GLANDULAR FEVER

A MEDICAL DICTIONARY, BIBLIOGRAPHY,
AND ANNOTATED RESEARCH GUIDE TO
INTERNET REFERENCES



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The collective knowledge generated from academic and applied research summarized in various references has been critical in the creation of this book which is best viewed as a comprehensive compilation and collection of information prepared by various official agencies which produce publications on glandular fever. Books in this series draw from various agencies and institutions associated with the United States Department of Health and Human Services, and in particular, the Office of the Secretary of Health and Human Services (OS), the Administration for Children and Families (ACF), the Administration on Aging (AOA), the Agency for Healthcare Research and Quality (AHRQ), the Agency for Toxic Substances and Disease Registry (ATSDR), the Centers for Disease Control and Prevention (CDC), the Food and Drug Administration (FDA), the Healthcare Financing Administration (HCFA), the Health Resources and Services Administration (HRSA), the Indian Health Service (IHS), the institutions of the National Institutes of Health (NIH), the Program Support Center (PSC), and the Substance Abuse and Mental Health Services Administration (SAMHSA). In addition to these sources, information gathered from the National Library of Medicine, the United States Patent Office, the European Union, and their related organizations has been invaluable in the creation of this book. Some of the work represented was financially supported by the Research and Development Committee at INSEAD. This support is gratefully acknowledged. Finally, special thanks are owed to Tiffany Freeman for her excellent editorial support.

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FORWARD

In March 2001, the National Institutes of Health issued the following warning: "The number of Web sites offering health-related resources grows every day. Many sites provide valuable information, while others may have information that is unreliable or misleading." Furthermore, because of the rapid increase in Internet-based information, many hours can be wasted searching, selecting, and printing. Since only the smallest fraction of information dealing with glandular fever is indexed in search engines, such as **www.google.com** or others, a non-systematic approach to Internet research can be not only time consuming, but also incomplete. This book was created for medical professionals, students, and members of the general public who want to know as much as possible about glandular fever, using the most advanced research tools available and spending the least amount of time doing so.

In addition to offering a structured and comprehensive bibliography, the pages that follow will tell you where and how to find reliable information covering virtually all topics related to glandular fever, from the essentials to the most advanced areas of research. Public, academic, government, and peer-reviewed research studies are emphasized. Various abstracts are reproduced to give you some of the latest official information available to date on glandular fever. Abundant guidance is given on how to obtain free-of-charge primary research results via the Internet. While this book focuses on the field of medicine, when some sources provide access to non-medical information relating to glandular fever, these are noted in the text.

E-book and electronic versions of this book are fully interactive with each of the Internet sites mentioned (clicking on a hyperlink automatically opens your browser to the site indicated). If you are using the hard copy version of this book, you can access a cited Web site by typing the provided Web address directly into your Internet browser. You may find it useful to refer to synonyms or related terms when accessing these Internet databases. **NOTE:** At the time of publication, the Web addresses were functional. However, some links may fail due to URL address changes, which is a common occurrence on the Internet.

For readers unfamiliar with the Internet, detailed instructions are offered on how to access electronic resources. For readers unfamiliar with medical terminology, a comprehensive glossary is provided. For readers without access to Internet resources, a directory of medical libraries, that have or can locate references cited here, is given. We hope these resources will prove useful to the widest possible audience seeking information on glandular fever.

The Editors

¹ From the NIH, National Cancer Institute (NCI): http://www.cancer.gov/cancerinfo/ten-things-to-know.

CHAPTER 1. STUDIES ON GLANDULAR FEVER

Overview

In this chapter, we will show you how to locate peer-reviewed references and studies on glandular fever.

Federally Funded Research on Glandular Fever

The U.S. Government supports a variety of research studies relating to glandular fever. These studies are tracked by the Office of Extramural Research at the National Institutes of Health.² CRISP (Computerized Retrieval of Information on Scientific Projects) is a searchable database of federally funded biomedical research projects conducted at universities, hospitals, and other institutions.

Search the CRISP Web site at http://crisp.cit.nih.gov/crisp/crisp_query.generate_screen. You will have the option to perform targeted searches by various criteria, including geography, date, and topics related to glandular fever.

For most of the studies, the agencies reporting into CRISP provide summaries or abstracts. As opposed to clinical trial research using patients, many federally funded studies use animals or simulated models to explore glandular fever. The following is typical of the type of information found when searching the CRISP database for glandular fever:

Project Title: T CELL IMMUNITY TO MHV 68, A MURINE GAMMA HERPESVIRUS

Principal Investigator & Institution: Blackman, Marcia A.; Associate Member; Trudeau Institute, Inc. Saranac Lake, Ny 12983

Timing: Fiscal Year 2002; Project Start 01-FEB-1998; Project End 31-JAN-2003

² Healthcare projects are funded by the National Institutes of Health (NIH), Substance Abuse and Mental Health Services (SAMHSA), Health Resources and Services Administration (HRSA), Food and Drug Administration (FDA), Centers for Disease Control and Prevention (CDCP), Agency for Healthcare Research and Quality (AHRQ), and Office of Assistant Secretary of Health (OASH).

Summary: Herpesviruses induce persistent infections in humans and have significant health implications. For example, Epstein-Barr virus (EBV), which establishes latency in B cells, is associated with infectious mononucleosis (glandular fever) and the development of malignancy. Cytolytic CD8+ T lymphocytes (CTL) are believed to play a major role in controlling the acute and latent stages of infection and are also a major component of the mononucleosis. However, the relationship between CTL responses to the acute and latent phases of infection and the involvement of CD8+ T cells in mononucleosis are poorly understood. MHV-68 is a murine gamma-herpesvirus with significant biological similarity to EBV and structural homology to Herpesvirus samiri and human herpesvirus-8 (associated with Kaposi's sarcoma). This virus provides an important experimental model for dissecting the CD8+ T cell response to persistent herpesvirus infection. Intranasal infection of mice with MHV-68 establishes an acute infection in the lungs, which is cleared within 8 days, and a persistent, latent infection in B cells that lasts for the life of the animal. In addition, about three weeks after infection (after clearance of infectious virus from the lung), the virus causes a pathogenesis similar to the infectious mononucleosis that sometimes is associated with EBV infection of adolescents. The experiments outlined in this proposal will determine the relationship between the CD8+ T cell response to acute and latent MHV-68 infection, and the CD8+ T cells involved in the mononucleosis syndrome. Aim 1 will determine the genetic influence on the development of the mononucleosis phase of the disease, and will characterize the longevity and function of the activated CD8+ T cells in the peripheral blood. Aim 2 will identify the antigens recognized by CD8+ T cells in the peripheral blood during the mononucleosis phase of the infection. In particular, these studies will determine whether the predominance of activated Vb4+CD8+ T cells in the peripheral blood is driven by a viral peptide antigen or a superantigen. Finally, in Aim 3, the T cell epitopes that drive the CTL response to acute MHV-68 infection will be identified to investigate the establishment of T cell memory to a persistent virus infection. These studies will also determine the relationship between the CD8+ T cells involved in the infectious mononucleosis, and the CD8+ T cell response to primary infection.

Website: http://crisp.cit.nih.gov/crisp/Crisp_Query.Generate_Screen

The National Library of Medicine: PubMed

One of the quickest and most comprehensive ways to find academic studies in both English and other languages is to use PubMed, maintained by the National Library of Medicine.3 The advantage of PubMed over previously mentioned sources is that it covers a greater number of domestic and foreign references. It is also free to use. If the publisher has a Web site that offers full text of its journals, PubMed will provide links to that site, as well as to sites offering other related data. User registration, a subscription fee, or some other type of fee may be required to access the full text of articles in some journals.

To generate your own bibliography of studies dealing with glandular fever, simply go to the PubMed Web site at http://www.ncbi.nlm.nih.gov/pubmed. Type "glandular fever" (or synonyms) into the search box, and click "Go." The following is the type of output you can expect from PubMed for glandular fever (hyperlinks lead to article summaries):

³ PubMed was developed by the National Center for Biotechnology Information (NCBI) at the National Library of Medicine (NLM) at the National Institutes of Health (NIH). The PubMed database was developed in conjunction with publishers of biomedical literature as a search tool for accessing literature citations and linking to full-text journal articles at Web sites of participating publishers. Publishers that participate in PubMed supply NLM with their citations electronically prior to or at the time of publication.

Studies

• "Glandular fever" on Everest.

Author(s): Clarke SK, Steele PR.

Source: Lancet. 1971 September 18; 2(7725): 657.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A

bstract&list_uids=4105963

• A patient with respiratory obstruction in glandular fever.

Author(s): Simcock AD, Prout BJ.

Source: Thorax. 1974 January; 29(1): 145-6.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A

bstract&list_uids=4825548

• Acute glandular fever-like illness in a patient with HTLV-III antibody.

Author(s): McCaul TF, Tovey G, Farthing CF, Gazzard B, Zuckerman AJ.

Source: Journal of Medical Virology. 1985 October; 17(2): 179-93.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=2997385

• Acute transverse myelitis as a complication of glandular fever.

Author(s): Cotton PB, Webb-Peploe MM.

Source: British Medical Journal. 1966 March 12; 5488: 654-5.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=4286254

• Ampicillin rashes in glandular fever.

Author(s): Pullen H.

Source: British Medical Journal. 1971 June 12; 2(762): 653.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=5580736

Another form of glandular fever?

Author(s): Hurley RN, Ransom LA, Schulze JR.

Source: The Medical Journal of Australia. 1983 October 1; 2(7): 307-8.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=6621460

• Atypical mononucleosis and glandular fever.

Author(s): Stokoe IH.

Source: J R Coll Gen Pract. 1969 June; 17(83): 340-50. No Abstract Available.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=5786469

• Bone marrow in nine cases of clinical glandular fever and a review of the literature.

Author(s): Boyd JF, Reid D.

Source: Journal of Clinical Pathology. 1968 November; 21(6): 683-90.

• Cerebellitis in glandular fever.

Author(s): Bajada S.

Source: The Medical Journal of Australia. 1976 February 7; 1(6): 153-6.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A

bstract&list_uids=1263969

• Clinical and laboratory findings in the Paul-Bunnell negative glandular fever-fatigue syndrome.

Author(s): Read R, Larson E, Harvey J, Edwards A, Thomson B, Briggs M, Fox J.

Source: The Journal of Infection. 1990 September; 21(2): 157-65.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A

bstract&list_uids=2172387

• Drug rashes in glandular fever.

Author(s): Brown GL, Kanwar BS.

Source: Lancet. 1967 December 30; 2(7531): 1418.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A

bstract&list_uids=4170070

• Epidemic of glandular fever.

Author(s): Klaber M, Lacey J.

Source: British Medical Journal. 1968 July 13; 3(610): 124.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A

bstract&list_uids=5662958

• Erythromycin rash in glandular fever.

Author(s): Pendleton N, Mallik LJ, Williams JG.

Source: Br J Clin Pract. 1989 December; 43(12): 464-5. No Abstract Available.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A

bstract&list_uids=2532924

• Extreme neutropenia in glandular fever.

Author(s): Penman HG.

Source: Journal of Clinical Pathology. 1968 January; 21(1): 48-9.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A

bstract&list_uids=5697335

• Fatal pneumonia after glandular fever and rubella.

Author(s): Pether JV, Caul EO, Betteridge TJ, Nicholson KT.

Source: Lancet. 1989 May 27; 1(8648): 1210.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A

bstract&list_uids=2566774

• Glandular fever and psychological symptoms.

Author(s): Goldney RD, Temme PB.

Source: The Medical Journal of Australia. 1983 August 20; 2(4): 164.

Studies

• Glandular fever and specific viral infections: uptake of tritiated thymidine by circulating leucocytes.

Author(s): Besser GM, Davis J, Duncan C, Kirk B, Kuper SW.

Source: British Journal of Haematology. 1967 March; 13(2): 189-93.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=6019029

Glandular fever.
Author(s): Boughton CR, Hudson BJ.

Source: The Medical Journal of Australia. 1983 April 2; 1(7): 318-23.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=6300622

• Glandular fever.

Author(s): Johnson SA.

Source: Nurs Mirror Midwives J. 1976 November 18; 143(21): 59-60. No Abstract

Available.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A

bstract&list_uids=1049987

• Glandular fever.

Author(s): Gunn AD.

Source: Nurs Times. 1975 October 23; 71(43): 1697-8. No Abstract Available.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=1196935

• Glandular fever.

Author(s): Christie AB.

Source: The Practitioner. 1969 September; 203(215): 340-1.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A

bstract&list_uids=5805086

Glandular fever.

Author(s): Parry WH.

Source: Nurs Times. 1968 January 12; 64(2): 52. No Abstract Available.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=5635111

• Glandular fever.

Author(s): Pickard B.

Source: The Journal of Laryngology and Otology. 1966 April; 80(4): 344-5.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=5909093

Glandular fever.

Author(s): Price TM.

Source: The Journal of Laryngology and Otology. 1966 April; 80(4): 339-43. Review. http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=5325481

• Glandular fever.

Author(s): Macrae J.

Source: Nurs Times. 1965 November 19; 61(47): 1570-1. No Abstract Available.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=5839344

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• Glandular fever. A study of a hospital series in Sydney.

Author(s): Boughton CR.

Source: The Medical Journal of Australia. 1970 September 19; 2(12): 529-35.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A

bstract&list_uids=5536340

• Glandular fever: a personal clinical view.

Author(s): Dickinson KG.

Source: The Practitioner. 1982 September; 226(1371): 1491-4.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A

bstract&list_uids=7145810

• Glandular fever--a student disease.

Author(s): Sheil LP.

Source: Nurs Times. 1968 May 24; 64(21): 701-2. No Abstract Available.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A

bstract&list_uids=5647786

• Glandular fever-like illness associated with sulphasalazine.

Author(s): Carr-Locke DL, Ali M.

Source: Postgraduate Medical Journal. 1982 October; 58(684): 665-6.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A

bstract&list_uids=6129620

• Glandular fever-like illness.

Author(s): Penman HG.

Source: J R Coll Gen Pract. 1968 October; 16(4): 275-93. No Abstract Available.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=5724109

• Glandular fever-like syndrome, pulmonary eosinophilia and asthma associated with carbamazepine.

Author(s): Lewis IJ, Rosenbloom L.

Source: Postgraduate Medical Journal. 1982 February; 58(676): 100-1.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=7100019

• History of rheumatic or glandular fever.

Author(s): Mackworth-Young C, Hughes G.

Source: Annals of the Rheumatic Diseases. 1984 February; 43(1): 124.

Studies

• Incidence of anti-intermediate filament antibody in serum samples of students with suspected glandular fever.

Author(s): Kataaha PK, Holborow EJ, Edwards JM.

Source: Journal of Clinical Pathology. 1985 March; 38(3): 351-4.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=2982922

Incidence of toxoplasmosis in patients with glandular fever and in healthy blood donors.

Author(s): Johnson JD, Holliman RE.

Source: The British Journal of General Practice: the Journal of the Royal College of General Practitioners. 1991 September; 41(350): 375-6.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=1793647

• Incidence, risk and prognosis of acute and chronic fatigue syndromes and psychiatric disorders after glandular fever.

Author(s): White PD, Thomas JM, Amess J, Crawford DH, Grover SA, Kangro HO, Clare AW.

Source: The British Journal of Psychiatry; the Journal of Mental Science. 1998 December; 173: 475-81.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=9926075

• Infectious mononucleosis (glandular fever) complicated by cold agglutinins, cold urticaria and leg ulceration.

Author(s): Barth JH.

Source: Acta Dermato-Venereologica. 1981; 61(5): 451-2.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=6172940

• Infectiousness of glandular fever.

Author(s): Casson MA, Judson DH.

Source: British Medical Journal. 1971 July 31; 3(769): 307-8.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=5557554

• Infectiousness of glandular fever.

Author(s): Whittington RM.

Source: British Medical Journal. 1971 June 26; 2(764): 772.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=5090786

• Letter: Halothanitis or glandular fever?

Author(s): Flaherty G.

Source: Anaesthesia and Intensive Care. 1975 May; 3(2): 162.

• Meningoencephalitis due to primary HIV infection. HIV infection may also cause rash or glandular fever type illness.

Author(s): Melzer M, O'Shea S, Chrystie I, Banatvala J.

Source: Bmj (Clinical Research Ed.). 2003 March 8; 326(7388): 552.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=12623924

DStracted11st_ulus=12025724

• Neurological complications of glandular fever (infectious mononucleosis).

Author(s): Gautier-Smith PC.

Source: Brain; a Journal of Neurology. 1965 June; 88(2): 323-34.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=5828906

• Neurological complications of glandular fever.

Author(s): Boughton CR.

Source: The Medical Journal of Australia. 1970 September 26; 2(13): 573-5.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A

bstract&list_uids=5471109

• Poor concentration and the ability to process information after glandular fever.

Author(s): White PD, Dash AR, Thomas JM.

Source: Journal of Psychosomatic Research. 1998 February; 44(2): 269-78.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=9532556

Respiratory obstruction in glandular fever.

Author(s): Lee MD.

Source: The Journal of Laryngology and Otology. 1969 June; 83(6): 617-22.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=5785656

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• Review of some recent observations on 'glandular fever cells'.

Author(s): Carter RL.

Source: Journal of Clinical Pathology. 1966 September; 19(5): 448-55. Review.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=5331531

• Seronegative glandular fever.

Author(s): Penman HG.

Source: Journal of Clinical Pathology. 1968 January; 21(1): 50-4.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=5748728

• Spontaneous splenic rupture in glandular fever.

Author(s): Orr KB.

Source: The Medical Journal of Australia. 1987 May 4; 146(9): 506.

Studies

Spontaneous splenic rupture in glandular fever.

Author(s): Buzzard AJ.

Source: The Medical Journal of Australia. 1986 November 3; 145(9): 483.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A

bstract&list_uids=3773839

Steroids for airway problems in glandular fever.

Author(s): Sudderick RM, Narula AA.

Source: The Journal of Laryngology and Otology. 1987 July; 101(7): 673-5.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A

bstract&list uids=3625018

The effect of social adversity on the fatigue syndrome, psychiatric disorders and physical recovery, following glandular fever.

Author(s): Bruce-Jones WD, White PD, Thomas JM, Clare AW.

Source: Psychological Medicine. 1994 August; 24(3): 651-9.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A

bstract&list_uids=7991747

The existence of a fatigue syndrome after glandular fever.

Author(s): White PD, Thomas JM, Amess J, Grover SA, Kangro HO, Clare AW.

Source: Psychological Medicine. 1995 September; 25(5): 907-16.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A

bstract&list_uids=8588009

The glandular fever syndrome revisited.

Author(s): Paublini H, Meech RJ, Lambert HP.

Source: The Practitioner. 1977 November; 219(1313): 713-7.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A

bstract&list_uids=201932

The glandular fever virus.

Author(s): Colquhoun J.

Source: Aust Fam Physician. 1985 May; 14(5): 380. No Abstract Available.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A

bstract&list_uids=4015538

The incidence of glandular fever.

Author(s): Penman HG.

Source: J Hyg (Lond). 1966 December; 64(4): 457-64. No Abstract Available.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A

bstract&list uids=5224764

The platelets in glandular fever and idiopathic thrombocytopenic purpura.

Author(s): O'Brien JR, Etherington MD.

Source: British Journal of Haematology. 1978 September; 40(1): 161-2.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A

bstract&list_uids=568480

• The validity and reliability of the fatigue syndrome that follows glandular fever.

Author(s): White PD, Grover SA, Kangro HO, Thomas JM, Amess J, Clare AW.

Source: Psychological Medicine. 1995 September; 25(5): 917-24.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8588010

Throat infection in glandular fever.

Author(s): Wallis RW.

Source: British Medical Journal. 1971 June 12; 2(762): 656.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=5580741

Toxic pustuloderma. A drug induced pustulating glandular fever-like syndrome.

Author(s): Gebauer K, Holgate C, Navaratnam A.

Source: The Australasian Journal of Dermatology. 1990; 31(2): 89-93.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=2151365

• Treating glandular fever.

Author(s): Hart FD.

Source: British Medical Journal. 1969 May 10; 2(653): 380.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=5768468

• Treatment of patients with glandular fever with ampicillin or amoxycillin.

Author(s): Gibbs P.

Source: British Dental Journal. 1984 February 11; 156(3): 78.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=6582891

• Treatment of streptococcal sore throat. Beware glandular fever trap.

Author(s): Airey NJ.

Source: Bmj (Clinical Research Ed.). 1993 June 12; 306(6892): 1611.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8329930

• Use of cephalexin to treat glandular fever: pilot study.

Author(s): Lakic J.

Source: British Medical Journal (Clinical Research Ed.). 1983 May 21; 286(6378): 1617-8. http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=6405914

CHAPTER 2. ALTERNATIVE MEDICINE AND GLANDULAR FEVER

Overview

In this chapter, we will begin by introducing you to official information sources on complementary and alternative medicine (CAM) relating to glandular fever. At the conclusion of this chapter, we will provide additional sources.

National Center for Complementary and Alternative Medicine

The National Center for Complementary and Alternative Medicine (NCCAM) of the National Institutes of Health (http://nccam.nih.gov/) has created a link to the National Library of Medicine's databases to facilitate research for articles that specifically relate to glandular fever and complementary medicine. To search the database, go to the following Web site: http://www.nlm.nih.gov/nccam/camonpubmed.html. Select "CAM on PubMed." Enter "glandular fever" (or synonyms) into the search box. Click "Go." The following references provide information on particular aspects of complementary and alternative medicine that are related to glandular fever:

• Acute lymphoblastic leukemia in the context of a disorder resembling X-linked lymphoproliferative (XLP) syndrome.

Author(s): Risitano AM, Camera A, Chiurazzi F, Rossi M, D'Arco AM, Rotoli B.

Source: Haematologica. 2002 August; 87(8): Elt36.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=12161381

Benign and malignant disease caused by EBV.

Author(s): Wolf H, Seibl R.

Source: The Journal of Investigative Dermatology. 1984 July; 83(1 Suppl): 88S-95S. Review.

Children with fever.

Author(s): Cone TE Jr.

Source: Pediatrics. 1969 September; 44(3): 453-4.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A

bstract&list_uids=5809908

Concurrent infectious mononucleosis and acute myelocytic leukemia.

Author(s): Langenhuysen MM.

Source: Acta Haematologica. 1974; 51(2): 121-7.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A

bstract&list uids=4217077

Contribution of automated hematology analysis to the detection of apoptosis in peripheral blood lymphocytes.

Author(s): Taga K, Yoshida M, Kaneko M, Asada M, Okada M, Taniho M, Tosato G.

Source: Cytometry: the Journal of the Society for Analytical Cytology. 2000 June 15; 42(3): 209-14.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A bstract&list_uids=10861694

Defensiveness, trait anxiety, and Epstein-Barr viral capsid antigen antibody titers in healthy college students.

Author(s): Esterling BA, Antoni MH, Kumar M, Schneiderman N.

Source: Health Psychology: Official Journal of the Division of Health Psychology, American Psychological Association. 1993 March; 12(2): 132-9.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A bstract&list_uids=8500440

Difficulty in the staging of Hodgkin's disease due to the coexistence of reactive lymphadenopathy.

Author(s): Richards EM, Marcus RE.

Source: Leukemia & Lymphoma. 1993 March; 9(4-5): 413-8.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A bstract&list_uids=7688629

Effect of cordacin on macromolecular biosynthesis in lymphoblastoid cells.

Author(s): Lin YC, Yang TI, Yang CS.

Source: Zhonghua Min Guo Wei Sheng Wu Xue Za Zhi. 1974 March; 7(1): 64-7. No Abstract Available.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A bstract&list_uids=4479379

Effect of herbal therapy on chronic herpes virus infections.

Author(s): Yasuhara A, Yoshida Y, Hijikata Y.

Source: Alternative Therapies in Health and Medicine. 2003 September-October; 9(5): 136, 132-4.

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Hand-mirror lymphocytes in infectious mononucleosis.

Author(s): Thomas WJ, Yasaka K, Strong DM, Woodruff CM, Stass SA, Schumacher HR. Source: Blood. 1980 June; 55(6): 925-30.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A bstract&list_uids=7378582

H-rosette formation in T-cell-proliferative diseases.

Author(s): Sheldon PJ, Holborow EJ.

Source: British Medical Journal. 1975 November 15; 4(5993): 381-3.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A bstract&list uids=127645

IgM autoantibody to intermediate filaments in infectious mononucleosis.

Author(s): Bretherton L, Toh BH.

Source: J Clin Lab Immunol. 1981 January; 5(1): 7-10.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A bstract&list_uids=6894312

Infectious mononucleosis in acute lymphocytic leukemia.

Author(s): Blom J.

Source: Jama: the Journal of the American Medical Association. 1965 October 4; 194(1):

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A bstract&list_uids=5213074

Infectious mononucleosis preceding acute myelomonocytic leukemia.

Author(s): Pedersen PR, Gerber P, Sweeney G, Blom J.

Source: The American Journal of the Medical Sciences. 1975 January-February; 269(1):

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A bstract&list_uids=165722

Infectious mononucleosis prior to acute leukemia: a possible role for the Epstein-Barr virus.

Author(s): Levine PH, Stevens DA, Coccia PF, Dabich L, Roland A.

Source: Cancer. 1972 October; 30(4): 875-80.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A bstract&list_uids=4342855

Infectious mononucleosis; (glandular fever).

Author(s): MINELLI AJ.

Source: J Am Inst Homeopath. 1964 January-February; 57: 3-4. No Abstract Available. http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A bstract&list_uids=14109178

Pseudothrombocytopenia associated with infectious mononucleosis.

Author(s): Hsieh AT, Chao TY, Chen YC.

Source: Archives of Pathology & Laboratory Medicine. 2003 January; 127(1): E17-8. http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=12562287

• Psychosocial factors, immunologic mediation, and human susceptibility to infectious diseases: how much do we know?

Author(s): Jemmott JB 3rd, Locke SE.

Source: Psychological Bulletin. 1984 January; 95(1): 78-108.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=6544433

Routine application of the nitroblue tetrazolium test in the clinical laboratory.

Author(s): Gordon AM, Rowan RM, Brown T, Carson HG.

Source: Journal of Clinical Pathology. 1973 January; 26(1): 52-6.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=4632760

• Stress and the memory T-cell response to the Epstein-Barr virus in healthy medical students.

Author(s): Glaser R, Pearson GR, Bonneau RH, Esterling BA, Atkinson C, Kiecolt-Glaser IK.

Source: Health Psychology: Official Journal of the Division of Health Psychology, American Psychological Association. 1993 November; 12(6): 435-42.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8293726

• Successful bone marrow transplantation in a boy with X-linked lymphoproliferative syndrome and acute severe infectious mononucleosis.

Author(s): Pracher E, Panzer-Grumayer ER, Zoubek A, Peters C, Gadner H.

Source: Bone Marrow Transplantation. 1994 May; 13(5): 655-8.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8054918

• Successful management of reactive haemophagocytic syndrome in systemic-onset juvenile chronic arthritis.

Author(s): Fishman D, Rooney M, Woo P.

Source: British Journal of Rheumatology. 1995 September; 34(9): 888.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=7582732

• Surface membrane changes in lymphocytes from patients with infectious mononucleosis.

Author(s): Mintz U, Sachs L.

Source: International Journal of Cancer. Journal International Du Cancer. 1977 March 15; 19(3): 345-50.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=300366

• The relationship between fatigue, psychological and immunological variables in acute infectious illness.

Author(s): Bennett BK, Hickie IB, Vollmer-Conna US, Quigley B, Brennan CM, Wakefield D, Douglas MP, Hansen GR, Tahmindjis AJ, Lloyd AR.

Source: The Australian and New Zealand Journal of Psychiatry. 1998 April; 32(2): 180-6. http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A bstract&list_uids=9588296

Treatment of EBV-induced lymphoproliferative disorder with epipodophyllotoxin VP16-213.

Author(s): Migliorati R, Castaldo A, Russo S, Porta F, Fiorillo A, Guida S, Poggi V, Guarino A.

Source: Acta Paediatrica (Oslo, Norway: 1992). 1994 December; 83(12): 1322-5. http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A bstract&list_uids=7734883

Treatment of the exudative tonsillar phase of infectious mononculeosis with oral enzymes.

Author(s): Roller MC.

Source: J Indiana State Med Assoc. 1968 October; 61(10): 1411-2. No Abstract Available. http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A bstract&list_uids=4883569

Urinary excretion of albumin and beta-2-microglobulin, glomerular filtration rate and immune complexes in serum during infectious mononucleosis.

Author(s): Pedersen EB, Solling J, Mogensen CE, Christensen KD. Source: Acta Pathol Microbiol Immunol Scand [c]. 1982 December; 90(6): 301-5. http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A bstract&list_uids=6189360

Use of plasma instead of serum in laboratory tests for infectious mononucleosis.

Author(s): Davidson RJ, Main SR.

Source: Journal of Clinical Pathology. 1971 April; 24(3): 259-62.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A bstract&list_uids=4995569

Additional Web Resources

A number of additional Web sites offer encyclopedic information covering CAM and related topics. The following is a representative sample:

- Alternative Medicine Foundation, Inc.: http://www.herbmed.org/
- AOL: http://search.aol.com/cat.adp?id=169&layer=&from=subcats
- Chinese Medicine: http://www.newcenturynutrition.com/
- drkoop.com[®]: http://www.drkoop.com/InteractiveMedicine/IndexC.html
- Family Village: http://www.familyvillage.wisc.edu/med_altn.htm
- Google: http://directory.google.com/Top/Health/Alternative/
- Healthnotes: http://www.healthnotes.com/

- MedWebPlus: http://medwebplus.com/subject/Alternative_and_Complementary_Medicine
- Open Directory Project: http://dmoz.org/Health/Alternative/
- HealthGate: http://www.tnp.com/
- WebMD®Health: http://my.webmd.com/drugs_and_herbs
- WholeHealthMD.com: http://www.wholehealthmd.com/reflib/0,1529,00.html
- Yahoo.com: http://dir.yahoo.com/Health/Alternative_Medicine/

The following is a specific Web list relating to glandular fever; please note that any particular subject below may indicate either a therapeutic use, or a contraindication (potential danger), and does not reflect an official recommendation:

General Overview

Epstein-Barr Virus

Source: Integrative Medicine Communications; www.drkoop.com

Mononucleosis

Source: Integrative Medicine Communications; www.drkoop.com

General References

A good place to find general background information on CAM is the National Library of Medicine. It has prepared within the MEDLINEplus system an information topic page dedicated to complementary and alternative medicine. To access this page, go to the MEDLINEplus site at http://www.nlm.nih.gov/medlineplus/alternativemedicine.html. This Web site provides a general overview of various topics and can lead to a number of general sources.

APPENDICES

APPENDIX A. PHYSICIAN RESOURCES

Overview

In this chapter, we focus on databases and Internet-based guidelines and information resources created or written for a professional audience.

NIH Guidelines

Commonly referred to as "clinical" or "professional" guidelines, the National Institutes of Health publish physician guidelines for the most common diseases. Publications are available at the following by relevant Institute⁴:

- Office of the Director (OD); guidelines consolidated across agencies available at http://www.nih.gov/health/consumer/conkey.htm
- National Institute of General Medical Sciences (NIGMS); fact sheets available at http://www.nigms.nih.gov/news/facts/
- National Library of Medicine (NLM); extensive encyclopedia (A.D.A.M., Inc.) with guidelines: http://www.nlm.nih.gov/medlineplus/healthtopics.html
- National Cancer Institute (NCI); guidelines available at http://www.cancer.gov/cancerinfo/list.aspx?viewid=5f35036e-5497-4d86-8c2c-714a9f7c8d25
- National Eye Institute (NEI); guidelines available at http://www.nei.nih.gov/order/index.htm
- National Heart, Lung, and Blood Institute (NHLBI); guidelines available at http://www.nhlbi.nih.gov/guidelines/index.htm
- National Human Genome Research Institute (NHGRI); research available at http://www.genome.gov/page.cfm?pageID=10000375
- National Institute on Aging (NIA); guidelines available at http://www.nia.nih.gov/health/

⁴ These publications are typically written by one or more of the various NIH Institutes.

- National Institute on Alcohol Abuse and Alcoholism (NIAAA); guidelines available at http://www.niaaa.nih.gov/publications/publications.htm
- National Institute of Allergy and Infectious Diseases (NIAID); guidelines available at http://www.niaid.nih.gov/publications/
- National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS); fact sheets and guidelines available at http://www.niams.nih.gov/hi/index.htm
- National Institute of Child Health and Human Development (NICHD); guidelines available at http://www.nichd.nih.gov/publications/pubskey.cfm
- National Institute on Deafness and Other Communication Disorders (NIDCD); fact sheets and guidelines at http://www.nidcd.nih.gov/health/
- National Institute of Dental and Craniofacial Research (NIDCR); guidelines available at http://www.nidr.nih.gov/health/
- National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK); guidelines available at http://www.niddk.nih.gov/health/health.htm
- National Institute on Drug Abuse (NIDA); guidelines available at http://www.nida.nih.gov/DrugAbuse.html
- National Institute of Environmental Health Sciences (NIEHS); environmental health information available at http://www.niehs.nih.gov/external/facts.htm
- National Institute of Mental Health (NIMH); guidelines available at http://www.nimh.nih.gov/practitioners/index.cfm
- National Institute of Neurological Disorders and Stroke (NINDS); neurological disorder information pages available at http://www.ninds.nih.gov/health_and_medical/disorder_index.htm
- National Institute of Nursing Research (NINR); publications on selected illnesses at http://www.nih.gov/ninr/news-info/publications.html
- National Institute of Biomedical Imaging and Bioengineering; general information at http://grants.nih.gov/grants/becon/becon_info.htm
- Center for Information Technology (CIT); referrals to other agencies based on keyword searches available at http://kb.nih.gov/www_query_main.asp
- National Center for Complementary and Alternative Medicine (NCCAM); health information available at http://nccam.nih.gov/health/
- National Center for Research Resources (NCRR); various information directories available at http://www.ncrr.nih.gov/publications.asp
- Office of Rare Diseases; various fact sheets available at http://rarediseases.info.nih.gov/html/resources/rep_pubs.html
- Centers for Disease Control and Prevention; various fact sheets on infectious diseases available at http://www.cdc.gov/publications.htm

NIH Databases

In addition to the various Institutes of Health that publish professional guidelines, the NIH has designed a number of databases for professionals.⁵ Physician-oriented resources provide a wide variety of information related to the biomedical and health sciences, both past and present. The format of these resources varies. Searchable databases, bibliographic citations, full-text articles (when available), archival collections, and images are all available. The following are referenced by the National Library of Medicine:⁶

- Bioethics: Access to published literature on the ethical, legal, and public policy issues surrounding healthcare and biomedical research. This information is provided in conjunction with the Kennedy Institute of Ethics located at Georgetown University, Washington, D.C.: http://www.nlm.nih.gov/databases/databases_bioethics.html
- HIV/AIDS Resources: Describes various links and databases dedicated to HIV/AIDS research: http://www.nlm.nih.gov/pubs/factsheets/aidsinfs.html
- **NLM Online Exhibitions:** Describes "Exhibitions in the History of Medicine": http://www.nlm.nih.gov/exhibition/exhibition.html. Additional resources for historical scholarship in medicine: http://www.nlm.nih.gov/hmd/hmd.html
- Biotechnology Information: Access to public databases. The National Center for Biotechnology Information conducts research in computational biology, develops software tools for analyzing genome data, and disseminates biomedical information for the better understanding of molecular processes affecting human health and disease: http://www.ncbi.nlm.nih.gov/
- **Population Information:** The National Library of Medicine provides access to worldwide coverage of population, family planning, and related health issues, including family planning technology and programs, fertility, and population law and policy: http://www.nlm.nih.gov/databases/databases_population.html
- Cancer Information: Access to cancer-oriented databases: http://www.nlm.nih.gov/databases/databases_cancer.html
- Profiles in Science: Offering the archival collections of prominent twentieth-century biomedical scientists to the public through modern digital technology: http://www.profiles.nlm.nih.gov/
- Chemical Information: Provides links to various chemical databases and references: http://sis.nlm.nih.gov/Chem/ChemMain.html
- Clinical Alerts: Reports the release of findings from the NIH-funded clinical trials where such release could significantly affect morbidity and mortality: http://www.nlm.nih.gov/databases/alerts/clinical_alerts.html
- **Space Life Sciences:** Provides links and information to space-based research (including NASA): http://www.nlm.nih.gov/databases/databases_space.html
- MEDLINE: Bibliographic database covering the fields of medicine, nursing, dentistry, veterinary medicine, the healthcare system, and the pre-clinical sciences: http://www.nlm.nih.gov/databases/databases_medline.html

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⁵ Remember, for the general public, the National Library of Medicine recommends the databases referenced in MEDLINE*plus* (http://medlineplus.gov/ or http://www.nlm.nih.gov/medlineplus/databases.html).

⁶ See http://www.nlm.nih.gov/databases/databases.html.

- Toxicology and Environmental Health Information (TOXNET): Databases covering toxicology and environmental health: http://sis.nlm.nih.gov/Tox/ToxMain.html
- **Visible Human Interface:** Anatomically detailed, three-dimensional representations of normal male and female human bodies:
 - http://www.nlm.nih.gov/research/visible/visible_human.html

The NLM Gateway⁷

The NLM (National Library of Medicine) Gateway is a Web-based system that lets users search simultaneously in multiple retrieval systems at the U.S. National Library of Medicine (NLM). It allows users of NLM services to initiate searches from one Web interface, providing one-stop searching for many of NLM's information resources or databases.⁸ To use the NLM Gateway, simply go to the search site at http://gateway.nlm.nih.gov/gw/Cmd. Type "glandular fever" (or synonyms) into the search box and click "Search." The results will be presented in a tabular form, indicating the number of references in each database category.

Results Summary

Category	Items Found
Journal Articles	5021
Books / Periodicals / Audio Visual	44
Consumer Health	723
Meeting Abstracts	18
Other Collections	1
Total	5807

HSTAT⁹

HSTAT is a free, Web-based resource that provides access to full-text documents used in healthcare decision-making. These documents include clinical practice guidelines, quick-reference guides for clinicians, consumer health brochures, evidence reports and technology assessments from the Agency for Healthcare Research and Quality (AHRQ), as well as AHRQ's Put Prevention Into Practice. Simply search by "glandular fever" (or synonyms) at the following Web site: http://text.nlm.nih.gov.

⁷ Adapted from NLM: http://gateway.nlm.nih.gov/gw/Cmd?Overview.x.

⁸ The NLM Gateway is currently being developed by the Lister Hill National Center for Biomedical Communications (LHNCBC) at the National Library of Medicine (NLM) of the National Institutes of Health (NIH).

⁹ Adapted from HSTAT: http://www.nlm.nih.gov/pubs/factsheets/hstat.html.

¹⁰ The HSTAT URL is http://hstat.nlm.nih.gov/.

¹¹ Other important documents in HSTAT include: the National Institutes of Health (NIH) Consensus Conference Reports and Technology Assessment Reports; the HIV/AIDS Treatment Information Service (ATIS) resource documents; the Substance Abuse and Mental Health Services Administration's Center for Substance Abuse Treatment (SAMHSA/CSAT) Treatment Improvement Protocols (TIP) and Center for Substance Abuse Prevention (SAMHSA/CSAP) Prevention Enhancement Protocols System (PEPS); the Public Health Service (PHS) Preventive Services Task Force's *Guide to Clinical Preventive Services*; the independent, nonfederal Task Force on Community Services' *Guide to Community Preventive Services*; and the Health Technology Advisory Committee (HTAC) of the Minnesota Health Care Commission (MHCC) health technology evaluations.

Coffee Break: Tutorials for Biologists¹²

Coffee Break is a general healthcare site that takes a scientific view of the news and covers recent breakthroughs in biology that may one day assist physicians in developing treatments. Here you will find a collection of short reports on recent biological discoveries. Each report incorporates interactive tutorials that demonstrate how bioinformatics tools are used as a part of the research process. Currently, all Coffee Breaks are written by NCBI staff. Each report is about 400 words and is usually based on a discovery reported in one or more articles from recently published, peer-reviewed literature. This site has new articles every few weeks, so it can be considered an online magazine of sorts. It is intended for general background information. You can access the Coffee Break Web site at the following hyperlink: http://www.ncbi.nlm.nih.gov/Coffeebreak/.

Other Commercial Databases

In addition to resources maintained by official agencies, other databases exist that are commercial ventures addressing medical professionals. Here are some examples that may interest you:

- **CliniWeb International:** Index and table of contents to selected clinical information on the Internet; see http://www.ohsu.edu/cliniweb/.
- Medical World Search: Searches full text from thousands of selected medical sites on the Internet; see http://www.mwsearch.com/.

 $^{^{12}\,}A dapted from \, {\bf http://www.ncbi.nlm.nih.gov/Coffeebreak/Archive/FAQ.html}.$

¹³ The figure that accompanies each article is frequently supplied by an expert external to NCBI, in which case the source of the figure is cited. The result is an interactive tutorial that tells a biological story.

¹⁴ After a brief introduction that sets the work described into a broader context, the report focuses on how a molecular understanding can provide explanations of observed biology and lead to therapies for diseases. Each vignette is accompanied by a figure and hypertext links that lead to a series of pages that interactively show how NCBI tools and resources are used in the research process.

APPENDIX B. PATIENT RESOURCES

Overview

Official agencies, as well as federally funded institutions supported by national grants, frequently publish a variety of guidelines written with the patient in mind. These are typically called "Fact Sheets" or "Guidelines." They can take the form of a brochure, information kit, pamphlet, or flyer. Often they are only a few pages in length. Since new guidelines on glandular fever can appear at any moment and be published by a number of sources, the best approach to finding guidelines is to systematically scan the Internet-based services that post them.

Patient Guideline Sources

The remainder of this chapter directs you to sources which either publish or can help you find additional guidelines on topics related to glandular fever. Due to space limitations, these sources are listed in a concise manner. Do not hesitate to consult the following sources by either using the Internet hyperlink provided, or, in cases where the contact information is provided, contacting the publisher or author directly.

The National Institutes of Health

The NIH gateway to patients is located at http://health.nih.gov/. From this site, you can search across various sources and institutes, a number of which are summarized below.

Topic Pages: MEDLINEplus

The National Library of Medicine has created a vast and patient-oriented healthcare information portal called MEDLINEplus. Within this Internet-based system are "health topic pages" which list links to available materials relevant to glandular fever. To access this system, log on to http://www.nlm.nih.gov/medlineplus/healthtopics.html. From there you can either search using the alphabetical index or browse by broad topic areas. Recently, MEDLINEplus listed the following when searched for "glandular fever":

Infection Control

http://www.nlm.nih.gov/medlineplus/infectioncontrol.html

Infectious Mononucleosis

http://www.nlm.nih.gov/medlineplus/infectiousmononucleosis.html

Influenza

http://www.nlm.nih.gov/medlineplus/influenza.html

Viral Infections

http://www.nlm.nih.gov/medlineplus/viralinfections.html

Within the health topic page dedicated to glandular fever, the following was listed:

Diagnosis/Symptoms

Mono Test

Source: American Association for Clinical Chemistry

http://www.labtestsonline.org/understanding/analytes/mono/test.html

Children

Infectious Mononucleosis

Source: Nemours Foundation

http://kidshealth.org/parent/infections/bacterial_viral/mononucleosis.html

What's Mono?

Source: Nemours Foundation

http://kidshealth.org/kid/talk/qa/mono.html

Organizations

National Center for Infectious Diseases

http://www.cdc.gov/ncidod/index.htm

National Institute of Allergy and Infectious Diseases

http://www.niaid.nih.gov/

Teenagers

Mononucleosis

Source: Nemours Foundation

http://kidshealth.org/teen/infections/common/mononucleosis.html

You may also choose to use the search utility provided by MEDLINEplus at the following Web address: http://www.nlm.nih.gov/medlineplus/. Simply type a keyword into the search box and click "Search." This utility is similar to the NIH search utility, with the exception that it only includes materials that are linked within the MEDLINEplus system (mostly patient-oriented information). It also has the disadvantage of generating unstructured results. We recommend, therefore, that you use this method only if you have a very targeted search.

The NIH Search Utility

The NIH search utility allows you to search for documents on over 100 selected Web sites that comprise the NIH-WEB-SPACE. Each of these servers is "crawled" and indexed on an ongoing basis. Your search will produce a list of various documents, all of which will relate in some way to glandular fever. The drawbacks of this approach are that the information is not organized by theme and that the references are often a mix of information for professionals and patients. Nevertheless, a large number of the listed Web sites provide useful background information. We can only recommend this route, therefore, for relatively rare or specific disorders, or when using highly targeted searches. To use the NIH search utility, visit the following Web page: http://search.nih.gov/index.html.

Additional Web Sources

A number of Web sites are available to the public that often link to government sites. These can also point you in the direction of essential information. The following is a representative sample:

- AOL: http://search.aol.com/cat.adp?id=168&layer=&from=subcats
- Family Village: http://www.familyvillage.wisc.edu/specific.htm
- Google: http://directory.google.com/Top/Health/Conditions_and_Diseases/
- Med Help International: http://www.medhelp.org/HealthTopics/A.html
- Open Directory Project: http://dmoz.org/Health/Conditions_and_Diseases/
- Yahoo.com: http://dir.yahoo.com/Health/Diseases_and_Conditions/
- WebMD®Health: http://my.webmd.com/health_topics

Finding Associations

There are several Internet directories that provide lists of medical associations with information on or resources relating to glandular fever. By consulting all of associations listed in this chapter, you will have nearly exhausted all sources for patient associations concerned with glandular fever.

The National Health Information Center (NHIC)

The National Health Information Center (NHIC) offers a free referral service to help people find organizations that provide information about glandular fever. For more information, see the NHIC's Web site at http://www.health.gov/NHIC/ or contact an information specialist by calling 1-800-336-4797.

Directory of Health Organizations

The Directory of Health Organizations, provided by the National Library of Medicine Specialized Information Services, is a comprehensive source of information on associations. The Directory of Health Organizations database can be accessed via the Internet at

http://www.sis.nlm.nih.gov/Dir/DirMain.html. It is composed of two parts: DIRLINE and Health Hotlines.

The DIRLINE database comprises some 10,000 records of organizations, research centers, and government institutes and associations that primarily focus on health and biomedicine. To access DIRLINE directly, go to the following Web site: http://dirline.nlm.nih.gov/. Simply type in "glandular fever" (or a synonym), and you will receive information on all relevant organizations listed in the database.

Health Hotlines directs you to toll-free numbers to over 300 organizations. You can access this database directly at http://www.sis.nlm.nih.gov/hotlines/. On this page, you are given the option to search by keyword or by browsing the subject list. When you have received your search results, click on the name of the organization for its description and contact information.

The Combined Health Information Database

Another comprehensive source of information on healthcare associations is the Combined Health Information Database. Using the "Detailed Search" option, you will need to limit your search to "Organizations" and "glandular fever". Type the following hyperlink into your Web browser: http://chid.nih.gov/detail/detail.html. To find associations, use the drop boxes at the bottom of the search page where "You may refine your search by." For publication date, select "All Years." Then, select your preferred language and the format option "Organization Resource Sheet." Type "glandular fever" (or synonyms) into the "For these words:" box. You should check back periodically with this database since it is updated every three months.

The National Organization for Rare Disorders, Inc.

The National Organization for Rare Disorders, Inc. has prepared a Web site that provides, at no charge, lists of associations organized by health topic. You can access this database at the following Web site: http://www.rarediseases.org/search/orgsearch.html. Type "glandular fever" (or a synonym) into the search box, and click "Submit Query."

APPENDIX C. FINDING MEDICAL LIBRARIES

Overview

In this Appendix, we show you how to quickly find a medical library in your area.

Preparation

Your local public library and medical libraries have interlibrary loan programs with the National Library of Medicine (NLM), one of the largest medical collections in the world. According to the NLM, most of the literature in the general and historical collections of the National Library of Medicine is available on interlibrary loan to any library. If you would like to access NLM medical literature, then visit a library in your area that can request the publications for you.¹⁵

Finding a Local Medical Library

The quickest method to locate medical libraries is to use the Internet-based directory published by the National Network of Libraries of Medicine (NN/LM). This network includes 4626 members and affiliates that provide many services to librarians, health professionals, and the public. To find a library in your area, simply visit http://nnlm.gov/members/adv.html or call 1-800-338-7657.

Medical Libraries in the U.S. and Canada

In addition to the NN/LM, the National Library of Medicine (NLM) lists a number of libraries with reference facilities that are open to the public. The following is the NLM's list and includes hyperlinks to each library's Web site. These Web pages can provide information on hours of operation and other restrictions. The list below is a small sample of

¹⁵ Adapted from the NLM: http://www.nlm.nih.gov/psd/cas/interlibrary.html.

libraries recommended by the National Library of Medicine (sorted alphabetically by name of the U.S. state or Canadian province where the library is located)¹⁶:

- Alabama: Health InfoNet of Jefferson County (Jefferson County Library Cooperative, Lister Hill Library of the Health Sciences), http://www.uab.edu/infonet/
- Alabama: Richard M. Scrushy Library (American Sports Medicine Institute)
- **Arizona:** Samaritan Regional Medical Center: The Learning Center (Samaritan Health System, Phoenix, Arizona), http://www.samaritan.edu/library/bannerlibs.htm
- California: Kris Kelly Health Information Center (St. Joseph Health System, Humboldt), http://www.humboldt1.com/~kkhic/index.html
- California: Community Health Library of Los Gatos, http://www.healthlib.org/orgresources.html
- California: Consumer Health Program and Services (CHIPS) (County of Los Angeles Public Library, Los Angeles County Harbor-UCLA Medical Center Library) - Carson, CA, http://www.colapublib.org/services/chips.html
- California: Gateway Health Library (Sutter Gould Medical Foundation)
- California: Health Library (Stanford University Medical Center), http://www-med.stanford.edu/healthlibrary/
- California: Patient Education Resource Center Health Information and Resources (University of California, San Francisco), http://sfghdean.ucsf.edu/barnett/PERC/default.asp
- California: Redwood Health Library (Petaluma Health Care District), http://www.phcd.org/rdwdlib.html
- California: Los Gatos PlaneTree Health Library, http://planetreesanjose.org/
- California: Sutter Resource Library (Sutter Hospitals Foundation, Sacramento), http://suttermedicalcenter.org/library/
- California: Health Sciences Libraries (University of California, Davis), http://www.lib.ucdavis.edu/healthsci/
- California: ValleyCare Health Library & Ryan Comer Cancer Resource Center (ValleyCare Health System, Pleasanton), http://gaelnet.stmarysca.edu/other.libs/gbal/east/vchl.html
- California: Washington Community Health Resource Library (Fremont), http://www.healthlibrary.org/
- Colorado: William V. Gervasini Memorial Library (Exempla Healthcare), http://www.saintjosephdenver.org/yourhealth/libraries/
- Connecticut: Hartford Hospital Health Science Libraries (Hartford Hospital), http://www.harthosp.org/library/
- Connecticut: Healthnet: Connecticut Consumer Health Information Center (University
 of Connecticut Health Center, Lyman Maynard Stowe Library),
 http://library.uchc.edu/departm/hnet/

¹⁶ Abstracted from http://www.nlm.nih.gov/medlineplus/libraries.html.

- **Connecticut:** Waterbury Hospital Health Center Library (Waterbury Hospital, Waterbury), http://www.waterburyhospital.com/library/consumer.shtml
- **Delaware:** Consumer Health Library (Christiana Care Health System, Eugene du Pont Preventive Medicine & Rehabilitation Institute, Wilmington), http://www.christianacare.org/health_guide/health_guide_pmri_health_info.cfm
- Delaware: Lewis B. Flinn Library (Delaware Academy of Medicine, Wilmington), http://www.delamed.org/chls.html
- Georgia: Family Resource Library (Medical College of Georgia, Augusta), http://cmc.mcg.edu/kids_families/fam_resources/fam_res_lib/frl.htm
- **Georgia:** Health Resource Center (Medical Center of Central Georgia, Macon), http://www.mccg.org/hrc/hrchome.asp
- **Hawaii:** Hawaii Medical Library: Consumer Health Information Service (Hawaii Medical Library, Honolulu), http://hml.org/CHIS/
- Idaho: DeArmond Consumer Health Library (Kootenai Medical Center, Coeur d'Alene), http://www.nicon.org/DeArmond/index.htm
- Illinois: Health Learning Center of Northwestern Memorial Hospital (Chicago), http://www.nmh.org/health_info/hlc.html
- Illinois: Medical Library (OSF Saint Francis Medical Center, Peoria), http://www.osfsaintfrancis.org/general/library/
- Kentucky: Medical Library Services for Patients, Families, Students & the Public (Central Baptist Hospital, Lexington), http://www.centralbap.com/education/community/library.cfm
- **Kentucky:** University of Kentucky Health Information Library (Chandler Medical Center, Lexington), http://www.mc.uky.edu/PatientEd/
- Louisiana: Alton Ochsner Medical Foundation Library (Alton Ochsner Medical Foundation, New Orleans), http://www.ochsner.org/library/
- **Louisiana:** Louisiana State University Health Sciences Center Medical Library-Shreveport, http://lib-sh.lsuhsc.edu/
- **Maine:** Franklin Memorial Hospital Medical Library (Franklin Memorial Hospital, Farmington), http://www.fchn.org/fmh/lib.htm
- Maine: Gerrish-True Health Sciences Library (Central Maine Medical Center, Lewiston), http://www.cmmc.org/library/library.html
- Maine: Hadley Parrot Health Science Library (Eastern Maine Healthcare, Bangor), http://www.emh.org/hll/hpl/guide.htm
- Maine: Maine Medical Center Library (Maine Medical Center, Portland), http://www.mmc.org/library/
- Maine: Parkview Hospital (Brunswick), http://www.parkviewhospital.org/
- Maine: Southern Maine Medical Center Health Sciences Library (Southern Maine Medical Center, Biddeford), http://www.smmc.org/services/service.php3?choice=10
- **Maine:** Stephens Memorial Hospital's Health Information Library (Western Maine Health, Norway), http://www.wmhcc.org/Library/

- Manitoba, Canada: Consumer & Patient Health Information Service (University of Manitoba Libraries),
 - http://www.umanitoba.ca/libraries/units/health/reference/chis.html
- Manitoba, Canada: J.W. Crane Memorial Library (Deer Lodge Centre, Winnipeg), http://www.deerlodge.mb.ca/crane_library/about.asp
- Maryland: Health Information Center at the Wheaton Regional Library (Montgomery County, Dept. of Public Libraries, Wheaton Regional Library), http://www.mont.lib.md.us/healthinfo/hic.asp
- Massachusetts: Baystate Medical Center Library (Baystate Health System), http://www.baystatehealth.com/1024/
- Massachusetts: Boston University Medical Center Alumni Medical Library (Boston University Medical Center), http://med-libwww.bu.edu/library/lib.html
- Massachusetts: Lowell General Hospital Health Sciences Library (Lowell General Hospital, Lowell), http://www.lowellgeneral.org/library/HomePageLinks/WWW.htm
- Massachusetts: Paul E. Woodard Health Sciences Library (New England Baptist Hospital, Boston), http://www.nebh.org/health_lib.asp
- Massachusetts: St. Luke's Hospital Health Sciences Library (St. Luke's Hospital, Southcoast Health System, New Bedford), http://www.southcoast.org/library/
- Massachusetts: Treadwell Library Consumer Health Reference Center (Massachusetts General Hospital), http://www.mgh.harvard.edu/library/chrcindex.html
- Massachusetts: UMass HealthNet (University of Massachusetts Medical School, Worchester), http://healthnet.umassmed.edu/
- **Michigan:** Botsford General Hospital Library Consumer Health (Botsford General Hospital, Library & Internet Services), http://www.botsfordlibrary.org/consumer.htm
- Michigan: Helen DeRoy Medical Library (Providence Hospital and Medical Centers), http://www.providence-hospital.org/library/
- **Michigan:** Marquette General Hospital Consumer Health Library (Marquette General Hospital, Health Information Center), **http://www.mgh.org/center.html**
- Michigan: Patient Education Resouce Center University of Michigan Cancer Center (University of Michigan Comprehensive Cancer Center, Ann Arbor), http://www.cancer.med.umich.edu/learn/leares.htm
- Michigan: Sladen Library & Center for Health Information Resources Consumer Health Information (Detroit), http://www.henryford.com/body.cfm?id=39330
- Montana: Center for Health Information (St. Patrick Hospital and Health Sciences Center, Missoula)
- National: Consumer Health Library Directory (Medical Library Association, Consumer and Patient Health Information Section), http://caphis.mlanet.org/directory/index.html
- National: National Network of Libraries of Medicine (National Library of Medicine) provides library services for health professionals in the United States who do not have
 access to a medical library, http://nnlm.gov/
- National: NN/LM List of Libraries Serving the Public (National Network of Libraries of Medicine), http://nnlm.gov/members/

- Nevada: Health Science Library, West Charleston Library (Las Vegas-Clark County Library District, Las Vegas),
 http://www.lvccld.org/special_collections/medical/index.htm
- New Hampshire: Dartmouth Biomedical Libraries (Dartmouth College Library, Hanover), http://www.dartmouth.edu/~biomed/resources.htmld/conshealth.htmld/
- New Jersey: Consumer Health Library (Rahway Hospital, Rahway), http://www.rahwayhospital.com/library.htm
- New Jersey: Dr. Walter Phillips Health Sciences Library (Englewood Hospital and Medical Center, Englewood), http://www.englewoodhospital.com/links/index.htm
- New Jersey: Meland Foundation (Englewood Hospital and Medical Center, Englewood), http://www.geocities.com/ResearchTriangle/9360/
- New York: Choices in Health Information (New York Public Library) NLM Consumer Pilot Project participant, http://www.nypl.org/branch/health/links.html
- **New York:** Health Information Center (Upstate Medical University, State University of New York, Syracuse), **http://www.upstate.edu/library/hic/**
- New York: Health Sciences Library (Long Island Jewish Medical Center, New Hyde Park), http://www.lij.edu/library/library.html
- New York: ViaHealth Medical Library (Rochester General Hospital), http://www.nyam.org/library/
- **Ohio:** Consumer Health Library (Akron General Medical Center, Medical & Consumer Health Library), http://www.akrongeneral.org/hwlibrary.htm
- Oklahoma: The Health Information Center at Saint Francis Hospital (Saint Francis Health System, Tulsa), http://www.sfh-tulsa.com/services/healthinfo.asp
- Oregon: Planetree Health Resource Center (Mid-Columbia Medical Center, The Dalles), http://www.mcmc.net/phrc/
- **Pennsylvania:** Community Health Information Library (Milton S. Hershey Medical Center, Hershey), http://www.hmc.psu.edu/commhealth/
- **Pennsylvania:** Community Health Resource Library (Geisinger Medical Center, Danville), http://www.geisinger.edu/education/commlib.shtml
- Pennsylvania: HealthInfo Library (Moses Taylor Hospital, Scranton), http://www.mth.org/healthwellness.html
- **Pennsylvania:** Hopwood Library (University of Pittsburgh, Health Sciences Library System, Pittsburgh), http://www.hsls.pitt.edu/guides/chi/hopwood/index_html
- **Pennsylvania:** Koop Community Health Information Center (College of Physicians of Philadelphia), http://www.collphyphil.org/kooppg1.shtml
- **Pennsylvania:** Learning Resources Center Medical Library (Susquehanna Health System, Williamsport), http://www.shscares.org/services/lrc/index.asp
- Pennsylvania: Medical Library (UPMC Health System, Pittsburgh), http://www.upmc.edu/passavant/library.htm
- Quebec, Canada: Medical Library (Montreal General Hospital), http://www.mghlib.mcgill.ca/

- **South Dakota:** Rapid City Regional Hospital Medical Library (Rapid City Regional Hospital), http://www.rcrh.org/Services/Library/Default.asp
- **Texas:** Houston HealthWays (Houston Academy of Medicine-Texas Medical Center Library), http://hhw.library.tmc.edu/
- Washington: Community Health Library (Kittitas Valley Community Hospital), http://www.kvch.com/
- Washington: Southwest Washington Medical Center Library (Southwest Washington Medical Center, Vancouver), http://www.swmedicalcenter.com/body.cfm?id=72

ONLINE GLOSSARIES

The Internet provides access to a number of free-to-use medical dictionaries. The National Library of Medicine has compiled the following list of online dictionaries:

- ADAM Medical Encyclopedia (A.D.A.M., Inc.), comprehensive medical reference: http://www.nlm.nih.gov/medlineplus/encyclopedia.html
- MedicineNet.com Medical Dictionary (MedicineNet, Inc.): http://www.medterms.com/Script/Main/hp.asp
- Merriam-Webster Medical Dictionary (Inteli-Health, Inc.): http://www.intelihealth.com/IH/
- Multilingual Glossary of Technical and Popular Medical Terms in Eight European Languages (European Commission) - Danish, Dutch, English, French, German, Italian, Portuguese, and Spanish: http://allserv.rug.ac.be/~rvdstich/eugloss/welcome.html
- On-line Medical Dictionary (CancerWEB): http://cancerweb.ncl.ac.uk/omd/
- Rare Diseases Terms (Office of Rare Diseases):
 http://ord.aspensys.com/asp/diseases/diseases.asp
- Technology Glossary (National Library of Medicine) Health Care Technology: http://www.nlm.nih.gov/nichsr/ta101/ta10108.htm

Beyond these, MEDLINEplus contains a very patient-friendly encyclopedia covering every aspect of medicine (licensed from A.D.A.M., Inc.). The ADAM Medical Encyclopedia can be accessed at http://www.nlm.nih.gov/medlineplus/encyclopedia.html. ADAM is also available on commercial Web sites such as drkoop.com (http://www.drkoop.com/) and Web MD (http://my.webmd.com/adam/asset/adam_disease_articles/a_to_z/a).

Online Dictionary Directories

The following are additional online directories compiled by the National Library of Medicine, including a number of specialized medical dictionaries:

- Medical Dictionaries: Medical & Biological (World Health Organization): http://www.who.int/hlt/virtuallibrary/English/diction.htm#Medical
- MEL-Michigan Electronic Library List of Online Health and Medical Dictionaries (Michigan Electronic Library): http://mel.lib.mi.us/health/health-dictionaries.html
- Patient Education: Glossaries (DMOZ Open Directory Project):
 http://dmoz.org/Health/Education/Patient_Education/Glossaries/
- Web of Online Dictionaries (Bucknell University): http://www.yourdictionary.com/diction5.html#medicine

GLANDULAR FEVER DICTIONARY

The definitions below are derived from official public sources, including the National Institutes of Health [NIH] and the European Union [EU].

Acute leukemia: A rapidly progressing cancer of the blood-forming tissue (bone marrow). [NIH]

Acute lymphocytic leukemia: ALL. A quickly progressing disease in which too many immature white blood cells called lymphoblasts are found in the blood and bone marrow. Also called acute lymphoblastic leukemia. [NIH]

Agglutinins: Substances, usually of biological origin, that cause cells or other organic particles to aggregate and stick to each other. They also include those antibodies which cause aggregation or agglutination of a particulate or insoluble antigen. [NIH]

Airway: A device for securing unobstructed passage of air into and out of the lungs during general anesthesia. [NIH]

Albumin: 1. Any protein that is soluble in water and moderately concentrated salt solutions and is coagulable by heat. 2. Serum albumin; the major plasma protein (approximately 60 per cent of the total), which is responsible for much of the plasma colloidal osmotic pressure and serves as a transport protein carrying large organic anions, such as fatty acids, bilirubin, and many drugs, and also carrying certain hormones, such as cortisol and thyroxine, when their specific binding globulins are saturated. Albumin is synthesized in the liver. Low serum levels occur in protein malnutrition, active inflammation and serious hepatic and renal disease. [EU]

Algorithms: A procedure consisting of a sequence of algebraic formulas and/or logical steps to calculate or determine a given task. [NIH]

Alternative medicine: Practices not generally recognized by the medical community as standard or conventional medical approaches and used instead of standard treatments. Alternative medicine includes the taking of dietary supplements, megadose vitamins, and herbal preparations; the drinking of special teas; and practices such as massage therapy, magnet therapy, spiritual healing, and meditation. [NIH]

Amino acid: Any organic compound containing an amino (-NH2 and a carboxyl (- COOH) group. The 20 a-amino acids listed in the accompanying table are the amino acids from which proteins are synthesized by formation of peptide bonds during ribosomal translation of messenger RNA; all except glycine, which is not optically active, have the L configuration. Other amino acids occurring in proteins, such as hydroxyproline in collagen, are formed by posttranslational enzymatic modification of amino acids residues in polypeptide chains. There are also several important amino acids, such as the neurotransmitter y-aminobutyric acid, that have no relation to proteins. Abbreviated AA. [EU]

Ampicillin: Semi-synthetic derivative of penicillin that functions as an orally active broad-spectrum antibiotic. [NIH]

Analytes: A component of a test sample the presence of which has to be demonstrated. The term "analyte" includes where appropriate formed from the analyte during the analyses. [NIH]

Anesthesia: A state characterized by loss of feeling or sensation. This depression of nerve function is usually the result of pharmacologic action and is induced to allow performance of surgery or other painful procedures. [NIH]

Anions: Negatively charged atoms, radicals or groups of atoms which travel to the anode or positive pole during electrolysis. [NIH]

Antibiotic: A drug used to treat infections caused by bacteria and other microorganisms. [NIH]

Antibodies: Immunoglobulin molecules having a specific amino acid sequence by virtue of which they interact only with the antigen that induced their synthesis in cells of the lymphoid series (especially plasma cells), or with an antigen closely related to it. [NIH]

Antibody: A type of protein made by certain white blood cells in response to a foreign substance (antigen). Each antibody can bind to only a specific antigen. The purpose of this binding is to help destroy the antigen. Antibodies can work in several ways, depending on the nature of the antigen. Some antibodies destroy antigens directly. Others make it easier for white blood cells to destroy the antigen. [NIH]

Anticonvulsant: An agent that prevents or relieves convulsions. [EU]

Antigen: Any substance which is capable, under appropriate conditions, of inducing a specific immune response and of reacting with the products of that response, that is, with specific antibody or specifically sensitized T-lymphocytes, or both. Antigens may be soluble substances, such as toxins and foreign proteins, or particulate, such as bacteria and tissue cells; however, only the portion of the protein or polysaccharide molecule known as the antigenic determinant (q.v.) combines with antibody or a specific receptor on a lymphocyte. Abbreviated Ag. [EU]

Antimicrobial: Killing microorganisms, or suppressing their multiplication or growth. [EU]

Anxiety: Persistent feeling of dread, apprehension, and impending disaster. [NIH]

Apoptosis: One of the two mechanisms by which cell death occurs (the other being the pathological process of necrosis). Apoptosis is the mechanism responsible for the physiological deletion of cells and appears to be intrinsically programmed. It is characterized by distinctive morphologic changes in the nucleus and cytoplasm, chromatin cleavage at regularly spaced sites, and the endonucleolytic cleavage of genomic DNA (DNA fragmentation) at internucleosomal sites. This mode of cell death serves as a balance to mitosis in regulating the size of animal tissues and in mediating pathologic processes associated with tumor growth. [NIH]

Arteries: The vessels carrying blood away from the heart. [NIH]

Atypical: Irregular; not conformable to the type; in microbiology, applied specifically to strains of unusual type. [EU]

Autoimmune disease: A condition in which the body recognizes its own tissues as foreign and directs an immune response against them. [NIH]

Autonomic: Self-controlling; functionally independent. [EU]

Bacteria: Unicellular prokaryotic microorganisms which generally possess rigid cell walls, multiply by cell division, and exhibit three principal forms: round or coccal, rodlike or bacillary, and spiral or spirochetal. [NIH]

Benign: Not cancerous; does not invade nearby tissue or spread to other parts of the body. [NIH]

Bilirubin: A bile pigment that is a degradation product of heme. [NIH]

Biosynthesis: The building up of a chemical compound in the physiologic processes of a living organism. [EU]

Biotechnology: Body of knowledge related to the use of organisms, cells or cell-derived constituents for the purpose of developing products which are technically, scientifically and clinically useful. Alteration of biologic function at the molecular level (i.e., genetic

engineering) is a central focus; laboratory methods used include transfection and cloning technologies, sequence and structure analysis algorithms, computer databases, and gene and protein structure function analysis and prediction. [NIH]

Bone Marrow: The soft tissue filling the cavities of bones. Bone marrow exists in two types, yellow and red. Yellow marrow is found in the large cavities of large bones and consists mostly of fat cells and a few primitive blood cells. Red marrow is a hematopoietic tissue and is the site of production of erythrocytes and granular leukocytes. Bone marrow is made up of a framework of connective tissue containing branching fibers with the frame being filled with marrow cells. [NIH]

Bone Marrow Transplantation: The transference of bone marrow from one human or animal to another. [NIH]

Broad-spectrum: Effective against a wide range of microorganisms; said of an antibiotic. [EU]

Capillary: Any one of the minute vessels that connect the arterioles and venules, forming a network in nearly all parts of the body. Their walls act as semipermeable membranes for the interchange of various substances, including fluids, between the blood and tissue fluid; called also vas capillare. [EU]

Capsid: The outer protein protective shell of a virus, which protects the viral nucleic acid.

Capsules: Hard or soft soluble containers used for the oral administration of medicine. [NIH]

Carbamazepine: An anticonvulsant used to control grand mal and psychomotor or focal seizures. Its mode of action is not fully understood, but some of its actions resemble those of phenytoin; although there is little chemical resemblance between the two compounds, their three-dimensional structure is similar. [NIH]

Cell: The individual unit that makes up all of the tissues of the body. All living things are made up of one or more cells. [NIH]

Cell Death: The termination of the cell's ability to carry out vital functions such as metabolism, growth, reproduction, responsiveness, and adaptability. [NIH]

Cephalexin: A semisynthetic cephalosporin antibiotic with antimicrobial activity similar to that of cephaloridine or cephalothin, but somewhat less potent. It is effective against both gram-positive and gram-negative organisms. [NIH]

Cephaloridine: A cephalosporin antibiotic. [NIH]

Cephalothin: A cephalosporin antibiotic. [NIH]

Cervical: Relating to the neck, or to the neck of any organ or structure. Cervical lymph nodes are located in the neck; cervical cancer refers to cancer of the uterine cervix, which is the lower, narrow end (the "neck") of the uterus. [NIH]

Chromatin: The material of chromosomes. It is a complex of DNA, histones, and nonhistone proteins (chromosomal proteins, non-histone) found within the nucleus of a cell. [NIH]

Chronic: A disease or condition that persists or progresses over a long period of time. [NIH]

Chronic Fatigue Syndrome: Fatigue caused by the combined effects of different types of prolonged fatigue. [NIH]

Clinical trial: A research study that tests how well new medical treatments or other interventions work in people. Each study is designed to test new methods of screening, prevention, diagnosis, or treatment of a disease. [NIH]

Cloning: The production of a number of genetically identical individuals; in genetic engineering, a process for the efficient replication of a great number of identical DNA molecules. [NIH]

Colloidal: Of the nature of a colloid. [EU]

Complement: A term originally used to refer to the heat-labile factor in serum that causes immune cytolysis, the lysis of antibody-coated cells, and now referring to the entire functionally related system comprising at least 20 distinct serum proteins that is the effector not only of immune cytolysis but also of other biologic functions. Complement activation occurs by two different sequences, the classic and alternative pathways. The proteins of the classic pathway are termed 'components of complement' and are designated by the symbols C1 through C9. C1 is a calcium-dependent complex of three distinct proteins C1q, C1r and C1s. The proteins of the alternative pathway (collectively referred to as the properdin system) and complement regulatory proteins are known by semisystematic or trivial names. Fragments resulting from proteolytic cleavage of complement proteins are designated with lower-case letter suffixes, e.g., C3a. Inactivated fragments may be designated with the suffix 'i', e.g. C3bi. Activated components or complexes with biological activity are designated by a bar over the symbol e.g. C1 or C4b,2a. The classic pathway is activated by the binding of C1 to classic pathway activators, primarily antigen-antibody complexes containing IgM, IgG1, IgG3; C1q binds to a single IgM molecule or two adjacent IgG molecules. The alternative pathway can be activated by IgA immune complexes and also by nonimmunologic materials including bacterial endotoxins, microbial polysaccharides, and cell walls. Activation of the classic pathway triggers an enzymatic cascade involving C1, C4, C2 and C3; activation of the alternative pathway triggers a cascade involving C3 and factors B, D and P. Both result in the cleavage of C5 and the formation of the membrane attack complex. Complement activation also results in the formation of many biologically active complement fragments that act as anaphylatoxins, opsonins, or chemotactic factors. [EU]

Complementary and alternative medicine: CAM. Forms of treatment that are used in addition to (complementary) or instead of (alternative) standard treatments. These practices are not considered standard medical approaches. CAM includes dietary supplements, megadose vitamins, herbal preparations, special teas, massage therapy, magnet therapy, spiritual healing, and meditation. [NIH]

Complementary medicine: Practices not generally recognized by the medical community as standard or conventional medical approaches and used to enhance or complement the standard treatments. Complementary medicine includes the taking of dietary supplements, megadose vitamins, and herbal preparations; the drinking of special teas; and practices such as massage therapy, magnet therapy, spiritual healing, and meditation. [NIH]

Computational Biology: A field of biology concerned with the development of techniques for the collection and manipulation of biological data, and the use of such data to make biological discoveries or predictions. This field encompasses all computational methods and theories applicable to molecular biology and areas of computer-based techniques for solving biological problems including manipulation of models and datasets. [NIH]

Conjunctiva: The mucous membrane that lines the inner surface of the eyelids and the anterior part of the sclera. [NIH]

Connective Tissue: Tissue that supports and binds other tissues. It consists of connective tissue cells embedded in a large amount of extracellular matrix. [NIH]

Connective Tissue: Tissue that supports and binds other tissues. It consists of connective tissue cells embedded in a large amount of extracellular matrix. [NIH]

Contraindications: Any factor or sign that it is unwise to pursue a certain kind of action or treatment, e. g. giving a general anesthetic to a person with pneumonia. [NIH]

Coronary: Encircling in the manner of a crown; a term applied to vessels; nerves, ligaments, etc. The term usually denotes the arteries that supply the heart muscle and, by extension, a pathologic involvement of them. [EU]

Coronary Thrombosis: Presence of a thrombus in a coronary artery, often causing a myocardial infarction. [NIH]

Cortisol: A steroid hormone secreted by the adrenal cortex as part of the body's response to stress. [NIH]

Cytoplasm: The protoplasm of a cell exclusive of that of the nucleus; it consists of a continuous aqueous solution (cytosol) and the organelles and inclusions suspended in it (phaneroplasm), and is the site of most of the chemical activities of the cell. [EU]

Deletion: A genetic rearrangement through loss of segments of DNA (chromosomes), bringing sequences, which are normally separated, into close proximity. [NIH]

Diagnostic procedure: A method used to identify a disease. [NIH]

Direct: 1. Straight; in a straight line. 2. Performed immediately and without the intervention of subsidiary means. [EU]

Drive: A state of internal activity of an organism that is a necessary condition before a given stimulus will elicit a class of responses; e.g., a certain level of hunger (drive) must be present before food will elicit an eating response. [NIH]

Environmental Health: The science of controlling or modifying those conditions, influences, or forces surrounding man which relate to promoting, establishing, and maintaining health.

Eosinophilia: Abnormal increase in eosinophils in the blood, tissues or organs. [NIH]

Eosinophils: Granular leukocytes with a nucleus that usually has two lobes connected by a slender thread of chromatin, and cytoplasm containing coarse, round granules that are uniform in size and stainable by eosin. [NIH]

Epidermis: Nonvascular layer of the skin. It is made up, from within outward, of five layers: 1) basal layer (stratum basale epidermidis); 2) spinous layer (stratum spinosum epidermidis); 3) granular layer (stratum granulosum epidermidis); 4) clear layer (stratum lucidum epidermidis); and 5) horny layer (stratum corneum epidermidis). [NIH]

Epitopes: Sites on an antigen that interact with specific antibodies. [NIH]

Erythema: Redness of the skin produced by congestion of the capillaries. This condition may result from a variety of causes. [NIH]

Erythrocytes: Red blood cells. Mature erythrocytes are non-nucleated, biconcave disks containing hemoglobin whose function is to transport oxygen. [NIH]

Family Planning: Programs or services designed to assist the family in controlling reproduction by either improving or diminishing fertility. [NIH]

Fat: Total lipids including phospholipids. [NIH]

Fatigue: The state of weariness following a period of exertion, mental or physical, characterized by a decreased capacity for work and reduced efficiency to respond to stimuli.

Gene: The functional and physical unit of heredity passed from parent to offspring. Genes are pieces of DNA, and most genes contain the information for making a specific protein.

Glomerular: Pertaining to or of the nature of a glomerulus, especially a renal glomerulus.

Glomerular Filtration Rate: The volume of water filtered out of plasma through glomerular capillary walls into Bowman's capsules per unit of time. It is considered to be equivalent to inulin clearance. [NIH]

Glomerulus: A tiny set of looping blood vessels in the nephron where blood is filtered in the

kidney. [NIH]

Governing Board: The group in which legal authority is vested for the control of health-related institutions and organizations. [NIH]

Gram-negative: Losing the stain or decolorized by alcohol in Gram's method of staining, a primary characteristic of bacteria having a cell wall composed of a thin layer of peptidoglycan covered by an outer membrane of lipoprotein and lipopolysaccharide. [EU]

Gram-positive: Retaining the stain or resisting decolorization by alcohol in Gram's method of staining, a primary characteristic of bacteria whose cell wall is composed of a thick layer of peptidologlycan with attached teichoic acids. [EU]

Headache: Pain in the cranial region that may occur as an isolated and benign symptom or as a manifestation of a wide variety of conditions including subarachnoid hemorrhage; craniocerebral trauma; central nervous system infections; intracranial hypertension; and other disorders. In general, recurrent headaches that are not associated with a primary disease process are referred to as headache disorders (e.g., migraine). [NIH]

Hematology: A subspecialty of internal medicine concerned with morphology, physiology, and pathology of the blood and blood-forming tissues. [NIH]

Hemorrhage: Bleeding or escape of blood from a vessel. [NIH]

Hepatic: Refers to the liver. [NIH]

Hepatitis: Inflammation of the liver and liver disease involving degenerative or necrotic alterations of hepatocytes. [NIH]

Hepatomegaly: Enlargement of the liver. [NIH]

Herpes: Any inflammatory skin disease caused by a herpesvirus and characterized by the formation of clusters of small vesicles. When used alone, the term may refer to herpes simplex or to herpes zoster. [EU]

Herpes virus: A member of the herpes family of viruses. [NIH]

Herpes Zoster: Acute vesicular inflammation. [NIH]

Hormones: Chemical substances having a specific regulatory effect on the activity of a certain organ or organs. The term was originally applied to substances secreted by various endocrine glands and transported in the bloodstream to the target organs. It is sometimes extended to include those substances that are not produced by the endocrine glands but that have similar effects. [NIH]

Idiopathic: Describes a disease of unknown cause. [NIH]

Immune response: The activity of the immune system against foreign substances (antigens). [NIH]

Immunologic: The ability of the antibody-forming system to recall a previous experience with an antigen and to respond to a second exposure with the prompt production of large amounts of antibody. [NIH]

In vitro: In the laboratory (outside the body). The opposite of in vivo (in the body). [NIH]

Incontinence: Inability to control the flow of urine from the bladder (urinary incontinence) or the escape of stool from the rectum (fecal incontinence). [NIH]

Infarction: A pathological process consisting of a sudden insufficient blood supply to an area, which results in necrosis of that area. It is usually caused by a thrombus, an embolus, or a vascular torsion. [NIH]

Infection: 1. Invasion and multiplication of microorganisms in body tissues, which may be clinically unapparent or result in local cellular injury due to competitive metabolism, toxins,

intracellular replication, or antigen-antibody response. The infection may remain localized, subclinical, and temporary if the body's defensive mechanisms are effective. A local infection may persist and spread by extension to become an acute, subacute, or chronic clinical infection or disease state. A local infection may also become systemic when the microorganisms gain access to the lymphatic or vascular system. 2. An infectious disease. [EU]

Infectious Mononucleosis: A common, acute infection usually caused by the Epstein-Barr virus (Human herpesvirus 4). There is an increase in mononuclear white blood cells and other atypical lymphocytes, generalized lymphadenopathy, splenomegaly, and occasionally hepatomegaly with hepatitis. [NIH]

Inflammation: A pathological process characterized by injury or destruction of tissues caused by a variety of cytologic and chemical reactions. It is usually manifested by typical signs of pain, heat, redness, swelling, and loss of function. [NIH]

Influenza: An acute viral infection involving the respiratory tract. It is marked by inflammation of the nasal mucosa, the pharynx, and conjunctiva, and by headache and severe, often generalized, myalgia. [NIH]

Intermediate Filaments: Cytoplasmic filaments intermediate in diameter (about 10 nanometers) between the microfilaments and the microtubules. They may be composed of any of a number of different proteins and form a ring around the cell nucleus. [NIH]

Intracellular: Inside a cell. [NIH]

Inulin: A starch found in the tubers and roots of many plants. Since it is hydrolyzable to fructose, it is classified as a fructosan. It has been used in physiologic investigation for determination of the rate of glomerular function. [NIH]

Ischemia: Deficiency of blood in a part, due to functional constriction or actual obstruction of a blood vessel. [EU]

Kb: A measure of the length of DNA fragments, 1 Kb = 1000 base pairs. The largest DNA fragments are up to 50 kilobases long. [NIH]

Latency: The period of apparent inactivity between the time when a stimulus is presented and the moment a response occurs. [NIH]

Latent: Phoria which occurs at one distance or another and which usually has no troublesome effect. [NIH]

Leukemia: Cancer of blood-forming tissue. [NIH]

Leukocytes: White blood cells. These include granular leukocytes (basophils, eosinophils, and neutrophils) as well as non-granular leukocytes (lymphocytes and monocytes). [NIH]

Liver: A large, glandular organ located in the upper abdomen. The liver cleanses the blood and aids in digestion by secreting bile. [NIH]

Localized: Cancer which has not metastasized yet. [NIH]

Lymph: The almost colorless fluid that travels through the lymphatic system and carries cells that help fight infection and disease. [NIH]

Lymph node: A rounded mass of lymphatic tissue that is surrounded by a capsule of connective tissue. Also known as a lymph gland. Lymph nodes are spread out along lymphatic vessels and contain many lymphocytes, which filter the lymphatic fluid (lymph). [NIH]

Lymphadenopathy: Disease or swelling of the lymph nodes. [NIH]

Lymphatic: The tissues and organs, including the bone marrow, spleen, thymus, and lymph nodes, that produce and store cells that fight infection and disease. [NIH]

Lymphatic system: The tissues and organs that produce, store, and carry white blood cells that fight infection and other diseases. This system includes the bone marrow, spleen, thymus, lymph nodes and a network of thin tubes that carry lymph and white blood cells. These tubes branch, like blood vessels, into all the tissues of the body. [NIH]

Lymphoblasts: Interferon produced predominantly by leucocyte cells. [NIH]

Lymphocyte: A white blood cell. Lymphocytes have a number of roles in the immune system, including the production of antibodies and other substances that fight infection and diseases. [NIH]

Lymphocytic: Referring to lymphocytes, a type of white blood cell. [NIH]

Lymphoid: Referring to lymphocytes, a type of white blood cell. Also refers to tissue in which lymphocytes develop. [NIH]

Lymphoproliferative: Disorders characterized by proliferation of lymphoid tissue, general or unspecified. [NIH]

Malignancy: A cancerous tumor that can invade and destroy nearby tissue and spread to other parts of the body. [NIH]

Malignant: Cancerous; a growth with a tendency to invade and destroy nearby tissue and spread to other parts of the body. [NIH]

Malnutrition: A condition caused by not eating enough food or not eating a balanced diet. [NIH]

MEDLINE: An online database of MEDLARS, the computerized bibliographic Medical Literature Analysis and Retrieval System of the National Library of Medicine. [NIH]

Membrane: A very thin layer of tissue that covers a surface. [NIH]

Memory: Complex mental function having four distinct phases: (1) memorizing or learning, (2) retention, (3) recall, and (4) recognition. Clinically, it is usually subdivided into immediate, recent, and remote memory. [NIH]

Mental: Pertaining to the mind; psychic. 2. (L. mentum chin) pertaining to the chin. [EU]

MI: Myocardial infarction. Gross necrosis of the myocardium as a result of interruption of the blood supply to the area; it is almost always caused by atherosclerosis of the coronary arteries, upon which coronary thrombosis is usually superimposed. [NIH]

Microfilaments: The smallest of the cytoskeletal filaments. They are composed chiefly of actin. [NIH]

Microtubules: Slender, cylindrical filaments found in the cytoskeleton of plant and animal cells. They are composed of the protein tubulin. [NIH]

Mitosis: A method of indirect cell division by means of which the two daughter nuclei normally receive identical complements of the number of chromosomes of the somatic cells of the species. [NIH]

Molecular: Of, pertaining to, or composed of molecules: a very small mass of matter. [EU]

Molecule: A chemical made up of two or more atoms. The atoms in a molecule can be the same (an oxygen molecule has two oxygen atoms) or different (a water molecule has two hydrogen atoms and one oxygen atom). Biological molecules, such as proteins and DNA, can be made up of many thousands of atoms. [NIH]

Monocyte: A type of white blood cell. [NIH]

Mononuclear: A cell with one nucleus. [NIH]

Mononucleosis: The presence of an abnormally large number of mononuclear leucocytes (monocytes) in the blood. The term is often used alone to refer to infectious mononucleosis.

[EU]

Morphology: The science of the form and structure of organisms (plants, animals, and other forms of life). [NIH]

Mucositis: A complication of some cancer therapies in which the lining of the digestive system becomes inflamed. Often seen as sores in the mouth. [NIH]

Myalgia: Pain in a muscle or muscles. [EU]

Myelitis: Inflammation of the spinal cord. Relatively common etiologies include infections; autoimmune diseases; spinal cord; and ischemia (see also spinal cord vascular diseases). Clinical features generally include weakness, sensory loss, localized pain, incontinence, and other signs of autonomic dysfunction. [NIH]

Myocardium: The muscle tissue of the heart composed of striated, involuntary muscle known as cardiac muscle. [NIH]

Nasal Mucosa: The mucous membrane lining the nasal cavity. [NIH]

Necrosis: A pathological process caused by the progressive degradative action of enzymes that is generally associated with severe cellular trauma. It is characterized by mitochondrial swelling, nuclear flocculation, uncontrolled cell lysis, and ultimately cell death. [NIH]

Neoplasm: A new growth of benign or malignant tissue. [NIH]

Neutropenia: An abnormal decrease in the number of neutrophils, a type of white blood cell. [NIH]

Neutrophils: Granular leukocytes having a nucleus with three to five lobes connected by slender threads of chromatin, and cytoplasm containing fine inconspicuous granules and stainable by neutral dyes. [NIH]

Nitroblue Tetrazolium: Colorless to yellow dye that is reducible to blue or black formazan crystals by certain cells; formerly used to distinguish between nonbacterial and bacterial diseases, the latter causing neutrophils to reduce the dye; used to confirm diagnosis of chronic granulomatous disease. [NIH]

Nuclei: A body of specialized protoplasm found in nearly all cells and containing the chromosomes. [NIH]

Nucleic acid: Either of two types of macromolecule (DNA or RNA) formed by polymerization of nucleotides. Nucleic acids are found in all living cells and contain the information (genetic code) for the transfer of genetic information from one generation to the next. [NIH]

Nucleus: A body of specialized protoplasm found in nearly all cells and containing the chromosomes. [NIH]

Osmotic: Pertaining to or of the nature of osmosis (= the passage of pure solvent from a solution of lesser to one of greater solute concentration when the two solutions are separated by a membrane which selectively prevents the passage of solute molecules, but is permeable to the solvent). [EU]

Pathogenesis: The cellular events and reactions that occur in the development of disease. [NIH]

Pathologic: 1. Indicative of or caused by a morbid condition. 2. Pertaining to pathology (= branch of medicine that treats the essential nature of the disease, especially the structural and functional changes in tissues and organs of the body caused by the disease). [EU]

Pathologic Processes: The abnormal mechanisms and forms involved in the dysfunctions of tissues and organs. [NIH]

Penicillin: An antibiotic drug used to treat infection. [NIH]

Peptide: Any compound consisting of two or more amino acids, the building blocks of proteins. Peptides are combined to make proteins. [NIH]

Peripheral blood: Blood circulating throughout the body. [NIH]

Pharmacologic: Pertaining to pharmacology or to the properties and reactions of drugs. [EU]

Pharynx: The hollow tube about 5 inches long that starts behind the nose and ends at the top of the trachea (windpipe) and esophagus (the tube that goes to the stomach). [NIH]

Phenytoin: An anticonvulsant that is used in a wide variety of seizures. It is also an antiarrhythmic and a muscle relaxant. The mechanism of therapeutic action is not clear, although several cellular actions have been described including effects on ion channels, active transport, and general membrane stabilization. The mechanism of its muscle relaxant effect appears to involve a reduction in the sensitivity of muscle spindles to stretch. Phenytoin has been proposed for several other therapeutic uses, but its use has been limited by its many adverse effects and interactions with other drugs. [NIH]

Physiologic: Having to do with the functions of the body. When used in the phrase "physiologic age," it refers to an age assigned by general health, as opposed to calendar age. [NIH]

Physiology: The science that deals with the life processes and functions of organismus, their cells, tissues, and organs. [NIH]

Pilot study: The initial study examining a new method or treatment. [NIH]

Plasma: The clear, yellowish, fluid part of the blood that carries the blood cells. The proteins that form blood clots are in plasma. [NIH]

Plasma protein: One of the hundreds of different proteins present in blood plasma, including carrier proteins (such albumin, transferrin, and haptoglobin), fibrinogen and other coagulation factors, complement components, immunoglobulins, enzyme inhibitors, precursors of substances such as angiotension and bradykinin, and many other types of proteins. [EU]

Platelets: A type of blood cell that helps prevent bleeding by causing blood clots to form. Also called thrombocytes. [NIH]

Pneumonia: Inflammation of the lungs. [NIH]

Polysaccharide: A type of carbohydrate. It contains sugar molecules that are linked together chemically. [NIH]

Practice Guidelines: Directions or principles presenting current or future rules of policy for the health care practitioner to assist him in patient care decisions regarding diagnosis, therapy, or related clinical circumstances. The guidelines may be developed by government agencies at any level, institutions, professional societies, governing boards, or by the convening of expert panels. The guidelines form a basis for the evaluation of all aspects of health care and delivery. [NIH]

Protein C: A vitamin-K dependent zymogen present in the blood, which, upon activation by thrombin and thrombomodulin exerts anticoagulant properties by inactivating factors Va and VIIIa at the rate-limiting steps of thrombin formation. [NIH]

Protein S: The vitamin K-dependent cofactor of activated protein C. Together with protein C, it inhibits the action of factors VIIIa and Va. A deficiency in protein S can lead to recurrent venous and arterial thrombosis. [NIH]

Proteins: Polymers of amino acids linked by peptide bonds. The specific sequence of amino acids determines the shape and function of the protein. [NIH]

Psychiatric: Pertaining to or within the purview of psychiatry. [EU]

Psychiatry: The medical science that deals with the origin, diagnosis, prevention, and treatment of mental disorders. [NIH]

Psychomotor: Pertaining to motor effects of cerebral or psychic activity. [EU]

Public Policy: A course or method of action selected, usually by a government, from among alternatives to guide and determine present and future decisions. [NIH]

Pulmonary: Relating to the lungs. [NIH]

Pulmonary Eosinophilia: A disease characterized by pulmonary infiltrations of eosinophils and blood eosinophilia. [NIH]

Purpura: Purplish or brownish red discoloration, easily visible through the epidermis, caused by hemorrhage into the tissues. [NIH]

Receptor: A molecule inside or on the surface of a cell that binds to a specific substance and causes a specific physiologic effect in the cell. [NIH]

Refer: To send or direct for treatment, aid, information, de decision. [NIH]

Reliability: Used technically, in a statistical sense, of consistency of a test with itself, i. e. the extent to which we can assume that it will yield the same result if repeated a second time. [NIH]

Rosette Formation: The in vitro formation of clusters consisting of a cell (usually a lymphocyte) surrounded by antigenic cells or antigen-bearing particles (usually erythrocytes, which may or may not be coated with antibody or antibody and complement). The rosette-forming cell may be an antibody-forming cell, a memory cell, a T-cell, a cell bearing surface cytophilic antibodies, or a monocyte possessing Fc receptors. Rosette formation can be used to identify specific populations of these cells. [NIH]

Rubella: An acute, usually benign, infectious disease caused by a togavirus and most often affecting children and nonimmune young adults, in which the virus enters the respiratory tract via droplet nuclei and spreads to the lymphatic system. It is characterized by a slight cold, sore throat, and fever, followed by enlargement of the postauricular, suboccipital, and cervical lymph nodes, and the appearances of a fine pink rash that begins on the head and spreads to become generalized. Called also German measles, roetln, röteln, and three-day measles, and rubeola in French and Spanish. [EU]

Sarcoma: A connective tissue neoplasm formed by proliferation of mesodermal cells; it is usually highly malignant. [NIH]

Screening: Checking for disease when there are no symptoms. [NIH]

Seizures: Clinical or subclinical disturbances of cortical function due to a sudden, abnormal, excessive, and disorganized discharge of brain cells. Clinical manifestations include abnormal motor, sensory and psychic phenomena. Recurrent seizures are usually referred to as epilepsy or "seizure disorder." [NIH]

Semisynthetic: Produced by chemical manipulation of naturally occurring substances. [EU]

Sensory loss: A disease of the nerves whereby the myelin or insulating sheath of myelin on the nerves does not stay intact and the messages from the brain to the muscles through the nerves are not carried properly. [NIH]

Serum: The clear liquid part of the blood that remains after blood cells and clotting proteins have been removed. [NIH]

Soft tissue: Refers to muscle, fat, fibrous tissue, blood vessels, or other supporting tissue of the body. [NIH]

Specialist: In medicine, one who concentrates on 1 special branch of medical science. [NIH]

Species: A taxonomic category subordinate to a genus (or subgenus) and superior to a

subspecies or variety, composed of individuals possessing common characters distinguishing them from other categories of individuals of the same taxonomic level. In taxonomic nomenclature, species are designated by the genus name followed by a Latin or Latinized adjective or noun. [EU]

Spinal cord: The main trunk or bundle of nerves running down the spine through holes in the spinal bone (the vertebrae) from the brain to the level of the lower back. [NIH]

Spinal Cord Vascular Diseases: Hypoxic-ischemic and hemorrhagic disorders of the spinal cord. Arteriosclerosis, emboli, and vascular malformations are potential causes of these conditions. [NIH]

Splenomegaly: Enlargement of the spleen. [NIH]

Staging: Performing exams and tests to learn the extent of the cancer within the body, especially whether the disease has spread from the original site to other parts of the body. [NIH]

Stimulus: That which can elicit or evoke action (response) in a muscle, nerve, gland or other excitable issue, or cause an augmenting action upon any function or metabolic process. [NIH]

Streptococcal: Caused by infection due to any species of streptococcus. [NIH]

Streptococcus: A genus of gram-positive, coccoid bacteria whose organisms occur in pairs or chains. No endospores are produced. Many species exist as commensals or parasites on man or animals with some being highly pathogenic. A few species are saprophytes and occur in the natural environment. [NIH]

Stress: Forcibly exerted influence; pressure. Any condition or situation that causes strain or tension. Stress may be either physical or psychologic, or both. [NIH]

Subacute: Somewhat acute; between acute and chronic. [EU]

Subclinical: Without clinical manifestations; said of the early stage(s) of an infection or other disease or abnormality before symptoms and signs become apparent or detectable by clinical examination or laboratory tests, or of a very mild form of an infection or other disease or abnormality. [EU]

Systemic: Affecting the entire body. [NIH]

Thrombocytes: Blood cells that help prevent bleeding by causing blood clots to form. Also called platelets. [NIH]

Thymidine: A chemical compound found in DNA. Also used as treatment for mucositis. [NIH]

Thyroxine: An amino acid of the thyroid gland which exerts a stimulating effect on thyroid metabolism. [NIH]

Ticks: Blood-sucking arachnids of the order Acarina. [NIH]

Tissue: A group or layer of cells that are alike in type and work together to perform a specific function. [NIH]

Toxic: Having to do with poison or something harmful to the body. Toxic substances usually cause unwanted side effects. [NIH]

Toxicology: The science concerned with the detection, chemical composition, and pharmacologic action of toxic substances or poisons and the treatment and prevention of toxic manifestations. [NIH]

Toxins: Specific, characterizable, poisonous chemicals, often proteins, with specific biological properties, including immunogenicity, produced by microbes, higher plants, or animals. [NIH]

Transfection: The uptake of naked or purified DNA into cells, usually eukaryotic. It is

analogous to bacterial transformation. [NIH]

Tubercle: A rounded elevation on a bone or other structure. [NIH]

Ulcer: A localized necrotic lesion of the skin or a mucous surface. [NIH]

Ulceration: 1. The formation or development of an ulcer. 2. An ulcer. [EU]

Urticaria: A vascular reaction of the skin characterized by erythema and wheal formation due to localized increase of vascular permeability. The causative mechanism may be allergy, infection, or stress. [NIH]

Vaccines: Suspensions of killed or attenuated microorganisms (bacteria, viruses, fungi, protozoa, or rickettsiae), antigenic proteins derived from them, or synthetic constructs, administered for the prevention, amelioration, or treatment of infectious and other diseases. [NIH]

Vascular: Pertaining to blood vessels or indicative of a copious blood supply. [EU]

Veterinary Medicine: The medical science concerned with the prevention, diagnosis, and treatment of diseases in animals. [NIH]

Viral: Pertaining to, caused by, or of the nature of virus. [EU]

Virus: Submicroscopic organism that causes infectious disease. In cancer therapy, some viruses may be made into vaccines that help the body build an immune response to, and kill, tumor cells. [NIH]

White blood cell: A type of cell in the immune system that helps the body fight infection and disease. White blood cells include lymphocytes, granulocytes, macrophages, and others. [NIH]

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