

Diagnostics in Covid

Outbreaks are as much a
communications issue as a
technical issue

What's the next outbreak?

Latest on COVID-19

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Latest Posts On ProMED-Mail

08 Jan 2022 [Avian influenza \(12\): Eurasia, poultry, wild bird, HPAI H5N1, epidemiology](#)

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08 Jan 2022 [Hepatitis A - USA \(02\): \(PA\) restaurant cluster, fatal](#)

08 Jan 2022 [Rabies \(02\): Americas \(USA\) human deaths, 2021](#)

08 Jan 2022 [Brucellosis - USA: \(MT\) cattle](#)

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08 Jan 2022 [Avian influenza \(11\): Niger \(NI\) poultry, HPAI H5N1, OIE](#)

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Published Date: 2022-01-08 22:40:03

Subject: PRO/AH/EDR> Avian influenza (12): Eurasia, poultry, wild bird, HPAI H5N1, epidemiology

Archive Number: 20220108.8700740

AVIAN INFLUENZA (12): EURASIA, POULTRY, WILD BIRD, HPAI H5N1, EPIDEMIOLOGY

A ProMED-mail post

<http://www.promedmail.org>

ProMED-mail is a program of the International Society for Infectious Diseases
<http://www.isid.org>

In this posting:

[1] UK and Europe: poultry and wild birds, spread, epidemiology

[2] Israel (Hula Valley): cranes, epidemiology and control, scientists' views

[1] UK and Europe: poultry and wild birds, spread, epidemiology

Date: Fri 7 Jan 2022

Source: The Scientist [abridged, edited]

<https://www.the-scientist.com/news-opinion/avian-flu-case-numbers-soar-in-europe-69588>

"The Scientist" spoke with UK Chief Veterinary Officer Christine Middlemiss about the current avian flu outbreak, the health and economic effects of the disease, and efforts to combat it.

The Scientist (TS): What does a typical avian flu season look like?

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ProMED-mail alerts



What's the next outbreak?

Published Date: 2022-01-07 01:48:07

Subject: PRO/AH/EDR> Lassa fever - West Africa (01): Nigeria

Archive Number: 20220107.8700707

LASSA FEVER - WEST AFRICA (01): NIGERIA

A ProMED-mail post

<http://www.promedmail.org>

ProMED-mail is a program of the
International Society for Infectious Diseases

<http://www.isid.org>

Date: Sun 26 Dec 2021

Source: Nigeria Center for Disease Control (NCDC) [edited]

<https://bit.ly/2KTJfrL>

Key points

Current week (51): 20-26 Dec 2021 / Cumulative 2021 weeks 1-51 / Cumulative 2020 weeks 1-51

- Suspected cases: 193 / 4482 / 6668

- Confirmed cases: 29 / 482 / 1175

- Probable cases: 0 / 5 / 14

- Deaths: 3 / 99 / 242

- Case fatality rate (CFR [%]): 10.3 / 20.5 / 20.6

- Number of states affected: 4 / 17 / 27

- Local government areas (LGAs) affected: 12 / 67 / 130

What's the next outbreak?

Published Date: 2022-01-09 16:03:42

Subject: PRO/AH/EDR> Avian influenza, human (02): China (GD) H9N2

Archive Number: 20220109.8700749

AVIAN INFLUENZA, HUMAN (02): CHINA (GUANGDONG) H9N2

What's the next outbreak?

Published Date: 2021-12-28 23:57:22

Subject: PRO/PL> Undiagnosed smut, teff - Ethiopia

Archive Number: 20211228.8700555

UNDIAGNOSED SMUT, TEFF - ETHIOPIA

What's the next outbreak?

Published Date: 2022-01-03 11:16:34

Subject: PRO/AH/EDR> Undiagnosed deaths - South Sudan: (JG) RFI

Archive Number: 20220103.8700639

UNDIAGNOSED DEATHS - SOUTH SUDAN: (JONGLEI) REQUEST FOR INFORMATION

What's the next outbreak?

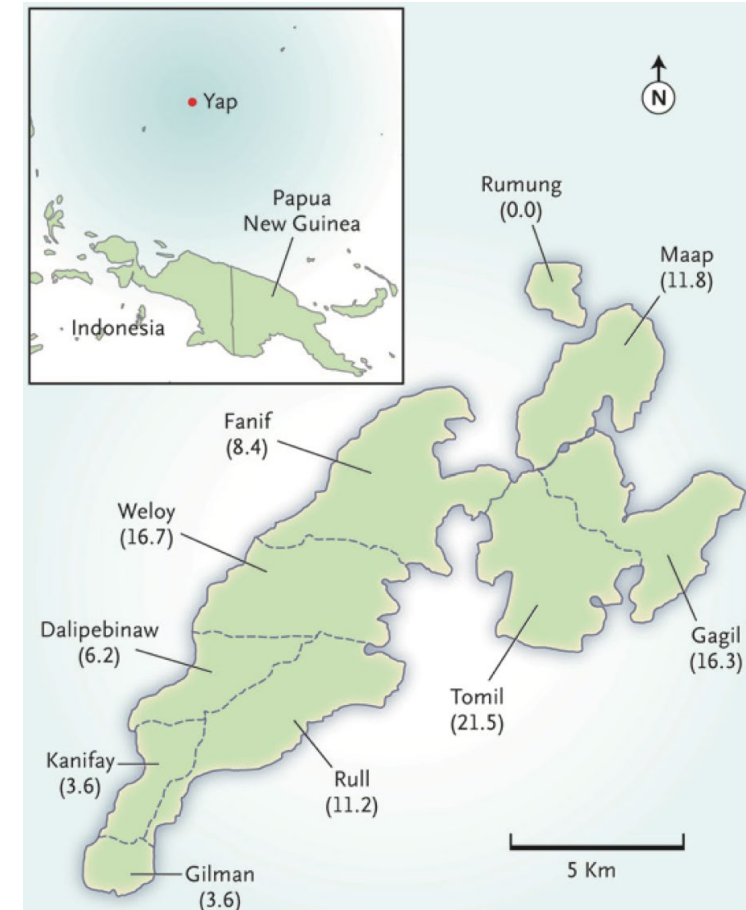
What's the next outbreak?

ORIGINAL ARTICLE

Zika Virus Outbreak on Yap Island, Federated States of Micronesia

Mark R. Duffy, D.V.M., M.P.H., Tai-Ho Chen, M.D.,
W. Thane Hancock, M.D., M.P.H., Ann M. Powers, Ph.D.,
Jacob L. Kool, M.D., Ph.D., Robert S. Lanciotti, Ph.D., Moses Pretrick, B.S.,
Maria Marfel, B.S., Stacey Holzbauer, D.V.M., M.P.H.,
Christine Dubray, M.D., M.P.H., Laurent Guillaumot, M.S., Anne Griggs, M.P.H.,
Martin Bel, M.D., Amy J. Lambert, M.S., Janeen Laven, B.S., Olga Kosoy, M.S.,
Amanda Panella, M.P.H., Brad J. Biggerstaff, Ph.D., Marc Fischer, M.D., M.P.H.,
and Edward B. Hayes, M.D.

June 11, 2009



What's the next outbreak?

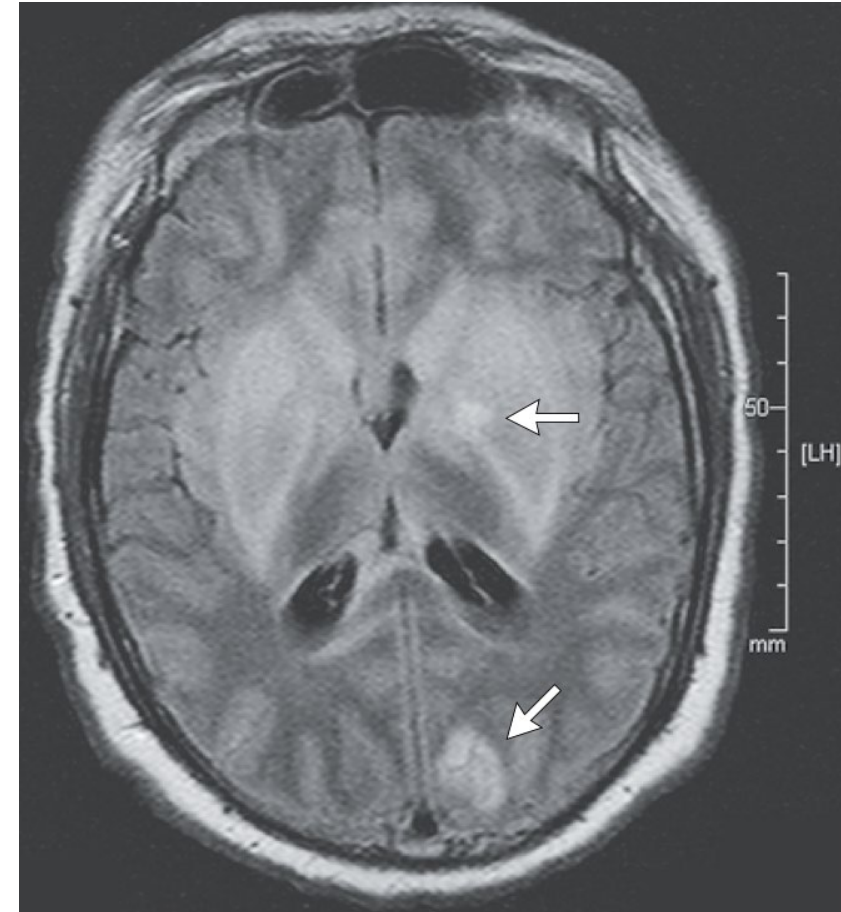
BRIEF REPORT

A Variegated Squirrel Bornavirus Associated with Fatal Human Encephalitis

Bernd Hoffmann, D.V.M., Dennis Tappe, M.D., Dirk Höper, M.Sc.,
Christiane Herden, D.V.M., Annemarie Boldt, M.D., Christian Mawrin, M.D.,
Olaf Niederstraßer, M.D., Tobias Müller, M.D., Maria Jenckel, M.Sc.,
Elisabeth van der Grinten, D.V.M., Christian Lutter, D.V.M.,
Björn Abendroth, M.Sc., Jens P. Teifke, D.V.M., Daniel Cadar, D.V.M., Ph.D.,
Jonas Schmidt-Chanasit, M.D., Rainer G. Ulrich, Ph.D., and Martin Beer, D.V.M.

N Engl J Med 2015;373:154-62.

DOI: 10.1056/NEJMoa1415627



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The accelerating pace of diagnosis

Epidemiologic Notes and Reports

***Pneumocystis* Pneumonia --- Los Angeles**

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The accelerating pace of diagnosis

Vol. 292 No. 15

TRANSFUSION-ASSOCIATED HEPATITIS — FEINSTONE ET AL.

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TRANSFUSION-ASSOCIATED HEPATITIS NOT DUE TO VIRAL HEPATITIS TYPE A OR B

STEPHEN M. FEINSTONE, M.D., ALBERT Z. KAPIKIAN, M.D., ROBERT H. PURCELL, M.D.,
HARVEY J. ALTER, M.D., AND PAUL V. HOLLAND, M.D.

Abstract Twenty-two patients who had an episode of transfusion-associated hepatitis not positive for hepatitis B antigen were examined for development of antibody to hepatitis A and B antigens, cytomegalovirus and Epstein-Barr virus. Antibody response to the 27-nm virus-like hepatitis A antigen was measured by immune electron microscopy. In none of the 22 patients studied did serologic evidence of infection with hepatitis A virus develop during the study

period. Nine of the 22 patients had antibody responses to cytomegalovirus, but it was difficult to relate these seroconversions to their hepatitis. In addition, all 22 patients had pre-existing antibody to the Epstein-Barr virus. It seems likely that at least a proportion of such antigen-negative transfusion-associated hepatitis is caused by other infectious agents, not yet identified. (N Engl J Med 292:767-770, 1975)



The accelerating pace of diagnosis

Outbreak of Acute Illness -- Southwestern United States, 1993

Beginning in May 1993, cases of acute illness characterized by fever, myalgias, headache, and cough, followed by rapid development of... Department of Health (CDH), and Utah Department of Health (UDH). This report presents preliminary findings from an ongoing inves



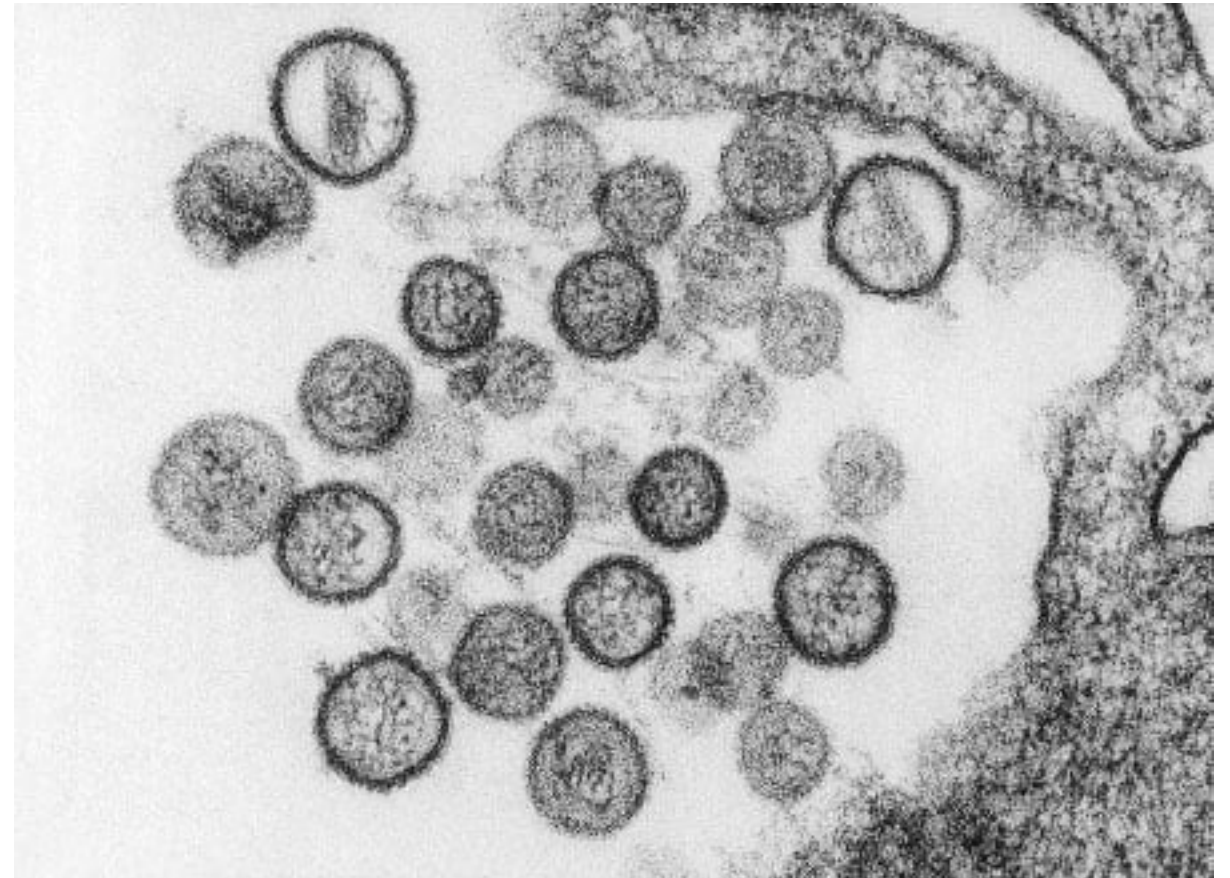
The accelerating pace of diagnosis

Outbreak of Acute Illness -- Southwestern United States, 1993

Beginning in May 1993, cases of acute illness characterized by fever, myalgias, headache, and cough, followed by rapid development of renal failure, were reported to the Arizona Department of Health (CDH), and Utah Department of Health (UDH). This report presents preliminary findings from an ongoing investigation.



Update: Outbreak of Hantavirus Infection -- Southwestern United States, 1993



The accelerating pace of diagnosis

BRIEF REPORT

A Novel Coronavirus from Patients with Pneumonia in China, 2019

Na Zhu, Ph.D., Dingyu Zhang, M.D., Wenling Wang, Ph.D., Xingwang Li, M.D., Bo Yang, M.S., Jingdong Song, Ph.D., Xiang Zhao, Ph.D., Baoying Huang, Ph.D., Weifeng Shi, Ph.D., Roujian Lu, M.D., Peihua Niu, Ph.D., Faxian Zhan, Ph.D., Xuejun Ma, Ph.D., Dayan Wang, Ph.D., Wenbo Xu, M.D., Guizhen Wu, M.D., George F. Gao, D.Phil., and Wenjie Tan, M.D., Ph.D., for the China Novel Coronavirus Investigating and Research Team

Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China



Chaolin Huang*, Yeming Wang*, Xingwang Li*, Lili Ren*, Jianping Zhao*, Yi Hu*, Li Zhang, Guohui Fan, Jiuyang Xu, Xiaoying Gu, Zhenshun Cheng, Ting Yu, Jiaan Xia, Yuan Wei, Wenjuan Wu, Xuelei Xie, Wen Yin, Hui Li, Min Liu, Yan Xiao, Hong Gao, Li Guo, Jungang Xie, Guangfa Wang, Rongmeng Jiang, Zhancheng Gao, Qi Jin, Jianwei Wang†, Bin Cao†

Summary

Background A recent cluster of pneumonia cases in Wuhan, China, was caused by a novel betacoronavirus, the 2019 novel coronavirus (2019-nCoV). We report the epidemiological, clinical, laboratory, and radiological characteristics and treatment and clinical outcomes of these patients.

Lancet 2020; 395: 497–506

Published Online
January 24, 2020
[https://doi.org/10.1016/S0140-6736\(20\)30183-5](https://doi.org/10.1016/S0140-6736(20)30183-5)

This online publication has been corrected. The corrected version first appeared at [thelancet.com](https://www.thelancet.com) on January 30, 2020

See [Comment](#) pages 469 and 470

*Contributed equally

†Joint corresponding authors

Methods All patients with suspected 2019-nCoV were admitted to a designated hospital in Wuhan. We prospectively collected and analysed data on patients with laboratory-confirmed 2019-nCoV infection by real-time RT-PCR and next-generation sequencing. Data were obtained with standardised data collection forms shared by WHO and the International Severe Acute Respiratory and Emerging Infection Consortium from electronic medical records. Researchers also directly communicated with patients or their families to ascertain epidemiological and symptom data. Outcomes were also compared between patients who had been admitted to the intensive care unit (ICU) and those who had not.

Diagnostic challenges

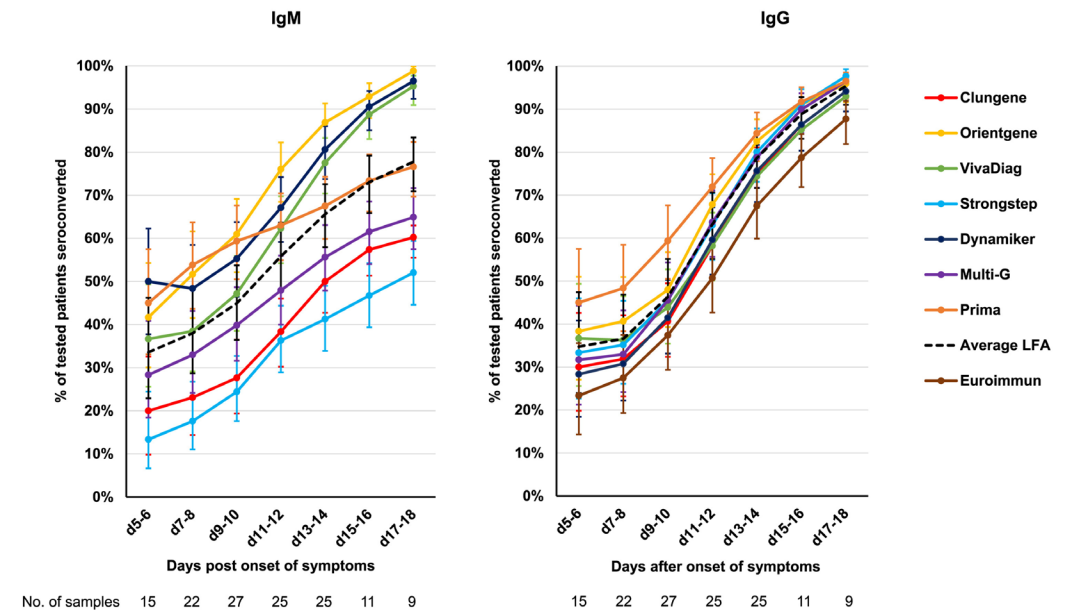
Diagnostic challenges

- Availability



Diagnostic challenges

- Availability
- Sensitivity/specificity



Diagnostic challenges

- Availability
- Sensitivity/specificity
- Equity



Diagnostic challenges

- Availability
- Sensitivity/specificity
- Equity
- Home testing



Thank you!