northeast red bean, was purified by a protocol composed of three chromatographic steps involving affinity chromatography on Affi-gel blue gel, cation exchange chromatography on SP-Sepharose and FPLC-gel filtration on Superdex 75. The purified hemagglutinin appeared as a single 32-kDa band in SDS-PAGE indicating its dimeric nature. The N-terminal amino acid sequence of the hemagglutinin resembled the sequences of lectins and hemagglutinins from a number of *Phaseolus* species. The hemagglutinin manifested moderate thermostability and pH stability. It retained full activity up to 65 °C and in the pH range 2 – 12. It did not interact with simple sugars such as glucose, mannose and galactose. The hemagglutinin exerted immunostimulatory effects by upregulating the expression of cytokines like interferon- γ and tumor necrosis factor- α . It also exhibited antiproliferative activity on a number of tumor cells including MCF7 (breast cancer), HepG2 (liver cancer), CNE1 and CNE2 (nasopharyngeal cancer) cells, with stronger activity toward MCF7 and CNE1 cells. The hemagglutinin induced phosphatidylserine externalization, mitochondrial depolarization and DNA condensation in MCF7 cells, indicating initiation of apoptosis. However, at high hemagglutinin concentrations, severe damage to the MCF7 cells was detected.



So some tips for
success

Hot liquids

COFFEE, TEA, SOUP, EVEN WARM WATER HELPS ELIMINATE THE VIRUS FROM YOUR MOUTH AND MUCOUS MEMBRANES. REMEMBER THE VIRUS CAN LIVE IN YOUR THROAT FOR UP TO THREE DAYS.

GARGLE OFTEN

WARM WATER, ANTISEPTIC,
WARM SALT WATER,
VINEGAR, LEMON,
BETADINE



Directions.

- 1. Pour BETADINE ® Gargle & Mouthwash into the cup. Dilute with an equal amount of warm water if taste is an issue.
- 2. Swish part of the solution briefly in the mouth and spit it out.
- 3. Tilt your head backwards and gargle for a total of 30 seconds via swirling the liquid at the throat.
- 4. Spit out the solution. Repeat every 2-4 hours or as directed by your physician/dentist or pharmacist.



Why is Baking Soda, Salt
and Hydrogen Peroxide
Good for Your Mouth?

It is known as the Keyes Technique.

Mechanical action
(brushing, flossing,
picking, rinsing) is
not enough to
prevent gingivitis.

Antibacterial agents
are required to kill
motile (mobile)
bacteria.

Baking soda kills
bacteria and
neutralizes acid that
causes gingivitis.

Salt acts as an
anti-inflammatory.

The foaming action of
Hydrogen Peroxide
removes bacteria
between teeth.

Get the recipe for this bacterial killing
oral rinse at naturalgingivitisremedy.com

WHAT ARE OPTIONS?



**BETADINE IS A 1-2% SOLUTION
NOT FULL STRENGTH**

[Infect Dis Ther.](#) 2015 Dec; 4(4): 491–501.

Published online 2015 Sep 28. doi: [10.1007/s40121-015-0091-9](https://doi.org/10.1007/s40121-015-0091-9)

PMCID: PMC4675768

PMID: [26416214](https://pubmed.ncbi.nlm.nih.gov/26416214/)

Rapid and Effective Virucidal Activity of Povidone-Iodine Products Against Middle East Respiratory Syndrome Coronavirus (MERS-CoV) and Modified Vaccinia Virus Ankara (MVA)

[Maren Eggers](#), [Markus Eickmann](#), and [Juergen Zorn](#)[✉]

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This article has been [cited by](#) other articles in PMC.

Associated Data

► [Supplementary Materials](#)

Abstract

[Go to:](#) ☒

Introduction

Since the first case of Middle East Respiratory Syndrome coronavirus (MERS-CoV) infection was reported in 2012, the virus has infected more than 1300 individuals in 26 countries, and caused more than 480 deaths. Human-to-human transmission requires close contact, and has typically occurred in the healthcare setting. Improved global awareness, together with improved hygiene practices in healthcare facilities, has been highlighted as key strategies in controlling the spread of MERS-CoV. This study tested the in vitro efficacy of three formulations of povidone iodine (PVP-I: 4% PVP-I skin cleanser, 7.5% PVP-I surgical scrub, and 1% PVP-I gargle/mouthwash) against a reference virus (Modified vaccinia virus Ankara, MVA) and MERS-CoV.

Methods

According to EN14476, a standard suspension test was used to assess virucidal activity against MVA and large volume plating was used for MERS-CoV. All products were tested under clean (0.3 g/L bovine serum albumin, BSA) and dirty conditions (3.0 g/L BSA + 3.0 mL/L erythrocytes), with application times of 15, 30, and 60 s for MVA, and 15 s for MERS-CoV. The products were tested undiluted, 1:10 and 1:100 diluted against MVA, and undiluted against MERS-CoV.

Results

A reduction in virus titer of $\geq 4 \log_{10}$ (corresponding to an inactivation of $\geq 99.99\%$) was regarded as evidence of virucidal activity. This was achieved versus MVA and MERS-CoV, under both clean and dirty conditions, within 15 s of application of each undiluted PVP-I product.

Conclusion

These data indicate that PVP-I-based hand wash products for potentially contaminated skin, and PVP-I gargle/mouthwash for reduction of viral load in the oral cavity and the oropharynx, may help to support hygiene measures to prevent transmission of MERS-CoV.

WE HAVE BEEN THROUGH THIS BEFORE....

[Infect Dis Ther](#). 2019 Dec;8(4):581-593. doi: 10.1007/s40121-019-00260-x. Epub 2019 Aug 14.

Infectious Disease Management and Control with Povidone Iodine.

Eggers M¹.

 **Author information**

Erratum in

Correction to: Infectious Disease Management and Control with Povidone Iodine. [Infect Dis Ther. 2019]

Abstract

With reports of vancomycin-resistant enterococci recently emerging in hospital settings, renewed focus is turning to the importance of multifaceted infection prevention efforts. Careful compliance with established hygiene practices by healthcare workers together with effective antiseptic options is essential for the protection of patients from infectious agents. For over 60 years, povidone iodine (PVP-I) formulations have been shown to limit the impact and spread of infectious diseases with potent antiviral, antibacterial and antifungal effects. In addition to a lack of reported resistance, the benefits of PVP-I include an excellent safety profile and a broad spectrum of effect due to its multimodal action. Studies have shown that hand washing with PVP-I-based antiseptics is effective for the decontamination of skin, while PVP-I mouthwashes and gargles significantly reduce viral load in the oral cavity and the oropharynx. The importance of PVP-I has been emphasised by its inclusion in the World Health Organization's list of essential medicines, and high potency for virucidal activity has been observed against viruses of significant global concern, including hepatitis A and influenza, as well as the Middle-East Respiratory Syndrome and Sudden Acute Respiratory Syndrome coronaviruses. Together with its diverse applications in antimicrobial control, broad accessibility across the globe, and outstanding safety and tolerability profile, PVP-I offers an affordable, potent, and widely available antiseptic option. Funding Mundipharma Singapore Holding Pte Limited.


KEYWORDS: Infection control; Infectious disease; Povidone iodine; Sterility; Viral outbreak

PMID: 31414403 PMCID: [PMC6856232](#) DOI: [10.1007/s40121-019-00260-x](#)

[Infect Dis Ther](#). 2018 Jun;7(2):249-259. doi: 10.1007/s40121-018-0200-7. Epub 2018 Apr 9.

In Vitro Bactericidal and Virucidal Efficacy of Povidone-Iodine Gargle/Mouthwash Against Respiratory and Oral Tract Pathogens.

Eggers M¹, Koburger-Janssen T², Eickmann M³, Zorn J⁴.

 **Author information**

Abstract

INTRODUCTION: Recent virus epidemics and rising antibiotic resistance highlight the importance of hygiene measures to prevent and control outbreaks. We investigated the in vitro bactericidal and virucidal efficacy of povidone-iodine (PVP-I) 7% gargle/mouthwash at defined dilution against oral and respiratory tract pathogens.

METHODS: PVP-I was tested against *Klebsiella pneumoniae* and *Streptococcus pneumoniae* according to bactericidal quantitative suspension test EN13727 and against severe acute respiratory syndrome and Middle East respiratory syndrome coronaviruses (SARS-CoV and MERS-CoV), rotavirus strain Wa and influenza virus A subtype H1N1 according to virucidal quantitative suspension test EN14476. PVP-I 7% gargle/mouthwash was diluted 1:30 with water to a concentration of 0.23% (the recommended concentration for "real-life" use in Japan) and tested at room temperature under clean conditions [0.3 g/l bovine serum albumin (BSA), viruses only] and dirty conditions (3.0 g/l BSA + 3.0 ml/l erythrocytes) as an interfering substance for defined contact times (minimum 15 s). Rotavirus was tested without protein load. A ≥ 5 log₁₀ (99.999%) decrease of bacteria and ≥ 4 log₁₀ (99.99%) reduction in viral titre represented effective bactericidal and virucidal activity, respectively, per European standards.

RESULTS: PVP-I gargle/mouthwash diluted 1:30 (equivalent to a concentration of 0.23% PVP-I) showed effective bactericidal activity against *Klebsiella pneumoniae* and *Streptococcus pneumoniae* and rapidly inactivated SARS-CoV, MERS-CoV, influenza virus A (H1N1) and rotavirus after 15 s of exposure.

CONCLUSION: PVP-I 7% gargle/mouthwash showed rapid bactericidal activity and virucidal efficacy in vitro at a concentration of 0.23% PVP-I and may provide a protective oropharyngeal hygiene measure for individuals at high risk of exposure to oral and respiratory pathogens.

FUNDING: Mundipharma Research GmbH & Co. KG (MRG).

WASH SURFACES

THE VIRUS CAN LIVE ON METALLIC SURFACES AND CARDBOARD AND PLASTIC FOR UP TO 9 DAYS. CLEAN WHAT YOU BRING HOME

WATCH THIS ONE: (CLINIC ON LINK IN FULL SCREEN MODE OR COPY IN YOUR BROWSER)

[HTTPS://YOUTU.BE/SJDUWC9KBPS](https://youtu.be/SJDUWC9KBPS)



WASH YOUR HANDS FREQUENTLY

ANY SOAP THAT BUBBLES OR FOAMS IS GOOD. THE SHELVES ARE BARE I GET IT.

THINK
HANDRAILS,
DOOR HANDLES,
SHOPPING CARTS,
FOOD

DISINFECT

DISINFECT

DISINFECT

SOAP AND WATER OR HAND
DISINFECTION WORKS



“On copper and steel, it’s pretty typical, it’s pretty much about two hours,” Redfield said at a House hearing. “But I will say on other surfaces — cardboard or plastic — it’s longer, and so we are looking at this.”

WASH YOUR HANDS

ANY SOAP THAT FOAMS WORKS
PURELL AND THE LIKE ARE GOOD
BUT FREQUENT HAND WASHING
WORKS AS WELL TO REDUCE
RISK



- Wash hands frequently with soap and water for at least 20 seconds at a time.
- Avoid touching your eyes, nose and mouth with unwashed hands.
- Avoid close contact with people who are ill.
- Cover your mouth and nose with a tissue when you cough or sneeze.
- Do not reuse tissue after coughing, sneezing or blowing your nose.
- Clean and disinfect surfaces that are frequently touched.

No. Hand dryers are not effective in killing the 2019-nCoV.

To protect yourself against the new coronavirus, you should frequently clean your hands with an alcohol-based hand rub or wash them with soap and water. Once your hands are cleaned, you should dry them thoroughly by using paper towels or a warm air dryer.

Are hand dryers effective in killing the new coronavirus?



EAT AND SLEEP TO BE HEALTHY

VITAMIN D, ZINC AND C ARE GOOD STUFF

THE PRESCRIBED DOSES DEBATABLE AT THIS POINT BUT MAKE
SURE YOU HAVE YOUR DAILY REQUIREMENTS

People of all ages can be infected by the new coronavirus (nCoV-2019).

Older people, and people with pre-existing medical conditions (such as asthma, diabetes, heart disease) appear to be more vulnerable to becoming severely ill with the virus.

WHO advise people of all age to take steps to protect themselves from the virus, for example by following good hand hygiene and good respiratory hygiene.



#Coronavirus

Does the new coronavirus affect older people, or are younger people also susceptible?



DON'T SMOKE, VAPE, SMOKE POT

THESE CAN COMPROMISE YOUR LUNGS AND THOSE ARE THE
PEOPLE WHO AREN'T DOING WELL

No. There is no evidence that regularly rinsing the nose with saline has protected people from infection with the new coronavirus.

There is some limited evidence that regularly rinsing the nose with saline can help people recover more quickly from the common cold. However, regularly rinsing the nose has not been shown to prevent respiratory infections.

Can regularly rinsing your nose with saline help prevent infection with the new coronavirus?



WHAT ABOUT MY EYES?



[HTTPS://WWW.AAO.ORG/EYE-HEALTH/TIPS-PREVENTION/CORONAVIRUS-COVID19-EYE-INFECTION-PINKEYE](https://www.aao.org/eye-health/tips-prevention/coronavirus-covid19-eye-infection-pink-eye)

CLICK ON THE LINK FROM THE AMERICAN ACADEMY OF OPHTHALMOLOGY

ASTHMA, IMMUNOCOMPROMISED, OLDER PATIENTS

Between February 20, 2020, and March 5, 2020, 21 patients (52% male) aged 43 to 92 years with COVID-19 at Evergreen Hospital -- a public hospital with 20 intensive care unit (ICU) beds serving approximately 850,000 residents in Washington State. Of the patients, 86% had comorbidities, the most common being chronic kidney disease (47.6%), congestive heart failure (42.9%), chronic obstructive pulmonary disease (33.3%), and diabetes (33.3%).

When patients presented to the hospital, the most common initial symptoms included shortness of breath (76%), fever (52%), and cough (48%). The mean onset of symptoms prior to presenting to the hospital was 3.5 days, and 17 patients (81%) were admitted to the ICU less than 24 hours after hospital admission. Two patients were co-infected with other respiratory illnesses (influenza A and parainfluenza type 3).

STAY HOME

PLEASE STAY HOME

WHAT ABOUT MASK?

BASIC SURGICAL MASKS PROTECT YOU FROM ME BUT ONLY TIGHTLY FIT N95 MASKS CAN HELP THE COVID-19 HIGH RISK ENCOUNTER

WHAT A MASK DOES WELL IS KEEP YOU FROM TOUCHING YOUR HANDS TO YOUR FACE WHICH IS A GOOD THING. ONLY HEALTHCARE WORKERS NEED N95 MASKS FOR TREATING ACTIVELY INFECTED PATIENTS. THEY CAN BE WASHED AND REUSED.



WHEN SHOULD I WEAR A MASK?

Last night the message from the White House was wear a mask when you are in an exposed environment (think grocery store, etc). Microdroplet transmission from asymptomatic people is real!
The previous report from WHO is an older recommendations

AGAIN A MASK DOESN'T PROTECT ME FROM YOU BUT YOU FROM ME. I AGREE HEALTH CARE WORKERS ON THE FRONT-LINE NEED N95 MASKS SO DON'T MAKE A RUN ON THOSE OR SURGICAL MASKS AT THIS POINT. HOWEVER EVEN A CLOTH BANDANA HELPS YOU (WHEN YOU COUGH OR SNEEZE OR LOUD TALK)FROM SPREADING INFECTION. THIS IS DISCUSSED IN DETAIL IN THE NEXT TWO SLIDES.

MICRODROPLET TRANSMISSION IS A
REAL ISSUE WITH LOUD
CONVERSATIONS, COUGHING, AND
SNEEZING

THESE VIDEOS I WARN YOU ARE GROSS
BUT GET THE POINT ACROSS

JAPAN DR. TATEDA

<https://www.youtube.com/watch?v=UASi5OUv9Pg>

<https://www.youtube.com/watch?v=H2azcn7MqOU>

JAMA REASON FOR SOCIAL DISTANCING

<https://www.youtube.com/watch?v=piCWFgwysuO>

How it impacts the body

Dr Peter Horby, Professor of Oxford University said: "The COVID -19 virus can spread much faster through the population than viruses which circulate all the time because we have no immunity". Dr Helena Maier, from the Pirbright Institute, said: 'Coronaviruses are a family of viruses that infect a wide range of different species including humans, cattle, pigs, chickens, dogs, cats and wild animals. A study by the Wuhan Institute of Virology, published in February 2020 in the scientific journal Nature, found that the genetic make-up virus samples found in patients in China is 96 percent identical to a corona virus they found in bats.

Professor Kazuhiro Tateda, Microbiology expert at Toho University in Tokyo says that Covid -19 virus transmission happens during a conversation between two or more people. This transmission mechanism can be called micro-droplet infection. People generate a lot of micro droplets which carry many viruses. We produce them when we talk loudly. People around us inhale them and that is how the virus spreads. That is the reason to maintain a safe distance. Inhaling droplets emitted through sneezing and coughing is one of the transmission routes of viruses.

Once the virus enters the body, it binds to cells in the lungs – goblet cells that produce mucus and cilia cells which have hairs on them and normally prevents lungs from filling up with debris and fluid such as virus and bacteria and particles of dust and pollen. The virus attacks these cells and starts to kill them – so the lungs begin to fill with fluid making it hard to breathe. This phase of the disease is thought to last about a week.



HOW TO MAKE YOUR OWN!
I LOVE DR. ADAMS OUR SURGEON GENERAL

<https://www.youtube.com/watch?v=tPx1yqvJgf4>

IF YOU GET A FEVER. DON'T USE ADVILL OR IBUPROFEN. PARACETAMOL OR ACETAMINOPHEN ARE BETTER. ASPIRIN APPEARS OK AS WELL.

Covid-19: ibuprofen should not be used for managing symptoms, say doctors and scientists

BMJ 2020 ; 368 doi: <https://doi.org/10.1136/bmj.m1086> (Published 17 March 2020)

Cite this as: BMJ 2020;368:m1086

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Michael Day

[Author affiliations](#) ▼

Scientists and senior doctors have backed claims by France's health minister that people showing symptoms of covid-19 should use paracetamol (acetaminophen) rather than ibuprofen, a drug they said might exacerbate the condition.

The minister, Oliver Veran, tweeted on Saturday 14 March that people with suspected covid-19 should avoid anti-inflammatory drugs. "Taking anti-inflammatory drugs (ibuprofen, cortisone . . .) could be an aggravating factor for the infection. If you have a fever, take paracetamol," he said.

His comments seem to have stemmed in part from remarks attributed to an infectious diseases doctor in south west France. She was reported to have cited four cases of young patients with covid-19 and no underlying health problems who went on to develop serious symptoms after using non-steroidal anti-inflammatory drugs (NSAIDs) in the early stage of their symptoms. The hospital posted a comment saying that public discussion of individual cases was inappropriate.

HEALTH CARE WORKERS MUST KNOW

N95 MASKS

BETADINE NASAL SWABS

SHOWERS

THE LINK IS TO AN ICU PHYSICIAN ON THE FRONT
LINE OF THE RESPONSE IN NEW YORK CITY.
GOOD ADVICE FROM THE ACTUAL EPICENTER OF
THE USA: (CLICK ON THE LINK OR PASTE IT IN
YOUR URL)

<https://www.youtube.com/watch?v=WxyH1rkuLaw>

KEY POINTS

- WHO is considering “airborne precautions” for medical staff after a new study showed the coronavirus can survive in the air in some settings.
- The coronavirus can go airborne, staying suspended in the air depending on factors such as heat and humidity, WHO officials said.



PETS CAN BE
CARRY THE
DISEASE BUT
DON'T
TRANSMIT IT
ACCORDING TO
THE RESEARCH
SO FAR

When you leave the TV on
for your dog, on a news
channel, and come home
8 hours later...



HOWEVER
MANY OF YOU
SAW THIS
ONE TODAY.

WHAT THE JIST OF THE STORY IS
AN ASYMPTOMATIC WORKER IS
THOUGHT TO HAVE INFECTED THE
TIGERS AND NOT VICE VERSA.
HOWEVER, THEY HAVE SEEN
OTHER TIGERS IN THE CAGE WITH
SIMILAR SYMPTOMS BUT THOSE
ANIMALS WERE NOT TESTED. THE
TIGER IS DOING WELL AND ALL
WORKERS ARE WEARING MASKS.

Mail LTE 07:43 95%
< THE WALL STREET JOURNAL. A A

NEW YORK

Tiger at Bronx Zoo Tests Positive for Coronavirus

Chief veterinarian says 4-year-old
Nadia is thought to have caught
the novel coronavirus from
caretaker



Nadia, a 4-year-old female Malayan
tiger at the Bronx Zoo, was confirmed

NEXT →

AVOID FLU IT IS STILL OUT THERE. ALSO
OUT THERE IS ALLERGY SEASON



I heard something about Melatonin. Is that true?

[Ital J Pediatr.](#) 2013; 39: 61.

Published online 2013 Oct 3. doi: [10.1186/1824-7288-39-61](#)

PMCID: PMC3850896

PMID: [24090288](#)

Melatonin: its possible role in the management of viral infections-a brief review

[Michela Silvestri](#)¹ and [Giovanni A Ross](#)^{✉1}

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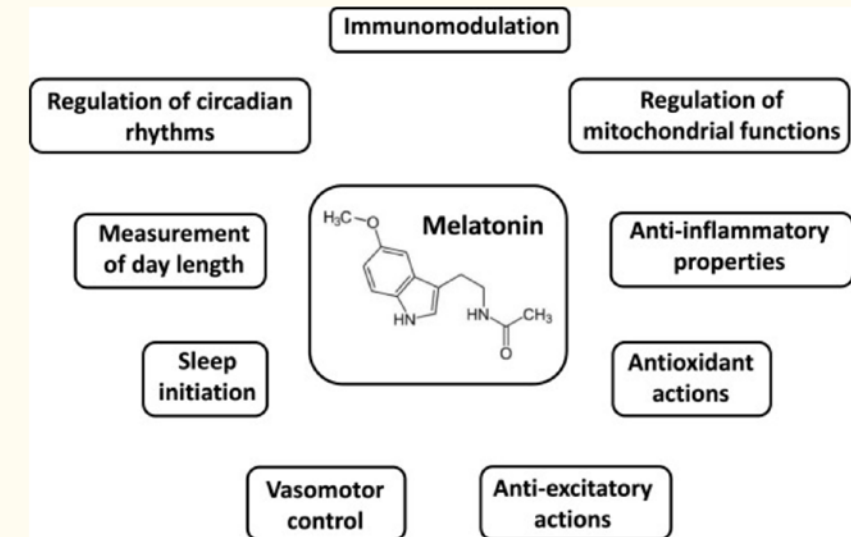
This article has been [cited by](#) other articles in PMC.

Abstract

[Go to:](#) 

Melatonin, a versatile molecule, is synthesized by the pineal gland but also by other organs, including gastrointestinal tract, retina, thymus, bone marrow, and by leukocytes. Besides playing an important role in various functions of the body, including sleep and circadian rhythm regulation, melatonin also shows immunoregulatory, free radical scavenger and antioxidant functions. Because of these latter characteristics melatonin has also been found to be effective in fighting viral infections in a variety of experimental animal and *in vitro* studies. These data suggest a possible therapeutic potential of melatonin in human virus-induced disorders.

Keywords: Antioxidant, Inflammation, Encephalitis viruses, Respiratory syncytial virus



[Figure 1](#)

Main melatonin functions.

It **DOES NOT**
KILL the virus
but 1-5 mg at
bedtime helps
your response.



Melatonin is well known for its chronobiotic effects, regulating biological functions tied to circadian rhythms. Numerous studies have revealed that melatonin exerts effects beyond the control of circadian oscillators. The NLRP3 inflammasome is now recognized as a target for melatonin!

The fact that the pro-inflammatory cytokine storm effects are induced by the activation of NLRP3 inflammasomes, the ability of melatonin to INHIBIT NLRP3 inflammasome elevates this powerful molecule to a truly unique position in the fight against COVID-19. This also means that if a patient, regardless of age, has adequate melatonin, the infectiousness of COVID-19 will be greatly reduced, and the chances of developing ARDS/ALI significantly diminished.

Melatonin is the reason why children under the age of 9 seldom exhibit severe symptoms. In fact, children may exhibit mild or even no symptoms at all, even though they have been infected by SARS-CoV-2 [73]. How significant is the difference in melatonin production between children, adults and the elderly?

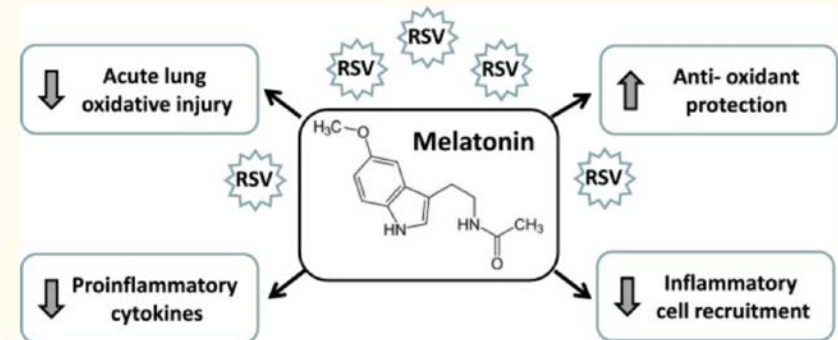


Figure 2

Melatonin in experimental Respiratory Syncytial Virus infection.

OTHER OPTIONS: PLAQUENIL ZITHROMAX

Abstract

Background

Chloroquine and hydroxychloroquine have been found to be efficient on SARS-CoV-2, and reported to be efficient in Chinese COV-19 patients. We evaluate the role of hydroxychloroquine on respiratory viral loads.

Patients and methods

French Confirmed COVID-19 patients were included in a single arm protocol from early March to March 16th, to receive 600mg of hydroxychloroquine daily and their viral load in nasopharyngeal swabs was tested daily in a hospital setting. Depending on their clinical presentation, azithromycin was added to the treatment. Untreated patients from another center and cases refusing the protocol were included as negative controls. Presence and absence of virus at Day6-post inclusion was considered the end point.

Results

Six patients were asymptomatic, 22 had upper respiratory tract infection symptoms and eight had lower respiratory tract infection symptoms.

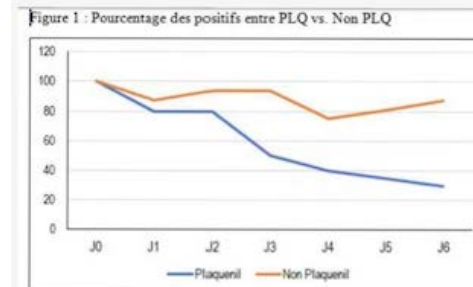
Twenty cases were treated in this study and showed a significant reduction of the viral carriage at D6-post inclusion compared to controls, and much lower average carrying duration than reported of untreated patients in the literature. Azithromycin added to hydroxychloroquine was significantly more efficient for virus elimination.

Hydroxychloroquine and azithromycin as a treatment of COVID-19: results of an open-label non-randomized clinical trial

Philippe Gautret^{a,b,§}, Jean-Christophe Lagier^{a,c,§}, Philippe Parola^{a,b}, Van Thuan Hoang^{a,b,d}, Line Meddeb^a, Morgane Mailhe^a, Barbara Doudier^a, Johan Courjon^{e,f,g}, Valérie Giordanengo^h, Vera Esteves Vieira^a, Hervé Tissot Dupont^{a,c}, Stéphane Honoré^{i,j}, Philippe Colson^{a,c}, Eric Chabrière^{a,c}, Bernard La Scola^{a,c}, Jean-Marc Rolain^{a,c}, Philippe Brouqui^{a,c}, Didier Raoult^{a,c*}.

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Despite its small sample size our survey shows that hydroxychloroquine treatment is significantly associated with viral load reduction/disappearance in COVID-19 patients and its effect is reinforced by azithromycin.



ANOTHER REPORT SUPPORTING THIS COMBINATION IN PROPHYLAXIS AND EARLY MANAGEMENT

Clinical and microbiological effect of a combination of hydroxychloroquine and azithromycin in 80 COVID-19 patients with at least a six-day follow up: an observational study

Running title: Hydroxychloroquine-Azithromycin and COVID-19

Philippe Gautret^{1,2,£}, Jean-Christophe Lagier^{1,3,\$}, Philippe Parola^{1,2}, Van Thuan Hoang^{1,2,4}, Line Meddeb¹, Jacques Sevestre¹, Morgane Mailhe¹, Barbara Doudier¹, Camille Aubry¹, Sophie Amrane¹, Piseth Seng¹, Marie Hocquart¹, Julie Finance⁵, Vera Esteves Vieira¹, Hervé Tissot Dupont^{1,3}, Stéphane Honoré^{6,7}, Andreas Stein^{1,3}, Matthieu Million^{1,3}, Philippe Colson^{1,3}, Bernard La Scola^{1,3}, Véronique Veit⁸, Alexis Jacquier⁹, Jean-Claude Deharo¹⁰, Michel Drancourt^{1,3}, Pierre Edouard Fournier^{1,2}, Jean-Marc Rolain^{1,3}, Philippe Brouqui^{1,3}, Didier Raoult^{1,3*}.

In conclusion, we confirm the efficacy of hydroxychloroquine associated with azithromycin in the treatment of COVID-19 and its potential effectiveness in the early impairment of contagiousness. Given the urgent therapeutic need to manage this disease with effective and

IF YOU GET A
SORE THROAT
OR THINK YOU
HAVE A FEVER

REPEAT ABOVE

CHECK YOUR TEMPERATURE
FREQUENTLY

ISOLATE

GET TESTED IF THAT IS AN OPTION

IF YOU FIND YOURSELF SHORT OF
BREATH GO TO THE HOSPITAL OR
CALL 911

Lost sense of smell as marker of COVID-19 infection

There has been a rapidly growing number of reports of a significant increase in patients with COVID-19 infection presenting with loss of smell in the absence of other symptoms. Evidence from South Korea, China and Italy suggests that significant numbers of patients with COVID-19 have developed anosmia/hyposmia. In Germany, it is reported that more than two thirds of cases have anosmia. In South Korea, where testing has been more widespread, 30% of patients testing positive have had anosmia as their major presenting symptom in otherwise mild cases.

Rapid and Effective Virucidal Activity of Povidone-Iodine Products Against Middle East Respiratory Syndrome Coronavirus (MERS-CoV) and Modified Vaccinia Virus Ankara (MVA)

Maren Eggers, Markus Eickmann, and
Juergen Zorn

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[Maren Eggers](#), [Markus Eickmann](#), and [Juergen Zorn](#)[✉]

Labor Prof. Gisela Enders MVZ GbR and the
Institute of Virology, Infectious Diseases and
Epidemiology e.V., Stuttgart, Germany
Institute for Virology, Philipps University of Marburg,
Marburg, Germany
Mundipharma Research GmbH & Co.KG, Limburg,

WHO GETS TESTED? WHERE?

PATIENTS IN CATEGORIES 1-6 SHOULD BE TESTED THROUGH THE MASSACHUSETTS STATE PUBLIC HEALTH LABORATORY		
EPIDEMIOLOGIC OR OCCUPATIONAL RISK ¹		CLINICAL FEATURES ²
CATEGORY 1 Healthcare providers and EMTs who have worked in direct clinical care while symptomatic	AND	Fever <u>or</u> signs/symptoms of respiratory illness <ul style="list-style-type: none"> even mild signs and symptoms (e.g., sore throat) of COVID-19 should be evaluated among potentially exposed healthcare personnel. Influenza should be ruled out prior to testing for COVID-19
CATEGORY 2 Close contacts of confirmed COVID-19 cases who were present in congregate settings (example: school) while symptomatic AND who had close contact with numerous others <ul style="list-style-type: none"> Being in a public setting while symptomatic but without prolonged close contact to others does NOT meet this criteria 	AND	Fever <u>or</u> signs/symptoms of lower respiratory illness (e.g. cough, shortness of breath) <ul style="list-style-type: none"> Influenza should be ruled out prior to testing for COVID-19
CATEGORY 3 Hospitalized patients with fever and <u>severe</u> acute lower respiratory illness (e.g., pneumonia, ARDS) requiring hospitalization and without alternative explanation (negative results on a respiratory viral panel, other infectious disease testing as appropriate). A compatible exposure history (travel or contact with a confirmed case) is not required.		Clinical features that may increase suspicion of COVID-19 include: <ul style="list-style-type: none"> infiltrative process on chest x-ray (e.g., bilateral infiltrates consistent with viral pneumonitis). bilateral ground-glass opacities on chest CT unexplained lymphocytopenia or thrombocytopenia
CATEGORY 4 Clusters of acute respiratory illness in congregate settings (e.g., Long-term care facilities, shelters, prisons)		3 or more individuals with fever and signs/symptoms of a lower respiratory illness (e.g., cough, shortness of breath, pneumonia) <ul style="list-style-type: none"> Minimally, influenza should be ruled out prior to testing for COVID-19 Negative results from a respiratory viral panel are preferred
CATEGORY 5 Close contacts of confirmed COVID-19 cases who were NOT present in congregate settings (example: school) while symptomatic AND close contacts are largely restricted to household members	AND	Fever and signs/symptoms of a lower respiratory illness (e.g., cough, shortness of breath, pneumonia) <ul style="list-style-type: none"> Minimally, influenza should be ruled out prior to testing for COVID-19 Negative results from a respiratory viral panel are preferred
CATEGORY 6 People with a history of travel from an international geographic area designated for Level 3 travel restrictions within 14 days of symptom onset. For current locations: https://wwwnc.cdc.gov/travel/notices		Fever and signs/symptoms of a lower respiratory illness (e.g., cough, shortness of breath, pneumonia) AND hospitalization not required <ul style="list-style-type: none"> Minimally, influenza should be ruled out prior to testing for COVID-19 Negative results from a respiratory viral panel are preferred

PATIENTS IN CATEGORIES 7 AND 8 SHOULD BE TESTED THROUGH COMMERCIAL LABORATORIES AND SPECIMENS SHOULD <u>NOT</u> BE SENT TO THE MASSACHUSETTS STATE PUBLIC HEALTH LABORATORY		
CATEGORY 7 People with a history of travel from an international geographic area designated for Level 3 travel restrictions OR to a location within the United States that has known community transmission within 14 days of symptom onset For current locations with Level 3 travel restrictions: https://wwwnc.cdc.gov/travel/notices Locations within the United States with known community transmission as of March 12, 2020 include: Seattle/King County Washington, Westchester County, New York, and Solano County, California		Fever OR mild to moderate respiratory illness NOT meeting the criteria listed above
CATEGORY 8 Other symptomatic individuals for whom knowledge of COVID-19 infection is medically indicated including older individuals and those with co-morbidities		Fever OR mild to moderate respiratory illness

¹Close contact is defined as:

- a) being within approximately 6 feet (2 meters) of a COVID-19 case for a prolonged period of time; close contact can occur while caring for, living with, visiting, or sharing a healthcare waiting area or room with a COVID-19 case
- or –
- b) having direct contact with infectious secretions of a COVID-19 case (e.g., being coughed on) while not wearing recommended personal protective equipment or PPE (e.g., gowns, gloves, NIOSH-certified disposable N95 respirator, eye protection).

²Fever may be subjective or confirmed



Early Findings

An abnormal chest radiograph was observed in 20 (95%) patients at admission. The most common findings on initial radiograph were bilateral reticulonodular opacities (52%) and ground-glass opacities (48%). The mean white blood cell count was 9,365 μ L at admission and 14 patients (67%) had a white blood cell count in the normal range. Fourteen (67%) patients had an absolute lymphocyte count of <1000 cells/ μ L.

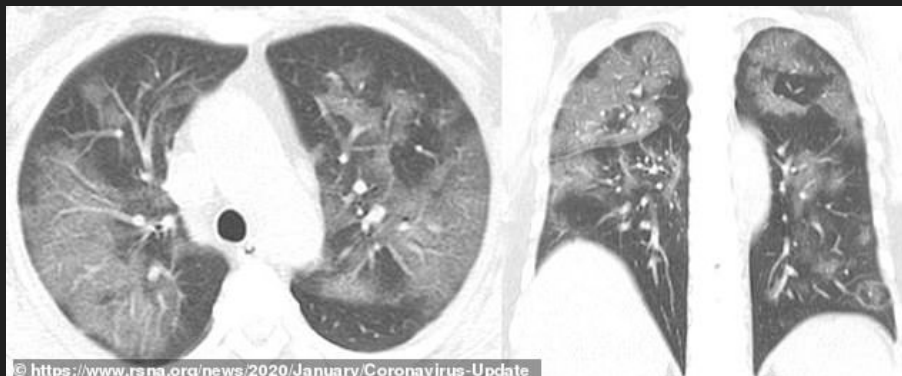
Mechanical ventilation was initiated in 15 (71%) patients. Acute respiratory distress syndrome (ARDS) was observed in all patients requiring mechanical ventilation. By 72 hours, 8 of the 15 (53%) patients developed severe ARDS. Cardiomyopathy developed in 7 (33%) patients.

As of March 17, 2020, 11 patients died, 2 survived to transfer out of the ICU, and 8 remain critically ill and require mechanical ventilation.

Age Group	Percent of Cases	Percent of Deaths
<19	2%	0%
20-29	8%	0%
30-39	13%	0%
40-49	14%	3%
50-59	16%	5%
60-69	16%	8%
70-79	15%	26%
80+	16%	59%

New Jersey

As of March 20, 2 p.m, the New Jersey department of Health has [reported](#) 890 cases and 11 deaths of COVID-19.



FINALLY SOME GOOD NEWS!

ONE OF MY FRIEND'S RELATIVES HAD
TAKEN A TURN FOR THE WORSE AND
HAD TO BE INTUBATED. HE IS DOING
BETTER AFTER BEING ENROLLED IN
THE ACTEMRA TRIALS. HE IS IN HIS 40'S
WHICH I CONSIDER YOUNG.

ANOTHER GOOD PODCAST WITH GOOD
NEWS:

<https://eyetube.net/series/covid-19/ljxop>

Roche has announced that the US Food and Drug Administration (FDA) has formally approved its phase 3 trial of Actemra in severely ill COVID-19 patients, who have been hospitalised with pneumonia.

Actemra (tocilizumab) – an interleukin-6 inhibitor – has already been approved in China for the treatment of patients infected with the [novel coronavirus disease](#), who have developed serious lung damage and also have elevated levels of IL-6 in the blood.

Previous research has suggested that elevated IL-6 – a biomarker for inflammation and a high-level immune response – is associated with a higher mortality in people with community-acquired pneumonia.

The investigation of Actemra's use in COVID-19 is based on the hope that the drug could interrupt the process of 'cytokine release syndrome' (CRS), a form of serious inflammatory response that can occur as a complication of some infections.

It was first cleared by the FDA as a [treatment](#) for rheumatoid arthritis and has also subsequently been approved in juvenile idiopathic arthritis, giant cell arteritis and CRS associated with CAR-T cell therapies for cancer.

Roche had announced its intent to collaborate on a trial evaluating the drug in COVID-19 patients with the US Biomedical Advanced Research and Development Authority (BARDA) earlier this month.

The company has also committed to providing 10,000 vials of Actemra to the US Strategic National Stockpile for potential future use, and has also indicated that it has been working with distributors to manage product supply.

"We thank the FDA for rapidly expediting the approval of this clinical trial to evaluate Actemra in critically ill patients suffering from pneumonia following coronavirus infection and we're moving forward to enrol as quickly as possible," said Alexander Hardy, chief executive officer of Roche's Genentech unit.

The trial – named COVACTA – will recruit around 330 patients around the world, with an expected start date sometime in early April.

The primary and secondary endpoints will include assessing clinical status, mortality, mechanical ventilation and intensive care unit variables in the patient population.

Despite a number of clinical trials evaluating Actemra already ongoing across the world, Genentech has maintained that the COVACTA study is pivotal because there are still no well-controlled studies and limited published evidence on the safety or efficacy of the drug in COVID-19.

Sanofi and Regeneron have also [initiated](#) a trial evaluating their own IL-6 inhibitor Kevzara (sarilumab) in the same indication – severely-ill COVID-19 patients who have been hospitalised.

USING THE ANTIBODIES OF THOSE THAT HAVE RECOVERED FROM COVID-19

Patients who have been infected with the [coronavirus](#) and have recovered could be key to fighting the disease. One potential treatment uses the antibodies built up in the blood of patients who have survived the illness.

This past weekend, Dr. Eric Salazar supervised a treatment at [Houston Methodist Hospital](#) he hopes will become the first proven therapy against COVID-19.

Here's how it works: Blood taken from recovered patients contains antibodies that can attack the virus. Dr. Salazar and his team transfused plasma – the part of blood containing those antibodies – into two critically-ill patients.

One potential treatment being studied uses blood plasma collected from coronavirus survivors, whom one doctor credits as "incredibly generous people." **CBS NEWS**

Dr. Salazar told CBS News chief medical correspondent Dr. Jon LaPook he is monitoring patients very closely to see if the transfusion works.

Dr. LaPook asked, "Have you discussed a goal for how many people you'd like to be able to treat a day using this method?"

"As many as possible," he replied.

Such transfusions may have helped a small number of patients in China, but much more study is needed.



THE LATEST ON TESTING



ABBOTT RECEIVES FDA EMERGENCY USE AUTHORIZATION AND LAUNCHES TEST TO DETECT NOVEL CORONAVIRUS

- The test will be used on the company's m2000 RealTime system that is currently available in hospitals and molecular laboratories in the U.S.
- Abbott shipping 150,000 laboratory tests immediately; tests already sent to hospital and academic medical center labs in 18 states including Illinois, California, New York, Massachusetts and Washington
- Company scaling up production at its U.S. manufacturing location to reach capacity for 1 million tests per week by end of March



 [Photos \(2\)](#)

ABBOTT PARK, Ill., March 18, 2020 /PRNewswire/ -- Abbott (NYSE: ABT) announced today that the U.S. Food and Drug Administration has issued Emergency Use Authorization (EUA) for the company's molecular test for novel coronavirus (COVID-19). Abbott is immediately shipping [150,000 Abbott RealTime m e SARS-CoV-2 EUA tests](#) to existing customers in the U.S. The tests are used on the company's *m 2000*™ RealTime System. Abbott will be working with health systems and government authorities to deploy additional *m 2000* systems where they are needed.

"A global challenge like coronavirus requires the commitment and cooperation of everyone who has the ability to help address it," said Miles D. White, chairman and chief executive officer, Abbott. "I'm proud of the Abbott team and what they've accomplished in such a short period of time, and I want to thank the Administration and the FDA for their partnership in making this happen."

Accelerating testing to help combat the pandemic

As a leader in diagnostics testing, Abbott is working to do its part to combat this global pandemic. Across the U.S., more than 175 *m 2000* systems are used in hospital and reference laboratories. The systems have the ability to run high volumes of up to 470 tests in 24 hours, helping to meet the increasing demand for testing. Many of these instruments are used in university and community hospitals where patients come for care, resulting in testing that happens closer to the patient rather than sending it to an offsite lab. Abbott is immediately distributing 150,000 tests and will continue ramping up production to the highest levels possible, with the goal of providing up to 1 million tests per week. Abbott is manufacturing these tests in the U.S.

BE SAFE
BE SMART
PROTECT THOSE
YOU LOVE

THANK YOU

WATCH OUT FOR FORTUNE
COOKIES THIS WAS MINE LAST
WEEK.

