4-30-2020

Covid-19 Clinical Update 4/30/2020

George Washington University

1. EPIDEMIOLOGY
2. PATHOPHYSIOLOGY
4. TREATMENT
5. GW UPDATES

COVID-19 UPDATE

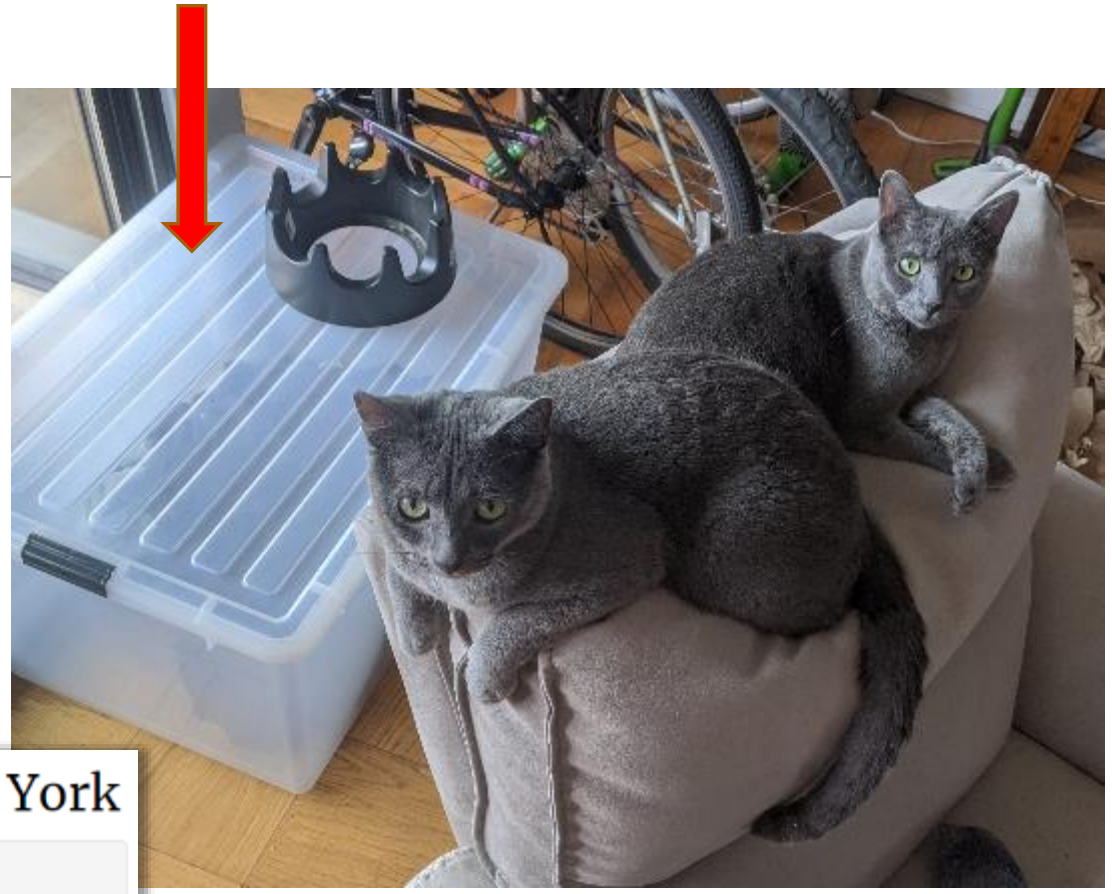
HANA AKSELROD, MD, MPH
GW DIVISION OF INFECTIOUS DISEASES
4/30/2020

https://newsroom.wcs.org/News-Releases/articleType/ArticleView/articleId/14084/Update-Bronx-Zoo-Tigers-and-Lions-Recovering-from-COVID-19.aspx

Disclosures

- No stock ownership or other financial COI
- Pre-print/investigational information discussed

Contaminated items



Not these cats.
(Probably.)

Confirmation of COVID-19 in Two Pet Cats in New York

Media Statement

For Immediate Release: Wednesday, April 22, 2020
Contact:
For inquiries about COVID-19 and animals, contact media@cdc.gov
For inquiries about the testing and confirmation process for animals, contact APHISpress@usda.gov

https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/animals.html

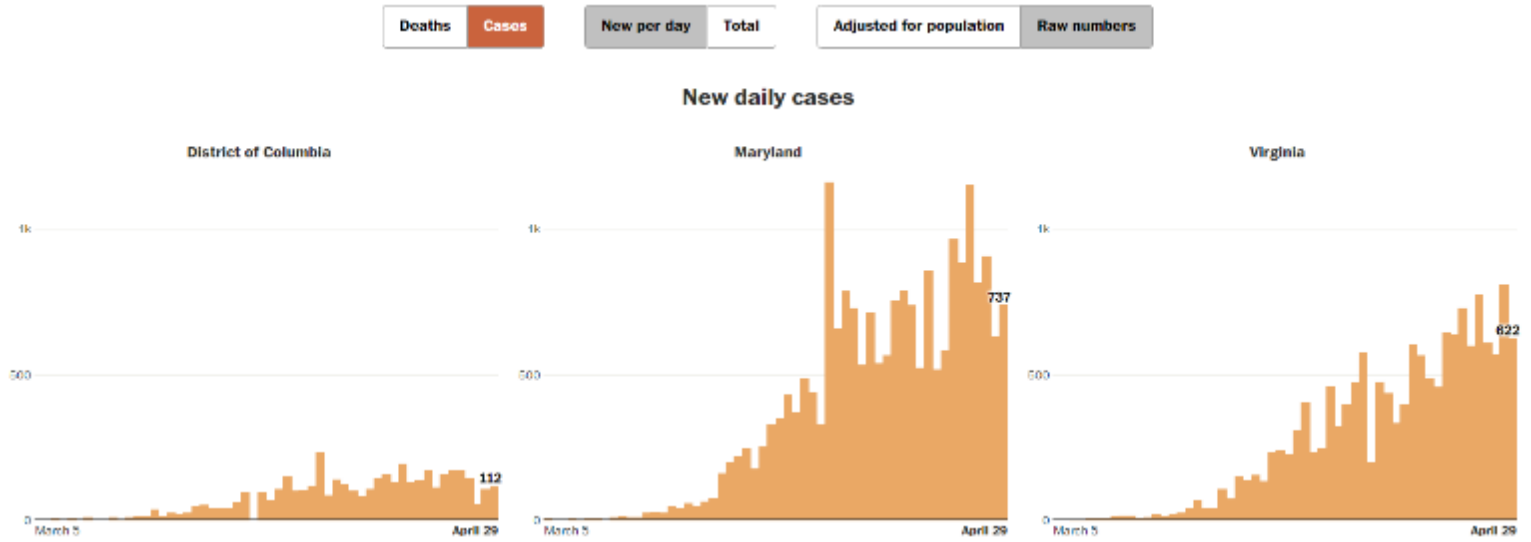
Known coronavirus deaths and cases in D.C., Maryland and Virginia

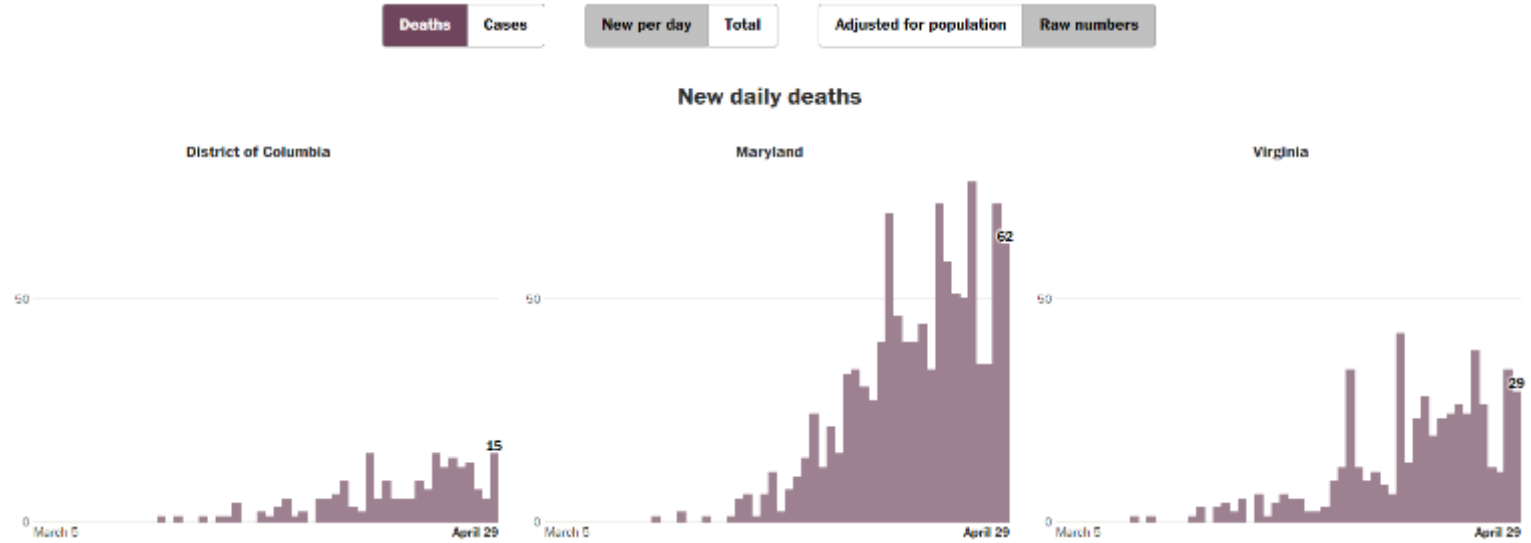
There are a total of **1,818 deaths** and **39,961 cases** confirmed in the region.

District of Columbia	Maryland	Virginia
206	1,085	527
4,110 cases	20,865 cases	14,986 cases

By Rebecca Tan, Fenit Nirappil, Kevin Uhrmacher, Gabriel Florit and Danielle Rindler

Updated April 29 at 11:28 a.m.

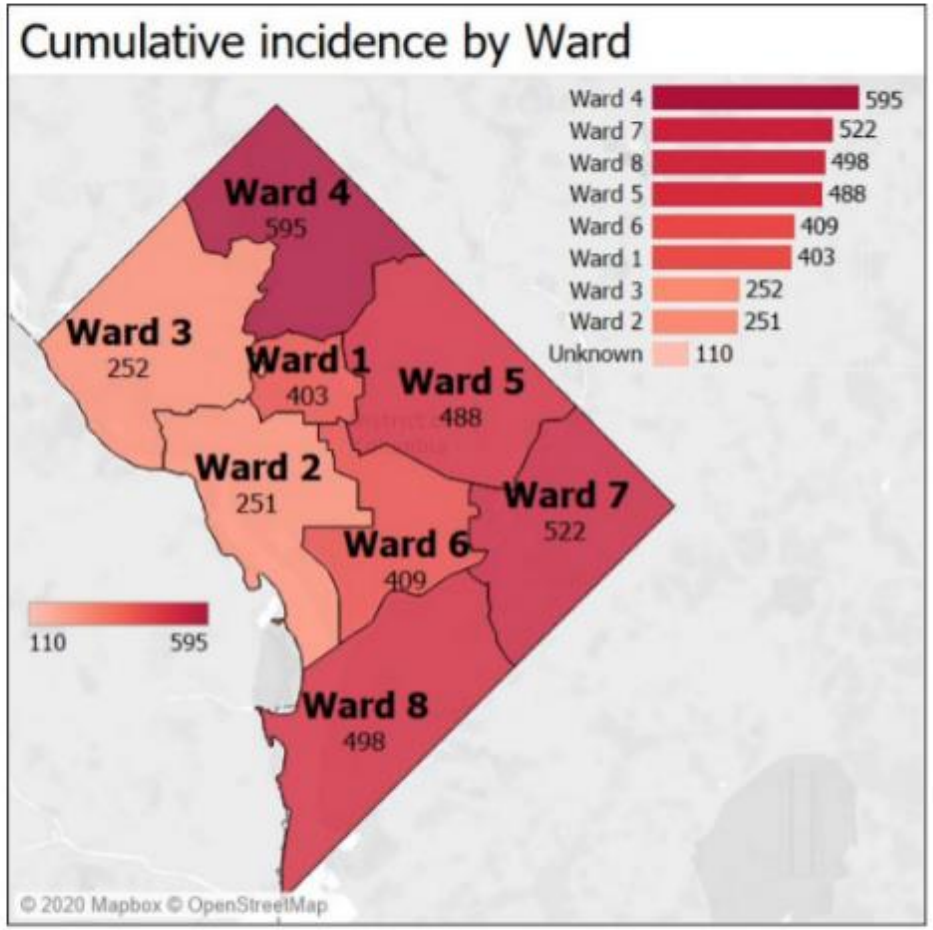




- Increased testing availability
- Prioritizing essential workers
- More aggressive case findings in nursing homes and other cohorted facilities
- “Not there yet” on reopening

https://www.washingtonpost.com/graphics/local/dc-maryland-virginia-coronavirus-cases/

Washington, DC as of April 23



Total Confirmed Cases: 3,528

	Total Number Positives	Percent
All	**3,528**	**100**
Race		
Unknown	490	14
American Indian/Alaska Native	12	<1
Asian	60	2
Black/African American	1762	50
Native Hawaiian/Pacific Islander	7	<1
Other/Multi-Racial	538	15
White	635	18
Refused During Interview	24	1
Ethnicity		
Unknown	705	20
Hispanic or Latinx	636	18
NOT Hispanic or Latinx	2173	62
Refused During Interview	14	<1

Race	Total Lives Lost	Percent
All	**153**	**100**
Asian	3	2
Black/African American	124	81
Hispanic/Latinx	9	6
Non-Hispanic White	16	10
Other	1	1

Epidemiology and transmission of COVID-19 in 391 cases and 1286 of their close contacts in Shenzhen, China: a retrospective cohort study

Qifang Bi, MHS † • Yongsheng Wu, MPhil † • Shujiang Mei, MPhil † • Chenfei Ye, PhD † • Xuan Zou, MPhil • Zhen Zhang, MPhil • et al. Show all authors • Show footnotes

Published: April 27, 2020 • DOI: https://doi.org/10.1016/S1473-3099(20)30287-5 • Check for updates

- Active contact tracing identified cases of COVID-19 ~2 days faster (2.7 days vs. 4.6 days after symptom onset) compared to passive symptom-based surveillance
- Attack rate among household contacts was 11%, with children and adults at similar risk
- Each index case caused, on average, 0.4 additional cases
- An estimated 5% of cases developed symptoms 14 or more days after exposure

Contact Tracing and Active Case Finding

- Traditional “shoe-leather” field epidemiology methods
- Now can be amplified by digital methods
- Foundational strategy for “reopening” safely
- In need of massive scale-up

Johns Hopkins Bloomberg School of Public Health | Center for Health Security

Impact on Cardiac and All-Cause Mortality

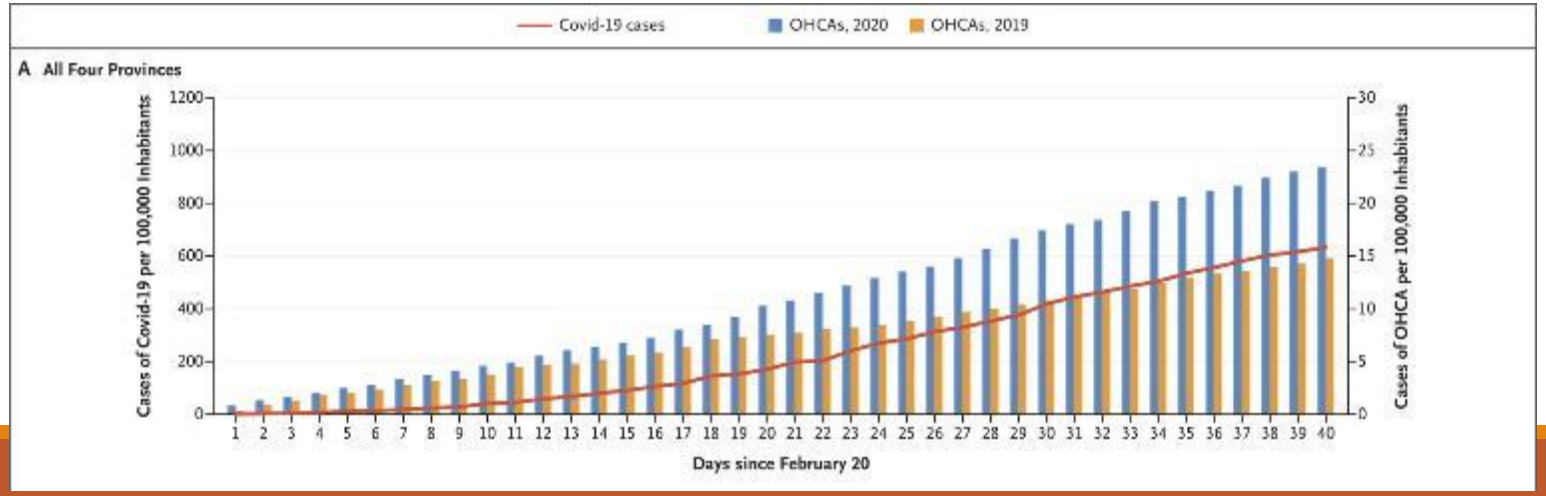
CORRESPONDENCE

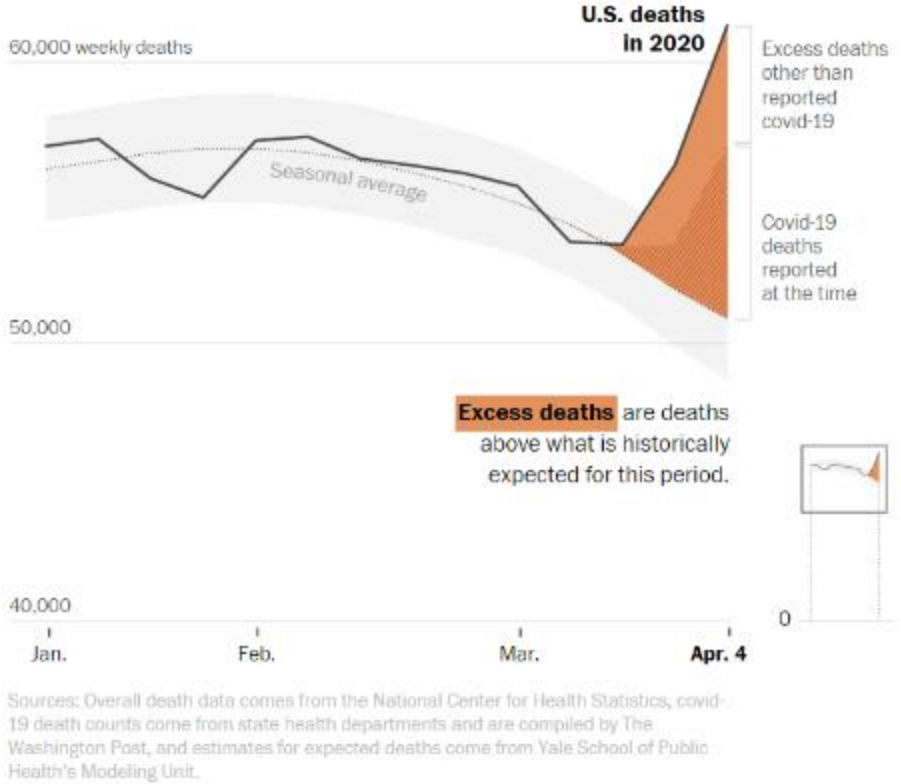
Out-of-Hospital Cardiac Arrest during the Covid-19 Outbreak in Italy

TO THE EDITOR:

Despite the risk of rapid respiratory failure[1] and cardiac complications[2] due to Covid-19, it is unclear whether there is an association between Covid-19 and out-of-hospital cardiac arrest. The Lombardy region of Italy was among the first areas to have an outbreak of Covid-19 outside China,[3] and the first case there was diagnosed on February 20, 2020, in Lodi Province.[4]

April 29, 2020
DOI: 10.1056/NEJMc2010418
Metrics





Washington Post / YSPH

CDC Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™

A-Z Index

Search

Morbidity and Mortality Weekly Report (*MMWR*)

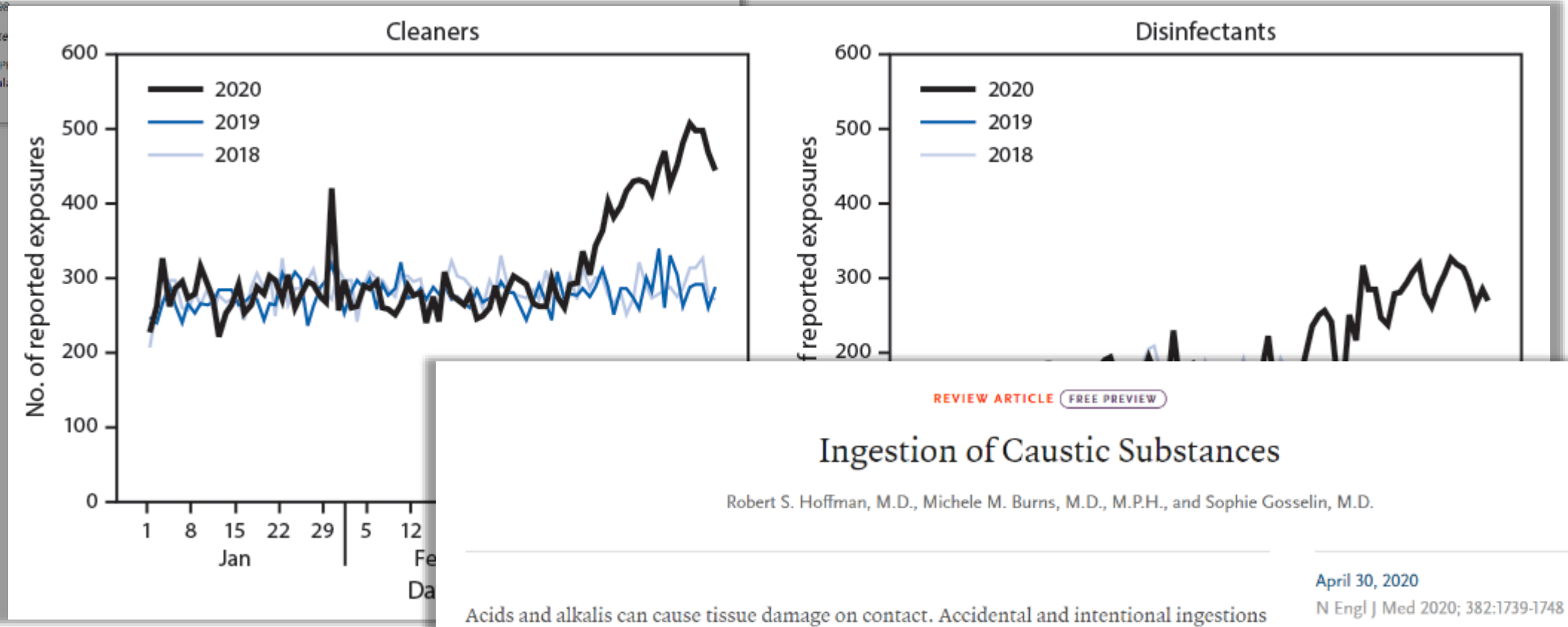
CDC

Cleaning and Disinfectant Chemical Exposures and Temporal Associations with COVID-19 — National Poison Data System, United States, January 1, 2020–March 31, 2020

Weekly / April 24, 2020 / 69(16);496–498

On April 20, 2020, this report was poste

Arthur Chang, MD[1]; Amy H. Schnall, MP
Funk, PharmD[2]; Maria Mercurio Zappal
(View author affiliations)



REVIEW ARTICLE FREE PREVIEW

Ingestion of Caustic Substances

Robert S. Hoffman, M.D., Michele M. Burns, M.D., M.P.H., and Sophie Gosselin, M.D.

April 30, 2020
N Engl J Med 2020; 382:1739-1748
DOI: 10.1056/NEJMra1810769

Acids and alkalis can cause tissue damage on contact. Accidental and intentional ingestions of caustic materials in adults and children are a worldwide health issue. Acids act in part by denaturing proteins, and alkalis by saponifying fats. Approaches to management are outlined.

Editors

Autoimmune Disease

- Established patients at NYU Langone Health in New York City
- Immune-mediated inflammatory disease
- March 3 through April 3, 2020 (average follow-up, 16 days from symptom onset)
- 86 patients had either confirmed (59 patients) or highly suspected (27) symptomatic Covid-19
  - 62 of 86 (72%) were receiving biologics or Janus kinase (JAK) inhibitors
- 14 (16%) were hospitalized
  - Use of steroids, HCQ, and methotrexate, was higher among those who were hospitalized
  - 79% (11 of 14) were discharged (mean stay, 5.6 days), and 2 remain hospitalized as of April 3
  - Of 2 patients with more severe disease, 1 had elevated IL-6 levels and ARDS, and the other died in ED; neither patient was receiving biologic therapies on a long-term basis

CORRESPONDENCE | ONLINE FIRST

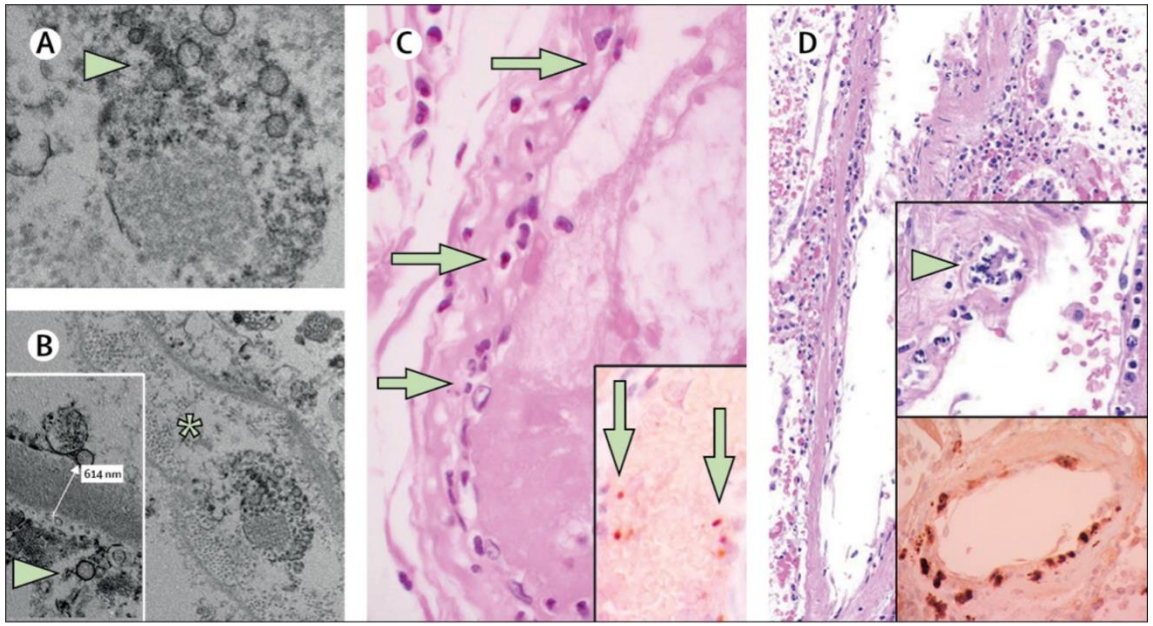
PDF [400 KB] Figures Save Share Reprints Request

Endothelial cell infection and endotheliitis in COVID-19

Zsuzsanna Varga • Andreas J Flammer • Peter Steiger • Martina Haberecker • Rea Andermatt • Annelies S Zinkernagel • et al. Show all authors

Published: April 20, 2020 • DOI: https://doi.org/10.1016/S0140-6736(20)30937-5

PlumX Metrics



The NEW ENGLAND JOURNAL of MEDICINE

CORRESPONDENCE

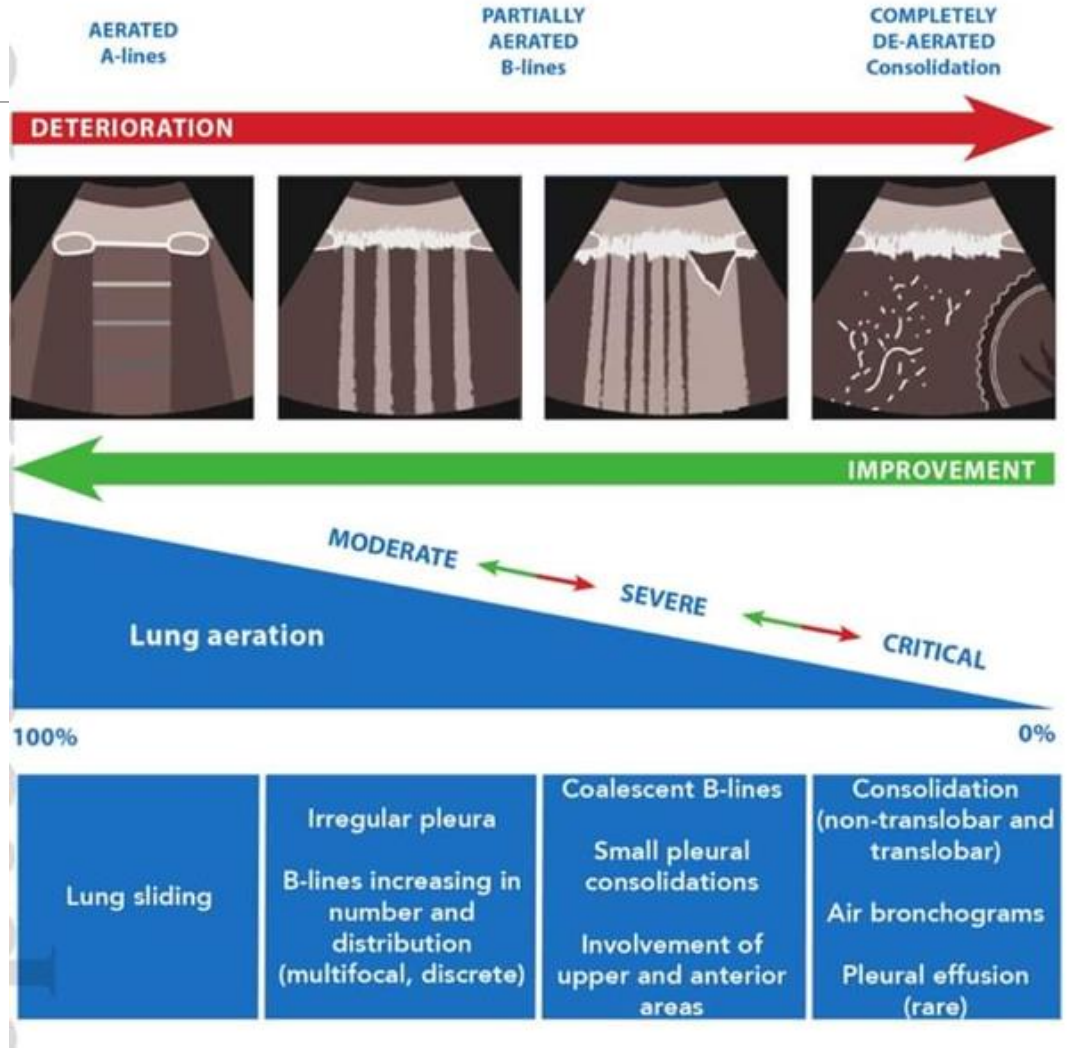
COVID-19 CASES

To rapidly communicate information on the global clinical effort against Covid-19, the Journal has initiated a series of case reports that offer important teaching points or novel findings. The case reports should be viewed as observations rather than as recommendations for evaluation or treatment. In the interest of timeliness, these reports are evaluated by in-house editors, with peer review reserved for key points as needed.

Large-Vessel Stroke as a Presenting Feature of Covid-19 in the Young

Pulmonary Pathology

- "Silent hypoxia" without hypercapnia
- Early disease / "Type L"
  - Direct viral damage, hypoxia
  - Preserved lung compliance and micro-architecture
  - Non-invasive oxygenation preferred
- Advanced disease / "Type H"
  - Inflammatory damage
  - Heavier and denser lung
  - Mechanical ventilation, may need higher PEEP
- High mortality (>50%) for intubated patients



Marini & Gattinoni, *JAMA*, 4/24/2020; http://www.emdocs.net/lung-ultrasound-in-covid-19/

Remdesivir Update

News & Events > Newsroom > News Releases

NIH Clinical Trial Shows Remdesivir Accelerates Recovery from Advanced COVID-19

April 29, 2020

- Adaptive COVID-19 Treatment Trial (ACTT) preliminary results
- 1,063 patients receiving remdesivir (10-day IV course) vs. placebo
- Primary outcome: time to recovery by Day 29
- “Patients who received remdesivir had a 31% faster time to recovery than those who received placebo ($p<0.001$).”
- Specifically, the median time to recovery was 11 days for patients treated with remdesivir compared with 15 days for those who received placebo.
- Results also suggested a survival benefit, with a mortality rate of 8.0% for the group receiving remdesivir versus 11.6% for the placebo group ($p = 0.059$).
- More detailed information about the trial results, including more comprehensive data, will be available in a forthcoming report.”

Remdesivir Update


News & Events > Newsroom > News Releases

NIH Clinical Trial Shows Remdesivir Accelerates Recovery from Advanced COVID-19

April 29, 2020

- Adaptive COVID-19 Treatment Trial (ACTT) preliminary results
- 1,063 patients receiving remdesivir (10-day IV course) vs. placebo
- Primary outcome: time to recovery by Day 29
- "Patients who received remdesivir had a 31% faster time to recovery than those who received placebo ($p<0.001$)." *Definition of "time to recovery" was simplified during study.*
- Specifically, the median time to recovery was 11 days for patients treated with remdesivir compared with 15 days for those who received placebo.
- Results also suggested a survival benefit, with a mortality rate of 8.0% for the group receiving remdesivir versus 11.6% for the placebo group ($p = 0.059$). *NNT = 28*
- More detailed information about the trial results, including more comprehensive data, will be available in a forthcoming report."

Remdesivir Expanded Access

- Remdesivir (RDV; GS-5734) for the Treatment of SARS-CoV2 (CoV) Infection
  - Enrolling up to 15,000 participants
- 10 days of drug administration, 28 days of follow-up
  - 200 mg IV on Day 1, 100 mg on Days 2-10
- Eligibility:
  - Hospitalized with confirmed SARS-CoV2 by PCR
  - Requiring invasive mechanical ventilation
  - **NOT in multiorgan failure**
  - ALT ≤ 5 × ULN
- Most common AE:
  - Bruising or phlebitis
  - GI symptoms
  - Headache

ID Consultation