



0878 0878 3474

SILAHKAN BERTANYA MELALUI
NOMOR TERSEBUT

PASTI AKAN DIBALAS



PRAKTEK DRG

PASCA COVID-19

Tips & Tricks

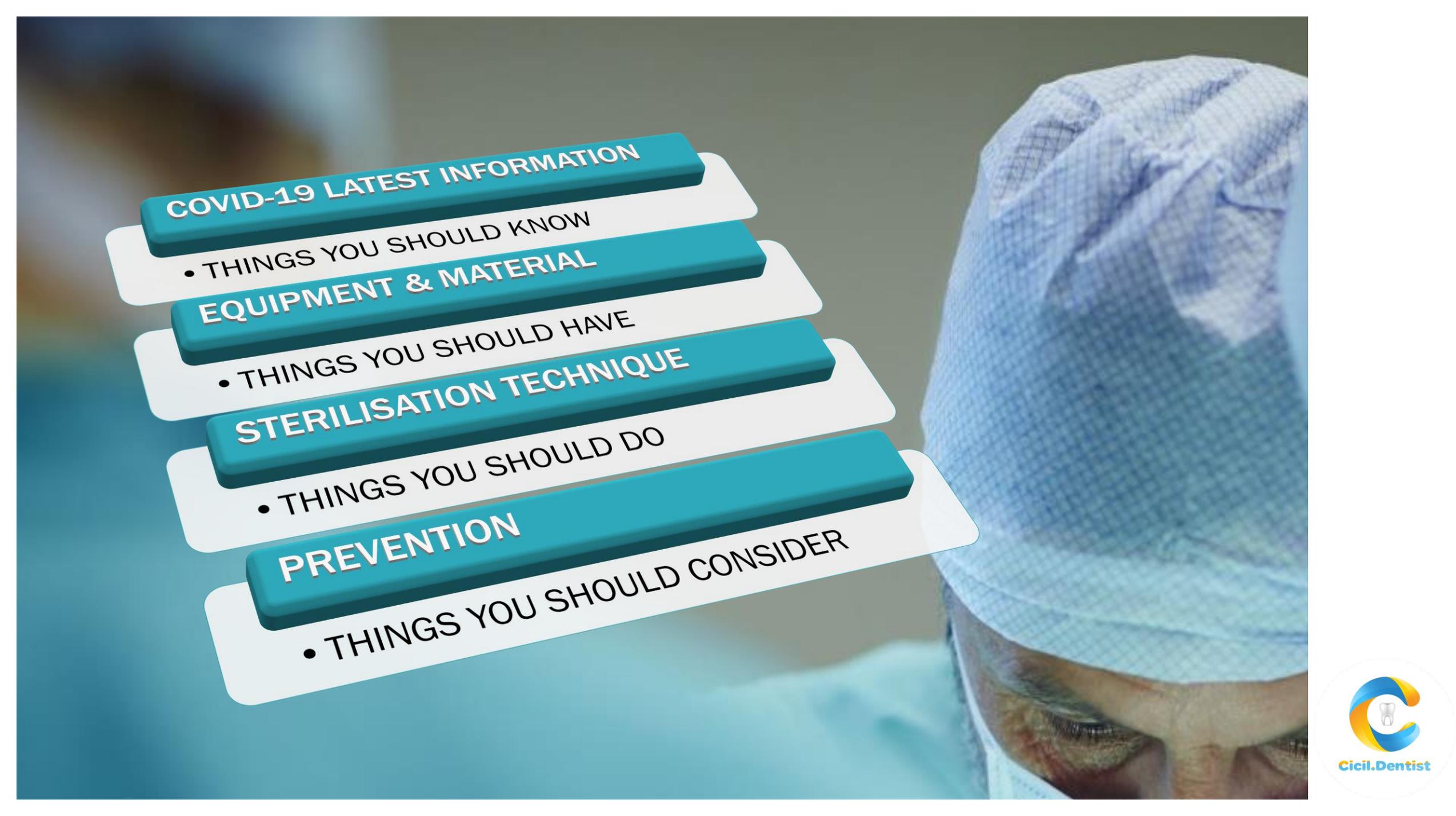
JECK SIAHAJA, DRG, SP PROS





“PENDAPAT TANPA DISERTAI BUKTI **PENELITIAN ILMIAH**
(STUDI PUSTAKA /PENELITIAN MANDIRI),
DAPAT BERAKIBAT MENJADI **HOAX** ATAU **SALAH ARAH.**”

Alm. drg. Chaidar Masulili, Sp Pros(K)



COVID-19 LATEST INFORMATION

- THINGS YOU SHOULD KNOW

EQUIPMENT & MATERIAL

- THINGS YOU SHOULD HAVE

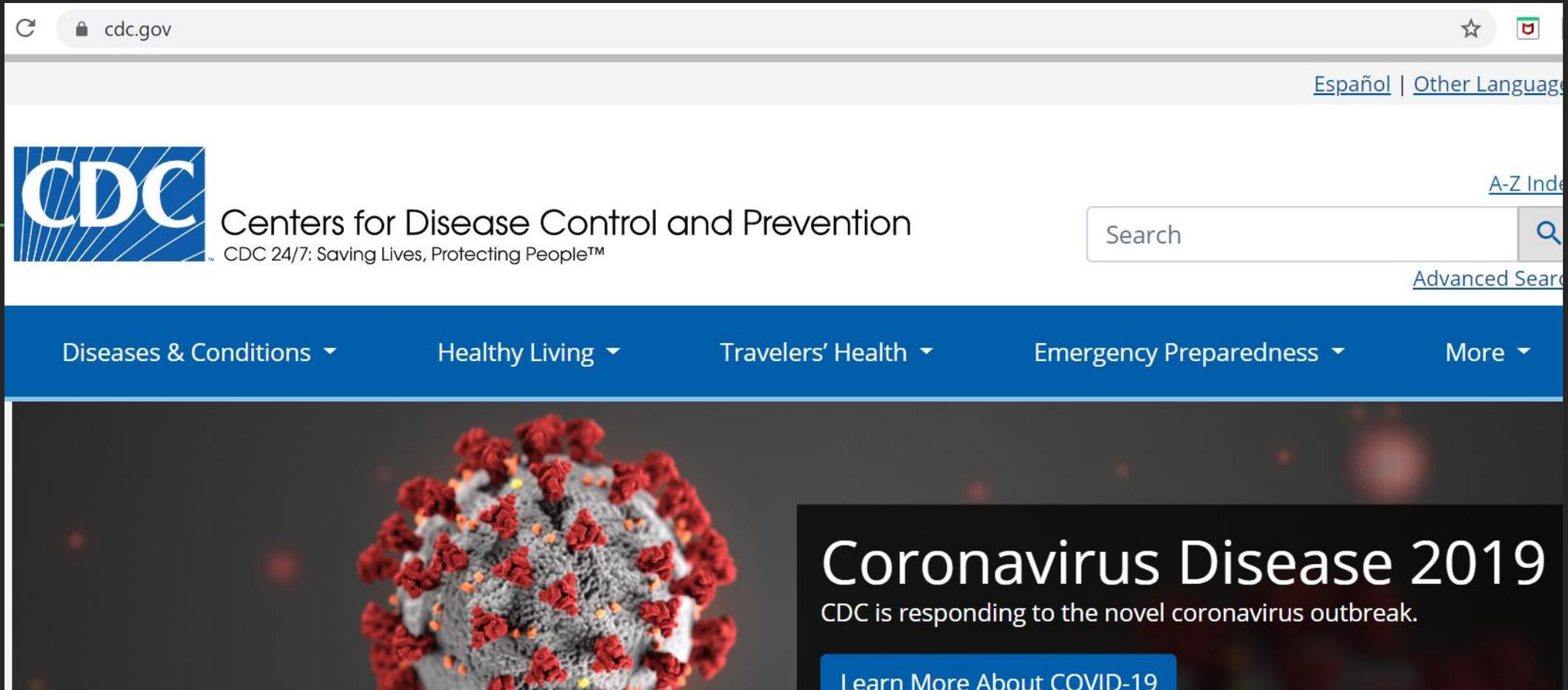
STERILISATION TECHNIQUE

- THINGS YOU SHOULD DO

PREVENTION

- THINGS YOU SHOULD CONSIDER

SUMBER DATA



The image is a screenshot of the CDC website. At the top, the browser address bar shows 'cdc.gov'. The CDC logo is on the left, with the text 'Centers for Disease Control and Prevention' and 'CDC 24/7: Saving Lives, Protecting People™'. To the right is a search bar with the word 'Search' and a magnifying glass icon. Below the search bar is a navigation menu with items: 'Diseases & Conditions', 'Healthy Living', 'Travelers' Health', 'Emergency Preparedness', and 'More'. A large banner for 'Coronavirus Disease 2019' is visible, featuring a 3D model of the virus. The text in the banner reads: 'Coronavirus Disease 2019', 'CDC is responding to the novel coronavirus outbreak.', and a button that says 'Learn More About COVID-19'.

[WWW.CDC.GOV](http://www.cdc.gov)

SUMBER DATA

The National Personal Protective Technology Laboratory (NPPTL)

NIOSH



Promoting productive workplaces through safety and health research 

Updated May 8, 2020



**NATIONAL PERSONAL PROTECTIVE TECHNOLOGY LABORATORY
(NPPTL)**

SUMBER DATA



The screenshot shows the top navigation bar of the LIPI website. On the left is the LIPI logo and the text 'LEMBAGA ILMU PENGETAHUAN INDONESIA' and 'INDONESIAN INSTITUTE OF SCIENCES'. To the right are language options 'BAHASA' and 'ENGLISH', and links for 'LOGIN INTRA' and 'KONTAK'. Further right are social media icons for Facebook, Twitter, Instagram, YouTube, and LinkedIn. Below this is a horizontal menu with a home icon and links for 'TENTANG LIPI', 'KEDEPUTIAN', 'LAYANAN', 'INFORMASI PUBLIK', 'PRODUK HUKUM', and 'DIREKTORI ILMIAH'.

Berita Terkait

LIPI KEMBANGKAN SISTEM REPOSITORI DAN DEPOSITORI ILMIAH UNTUK PERKUAT ASET PENGETAHUAN NASIONAL

MEREKA YANG TERDAMPAR DI LAUT KITA

LIPI HADIRKAN DIGITAL CREATIVE & CO-WORKING SPACE UNTUK PELAKU EKONOMI KREATIF BANDUNG

LIPI AJAK MASYARAKAT JEMBER GUNAKAN POH

PENGUATAN EKOSISTEM INOVASI MELALUI TRIPLE HELIX

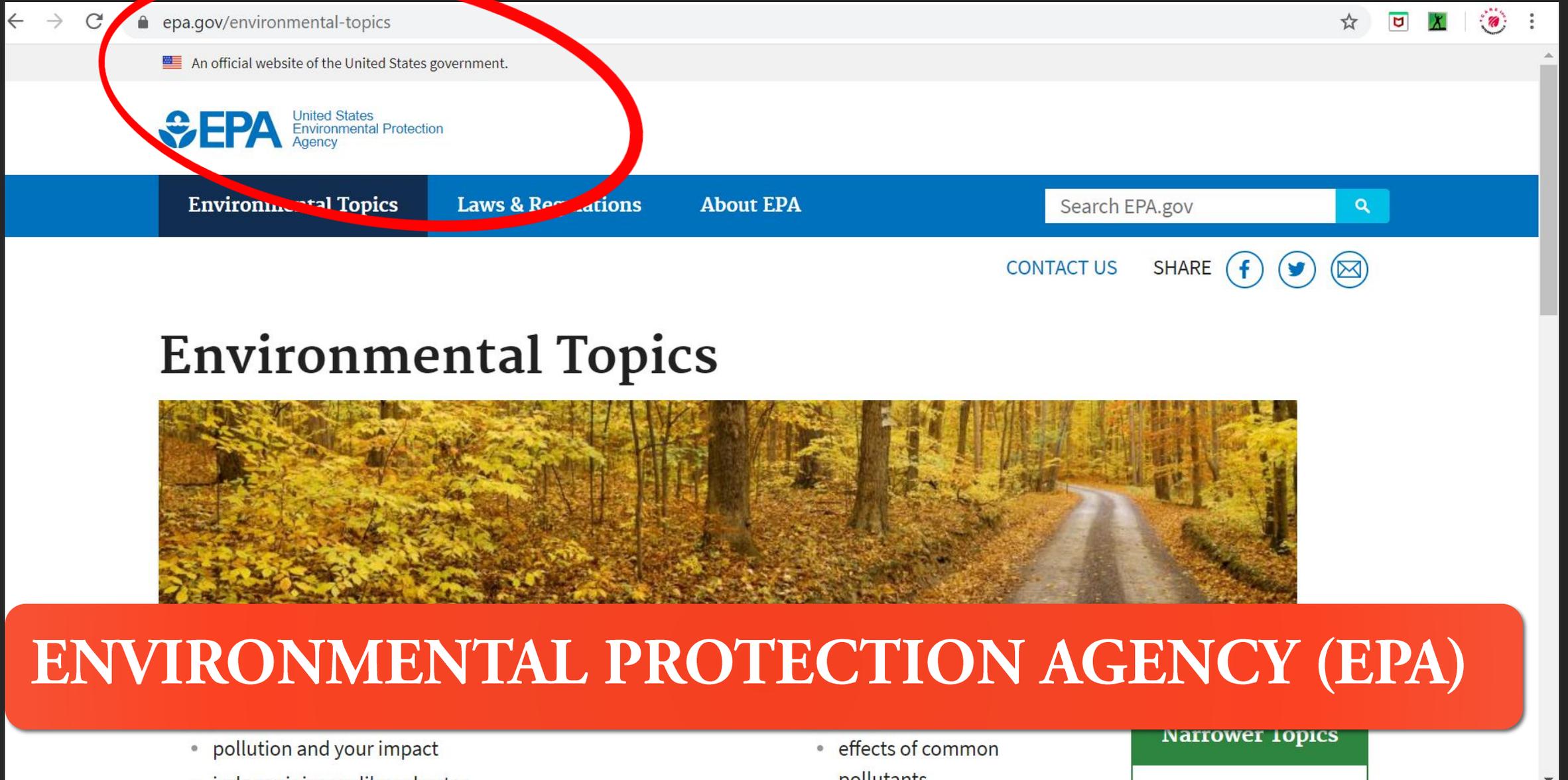
Daftar Sementara Bahan Aktif dan Produk Rumah Tangga untuk Disinfeksi Virus Corona Penyebab COVID-19

23 Mar 2020

LEMBAGA ILMU PENGETAHUAN INDONESIA (LIPI)

KOMITMEN LIPI UNTUK KURBAN RAMAH LINGKUNGAN

SUMBER DATA



The image shows a screenshot of the EPA website. The browser's address bar displays the URL `epa.gov/environmental-topics`, which is circled in red. Below the address bar, there is a navigation bar with the EPA logo and the text "United States Environmental Protection Agency". The main navigation menu includes "Environmental Topics", "Laws & Regulations", and "About EPA". A search bar is located on the right side of the navigation bar. Below the navigation bar, there are social media icons for Facebook, Twitter, and Email, along with the text "CONTACT US" and "SHARE". The main heading is "Environmental Topics". Below the heading is a large image of a dirt road winding through a forest with yellow autumn leaves. At the bottom of the page, there is a red banner with the text "ENVIRONMENTAL PROTECTION AGENCY (EPA)". Below the banner, there are several bullet points and a section titled "Narrower Topics".

epa.gov/environmental-topics

An official website of the United States government.

EPA United States Environmental Protection Agency

Environmental Topics Laws & Regulations About EPA

Search EPA.gov

CONTACT US SHARE

ENVIRONMENTAL PROTECTION AGENCY (EPA)

- pollution and your impact
- indoor air issues like asbestos
- effects of common pollutants

Narrower Topics

SUMBER DATA

← → ↻ ourworldindata.org

Our World in Data

Articles by topic

Search...

Latest About Donate

All charts Sustainable Development Goals Tracker

OXFORD MARTIN SCHOOL UNIVERSITY OF OXFORD GC DL

Coronavirus pandemic: daily updated research and data. [Read more](#)

Research and data to make progress against the world's largest problems

OURWORLDINDATA.ORG

TRUSTED IN RESEARCH AND MEDIA

Science nature PNAS ROYAL STATISTICAL SOCIETY BBC The New York Times CNN

FT theguardian THE WALL STREET JOURNAL. CNBC The Washington Post

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“PENDAPAT TANPA DISERTAI BUKTI **PENELITIAN ILMIAH**
(STUDI PUSTAKA /PENELITIAN MANDIRI),
DAPAT BERAKIBAT MENJADI **HOAX** ATAU **SALAH ARAH.**”

Alm. Drg. Chaidar Masulili, Sp Pros(K)

JUMLAH TENAGA MEDIS YANG MENINGGAL DUNIA

Coronavirus Live updates U.S. map World map FAQs Newsletter Your life at home Your money

Health

More than 9,000 U.S. health-care workers have been infected with the coronavirus

CDC report details how a Solano County, Calif., patient exposed 121 hospital staff, kicking off one of first-known cases of workplace transmission in the country

Google number of doctors death

www.theguardian.com › world › apr › doctors-nurses-por...

Doctors, nurses, porters, volunteers: the UK health workers ...

May 22, 2020 - A number of NHS and private healthcare staff, from heart surgeons to ... The Guardian has recorded 200 deaths that have been reported in the ...

www.nst.com.my › world › world › 2020/04 › over-15...

Over 150 Italian doctors have died from Covid-19

Apr 27, 2020 - ROME: More than 150 Italian doctors have died of the Covid-19 ... It reported 1,739 new infections, the lowest number since the first half of ...

www.nytimes.com › 2020/04/08 › world › europe › coro...

Eight UK Doctors Died From Coronavirus. All Were Immigrants.

Apr 8, 2020 - Dr. Adil el-Tayar, a transplant surgeon from Sudan, died from the ... And the victims have included not just the eight doctors but a number of ...

www.usnews.com › News › Best States › New York News

Doctor's Death Highlights Limits of Coronavirus Death Count ...

Apr 8, 2020 - The numbers speak for themselves. This used to be a very, very rare thing in New York City and suddenly it's jumped up. The only thing that's ...

www.usatoday.com › story › news › nation › 2020/05/03

News Sports Entertainment Life Money Tech Travel Opinion

HEALTH

Thousands of health care workers sickened by COVID-19 and 27 dead, CDC report says

Adrianna Rodriguez and Ken Alltucker USA TODAY

Published 1:00 p.m. ET Apr. 14, 2020 | Updated 3:17 p.m. ET Apr. 14, 2020



#CORONAVIRUS #FRANCELOCKDOWN FRANCE AFRICA CULTURE TV SHOWS FIGHT THE FAKE

Coronavirus notice • View the recommendations and information for travellers issued by the French Government →

Europe

Italy says number of doctors killed by coronavirus passes 100

17K shares

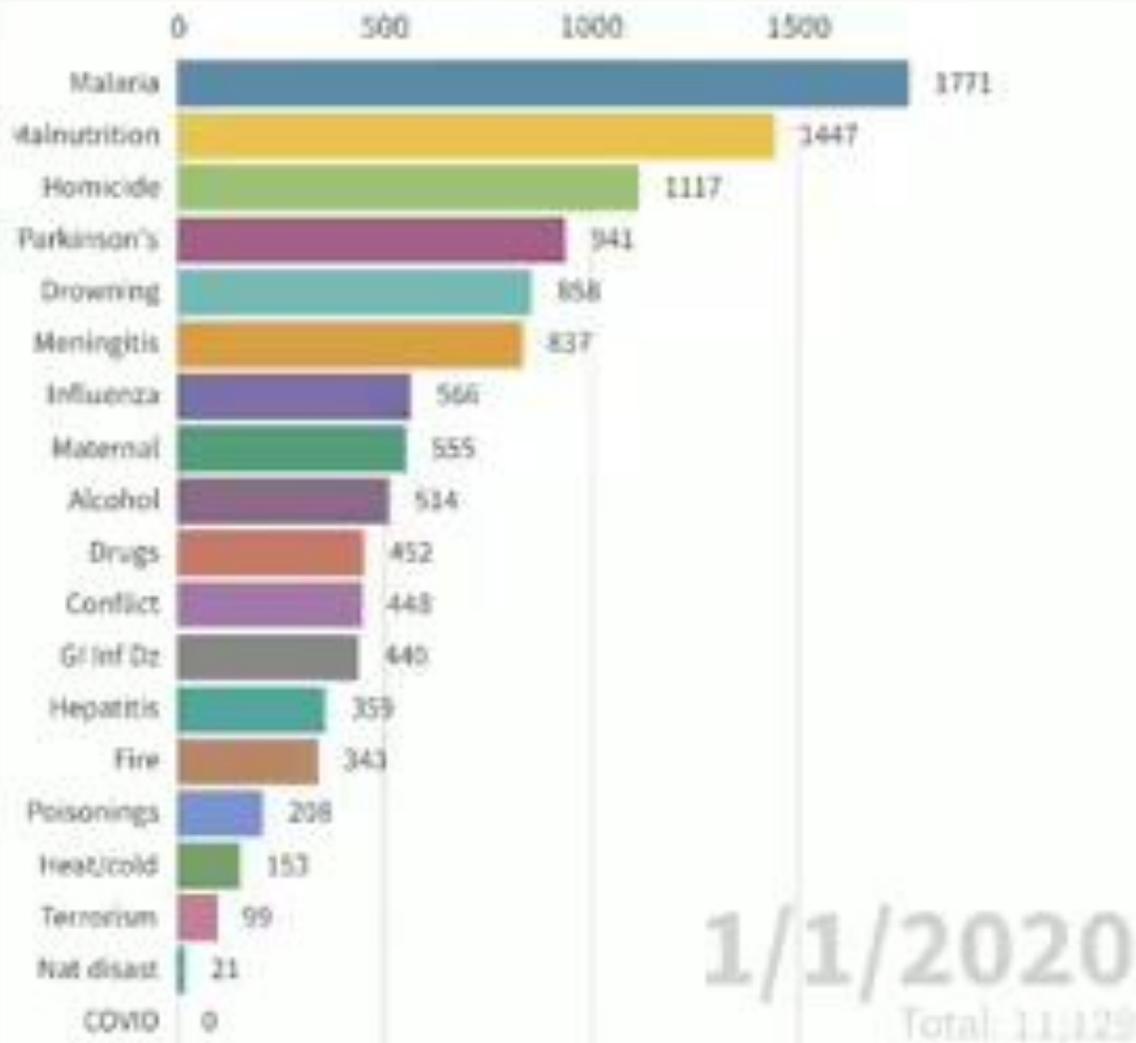
Issued on: 09/04/2020 - 16:09 Modified: 09/04/2020 - 16:09

DENTIST AROUND THE WORLD STILL ON HOLD!!!



Global Deaths Due to Various Causes and CO...

By Tony Nickonchuk on 25 May 2020



1/1/2020 1/27/2020 2/23/2020 3/21/2020 4/17/2020 5/14/2020

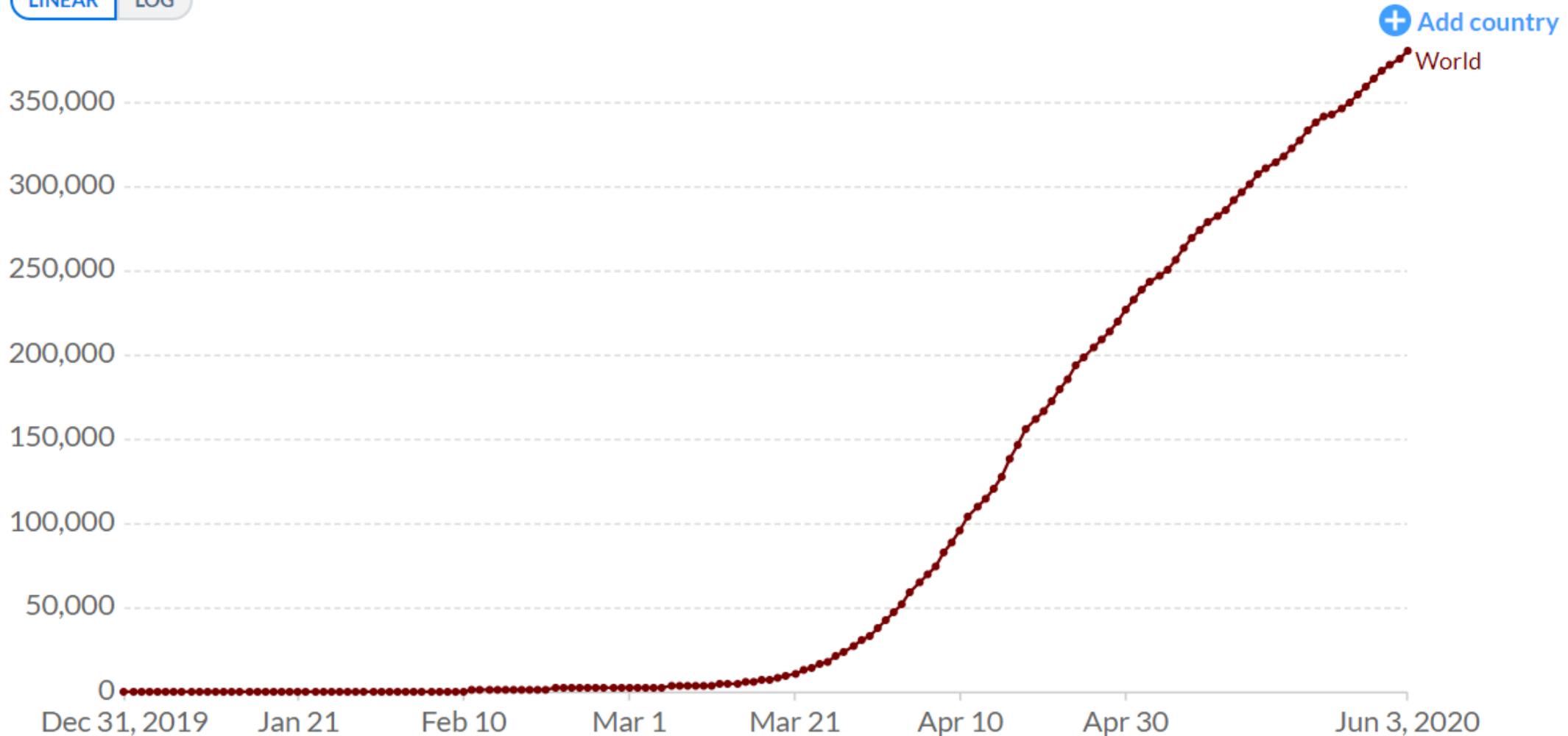


Total confirmed COVID-19 deaths

Limited testing and challenges in the attribution of the cause of death means that the number of confirmed deaths may not be an accurate count of the true number of deaths from COVID-19.

LINEAR

LOG



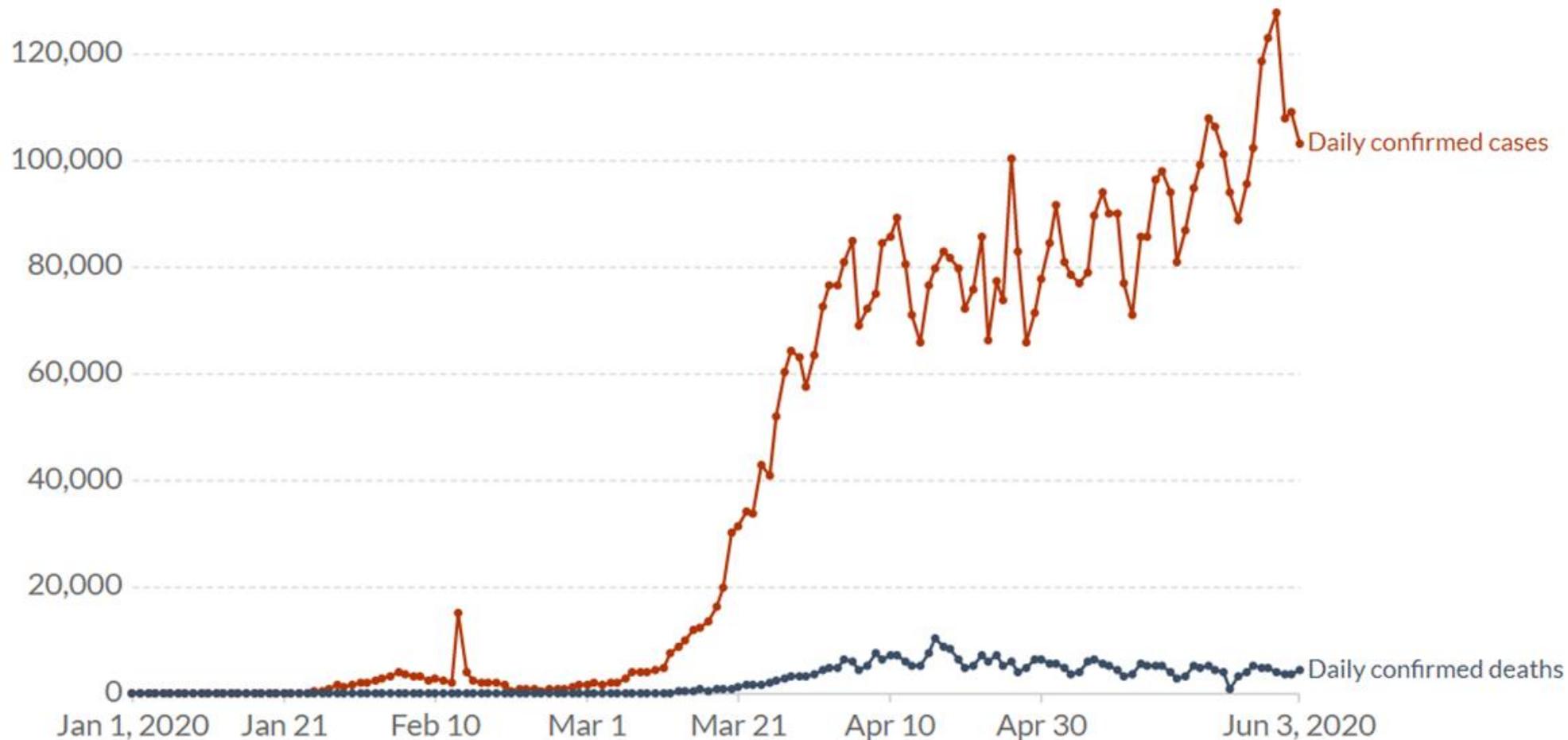
Source: European CDC - Situation Update Worldwide - Last updated 3rd June, 11:00 (London time)

CC BY

Daily confirmed COVID-19 cases and deaths, World

The confirmed counts shown here are lower than the total counts. The main reason for this is limited testing and challenges in the attribution of the cause of death.

LINEAR LOG

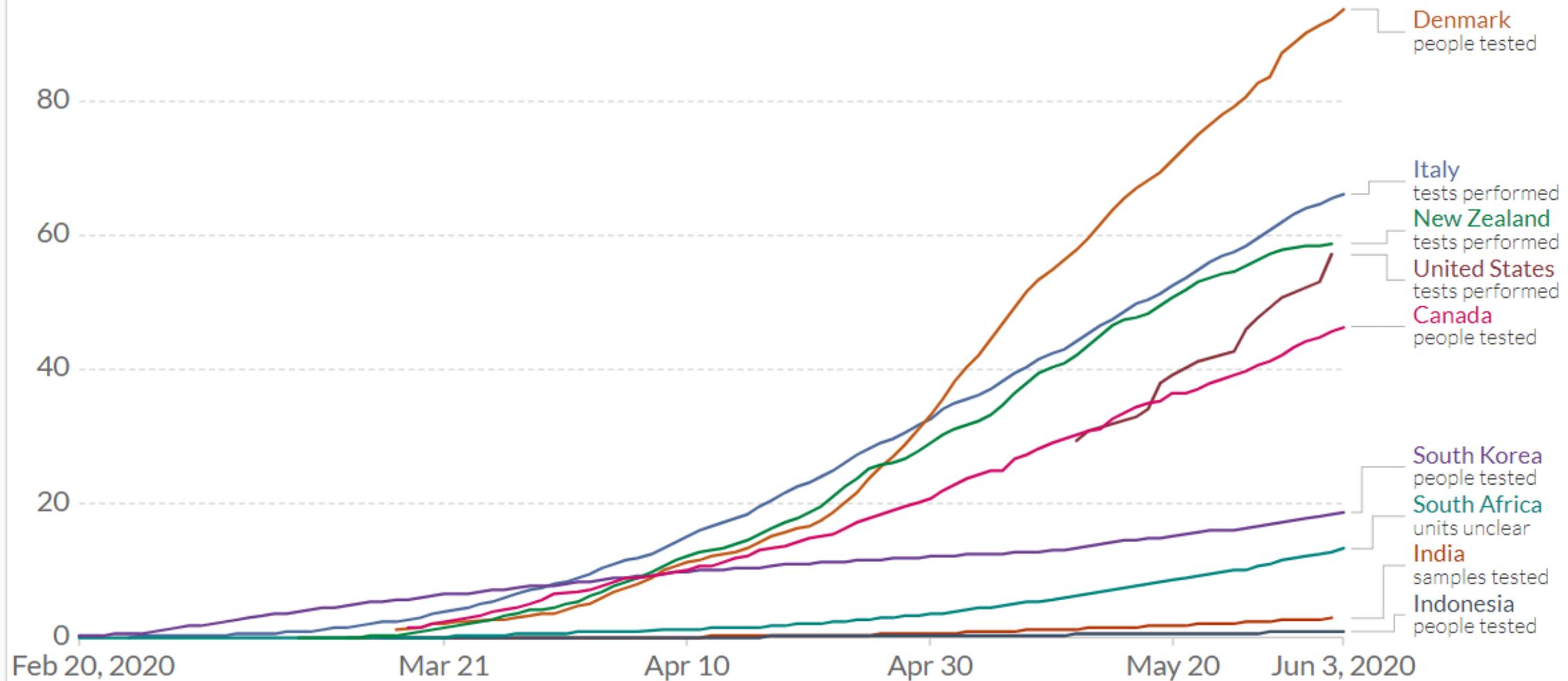


Source: European CDC - Situation Update Worldwide - Last updated 3rd June, 11:00 (London time)

Total COVID-19 tests per 1,000 people

LINEAR LOG

+ Add country



Source: Official sources collated by Our World in Data

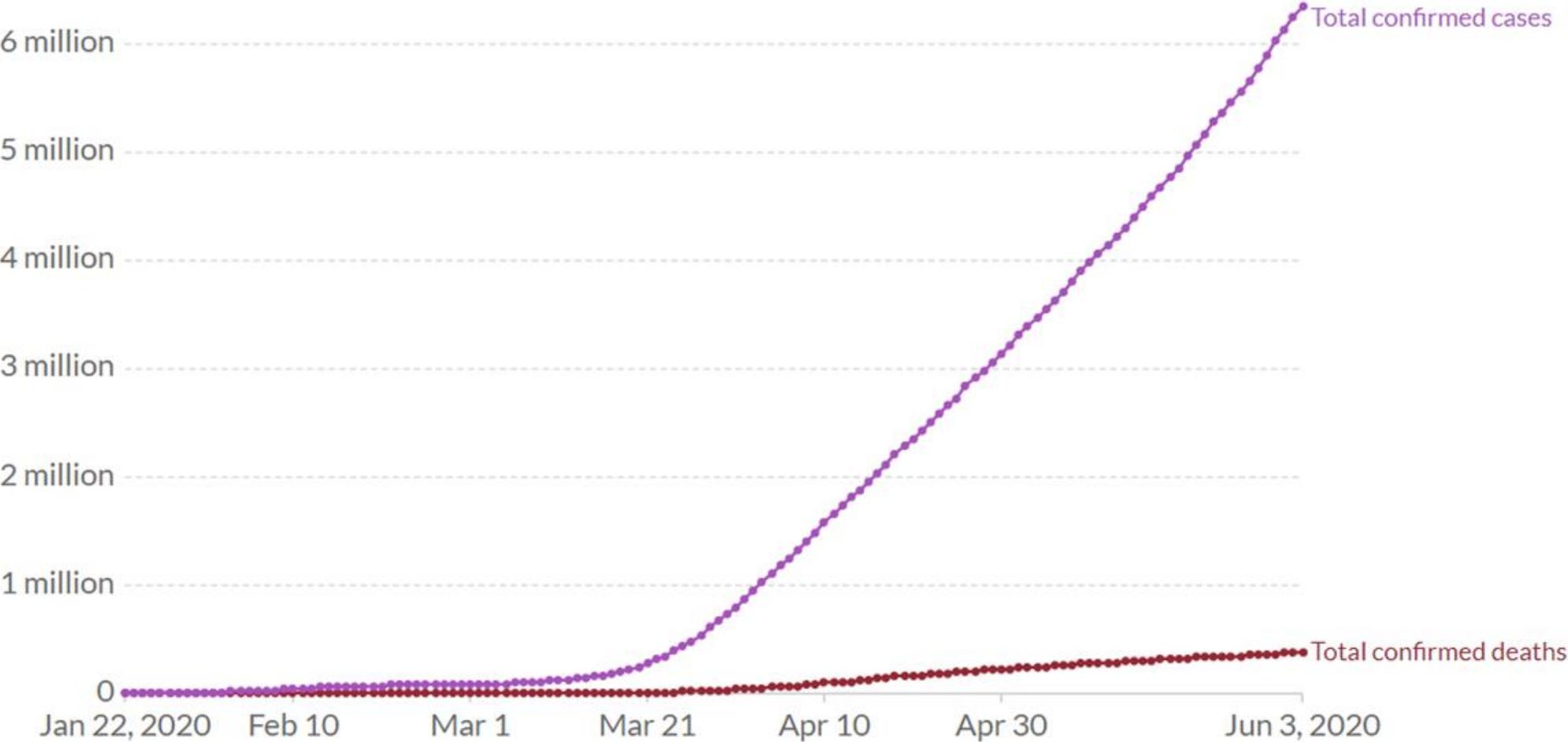
Note: Comparisons of testing data across countries are affected by differences in the way the data are reported. Details can be found at our Testing Dataset page.

CC BY

Total confirmed COVID-19 deaths and cases, World

The confirmed counts shown here are lower than the total counts. The main reason for this is limited testing and challenges in the attribution of the cause of death.

LINEAR LOG



Source: European CDC - Situation Update Worldwide - Last updated 3rd June, 11:00 (London time)

CC BY

Subscribe to receive

SELALU BERPIKIR LOGIS & MEDIS



DOKTER GIGI SELURUH
DUNIA AKAN KEMBALI
BERPRAKTIK DALAM WAKTU
DEKAT

BAHKAN ADA YANG SUDAH
MULAI BERPRAKTIK

**RESIKO JUMLAH DOKTER GIGI YANG
TERPAPAR COVID-19 AKAN MENINGKAT
APABILA TIDAK DIKUTI DENGAN
PROSEDUR PERAWATAN YANG TEPAT
DAN ALAT PROTEKSI YANG MEMADAI**



MOHON CERMAT & BIJAKSANA

**JANGAN MODAL NEKAD & TIDAK TERENCANA
INGAT ANAK, ISTRI/SUAMI & ORANG TUA**

PESAN PENTING



JANGAN “PANIC BUYING”

**KARENA AKAN MEMBAHAYAKAN DIRI ANDA,
PASIEN DAN TERUTAMA KELUARGA ANDA**

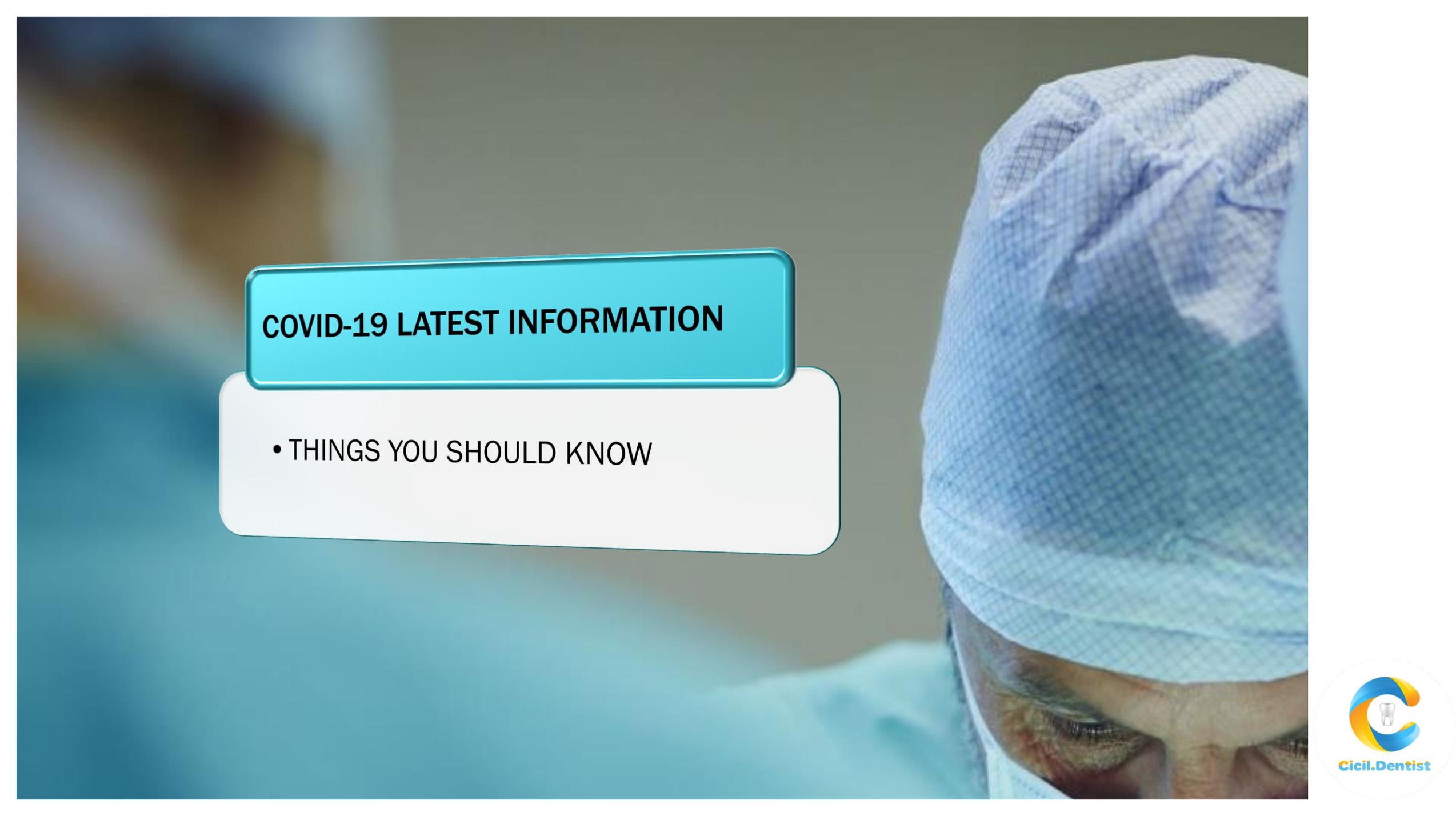


0878 0878 3474

SILAHKAN BERTANYA KE NOMOR
TERSEBUT

PASTI AKAN DI BALAS



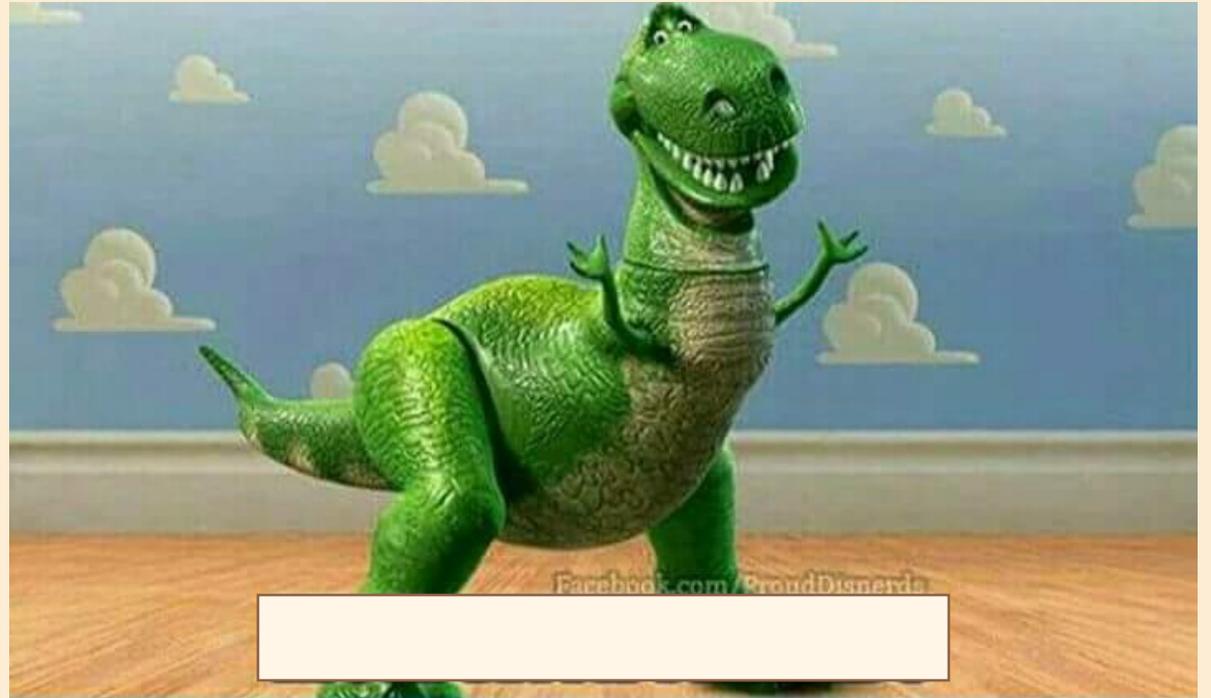


COVID-19 LATEST INFORMATION

- THINGS YOU SHOULD KNOW

CARA DOKTER GIGI MEMANDANG COVID-19

MENENTUKAN APD
YANG ANDA
GUNAKAN



SUMBER DATA



The screenshot shows the top portion of the CDC website. At the top left, the browser address bar displays "cdc.gov". To the right of the address bar are icons for a star and a mail icon. Below the address bar, there are links for "Español" and "Other Languages". The CDC logo is on the left, followed by the text "Centers for Disease Control and Prevention" and the tagline "CDC 24/7: Saving Lives, Protecting People™". A search bar with the word "Search" and a magnifying glass icon is on the right. Below the search bar is a link for "Advanced Search". A blue navigation bar contains the following menu items: "Diseases & Conditions", "Healthy Living", "Travelers' Health", "Emergency Preparedness", and "More". Below the navigation bar is a large banner for "Coronavirus Disease 2019". The banner features a 3D model of a coronavirus particle on the left. On the right, the text reads "Coronavirus Disease 2019" in large white font, followed by "CDC is responding to the novel coronavirus outbreak." in smaller white font. A blue button with the text "Learn More About COVID-19" is positioned at the bottom right of the banner.

[WWW.CDC.GOV](http://www.cdc.gov)



COVID-19 symptoms enters your facility.

What's New

Revisions were made on April 27, 2020

- To address asymptomatic and pre-symptomatic transmission, implement source control (require facemasks or cloth face coverings) for everyone entering the dental setting (dental healthcare personnel [DHCP]^[1] and patients), regardless of whether they have COVID-19 symptoms.
- Actively screen everyone on the spot for fever and symptoms of COVID-19 before they enter the dental setting.
- Actively screen DHCP on the spot for fever and symptoms before every shift.

Background

SARS-CoV-2, the virus that causes COVID-19, is thought to be spread primarily through respiratory droplets when an infected person coughs, sneezes, or talks. Airborne transmission from person-to-person over long distances is unlikely. However, COVID-19 is a new disease and **we are still learning about how it spreads** and the severity of illness it causes. The virus has been shown to survive in aerosols for hours and on some surfaces for days. There are also indications that patients may be able to spread the virus while pre-symptomatic or asymptomatic.

**CDC ... 27 APRIL 2020 ...
(41 HARI YANG LALU)**

**“IS A NEW DISEASES
AND WE ARE STILL LEARNING
HOW IT IS SPREADING”**

Measurements

UNIT	SYMBOL	VALUE
Micrometer (Micron)	μm	0.001mm (1/1000mm)
Nanometer (Millimicron)	nm	0.001 μm (1/1000 μm)

**50 nm =
0.05 Micron**

Structural biology

Each SARS-CoV-2 virion is 50–200 nanometres in diameter.^[67] Like other coronaviruses, SARS-CoV-2 has four structural proteins, known as the S (spike), E (envelope), M (membrane), and N (nucleocapsid) proteins; the N protein holds the RNA genome, and the S, E, and M proteins together create the viral envelope.^[100] The spike protein, which has been imaged at the atomic level using cryogenic electron microscopy,^{[101][102]} is the protein responsible for allowing the virus to attach to and fuse with the membrane of a host cell;^[100] specifically, its S1 subunit catalyzes attachment, the S2 subunit fusion.^[103]

Protein modeling experiments on the spike protein of the virus soon suggested that SARS-CoV-2 has sufficient affinity to the

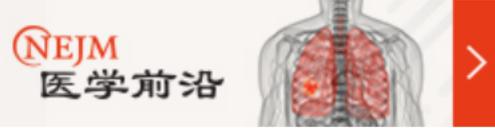


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EDITORIAL

Remdesivir — An Important First Step

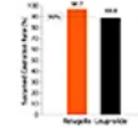


PERSPECTIVE

The Liminal Space

ORIGINAL ARTICLE

Oral Relugolix for Androgen-Deprivation Therapy in Advanced Prostate Cancer



REVIEW

Cardiovascular Acute Kidney Injury

Editor's Note: This letter was published on March 17, 2020, at NEJM.org.

CORRESPONDENCE

PDF

Help

Aerosol and Surface Stability of SARS-CoV-2 as Compared with SARS-CoV-1



508 Citing Articles Letters



PDF

TO THE EDITOR:

A novel human coronavirus that is now named severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (formerly called HCoV-19) emerged in Wuhan, China, in late 2019 and is now causing a pandemic.¹ We analyzed the aerosol and surface stability

April 16, 2020

N Engl J Med 2020; 382:1564-1567

DOI: 10.1056/NEJMc2004973

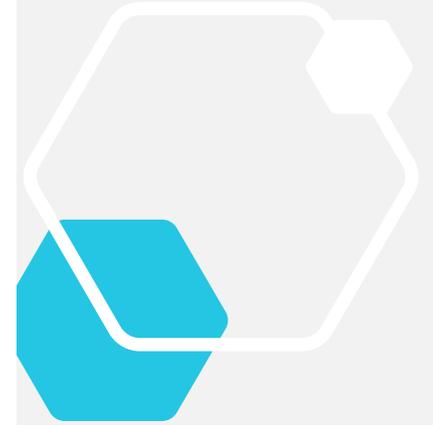
Metrics

Related Articles

obtained from the upper and lower respiratory tract in humans.

Our data consisted of 10 experimental conditions involving two viruses (SARS-CoV-2 and SARS-CoV-1) in five environmental conditions (aerosols, plastic, stainless steel, copper, and cardboard). All experimental measurements are reported as means across three replicates.

We found that the stability of SARS-CoV-2 was similar to that of SARS-CoV-1 under the experimental circumstances tested. This indicates that differences in the epidemiologic characteristics of these viruses probably arise from other factors, including high viral loads in the upper respiratory tract and the potential for persons infected with SARS-CoV-2 to shed and transmit the virus while asymptomatic.^{3,4} Our results indicate that aerosol and fomite transmission of SARS-CoV-2 is plausible, since the virus can remain viable and infectious in aerosols for hours and on surfaces up to days (depending on the inoculum shed). These findings echo those with SARS-CoV-1, in which these forms of transmission were associated with nosocomial spread and super-spreading events,⁵ and they provide information for pandemic mitigation efforts.



SARS in hospital emergency room

By: Chen, YC (Chen, YC); Huang, LM (Huang, LM); Chan, CC (Chan, CC); Su, CP (Su, CP); Chang, SC (Chang, SC); Chang, YY (Chang, YY); Chen, ML (Chen, ML); Hung, CC (Hung, CC); Chen, WJ (Chen, WJ); Lin, FY (Lin, FY)...[More](#)

Group Author(s): SARS Research Grp National Taiwan

[View ResearcherID and ORCID](#)

EMERGING INFECTIOUS DISEASES

Volume: 10 Issue: 5 Pages: 782-788

DOI: 10.3201/eid1005.030579

Published: MAY 2004

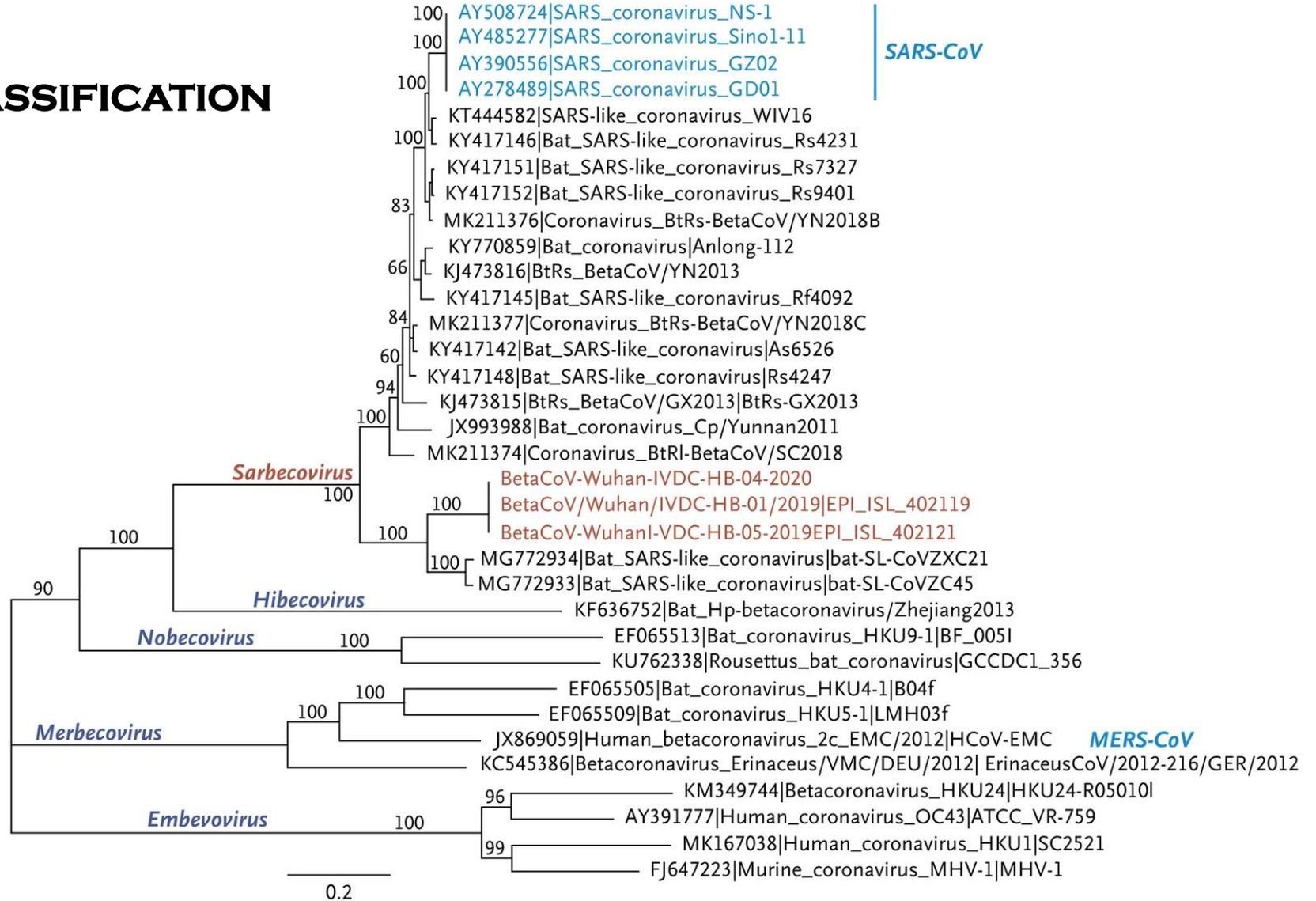
Document Type: Article

Abstract

Thirty-one cases of severe acute respiratory syndrome (SARS) occurred after exposure in the emergency room at the National Taiwan University Hospital. The index patient was linked to an outbreak at a nearby municipal hospital. Three clusters were identified over a 3-week period. The first cluster (5 patients) and the second cluster (14 patients) occurred among patients, family members, and nursing aids. The third cluster (12 patients) occurred exclusively among healthcare workers. Six healthcare workers had close contact with SARS patients. Six others, with different working patterns, indicated that they did not have contact with a SARS patient. Environmental surveys found 9 of 119 samples of inanimate objects to be positive for SARS coronavirus RNA. These observations indicate that although transmission by direct contact with known SARS patients was responsible for most cases, environmental contamination with the SARS coronavirus may have lead to infection among healthcare workers without documented contact with known hospitalized SARS patients.

PHYLOGENETIC CLASSIFICATION

B



KESIMPULAN 1

DARI DATA YANG DISAJIKAN

**VIRUS INI SEDANG DALAM
PENELITIAN DAN PEMETAAN
KARENA SEDANG DALAM PROSES
BERMUTASI DENGAN CEPAT SEKALI**

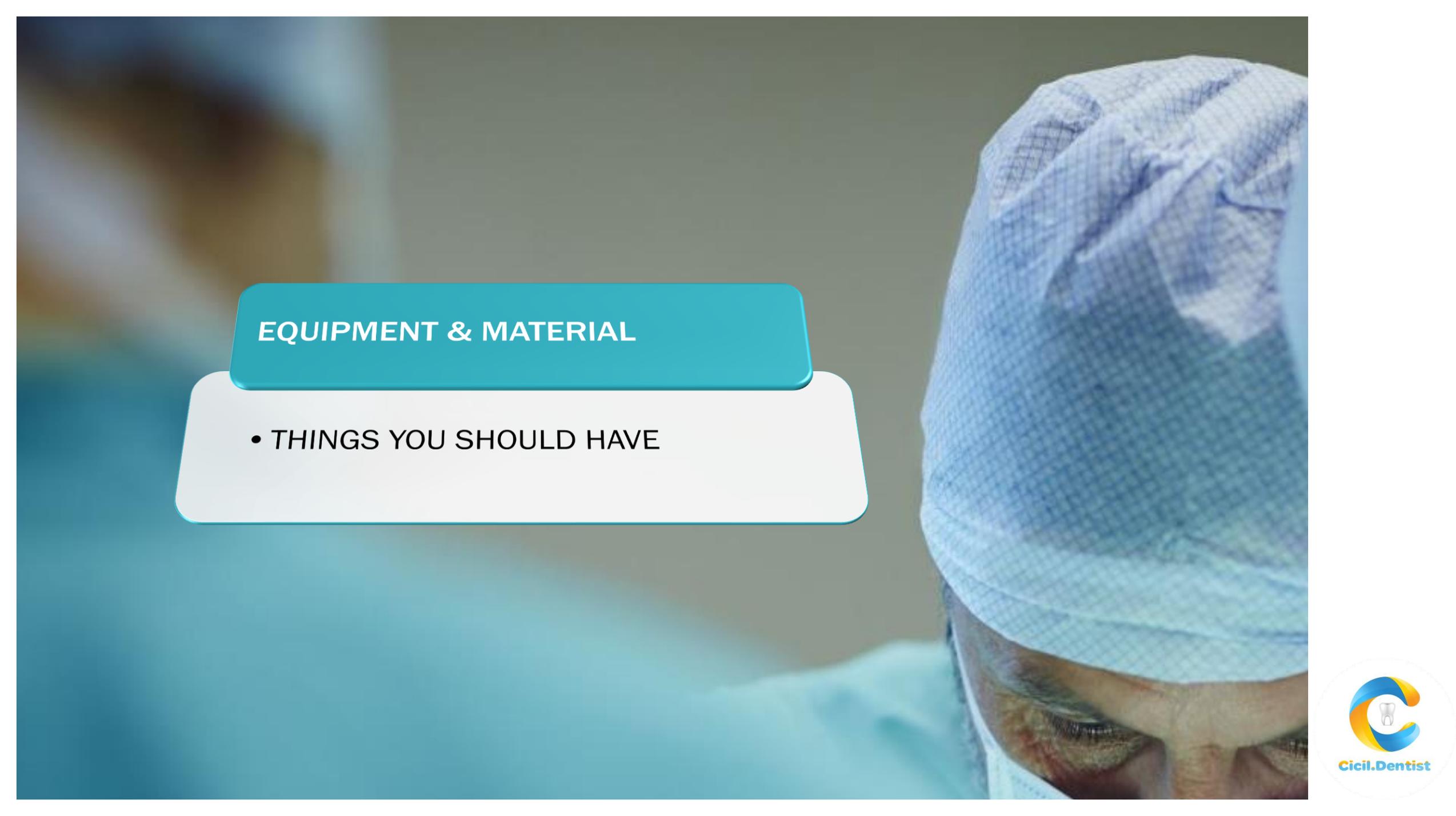
**UKURAN VIRUSNYA ITU ADALAH 50 –
200 MILI-MICRON
(0,05 – 0.2 MICRON)**

**BISA BERADA DI UDARA (AEROSOL)
SELAMA BEBERAPA JAM &**

**PADA PERMUKAAN BISA SAMPAI
BERHARI HARI**

DAN TETAP AKTIF & MASIH INFEKSIUS

**ADA BUKTI BAHWA KONTAMINASI
LINGKUNGAN DI KLINIK / RUMAH SAKIT
YANG DAPAT MENYEBABKAN TENAGA
KESEHATAN TERPAPAR VIRUS SARS
CORONA.**



EQUIPMENT & MATERIAL

- THINGS YOU SHOULD HAVE



Hazmat (coverall),
surgical gown, apron,
jas lab?



(saya harus pakai apa sih?)

SAYA HARUS MEMILIH YANG MANA?



MASKER YANG HARUS SAYA PAKAI YANG MANA?

N-95



MASKER SURGICAL BIASA





CARA DOKTER GIGI MEMANDANG VIRUS COVID-19

INI MENENTUKAN
APD YANG ANDA
GUNAKAN



PAKE APD ITU

PASTI TIDAK NYAMAN

TAPI

LEBIH AMAN

PILIHAN VS RESIKO

MEMPERBESAR RESIKO

- GOWN SURGICAL
- MASKER SURGICAL
- FACIAL MASK

MEMPERKECIL RESIKO

- COVERALL (HAZMAT) LEVEL 3
- GOWN SURGICAL
- N95 OR MORE HIGH LEVEL
- FACIAL MASK
- PREP CHAMBER

KENYAMANAN HATI ANDA!!!

REKOMENDASI ALAT PROTEKSI DIRI (APD) (PERSONAL PROTECTIVE EQUIPMENT (PPE))



PDGI

APD LEVEL 3



WHO

SURGICAL GOWN

+

MASKER N95

+

FACIAL MASK



PERDALIN

IDEM WHO

+

HAZMAT KALO ADA



CDC

IDEM WHO

PINJAM LOGO
YAH !?!



SALES

IDEM

PDGI, WHO, CDC

PERDALIN

PERUSAHAAN JAMU

PABRIK VITAMIN

PABRIK

DAN LAIN LAINNYA



ASLI VS PALSU

AMAN VS BERBAHAYA

APD MEDIS VS NON MEDIS

KEMENTERIAN KESEHATAN REPUBLIK INDONESIA **GERMAS**

STANDAR ALAT PELINDUNG DIRI (APD) Dalam Manajemen Penanganan Covid-19

Direktorat Jenderal Kefarmasian dan Alat Kesehatan
Kementerian Kesehatan Republik Indonesia
Tahun 2020

Coverall Medis

Kegunaan: Melindungi pengguna atau tenaga kesehatan dari penyebaran infeksi atau penyakit secara menyeluruh dimana seluruh tubuh termasuk kepala, punggung, dan tungkai bawah tertutup.

Material: Non woven, Serat Sintetik (Polypropilen, polyester, polyeten, dupont tyvex) dengan pori-pori 0.2-0.54 mikron (microphorous).

Frekuensi penggunaan: Sekali pakai (Single Use).

- ◆ Berwarna terang/cerah agar jika terdapat kontaminan dapat terdeteksi/ terlihat dengan mudah.
- ◆ Tahan terhadap penetrasi cairan, darah, virus.
- ◆ Tahan terhadap aerosol, airborne, partikel padat.

Gaun Sekali Pakai

Kegunaan: Melindungi pengguna atau tenaga kesehatan dari penyebaran infeksi atau penyakit, hanya melindungi bagian depan, lengan dan setengah kaki.

Material: Non woven, Serat Sintetik (Polypropilen, polyester, polyeten, dupont tyvex).

Frekuensi penggunaan: Sekali pakai (Single Use).

- ◆ Berwarna terang/cerah agar jika terdapat kontaminan dapat terdeteksi dengan mudah.
- ◆ Terdapat lingkaran (cuff) yang elastis.

Sarung Tangan Bedah (Surgical Gloves)

Kegunaan: Melindungi tangan pengguna atau tenaga kesehatan dari penyebaran infeksi atau penyakit dalam pelaksanaan tindakan bedah.

Material: Lateks, nitril, poliuretan.

Frekuensi penggunaan: Sekali pakai (Single Use).

- ◆ Steril.
- ◆ Bebas dari tepung (powder free).
- ◆ Memiliki cuff yang panjang, melewati pergelangan tangan, dengan ukuran antara 5-9.
- ◆ Desain bagian pergelangan tangan harus dapat menutup rapat tanpa kerutan.
- ◆ Sarung tangan tidak boleh menggulung atau mengerut selama penggunaan.
- ◆ Sarung tangan tidak boleh mengiritasi kulit.

Pelindung Wajah (Face Shield)

Kegunaan: Melindungi mata dan wajah pengguna/tenaga medis (termasuk bagian tepi wajah) dari percikan cairan atau darah atau droplet.

Material: Plastik bening yang dapat memberikan visibilitas yang baik bagi pemakainya maupun pasien.

Frekuensi penggunaan: Sekali pakai (Single Use) atau dapat dipergunakan kembali setelah dilakukan desinfeksi/dekontaminasi.

Face shield tahan terhadap uap air (disarankan).

Ikatan face shield dapat disesuaikan untuk melekat dengan kuat di sekeliling kepala dan pas pada dahi.

Face shield tidak diperbolehkan untuk dipergunakan kembali.

Heavy Duty Apron

Kegunaan: Melindungi bagian tubuh pengguna atau tenaga kesehatan dari penyebaran infeksi atau penyakit.

Material: 100% polyester dengan lapisan PVC, atau 100% PVC, atau 100% karet, atau bahan tahan air lainnya.

Frekuensi penggunaan: Sekali pakai (Single Use) atau dapat dipergunakan kembali setelah dilakukan desinfeksi atau dekontaminasi.

- ◆ Apron lurus dengan kain penutup dada.
- ◆ Kain: tahan air, dengan jahitan tali pengikat leher dan punggung.
- ◆ Berat minimal: 300g/m².
- ◆ Covering size: lebar 70-90 cm x tinggi 120-150 cm.

DILINDUNG DARI

CARA MENDETEKSI BARANG BERKUALITAS

IJIN EDAR

- MEDIS
- NON MEDIS

- IMPORTIR
RESMI
- IMPORTIR
ABAL ABAL

- TERTIPU
- NO ETIKA
BISNIS

SUMBER DATA

The National Personal Protective Technology Laboratory (NPPTL)

NIOSH



Promoting productive workplaces
through safety and health research 

Updated May 8, 2020



**NATIONAL PERSONAL PROTECTIVE TECHNOLOGY LABORATORY
(NPPTL)**

The National Personal Protective Technology Laboratory (NPPTL)

NIOSH > NPPTL > Respirator User Notices



NPPTL



What's New on the NPPTL Website +

A to Z Index

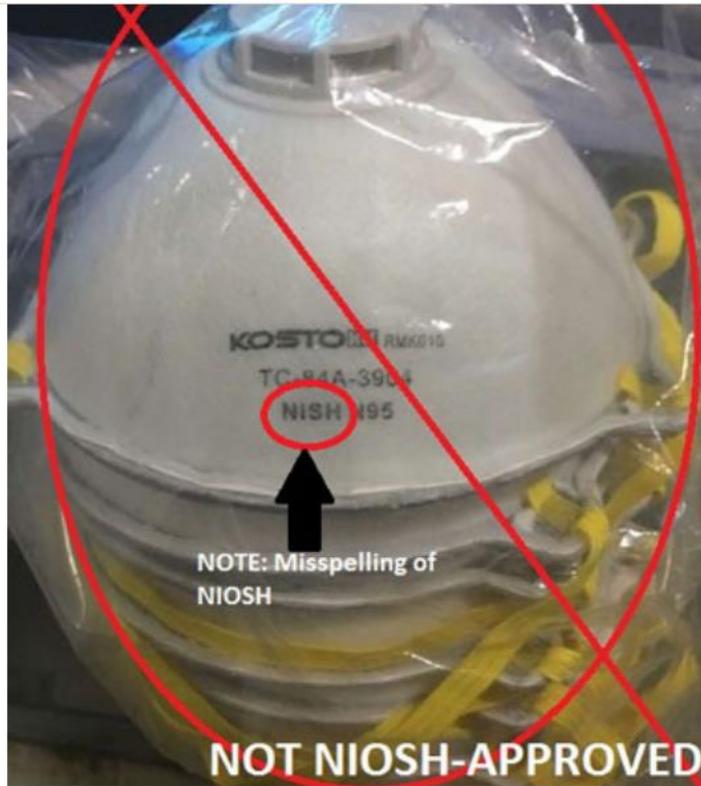
For Respirator Users +

For Respirator Manufacturers +

Counterfeit Respirators / Misrepresentation of NIOSH-Approval

Updated June 4, 2020

Counterfeit respirators are products that are falsely marketed and sold as being NIOSH-approved and may not be capable of providing appropriate respiratory protection to workers. **When NIOSH becomes aware of counterfeit respirators or those misrepresenting NIOSH**



This is an **example of a counterfeit N95 Respirator** that was brought to NIOSH's attention. While the TC number and private label holder are valid, this unapproved unit can be identified by the misspelling of NIOSH on the front of the respirator.



These are **examples of counterfeit respirators**. These respirators are being sold as if they are NIOSH-approved even though the manufacturer, Zubi-Ola, is not listed as a NIOSH approval holder or a private label holder.





NOT NIOSH-APPROVED

There are no markings on the face of the respirator. (11/6/2019)



NOT NIOSH-APPROVED

NIOSH does not approve any type of respiratory protection for kids. (11/6/2019)



NOT NIOSH-APPROVED

There are no markings on the face of the respirator. (11/6/2019)



NOT NIOSH-APPROVED

This product is not NIOSH-approved. Look at the markings on the front. The logo is wrong, there is no approval number (TC-84A-xxxx). (11/6/2019)



NOT NIOSH-APPROVED

This product is not NIOSH approved. No NIOSH logo or approval number on the face of the product. (11/6/2019)



NOT NIOSH-APPROVED

This product is not NIOSH approved. No NIOSH logo or approval number on the face of the product. (11/6/2019)



MERREK NYA JUSENYUAN

FUYANG KUNLUN

Q: As of May 7, 2020, which firms on Appendix A had respirators that failed to meet the 95 percent filtration efficiency performance standard in modified NIOSH testing?

A: The following manufacturers had respirators that were previously listed in Appendix A and that also appear on NIOSH's list of respirators that failed to meet the 95 percent filtration efficiency performance standard in modified NIOSH testing:

- CTT Co. Ltd
- Dongguan Xianda Medical Equipment Co., Ltd.
- Daddybaby Co. Ltd
- Guangdong Fei Fan Mstar Technology LTD
- Guangdong Nuokang Medical Technology Co., Ltd.
- Huizhou Huinuo Technology Co., Ltd.
- Lanshan Shendun Technology Co.

CARA MENDETEKSI BARANG BERKUALITAS

IJIN EDAR

CEK DI NPPTL & SERTIFIKAT

- MEDIS
- NON MEDIS

- IMPORTIR RESMI
- IMPORTIR ABAL ABAL

- TERTIPU
- NO ETIKA BISNIS

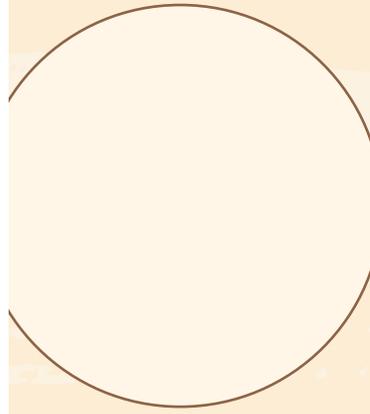
- TERDAFTAR ATAU TIDAK

- DI REJECT ATAU TIDAK

CIRI KHAS PRODUK YANG TIDAK DAPAT DIPERTANGGUNG JAWABKAN KEASLIANNYA



TIDAK ADA MERK
DI MASKERNYA



TIDAK JELAS
PABRIKNYA



TIDAK JELAS
PENJUALNYA

TC #XXX-XXXX – TC-approval number

Example of Exterior Markings:

Approval holder business name, a registered trademark manufacturer business name or an easily understood abbreviation. If privately labeled, the private label name or logo is here instead of the approval holder business name.

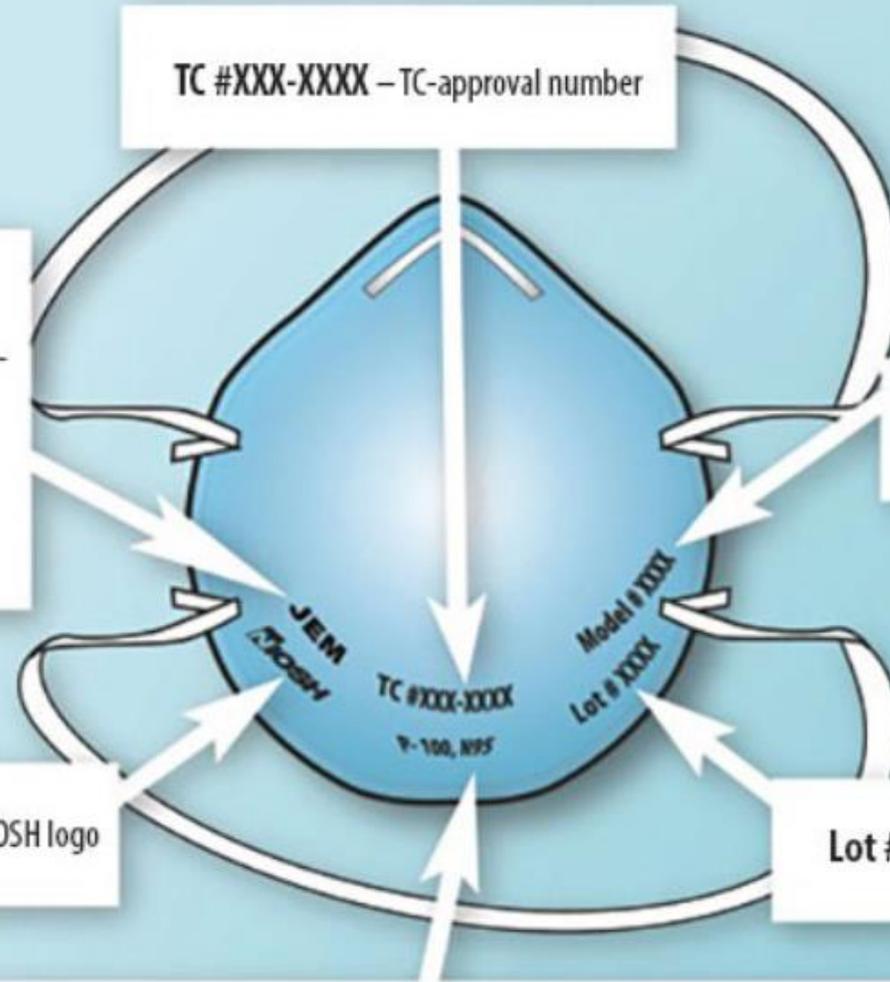
Model # XXXX – Model number

NIOSH – NIOSH name in block letters or a NIOSH logo

Lot # XXXX – Lot number (recommended)

Filter Designation – NIOSH filter series Alpha-numerical rating followed by filter efficiency level (ex. P100, N95)

EXTERIOR VIEW



Counterfeit respirators are products that are falsely marketed and sold as being NIOSH-approved and may not be capable of providing appropriate respiratory protection to workers. **When NIOSH becomes aware of counterfeit respirators or those misrepresenting NIOSH approval on the market, we will post them here to alert users, purchasers, and manufacturers.**

How to identify a NIOSH-approved respirator:

NIOSH-approved respirators have an approval label on or within the packaging of the respirator (i.e. on the box itself and/or within the users' instructions). Additionally, an abbreviated approval is on the FFR itself. You can verify the approval number on the [NIOSH Certified Equipment List \(CEL\)](#) or the [NIOSH Trusted-Source](#) page to determine if the respirator has been approved by NIOSH. NIOSH-approved FFRs will always have one the following designations: N95, N99, N100, R95, R99, R100, P95, P99, P100.

Signs that a respirator may be counterfeit:

- No markings at all on the filtering facepiece respirator
- No approval (TC) number on filtering facepiece respirator or headband
- No NIOSH markings
- NIOSH spelled incorrectly
- Presence of decorative fabric or other decorative add-ons (e.g., sequins)

CARA MENDETEKSI BARANG BERKUALITAS

IJIN EDAR

- MEDIS
- NON MEDIS
- IMPORTIR RESMI
- IMPORTIR ABAL ABAL
- TERTIPU
- NO ETIKA BISNIS

CEK DI NPPTL & SERTIFIKAT

- TERDAFTAR ATAU TIDAK
- DI REJECT ATAU TIDAK

PERHATIKAN DETAIL PADA BARANGNYA

- TERCANTUM MEREK DAN TIPE SERTA NOMOR SERTIFIKAT

INI SALAH SATU
CARA
MENGEVALUASI
MEKANISME KERJA
SUATU ALAT

CARA MENDETEKSI BARANG BERKUALITAS

IJIN EDAR

- MEDIS
- NON MEDIS
- IMPORTIR RESMI
- IMPORTIR ABAL ABAL
- TERTIPU
- NO ETIKA BISNIS

CEK DI NPPTL & SERTIFIKAT

- TERDAFTAR ATAU TIDAK
- DI REJECT ATAU TIDAK

PERHATIKAN DETAIL PADA BARANGNYA

- TERCANTUM MEREK DAN TIPE SERTA NOMOR SERTIFIKAT

LAKUKAN PENGECEKAN SEBELUM DIGUNAKAN

- TEST KEBOCORAN
- TEST METODE DESINFEKSI PRODUK TERSEBUT
- LAKUKAN STUDY PUSTAKA

INI PENTING BANGET

**KARENA NYAWA KITA SEMUA
TERGANTUNG PADA ALKES INI**



**“bedakan BAHASA MARKETING vs REALITA DI LAPANGAN
serta LOGIKA MEDIS.”**

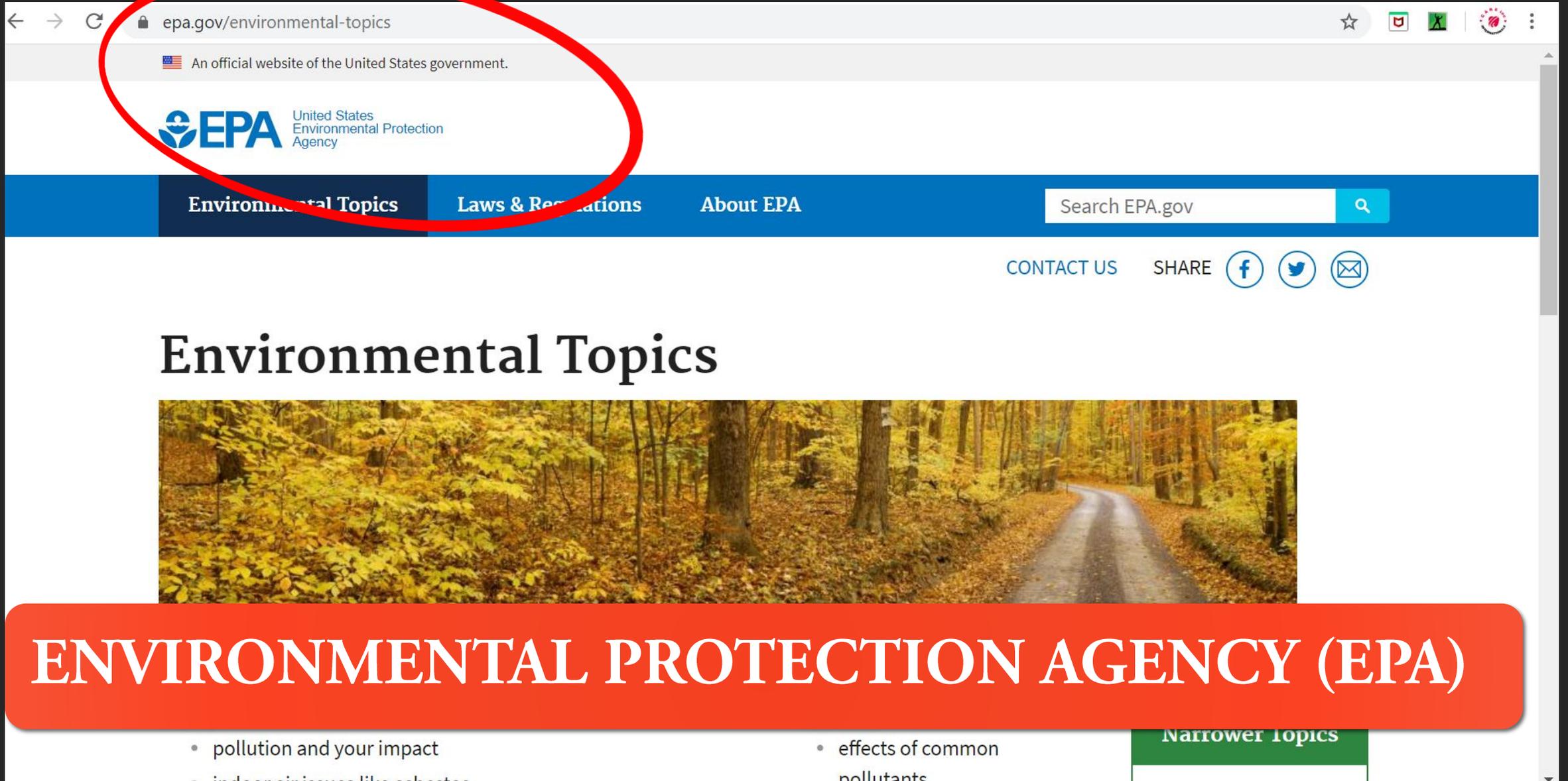
JECK SIAHAJA



OZONE

SAYA TERTIPU 18 TAHUN AKAN HAL INI KARENA KEBODOHAN SAYA.

SUMBER DATA



The image shows a screenshot of the EPA website. The browser address bar displays the URL `epa.gov/environmental-topics`, which is circled in red. Below the address bar, there is a navigation menu with the following items: **Environmental Topics**, **Laws & Regulations**, and **About EPA**. A search bar is located to the right of the navigation menu, containing the text "Search EPA.gov". Below the navigation menu, there are social media icons for Facebook, Twitter, and Email, along with the text "CONTACT US" and "SHARE". The main heading of the page is "Environmental Topics". Below the heading, there is a large image of a dirt road winding through a forest with yellow autumn leaves. At the bottom of the page, there is a red banner with the text "ENVIRONMENTAL PROTECTION AGENCY (EPA)". Below the banner, there are several bullet points and a section titled "Narrower Topics".

epa.gov/environmental-topics

An official website of the United States government.

EPA United States Environmental Protection Agency

Environmental Topics Laws & Regulations About EPA

Search EPA.gov

CONTACT US SHARE

Environmental Topics

pollution and your impact

effects of common pollutants

Narrower Topics



**PESAN INTI DARI PRESENTASI INI ADALAH SELALU KRITIS
DALAM MEMBELI PRODUK YANG ANDA PAKAI**

4 HAL PENTING:

**KEASLIAN PRODUK
MEKANISME KERJA TERMASUK BAHANNYA,
EFEKTIFITAS
AFTERSALES**

**Karena keselamatan dan masa depan anda bergantung
kepada alat/bahan yang anda pakai**

OZONE ITU BERBAHAYA BAGI KESEHATAN

Ozone, the main ingredient of smog, presents a serious air quality problem in many parts of the United States. Even at low levels, ozone can cause health effects. You can take simple steps, described in this pamphlet, to protect your health from ozone.

What is ozone?

Ozone is a colorless gas found in the air we breathe. Ozone is good or bad, depending where it occurs.

Good ozone is present naturally in the Earth's upper atmosphere—10 to 30 miles above the Earth's surface. This natural ozone shields us from the sun's harmful ultraviolet rays.

Bad ozone forms near ground level when air pollutants (emitted by sources such as cars, power plants, and chemical plants) react chemically in the presence of sunlight. Ozone pollution is more likely to form during warmer months. This is when the weather conditions normally needed to form ground-level ozone—lots of sun—occur.

Children are at higher risk from ozone exposure because:

- They often play outdoors in summer when ozone levels are higher.
- They are more likely to have asthma, which may be aggravated by ozone exposure.
- Their lungs are still developing.

Older adults may be more affected by ozone exposure, possibly because they are more likely to have pre-existing lung disease.

Active people of all ages who exercise or work vigorously outdoors have higher exposure to ozone than people who are less active.

Some healthy people are more sensitive to ozone. They may experience health effects at lower ozone levels than the average person even though they have none of the risk factors listed above. There may be a genetic basis for this increased sensitivity.



experience chest tightness or pain when taking a deep breath.

- **Reduce lung function.** This can make it more difficult for you to breathe as deeply and vigorously as you normally would, especially when exercising. You may notice that breathing starts to feel uncomfortable and that you are taking more rapid and shallow breaths than normal.
- **Inflame and damage cells that line your lungs.** Within a few days, the damaged cells are replaced and the old cells are shed—much like the way your skin peels after a sunburn.
- **Make your lungs more susceptible to infection.**
- **Aggravate asthma.** When ozone levels are unhealthy, more people with asthma have symptoms that require a doctor's attention or the use of medication. Ozone makes people more sensitive to allergens—the most common triggers for asthma attacks. Also, asthmatics may be more severely affected by reduced lung function and airway inflammation. People with asthma should have an asthma action plan and follow it carefully when ozone levels are unhealthy.
- **Aggravate other chronic lung diseases such as emphysema and chronic bronchitis.**
- **Cause permanent lung damage.** Repeated short-term ozone damage to children's developing lungs may lead to reduced lung function in adulthood. In adults, ozone



Ozone can inflame the lung's lining. These photos show a healthy lung airway (left) and an inflamed lung airway (right). Photos courtesy of PENTAX Medical Company.

damage the lungs even when the symptoms are no longer noticeable. The best way to protect your health is to find out when ozone levels are elevated in your area and take simple steps to minimize your exposure—even when you don't feel obvious symptoms.

How can you avoid unhealthy exposure to ozone?

When ground-level ozone is at unhealthy levels, your chances of being affected increase the longer you are active outdoors and the more strenuous your activity. Since exercise is good for health, it's important to stay active and know when to make changes. When ozone levels are unhealthy, protect your health by:

- Reducing the time you are active outdoors.
- Scheduling the activity for the morning or evening when

Introduction and Purpose

Ozone generators that are sold as air cleaners intentionally produce the gas ozone. Often the vendors of ozone generators make statements and distribute material that lead the public to believe that these devices are always safe and effective in controlling indoor air pollution. For almost a century, health professionals have refuted these claims (Sawyer, et. al 1913; Salls, 1927; Boeniger, 1995; American Lung Association, 1997; Al-Ahmady, 1997). The purpose of this document is to provide accurate information regarding the use of ozone-generating devices in indoor occupied spaces. This information is based on the most credible scientific evidence currently available.

Some vendors suggest that these devices have been approved by the federal government for use in occupied spaces. To the contrary, **NO** agency of the federal government has approved these devices for use in occupied spaces. Because of these claims, and because ozone can cause health problems at high concentrations, several federal government agencies have worked in consultation with the U.S. Environmental Protection Agency to produce this public information document.

What is Ozone?

Ozone is a molecule composed of three atoms of oxygen. Two atoms of oxygen form the basic oxygen molecule--the oxygen we breathe that is essential to life. The third oxygen atom can detach from the ozone molecule, and re-attach to molecules of other substances, thereby altering their chemical composition. It is this ability to react with other substances that forms the basis of manufacturers' claims.

How is Ozone Harmful?

The same chemical properties that allow high concentrations of ozone to react with organic material outside the body give it the ability to react with similar organic material that makes up the body, and potentially cause harmful health consequences. [When inhaled, ozone can damage the lungs.](#) Relatively low amounts can cause chest pain, coughing, shortness of breath, and, throat irritation. Ozone may also worsen chronic respiratory diseases such as asthma and compromise the ability of the body to fight respiratory infections. People vary widely in their susceptibility to ozone. Healthy people, as well as those with respiratory difficulty, can experience breathing problems when exposed to ozone. Exercise during exposure to ozone causes a greater amount of ozone to be inhaled, and increases the risk of harmful respiratory effects. Recovery from the harmful effects can occur following short-term exposure to low levels of ozone, but health effects may become more damaging and recovery less certain at higher levels or from longer exposures (US EPA, 1996a, 1996b).

Manufacturers and vendors of ozone devices often use misleading terms to describe ozone. Terms such as "energized oxygen" or "pure air" suggest that ozone is a healthy kind of oxygen. Ozone is a toxic gas with vastly different chemical and toxicological properties from oxygen. Several federal agencies have established health standards or recommendations to limit human exposure to ozone. These exposure limits are summarized in Table 1.

Table 1. Ozone Health Effects and Standards

Health Effects	Risk Factors	Health Standards*
<p>Potential risk of experiencing:</p> <p>Decreases in lung function</p> <p>Aggravation of asthma</p> <p>Throat irritation and cough</p> <p>Chest pain and shortness of breath</p>	<p>Factors expected to increase risk and severity of health effects are:</p> <p>Increase in ozone air concentration</p> <p>Greater duration of exposure for some health effects</p> <p>Activities that raise the breathing rate (e.g.,</p>	<p>The <u>Food and Drug Administration</u> (FDA) requires ozone output of indoor medical devices to be no more than 0.05 ppm.</p> <p>The <u>Occupational Safety and Health Administration</u> (OSHA) requires that workers not be exposed to an average concentration of more than 0.10 ppm for 8 hours.</p> <p>The <u>National Institute of Occupational Safety and Health</u> (NIOSH) recommends an upper limit of 0.10 ppm, not to be exceeded at any time.</p> <p>The <u>Environmental Protection Agency</u> (EPA)'s</p>

standards, ozone has little potential to remove indoor air contaminants.

Some manufacturers or vendors suggest that ozone will render almost every chemical contaminant harmless by producing a chemical reaction whose only by-products are carbon dioxide, oxygen and water. This is misleading.

- First, a review of scientific research shows that, for many of the chemicals commonly found in indoor environments, the reaction process with ozone may take months or years (Boeniger, 1995). For all practical purposes, ozone does not react at all with such chemicals. And contrary to specific claims by some vendors, ozone generators are not effective in removing carbon monoxide (Salls, 1927; Shaughnessy et al., 1994) or formaldehyde (Esswein and Boeniger, 1994).
- Second, for many of the chemicals with which ozone does readily react, the reaction can form a variety of harmful or irritating by-products (Weschler et al., 1992a, 1992b, 1996; Zhang and Liou, 1994). For example, in a laboratory experiment that mixed ozone with chemicals from new carpet, ozone reduced many of these chemicals, including those which can produce new carpet odor. However, in the process, the reaction produced a variety of aldehydes, and the total concentration of organic chemicals in the air increased rather than decreased after the

- Third, ozone does not remove particles (e.g., dust and pollen) from the air, including the particles that cause most allergies. However, some ozone generators are manufactured with an "ion generator" or "ionizer" in the same unit. An ionizer is a device that disperses negatively (and/or positively) charged ions into the air. These ions attach to particles in the air giving them a negative (or positive) charge so that the particles may attach to nearby surfaces such as walls or furniture, or attach to one another and settle out of the air. In recent experiments, ionizers were found to be less effective in removing particles of dust, tobacco smoke, pollen or fungal spores than either high efficiency particle filters or electrostatic precipitators. (Shaughnessy et al., 1994; Pierce, et al., 1996). However, it is apparent from other experiments that the effectiveness of particle air cleaners, including electrostatic precipitators, ion generators, or pleated filters varies widely (U.S. EPA, 1995).

There is evidence to show that at concentrations that do not exceed public health standards, ozone is not effective at removing many odor-causing chemicals.

- In an experiment designed to produce formaldehyde concentrations representative of an embalming studio, where formaldehyde is the main odor producer, ozone showed no effect in reducing formaldehyde concentration (Esswein and Boeniger, 1994). Other experiments suggest that body odor may be masked by the smell of ozone but is not removed by ozone (Witheridge and Yaglou, 1939). Ozone is not considered useful for odor removal in building ventilation systems (ASHRAE, 1989).
- While there are few scientific studies to support the claim that ozone effectively removes odors, it is plausible that some odorous chemicals will react with ozone. For example, in some experiments, ozone appeared to react readily with certain chemicals, including some chemicals that contribute to the smell of new carpet (Weschler, 1992b; Zhang and Liou, 1994). Ozone is also believed to react with acrolein, one of the many odorous and irritating chemicals found in secondhand tobacco smoke (US EPA, 1995).

14:09 33° 15%

Cari Hand Sanitizer di Toko...



Dr. Ozon
Water Purification Supplied With Ozone Technology

Ozone O3

Alat Sterilisasi / Hand Sanitizer / Dr. Ozon

Rp2.000.000 

Produk dari  Power Merchant

Stok tersisa <10, beli segera!

0,0★/5  

 **Beli** **+ Keranjang**

14:09 33° 15%

Cari Hand Sanitizer di Toko...

Sakit Tenggorokan	Pembersih Gigi Palsu	Berkumur	Jerawat	Cuci Tangan dan Sterilisasi	Luka
					
Masukkan pernis gigi ke dalam air 200CC dan tekan tombol start. Setelah lampu biru padam selama 30 detik, hapakan pernis gigi yang disatukan dan bilas mulut dan sterilkan air dengan yang disatukan untuk menghilangkan bakteri di mulut dan tenggorokan.	Masukkan pernis gigi ke dalam air 200CC dan tekan tombol start. Setelah lampu biru padam selama 30 detik, hapakan pernis gigi dan masukkan gigi pernis ke dalam sterilisasi.	Masukkan pernis gigi ke dalam air 200CC dan tekan tombol start. Setelah lampu biru padam selama 30 detik, hapakan pernis gigi dan masukkan gigi pernis ke dalam sterilisasi.	Masukkan pernis gigi ke dalam botol semprot dengan air 10-40CC dan tekan tombol start untuk mengaktifkan agar air dalam botol semprot berwarna putih susu, kemudian semprotkan air ke dalam botol semprot berwarna putih susu, dan masukkan semprotan ke dalam botol semprot untuk memulainya.	Masukkan pernis gigi ke dalam botol semprot dengan air 10-40CC dan tekan tombol start untuk mengaktifkan agar air dalam botol semprot berwarna putih susu, lalu semprotkan air ke dalam botol semprot untuk memulainya.	Masukkan pernis gigi ke dalam botol semprot dengan air 10-40CC dan tekan tombol start untuk mengaktifkan agar air dalam botol semprot berwarna putih susu, lalu semprotkan air ke dalam botol semprot untuk memulainya.

14:09 33° 15%

Cari Hand Sanitizer di Toko...



Dr. Ozon
Water Purification Supplied With Ozone Technology

Ozone O3

Alat Sterilisasi / Hand Sanitizer / Dr. Ozon

Rp2.000.000 

Produk dari  Power Merchant

Stok tersisa <10, beli segera!

0,0★/5  

 **Beli** **+ Keranjang**

14:09 33° 15%

Cari Hand Sanitizer di Toko...



Dr. Ozon
Water Purification Supplied With Ozone Technology

FEATURES

Alat Sterilisasi / Hand Sanitizer / Dr. Ozon

Rp2.000.000 

Produk dari  Power Merchant

Stok tersisa <10, beli segera!

0,0★/5  

 **Beli** **+ Keranjang**

Alat Sterilisasi / Hand Sanitizer / Dr. Ozon

Rp2.000.000 

Produk dari  Power Merchant

Stok tersisa <10, beli segera!

0,0★/5  

 **Beli** **+ Keranjang**

14:09 33° 15%

Cari Hand Sanitizer di Toko...



Dr. Ozon
Water Purification Supplied With Ozone Technology

99,9% O3 Ener

Alat Sterilisasi / Hand Sanitizer / Dr. Ozon

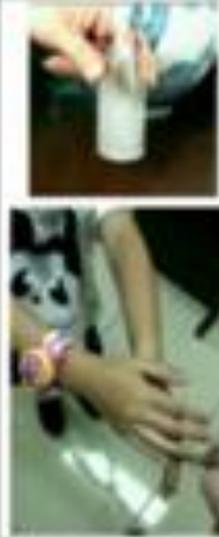
Rp2.000.000 

Produk dari  Power Merchant

Stok tersisa <10, beli segera!

0,0★/5  

 **Beli** **+ Keranjang**

Sakit Tenggorokan	Pembersih Gigi Palsu	Berkumur	Jerawat	Cuci Tangan dan Sterilisasi	Luka
					
<p>Masukkan pena oson ke dalam air 200CC dan tekan tombol start. Setelah lampu biru padam selama 30 detik, lepaskan pena oson yang diaktifkan dan bilas mulut dan sterilkan air oksigen yang diaktifkan untuk menghilangkan bakteri di mulut dan tenggorokan.</p>	<p>Masukkan pena oson ke dalam air 200CC dan tekan tombol start. Setelah lampu biru padam selama 30 detik, lepaskan pena oson dan masukkan gigi palsu ke dalam sterilisasi.</p>	<p>Masukkan pena oson ke dalam air 200CC dan tekan tombol start. Lepas pena oson setelah lampu biru padam selama 30 detik.</p>	<p>Masukkan pena oson ke dalam botol semprot dengan air 50-60CC dan tekan tombol start untuk mengocok agar air dalam botol semprot berwarna putih susu, kemudian semprotkan air oson yang sudah disterikan ke area jerawat di wajah.</p>	<p>Masukkan pena oson ke dalam botol semprot dengan air 50-60CC dan tekan tombol start untuk mengocok agar air dalam botol semprot berwarna putih susu, dan kemudian semprotkan air oson yang sudah disterikan untuk mencuci tangan Anda</p>	<p>Masukkan pena oson ke dalam botol semprot dengan air 50-60CC dan tekan tombol start untuk mengocok agar air dalam botol semprot berwarna putih susu, lalu semprotkan air oksigen aktif yang sudah disterikan ke luka.</p>

CARA MENDETEKSI BARANG BERKUALITAS

IJIN EDAR

- MEDIS
- NON MEDIS
- IMPORTIR RESMI
- IMPORTIR ABAL ABAL
- TERTIPU
- NO ETIKA BISNIS

CEK DI NPPTL & SERTIFIKAT

- TERDAFTAR ATAU TIDAK
- DI REJECT ATAU TIDAK

PERHATIKAN DETAIL PADA BARANGNYA

- TERCANTUM MEREK DAN TIPE SERTA NOMOR SERTIFIKAT

LAKUKAN PENGECEKAN SEBELUM DIGUNAKAN

- TEST KEBOCORAN
- TEST METODE DESINFEKSI PRODUK TERSEBUT
- LAKUKAN STUDY PUSTAKA

LOGIKA MEDIS HARUS SELALU DIPAKAI

LOGIKA MEDIS

LOGIKA MEDIS

JANGAN MAU DI CEKOKIN APAPUN TANPA LOGIKA MEDIS

JANGAN PANIC BUYING

PERENCANAAN DALAM BERPRAKTEK KEMBALI

ALAT YANG DI BELI HARUS MEMENUHI
PERSYARATAN TEHNIS KESEHATAN DAN PERIJINAN!!!

INGAT... TIDAK SEMUA ALAT ITU APLIKATIF PADA
SITUASI SAAT INI.

UTAMAKAN SAFETY ANDA, LALU EFEKTIFITAS DAN
EFISIENSI BARANG TERSEBUT

TARUHANNYA NYAWA ANDA DAN KELUARGA



HIGH VACUUM EVACUATOR

HVE

INI SALAH SATU CARA MENGEVALUASI MEKANISME KERJA SUATU ALAT



PERENCANAAN DALAM BERPRAKTEK KEMBALI

SETIAP ALAT PASTI ADA PLUS & MINUS NYA

PELAJARI SECARA SEKSAMA DAN DETAIL,
BUKAN MENCARI TEMAN DALAM PEMAKAIANNYA ("PANIC BUYING")

LIHAT APAKAH ALAT YANG ANDA BELI ITU APLIKATIF ATAU TIDAK?
PERLU PERTIMBANGKAN KEMAMPUAN BAYAR PASIEN ANDA DALAM SITUASI
SEKARANG INI

INGAT SEMUA LINI BISNIS SAAT INI SEDANG MENGALAMI MASA YANG BERAT SEKALI

TARUHANNYA NYAWA ANDA DAN KELUARGA

UKURAN VIRUS SARS-COV 2 ANTARA 60 -140 NM



Thus, SARS-CoV-2 belongs to the betaCoVs category. It has round or elliptic and often pleomorphic form, and a diameter of approximately 60–140 nm. Like other CoVs, it is sensitive to ultraviolet rays and heat. Furthermore, these viruses can be effectively inactivated by lipid solvents including ether (75%), ethanol, chlorine-containing disinfectant, peroxycetic acid and chloroform except for chlorhexidine.

In genetic terms, Chan et al. have proven that the genome of the new HCoV, isolated from a cluster-patient with atypical pneumonia after visiting Wuhan, had 89% nucleotide identity with bat SARS-like-CoVZXC21 and 82% with that of human SARS-CoV[4]. For this reason, the new virus was called SARS-CoV-2. Its single-stranded RNA genome contains 29891 nucleotides, encoding for 9860 amino acids. Although its origins are not entirely understood, these genomic analyses suggest that SARS-CoV-2 probably evolved from a strain found in bats. The potential amplifying mammalian host, intermediate between bats and humans, is, however, not known. Since the mutation in the original strain could have directly triggered virulence towards humans, it is not certain that this intermediary exists.

$$60 \text{ Nanometre} = 0.06 \text{ micrometre}$$

Formula divide the length value by 1000

[More info](#)

[Feedback](#)

People also ask

How many nanometers are in a single micron? ^

1,000.00 nm

The **nanometers** unit number 1,000.00 nm converts to 1 μ , one **micron**. It is the EQUAL length value of 1 **micron** but in the **nanometers** length unit alternative.

60nm to microns

$$140 \text{ Nanometre} = 0.14 \text{ micrometre}$$

Formula divide the length value by 1000

[More info](#)

[Feedback](#)

People also ask

How many nanometers are in a single micron? ^

1,000.00 nm

The **nanometers** unit number 1,000.00 nm converts to 1 μ , one **micron**. It is the EQUAL length value of 1 **micron** but in the **nanometers** length unit alternative.

UKURAN VIRUSNYA SETARA DENGAN 0.06 – 0.14 MICRON

HEPA FILTER HANYA MAMPU MENFILTER MAX 0,3 MICRON



The micrometre or micrometer, also commonly known by the previous deprecated name **micron**, is an SI derived unit of length equalling 1×10^{-6} metre; that is, one millionth of a metre.

HEPA filter with functional description

For other uses, see [HEPA \(disambiguation\)](#).

High-efficiency particulate air (HEPA),^[1] also known as **high-efficiency particulate absorbing** and **high-efficiency particulate arrestance**,^[2] is an efficiency standard of [air filter](#).^[3]

Filters meeting the HEPA standard must satisfy certain levels of efficiency. Common standards require that a HEPA air filter must remove—from the air that passes through—at least 99.95% (European Standard)^[4] or 99.97% (ASME, U.S. DOE)^{[5][6]} of particles whose diameter is equal to 0.3 μm ; with the filtration efficiency increasing for particle diameters both less than and greater than 0.3 μm .^[7] See the [Mechanism](#) and [Specifications](#) sections for more information.

HEPA was commercialized in the 1950s, and the original term became a registered [trademark](#) and later a [generic term](#) for highly efficient filters.^[8] HEPA filters are used in applications that require contamination control, such as

APAKAH MASIH EFEKTIF PAKAI HVE?



UKURAN VIRUS SARS COV 2 : 0,06 MICRON

FAKTA 1

HEPA FILTER BISA SARING MAKSIMAL : 0,3
MICRON

(0,3 > 0,06 MICRON)

HATI HATI DENGAN PEMAKAIAN SATUAN

MICRON VS NANOMICRON

VIRUS SELALU MENGGUNAKAN NANOMICRON

FAKTA KE 2 PERIHAL UV LIGHT? UV LIGHT UNTUK PERMUKAAN!!!



International Journal of
*Environmental Research
and Public Health*



[Int J Environ Res Public Health](#). 2019 Oct; 16(19): 3572.

PMCID: [PMC6801766](#)

Published online 2019 Sep 24. doi: [10.3390/ijerph16193572](#)

PMID: [31554297](#)

Evaluation of an Ultraviolet C (UVC) Light-Emitting Device for Disinfection of High Touch Surfaces in Hospital Critical Areas

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Abstract

Go to:

Implementation of environmental cleaning and disinfection has been shown to reduce the incidences of healthcare-associated infections. The effect of an enhanced strategy for terminal room disinfection, applying the pulsed xenon-based ultraviolet light no-touch disinfection systems (PX-UVC) after the current standard operating protocol (SOP) was evaluated. In a teaching hospital, the effectiveness in reducing the total bacterial count (TBC) and in eliminating high-concern microorganisms was assessed on five high-touch surfaces in different critical areas, immediately pre- and post-cleaning and disinfection procedures (345 sampling sites). PX-UVC showed only 18% (15/85) of positive samples after treatment compared to 63% (72/115) after SOP. The effectiveness of PX-UVC was also observed in the absence of manual

Implementation of this “no-touch” technology in various hospitals has documented a sustained reduction in surface microbial contamination, reduced cross contamination, and a reduced spread of multi-drug resistant bacterial infections. In the study of Liscynesky et al. [15], in rooms of patients with confirmed *C. difficile* infection (CDI), 32 out of 238 (13%) high-touch surfaces were positive after bleach disinfection and only 1 out of 238 (0.4%) was positive after UVC-treatment (the computer keyboard) at 254 nm emitted by 3 connected devices run for 45 min. Wong et al. reported the persistence environmental contamination by methicillin-resistant *Staphylococcus aureus* (MRSA), vancomycin-resistant Enterococcus (VRE) and *C. difficile*, respectively in 27%, 29,5%, and 22,7% of sites after the standard cleaning and disinfection protocol, whereas only in 3.3%, 4.9%, and 0% after UVC-disinfection ($p < 0.05$). The exposition time varied from 14 min at $46,000 \mu\text{Ws}/\text{cm}^2$ to 57 min at $22,000 \mu\text{Ws}/\text{cm}^2$ for the sporicidal cycle. The ability to disinfect high concentrations of organisms varies in the presence of proteins [16]. The same finding was reported by Ali et al., who observed lower and more variable \log_{10} reductions in MRSA and *K. pneumoniae* after UVC disinfection at 254 nm when heavy soiling was present [17].

An increased reduction of 17% in MRSA, VRE, *Acinetobacter* spp., and carbapenem-resistant

Enterobacteriaceae (11, 11, 9, 20, respectively) were observed after 14 min of UVC disinfection

(c)

BUTUH WAKTU 14 – 57 MENIT BUAT DAPAT EFEK STERILISASINYA

Haddad et al. showed that combining standard between-case manual cleaning of surfaces, followed by a 2-min cycle of disinfection using a portable xenon pulsed ultraviolet light germicidal device, furtherly

“BAHASA MARKETING” VS “LOGIKA MEDIS”

**VIRUS SARS COV 2
0.06 MICRON**



VIRUS 0.06 MICRON



DILEWATI UDARA
KONTAMINASI 3000
LITER / MENIT



UDARA
OUTPUT

FAKTA 1

FAKTA 2

**PENDAPAT TANPA BUKTI DATA PENELITIAN
BISA JADI HOAX ATAU SALAH ARAH**



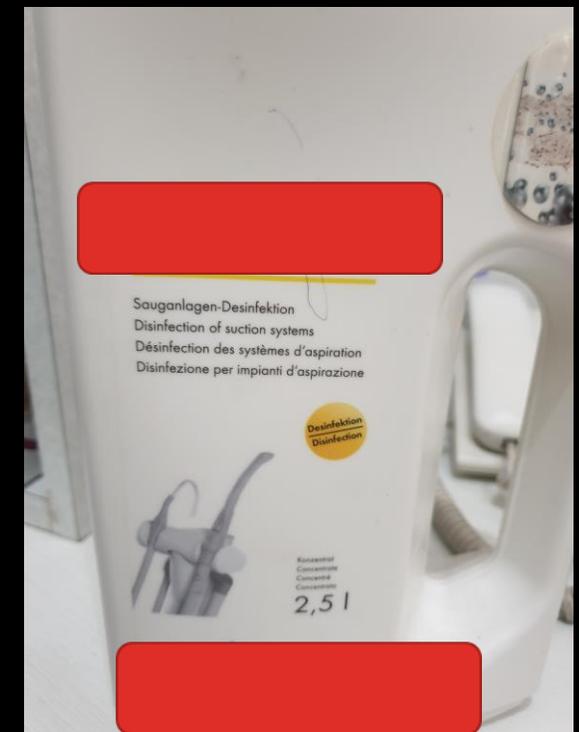
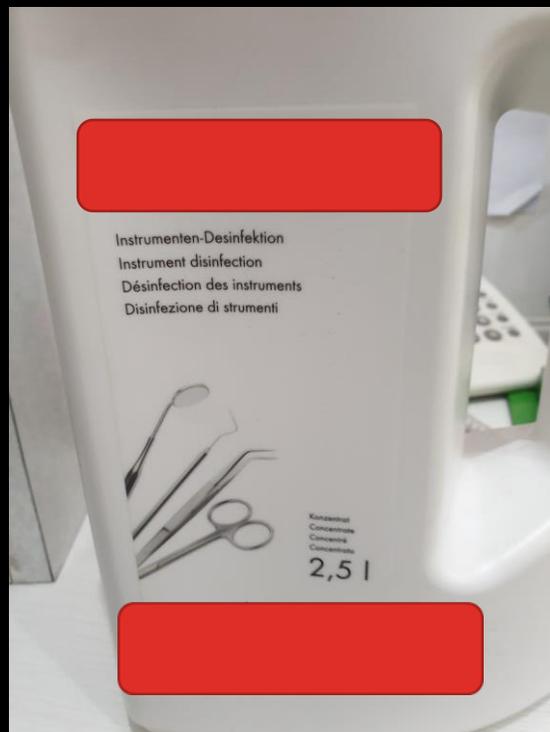


BAHASA MARKETING vs LOGIKA MEDIS

STERILISATION TECHNIQUE

- THINGS YOU SHOULD DO

BAHAN DESINFEKTAN UNTUK SALURAN PEMBUANGAN DENTAL UNIT DAN ALAT SEBELUM DI LAKUKAN STERILISASI



SUMBER DATA



The screenshot shows the top navigation bar of the LIPI website. On the left is the LIPI logo and the text 'LEMBAGA ILMU PENGETAHUAN INDONESIA' and 'INDONESIAN INSTITUTE OF SCIENCES'. To the right are language options 'BAHASA' and 'ENGLISH', and links for 'LOGIN INTRA' and 'KONTAK'. Further right are social media icons for Facebook, Twitter, Instagram, YouTube, and LinkedIn. Below this is a horizontal menu with a home icon and links for 'TENTANG LIPI', 'KEDEPUTIAN', 'LAYANAN', 'INFORMASI PUBLIK', 'PRODUK HUKUM', and 'DIREKTORI ILMIAH'.

Berita Terkait

LIPI KEMBANGKAN SISTEM REPOSITORI DAN DEPOSITORI ILMIAH UNTUK PERKUAT ASET PENGETAHUAN NASIONAL

MEREKA YANG TERDAMPAR DI LAUT KITA

LIPI HADIRKAN DIGITAL CREATIVE & CO-WORKING SPACE UNTUK PELAKU EKONOMI KREATIF BANDUNG

LIPI AJAK MASYARAKAT JEMBER GUNAKAN POH

PENGUATAN EKOSISTEM INOVASI MELALUI TRIPLE HELIX

Daftar Sementara Bahan Aktif dan Produk Rumah Tangga untuk Disinfeksi Virus Corona Penyebab COVID-19

23 Mar 2020

LEMBAGA ILMU PENGETAHUAN INDONESIA (LIPI)

KOMITMEN LIPI UNTUK KURBAN RAMAH LINGKUNGAN

“Selain penggunaan agen pembersih, perawatan lain yang efektif terhadap virus corona adalah dengan metode pemberian uap dan perlakuan panas,” terang Chandra. Berdasarkan informasi yang diterima dari *The Robert Koch Institute* (RKI), Jerman, Chandra menjelaskan bahwa jika produk disinfektan yang aktif terhadap virus corona tidak tersedia, produk disinfektan lain yang setidaknya memiliki aktivitas *virucidal* terhadap virus berselimut (*enveloped virus*) juga dapat digunakan.

Tabel 1

No.	Bahan aktif
1	Accelerated hydrogen peroxide (0.5%) ^a
2	Benzalkonium chloride / quaternary ammonium / alkyl dimethyl benzyl ammonium chloride) (0.05%) ^b
3	Chloroxylenol (0.12%) ^c
4	Ethyl alcohol atau ethanol (62-71%) ^{d,e}
5	Iodine in iodophor (50 ppm) ^b
6	Isopropanol atau 2-propanol (50%) ^b
7	Pine oil (0.23%) ^c
8	Povidone-iodine (1% iodine) ^d
9	Sodium hypochlorite (0.05 – 0.5%) ^{d, f}
10	Sodium chlorite (0.23%) ^b
11	Sodium dichloroisocyanurate (0.1-0.5%) ^g

No.	Nama Produk	Bahan Aktif	Tindakan Tambahan	Cara Pengenceran
1	Aquatabs Multipurpose	Sodium dichloroisocyanurate	-	
2	Bayclin Lemon	Sodium hypochlorite 5.25%	A, C	20 mL per 1 L air
3	Bayclin Regular	Sodium hypochlorite 5.25%	A, C	20 mL per 1 L air
4	Bebek Kamar Mandi	Benzalkonium klorida (0.1%)	-	
5	Bratacare Disinfectane Concentrate	Quarternary ammonium compound (45g/L atau 4.5%)	C	10 ml per 1 L air
6	Clorox Disinfecting Bleach	Sodium hypochlorite (7.4%)	A, C	10 ml per 1 L air
7	Clorox Toilet Bowl Clener With Bleach	Sodium hypochlorite (2.4%)	A, C	40 ml per 1 L air
8	Dettol All In One Disinfectant Spray	Alkyl Dimethyl Benzyl	-	
9	Dettol Antiseptic Liquid	Chloroxyleneol (4.8%)	C	25 ml per 1 L air
10	Dettol Pembersih Lantai Citrus	Benzalkonium klorida (1.1856%)	C	45 ml per 1 L air

10	Dettol Pembersih Lantai Citrus	Benzalkonium klorida (1.1856%)	C	45 ml per 1 L air
11	Dettol Pembersih Lantai Multiaction 4 in 1	Benzalkonium klorida (1.1856%)	C	45 ml per 1 L air
12	Mr. Muscle Axi Triguna Pembersih Lantai	Benzalkonium chloride (0.15%), ethoxylated linear alcohol (0.6%)	C	1 bagian dalam 2 bagian air
13	Proclin Pemutih	Sodium hypochlorite 5.25%	A, C	20 mL per 1 L air
14	Septalkan	Benzalkonium klorida (0.095%)	C	1 bagian dalam 1 bagian air
15	Soklin Pemutih	Sodium hypochlorite (5.25%)	A, C	20 mL per 1 L air
16	SOS Pembersih Lantai Antibacterial	Benzalkonium chloride (1%)	C	50 ml dalam 1 L air
17	Wipol Pembersih Lantai Cemara	Pine oil (2.5%)	C	1 bagian dalam 9 bagian air
18	Wipol Pembersih Lantai Sereh & Jeruk	Ethoxylated alcohol (3%), Benzalkonium chloride (1.25%)	C	40 ml dalam 1 L air

Keterangan tindakan tambahan untuk setiap produk ditandai dengan huruf masing-masing:

- A. Korosif terhadap logam, bersihkan kembali dengan kain basah setelah 10 menit,
- B. Mudah terbakar pada konsentrasi tinggi. Jauhkan dari panas/percikan api/nyala api terbuka/permukaan panas,
- C. Pengenceran diperlukan sesuai Tabel 1.

Formula pengenceran:

- Volume larutan awal = (Konsentrasi akhir yang diinginkan x Volume larutan akhir) / konsentrasi awal produk
- Volume air yang ditambahkan = Volume larutan akhir - Volume larutan awal
- Contoh pengenceran produk yang mengandung sodium hypochlorite 5.25% menjadi sodium hypochlorite 0.1% untuk volume akhir 1000 ml:
 - Volume larutan awal = $(0.1\% \times 1000 \text{ ml}) / 5.25\% = 19.05 \text{ ml}$ (bisa gunakan 20 ml saja untuk memudahkan)
 - Volume air yang ditambahkan = $1000 \text{ ml} - 20 \text{ ml} = 980 \text{ ml}$ air (bisa menggunakan air keran)
 - Untuk memudahkan, bisa saja tambahkan 20 ml larutan produk ke dalam 1000 ml air dalam contoh ini, konsentrasi akhir hanya akan berbeda sedikit.

Referensi:

^a Omisbahakhsh, N., & Sattar, S. A. (2006). Broad-spectrum microbicidal activity, toxicologic assessment, and materials compatibility of a new generation of accelerated hydrogen peroxide-based environmental surface disinfectant. *American Journal of Infection Control*, 34(5), 251-2571

^b Saknimit M, Inatsuki I, Sugiyama Y, Yagami K. (1988) Virucidal efficacy of physico-chemical treatments against coronaviruses and parvoviruses of laboratory animals. *Jikken Dobutsu*. 37:341-5; Tested against canine coronavirus

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^e Kampf G, D. Todt D, S. Pfaender S, Steinmann E (2020). Persistence of coronaviruses on inanimate surfaces and their inactivation with biocidal agents. *Journal of Hospital Infection*. 104 (3): 246-251

^f Lai, M. Y. Y., Cheng, P. K. C., & Lim, W. W. L. (2005). Survival of Severe Acute Respiratory Syndrome Coronavirus. *Clinical Infectious Diseases*, 41(7), e67-e71

^g Ong SWX, Tan YK, Chia PY, Lee TH, Ng OT, Wong MSY, Marimuthu K. (2020). Air, Surface Environmental, and Personal Protective Equipment Contamination by Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) From a Symptomatic Patient. *JAMA*. Mar 4.

Informasi secara umum mengacu pada:

<https://www.nea.gov.sg/>

<https://www.cdc.gov/>

<https://ww2.health.wa.gov.au/>

<https://www.sciencemag.org/news/2020/03/does-disinfecting-surfaces-really-prevent-spread-coronavirus>

https://www.rki.de/DE/Content/InfAZ/N/Neuartiges_Coronavirus/Hygiene.html

ONGOING JOURNAL REVIEW NUS DUKE SINGAPORE, MEI 2020

Project title: Determining the efficacy of Povidone Iodine containing Betadine Products on the SARS-CoV-2 using in vitro viral kill time assays.

Methodology:

A total of 4 products (Antiseptic solution, Throat spray, Skin Cleanser and Mouthwash) were tested for viricidal activity on SARS-CoV-2 in my laboratory at Duke-NUS Medical School.

All procedures strictly adhered to Duke-NUS biosafety procedures and approved protocols.

Viricidal Activity Assay

The efficacy of 4 products; 10% Antiseptic Solution, 7.5% Skin Cleanser, 1% Gargle and Mouthwash and 0.45% Throat Spray against SARS-CoV-2 were tested in a suspension assay. Viricidal activity was performed taking into account the cytotoxicity of the product. Viricidal activity of all 4 products were tested in triplicate with a 30 second kill time.

Results and Conclusions:

The summarized results are attached.

The efficacy of four (4) Betadine PVP-I products; 10% Antiseptic Solution, 7.5% Skin Cleanser, 1% Gargle and Mouthwash and 0.45% Throat Spray against SARS-CoV-2 were tested in a suspension assay. In conclusion, all 4 tested Betadine products demonstrate viricidal activity (>4 log reduction of viral titre) against SARS-CoV-2 in 30 seconds.

HAL YANG PERLU DI PERHATIKAN DAN HARUS DILAKSANAKAN

TAKARAN
HARUS TEPAT

TATA CARA
PENYIMPANAN
BARANG
HARUS BENAR

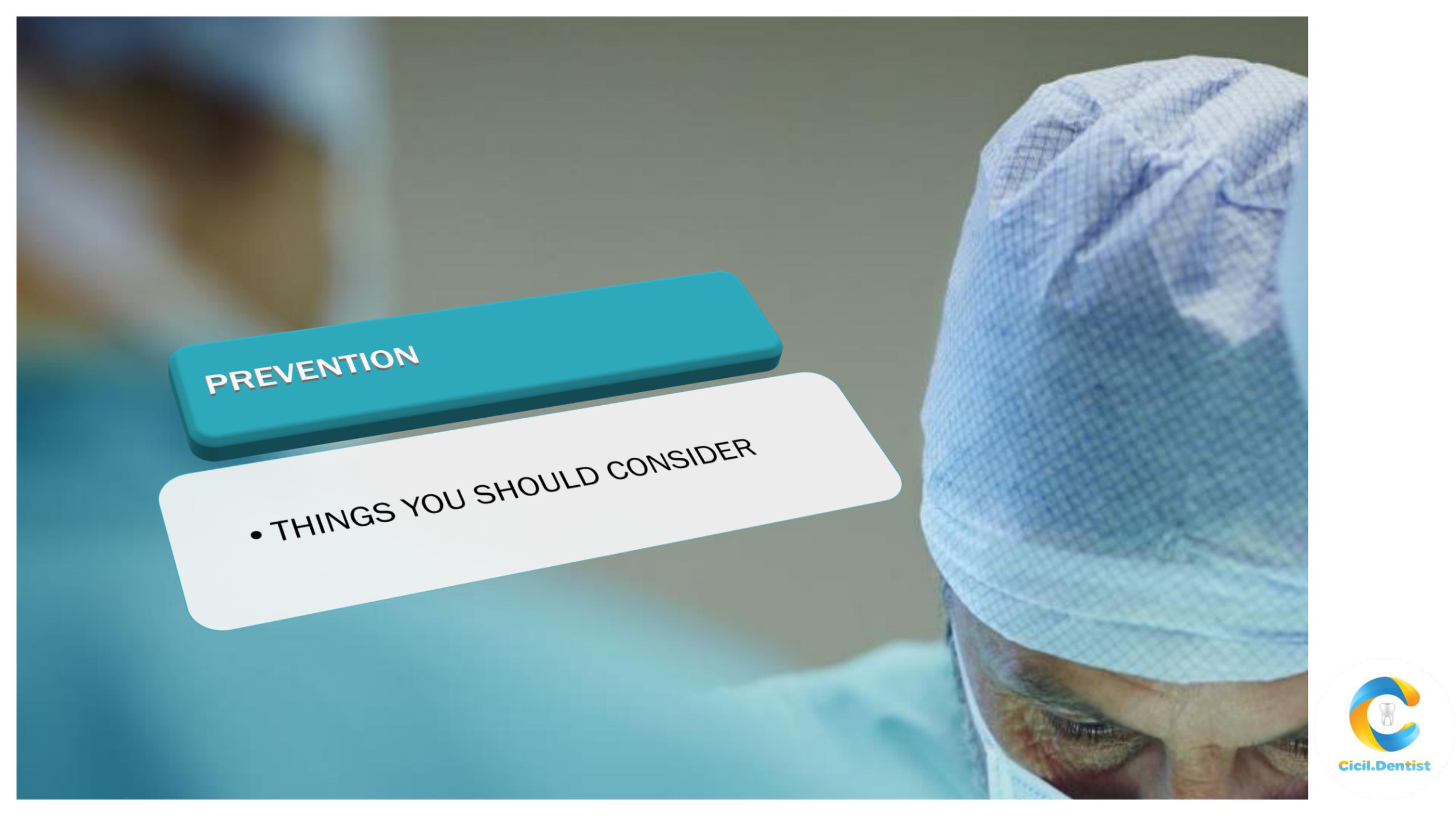


UNTUK STERILISASI BAHAN CETAKAN

Versi CDC

YANG PENTING ADALAH
HARUS SELALU DOUBLE
PROTEKSI DAN SELALU
DISIPLIN DALAM
MENJALANKAN PRAKTEK
NEW NORMAL INI

PROSEDUR TATA
LAKSANA STERILISASI
AKAN KITA BAHAS
DETAILNYA PADA
SEMINAR
SELANJUTNYA



PREVENTION

- THINGS YOU SHOULD CONSIDER

“Panic buying” hal yang berbahaya karena hanya mengikuti arus pasar. ini adalah Langkah antisipasinya

“berhenti sejenak dan lakukan konsolidasi?”

Ini langkah PENTING.

Tetap tenang dan jangan panik. Pelajari setiap sudut pandang dan coba search di website yang terpercaya.

Tentukan ‘Kiblat’ website yang akan jadi patokan anda. Kadang perlu kombinasi buat cek dan recek.

“tentukan prosedur tetap”

Selalu berkonsep

DOUBLE PROTEKSI

SELEKSI BAHAN YANG SESUAI DAN PERTIMBANGKAN SECARA EKONOMIS & EFEKTIF

“UPDATE INFORMASI dengan BIAK”

IKUTI PERKEMBANGAN INFORMASI YANG BENAR

Ini penting karena dalam kasus COVID-19 ini merupakan hal baru dan perlu evaluasi secara cermat.

4 PERTANYAAN KUNCI



APAKAH INI DAPAT
MENINGKATKAN POTENSI
KESELAMATAN TEAM SAYA
DALAM BERPRAKTEK?



BAGAIMANA MEKANISME KERJA
ALAT INI? (MEKANISME
KERJANYA, AFTER SALES
SERVICENYA DAN SPARE
PARTNYA)



APAKAH ADA BARANG LAIN
YANG BISA DI BANDINGKAN?
(APPLE TO APPLE)
(GOOGLES VS MASK)



APAKAH AKAN MEMBERATKAN
PASIHEN DALAM MEMBAYAR
BIAYA TAMBAHAN INI?

PERENCANAAN DALAM BERPRAKTEK KEMBALI

INFORMASI YANG DAPAT DI PERTANGGUNG
JAWABKAN KEBENARANNYA !!!
(PERIHAL VIRUSNYA, RESIKONYA, CARA
ANTISIPASINYA, APLIKASI DI PRAKTEK DRG!!!)

TARUHANNYA NYAWA ANDA DAN KELUARGA

PERENCANAAN DALAM BERPRAKTEK KEMBALI

SELALU POSITIF TAPI BUKAN BERARTI MEMANDANG ENTENG
VIRUSNYA

SELALU TENANG TAPI BUKAN BERARTI TIDAK MELAKUKAN
LANGKAH LANGKAH PENCEGAHAN

SELALU LAKUKAN CEK DAN RECEK TAPI BUKAN BERGOSIP
ATAU MENCARI PEMBENARAN

TARUHANNYA NYAWA ANDA DAN KELUARGA

Dissemination of aerosol and splatter during ultrasonic scaling: A pilot study



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Sudhir R. Patil^a, Suvarna H. Patil^c

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KEYWORDS

Aerosol;
Splatter;
Infection control;
Aerosol contamination
in dentistry;
Dental unit water
lines;
Ultrasonic scaling

Summary

Context: Routine dental procedures produce aerosol and splatter, which pose a potential risk to the clinician and dental personnel, as well as the immunocompromised patient. Reports indicate that the ultrasonic scaler is the greatest producer of aerosol and splatter.

Aims: The study aimed to evaluate the contamination distance, contamination amount and contamination duration of aerosol produced during ultrasonic scaling.

Methods and materials: The study was performed on a mannequin fitted with phantom jaws on a dental chair. Mock scaling was done for 15 min using an auto-tuned magnetostrictive ultrasonic scaler with the simultaneous use of a low volume saliva ejector. An ultrafiltrate-containing fluorescent dye was used in the reservoir supplying the scaler unit. Filter paper discs were placed in different positions and distances in the operator. Immediately following scaling, the filter paper discs were replaced with new ones. This was done every 30 min for a total duration of 90 min.

Results: Maximum contamination was found on the right arm of the operator and left arm of the assistant. Contamination was also found on the head, chest and inner surface of the face mask of the operator and of the assistant. The aerosol was found to remain in the air up to 30 min after scaling.



Type here to search



82%

8:08
06/06/2020

11

due to narrow bore water lines, water stagnation, heating and contamination of reservoir bottles. Dental unit water lines also have a hydrophobic polymeric plastic tubing made of polyvinyl chloride and polyurethane that leads to the formation of biofilm, which releases a high number of planktonic organisms within 8 h, followed by the formation of communities of microcolonies that are protected by an extracellular amorphous matrix for six days [6].

There is an increased prevalence of respiratory infections among dentists, the symptoms of which are related to the highly contaminated breathing zone in the dental operator. Aerosols remain in the air for a long time even after the completion of the dental procedure and have the potential risk of entering the respiratory passages. Splatter evaporates, leaving smaller particles called droplet nuclei, which can carry bacteria and viruses and transmit various diseases such as SARS and tuberculosis [5]. Following a rise in communicable diseases, infection control has become an essential part of the dental operator and also forms an integral part of the curricula of dental schools. Performing periodic checks on environmental contamination is recommended to improve the quality of the environment in the dental operator [7].

plving the ultrasonic scaler unit 1 g of fluorescein dye used in the reservoir supplying the ultrasonic scaler unit (Figs. 2 and 3). Mock scaling was done for 15 min using

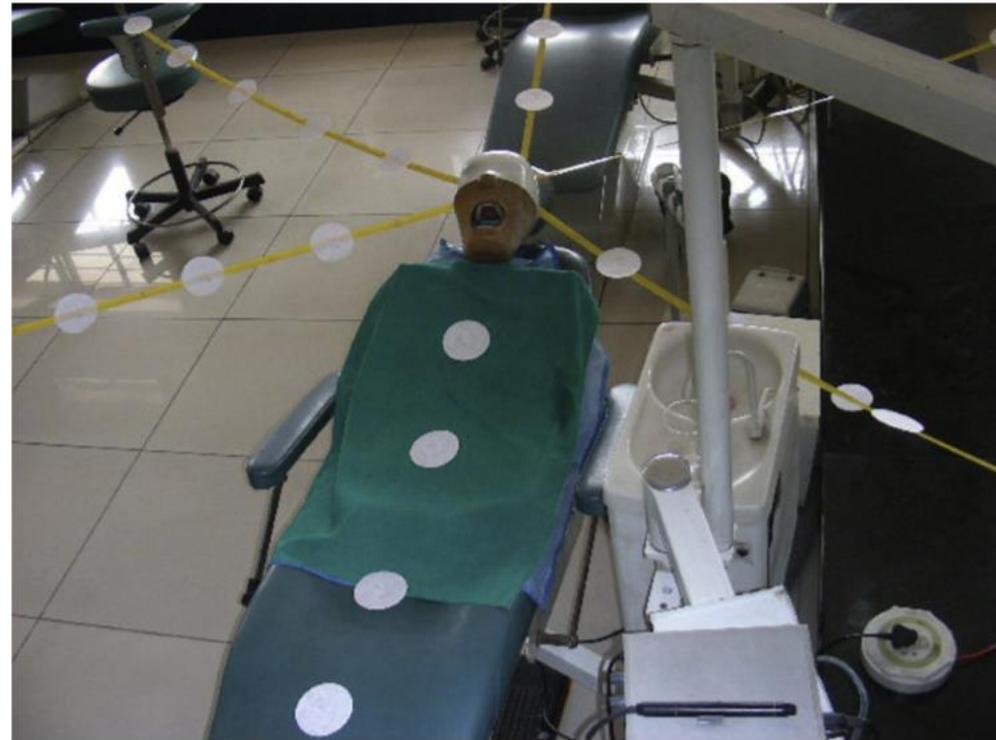


Figure 1 Mannequin with phantom jaws fitted on the dental chair simulating the dental operator.



PREP CHAMBER

AKAN MEMBANTU SAYA MENGONTROL
DAERAH KONTAMINAN



TERIMA KASIH

0816 195 8785

Untuk semua pertanyaan sesudah
acara