

Letter to the Editor

Online resources on 2009 pandemic influenza for clinicians

Emmanuel Bhaskar¹ and Pazhanivel Mohan²

¹Department of Medicine Sri Ramachandra Medical College and Research Institute, Sri Ramachandra University, Chennai-600116, India

²Department of Medical Gastroenterology, Government Stanley Medical College & Hospital, Chennai-600001, India

Abstract

Numerous resources relevant to the 2009 pandemic influenza are available online. A casual search in Google using the phrase “swine flu resources” yields 9,180,000 items, making a time-bound search less fruitful for an average health care professional. This review summarizes the contents useful to practicing clinician available in 12 web sites that were selected based on their relevance to clinical care.

Key words: pandemic influenza, online resources, clinicians

J Infect Dev Ctries 2010; 4(3):190-193.

(Received 19 December 2009 – Accepted 03 January 2010)

Copyright © 2010 Bhaskar and Mohan. This is an open-access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Introduction

The frequency of voluntary health enquiry by the public with health care professionals regarding the 2009 pandemic influenza is extremely high in comparison with enquiries made by patients regarding other life-threatening diseases. This may be partly due to the media’s influence through different modes of communication across the globe. Doctors and other health care professionals are looked upon as educators about transmission, clinical features, investigations, treatment, and prevention of this pandemic illness. Given the robust expansion in medical knowledge about the current pandemic, clinicians consider the Internet a major source of information. A casual search in Google using the phrase “swine flu resources” yields 9,180,000 items, making a time-bound search less fruitful for an average health care professional. This review discusses the best online resources on the 2009 pandemic influenza and ways to access them.

Selection of web resources

Independent searches were made by both authors using the search phrases “swine flu resources”, “swine flu update”, “swine flu CME”, and “swine flu health care professionals” at <http://google.com> and <http://scirus.com>, followed by consensus on the choice of web sites for discussion. The Google abstracts of the web pages were screened for possible scientific content of global interest. These sites were then surveyed for technical quality of the scientific content, usefulness for

a health care professional, and free access to its contents. Twelve sites were selected and studied in detail to identify the type of resources available and, in particular, the salient feature on swine flu that was unique to that web site. The hierarchy described in this article was too close to measure and it was a subjective assessment of clinical relevance by the authors and does not strictly equate to a quality hierarchy. Table 1 shows the web addresses of the study web sites.

Summary of online resources on 2009 Pandemic Influenza

World Health Organization (WHO) [1]

Developed by WHO, this web page on pandemic influenza provides links to frequently asked questions (FAQs), guidance documents, and recent updates on the pandemic [2-4]. The site provides links to web pages of all regional offices under WHO. The salient feature is the downloadable PDF documents on clinical care that discuss the recommended anti-viral dose, details on adverse effects of anti-viral drugs, and available formulations of anti-virals [5,6]. Similar downloadable documents on health care management, laboratory guidelines, and vaccines that are recommended as standards of practice worldwide make this site the most relevant for an average practicing clinician [7-9].

Table 1. Study web sites and their web addresses.

Name of web site or their providers	Web address
World Health Organization	http://www.who.int/csr/disease/swineflu/en/
Center for Disease Control	http://www.cdc.gov/H1N1FLU/
EBSCO Publishing	http://www.ebscohost.com/flu/
United States Health Services	http://www.flu.gov/
British Medical Journal	http://pandemicflu.bmj.com/
Medscape	http://www.medscape.com/sites/swine-flu
New England Journal of Medicine	http://h1n1.nejm.org/
The Lancet – Elsevier Global Medical News	http://www.thelancet.com/H1N1-flu/egmn
European Centre for Disease Prevention and Control	http://www.ecdc.europa.eu/en/healthtopics/Pages/Influenza.aspx
UK-Department of Health	http://www.dh.gov.uk/en/PublicHealth/Flu/PandemicFlu/DH_065006
ProMed mail	http://www.promedmail.org/pls/otn/f?p=2400:1000
American Medical Association-Influenza Information	http://www.ama-assn.org/ama/pub/h1n1/index.shtml

Center for Disease Control [10]

The web page was developed by the Center for Disease Control, Atlanta, Georgia, United States. The “general information” topics on H1N1 are a suitable quick read for a health professional beginning to acquire knowledge of the disease [11]. The information on “facemask and respirator use” is appreciable [12]. It provides links to resources for specific groups such as schools, colleges and universities, parents, caregivers, travelers, and the travel industry. It has a social media link that provides users with e-cards, image sharing, micro-blogs, online videos, widgets, etc.

EBSCO Publishing [13]

The web page was made available by the editors of Dynamed (a clinical reference tool by physicians for physicians) Nurse Reference Centre (a reference tool for nurses), and Patient Education Reference Centre (a resource on patient education). Though the EBSCO Publishing sites need subscription, information on pandemic influenza is free. It has a comprehensive literature review for clinicians and nurses on the illness in children, adults, and pregnant women. The patient resource on influenza needs special mention [14]. The material is written in a simplified form and explains the pandemic from development of novel H1N1 virus to the treatment and prevention of illness. The patient information is available in 17 languages. It is a must-read for patients and doctors because it gives a simplified picture on pandemic influenza that may enable the clinician to explain the illness to patients in a more effective way.

United States Health Services [15]

Managed and sponsored by the United States Department of Health and Human Services, this site

provides updates that are most useful for clinicians in the United States. From a global viewpoint, resources on hospital planning are most useful [16]. Other facts useful for doctors include infection control measures, anti-viral safety, and information on pregnancy, HIV, and infants in relation to the disease [17-21].

British Medical Journal [22]

Provided by the BMJ group, this site is unique because it offers learning modules on pandemic influenza. These BMJ Learning modules give structured tutorials on the topic that includes objective-based discussion followed by assessment. Free registration is required to attend the learning activity, and a certificate is issued for each module after satisfactory completion.

Medscape [23]

Medscape is a part of the WebMD Health professional network that is well known for its continuing medical education resources. This flu alert page provides expert video commentaries on common topics, comprehensive news updates on the emerging information on pandemic influenza, and peer-to-peer discussions on the topic. Access to the site requires a free registration.

New England Journal of Medicine [24]

Developed by the publishers of New England Journal of Medicine, the webpage has links to abstracts of research articles on pandemic influenza in Journal Watch. Full text links to corresponding journal articles are available from the respective Journal Watch pages.

The Lancet – Elsevier Global Medical News [25]

The webpage is an open access initiative by Elsevier society partners, editors, and publishers. It provides full text access to articles relevant to pandemic influenza from Lancet, Lancet Infectious Diseases, Journal of Virological Methods, Journal of Clinical Virology, and Clinical and Applied Immunology Reviews. Articles are categorized as diagnosis, epidemiology, immunity, pathogenesis, preparedness, surveillance, treatment, vaccination, and virology.

European Centre for Disease Prevention and Control (ECDC) [26]

The webpage focuses mainly on information relevant to pandemic influenza in Europe. The educational materials in the form of open webcast and general information resources on influenza are commendable [26]. Epidemiological updates give the current status of the influenza pandemic in Europe.

UK-Department of Health [27]

The available resources are primarily meant for health practitioners in the United Kingdom; however, they may promote adoption of similar or modified health policies in practice settings outside the United Kingdom. The national framework and supporting guidance, infection control guidance, and influenza awareness program may be useful to clinicians from less developed countries [28-30].

ProMed Mail [31]

Developed by the International Society for Infectious Diseases, the Program for Monitoring Emerging Diseases [ProMed] is part of the global electronic reporting system for outbreaks of emerging infections. The site provides day-to-day information on the H1N1 pandemic in addition to other emerging diseases.

American Medical Association-Influenza information [32]

Developed by the American Medical Association, the web site provides useful information regarding clinical guidance, H1N1 vaccine, and patient information.

References

1. World Health Organization (2009) Pandemic (H1N1) 2009. Available: <http://www.who.int/csr/disease/swineflu/en/>. Accessed 19 December 2009.

2. World Health Organization. Influenza A(H1N1): frequently asked questions. Available: http://www.who.int/csr/disease/swineflu/frequently_asked_questions/en/index.html. Accessed 19 December 2009.
3. World Health Organization (2009) Guidance documents on pandemic (H1N1) 2009. Available: <http://www.who.int/csr/disease/swineflu/guidance/en/index.html>. Accessed 19 December 2009.
4. World Health Organization (2009) Situation updates – pandemic (H1N1) 2009. Available: <http://www.who.int/csr/disease/swineflu/updates/en/index.html>. Accessed 19 December 2009.
5. World Health Organization (2009) WHO Guidelines for pharmacological management of pandemic (H1N1) 2009 Influenza and other influenza viruses. Available: http://www.who.int/csr/resources/publications/swineflu/h1n1_guidelines_pharmaceutical_mngt.pdf. Accessed 19 December 2009.
6. World Health Organization (2009) Clinical management of human infection with pandemic (H1N1) 2009: revised guidance. Available: http://www.who.int/csr/resources/publications/swineflu/clinical_management_h1n1.pdf. Accessed 19 December 2009.
7. World Health Organization. Health care management and facilities. Available: http://www.who.int/csr/disease/swineflu/guidance/healthcare_management/en/index.html. Accessed 19 December 2009.
8. World Health Organization. Laboratory and virology. Available: <http://www.who.int/csr/disease/swineflu/guidance/laboratory/en/index.html>. Accessed 19 December 2009.
9. World Health Organization. Vaccines. Available: <http://www.who.int/csr/disease/swineflu/guidance/vaccines/en/index.html>. Accessed 19 December 2009.
10. Center for Disease Control. 2009 H1N1 flu. Available: <http://www.cdc.gov/H1N1FLU/>. Accessed 19 December 2009.
11. Center for Disease Control. H1N1 Flu (Swine Flu): General Information. Available: http://www.cdc.gov/h1n1flu/general_info.htm. Accessed 19 December 2009.
12. Center for Disease Control. Interim recommendations for facemask and respirator use to Reduce 2009 influenza A (H1N1) virus transmission. Available: <http://www.cdc.gov/h1n1flu/masks.htm>. Accessed 19 December 2009.
13. EBSCO Publishing. Available: <http://www.ebscohost.com/flu/>. Accessed 19 December 2009.
14. Patient Education Reference Centre. Pandemic (H1N1) 2009 Influenza. Available: http://hldemo.ebscohost.com/Influenza/perc/pandemic_h1n1_2009_influenza_english.htm. Accessed 19 December 2009. The title of this site is missing; it is stated as "Flu.gov"
15. United States Health Services. Available: <http://www.flu.gov/>. Accessed 19 December 2009.
16. Hospital pandemic influenza planning checklist. Available: <http://www.flu.gov/professional/hospital/hospitalchecklist.html>. Accessed 19 December 2009.
17. Interim guidance on infection control measures for 2009 H1N1 influenza in health care settings, including protection of health care personnel. Available: <http://www.flu.gov/professional/hospital/infectioncontrolguidance.html>. Accessed 19 December 2009.

18. Antiviral treatment options, including intravenous Peramivir, for treatment of influenza in hospitalized patients for the 2009-2010 season. Available: http://www.flu.gov/professional/hospital/antiviraloptions_peramivir.html. Accessed 19 December 2009.
19. Updated interim recommendations for obstetric health care providers related to use of antiviral medications in the treatment and prevention of influenza for the 2009-2010 season. Available: http://www.flu.gov/professional/hospital/pregnant_antiviral_messages.html. Accessed 19 December 2009.
20. Updated interim recommendations – HIV-infected adults and adolescents: considerations for clinicians regarding 2009 H1N1 influenza. Available: <http://www.flu.gov/professional/hospital/hivadultsadolescents.html>. Accessed 19 December 2009.
21. Recommendations for use of antiviral medications for the management of influenza in children and adolescent for the 2009-2010 season – pediatric supplement for health care providers. Available: <http://www.flu.gov/professional/hospital/pediatricsupplement.html>. Accessed 19 December 2009.
22. British Medical Journal. Available: <http://pandemicflu.bmj.com/>. Accessed 19 December 2009.
23. Medscape. Available: <http://www.medscape.com/sites/swine-flu>. Accessed 19 December 2009.
24. New England Journal of Medicine. Available: <http://h1n1.nejm.org/>. Accessed 19 December 2009.
25. The Lancet – Elsevier Global Medical News. Available: <http://www.thelancet.com/H1N1-flu/egmn>. Accessed 19 December 2009.
26. European Centre for Disease Prevention and Control (ECDC). Available: [http://www.ecdc.europa.eu/en/healthtopics/Pages/Influenza_A\(H1N1\)_Outbreak.aspx](http://www.ecdc.europa.eu/en/healthtopics/Pages/Influenza_A(H1N1)_Outbreak.aspx). Accessed 19 December 2009.
27. UK-Department of Health. Pandemic flu. Available: http://www.dh.gov.uk/en/Publichealth/Flu/PandemicFlu/DH_065006. Accessed 19 December 2009.
28. Pandemic flu: a national framework for responding to an influenza pandemic. Available: http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_080734. Accessed 19 December 2009.
29. Pandemic influenza: guidance for infection control in hospitals and primary care settings. Available: http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_080771. Accessed 19 December 2009.
30. Pandemic influenza awareness programme. Available: http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_103095. Accessed 19 December 2009.
31. ProMed Mail. Available: <http://www.promedmail.org/pls/otn/f?p=2400:1000>. Accessed 19 December 2009.
32. American Medical Association -Influenza information. Available: <http://www.ama-assn.org/ama/pub/h1n1/index.shtml>. Accessed 19 December 2009.

Corresponding author

Dr. M. Emmanuel Bhaskar MD
 Associate Professor in Medicine
 Sri Ramachandra Medical College and Research Institute
 Sri Ramachandra University
 Chennai-600116
 India
 Telephone: 0914426611206
 Email: drmeb1974@yahoo.co.in

Conflict of interest: No conflict of interest is declared.