

## Microbiology Case Studies

### Medical Glossary

- abscess** A cavity of liquefactive necrosis within solid tissue as a result of a localized infection; this can be the result of an acute or a chronic process.
- adenopathy** An enlargement of lymph nodes in response to some stimulus such as inflammation or infection; can occur singly or in multiple nodes; also referred to as lymphadenopathy.
- adnexa** An appendage to an organ or structure.
- adrenalitis** Inflammation of the adrenal gland.
- afebrile** Relating to the absence of fever.
- agglutination** The interaction between a particulate antigen and antibodies specific for the particular antigen; the antigen-antibody complex leads to the aggregation or clumping of the antigen-containing material.
- alveolus** An air sac in the lung consisting of a single layer of cells surrounded by a network of capillaries also consisting of a single cell layer; gas exchange occurs here.
- ameboma** A nodular inflammatory lesion, usually in the wall of the colon, that may develop in chronic amebiasis.
- anemia** A condition in which the number of functional red blood cells is decreased; this is often associated with symptoms such as pallor, fatigue, shortness of breath, and lethargy.
- anergy** A lack of the ability of the immune system to respond with a delayed-type hypersensitivity reaction to commonly and previously encountered antigens such as mumps and candida; often seen in patients with AIDS.
- anorexia** Decreased appetite.
- anti phagocytic** Inhibiting the ability of the phagocyte to ingest bacteria, foreign materials, or other cellular debris.
- antipyretics** Fever-reducing agents such as aspirin, acetaminophen, or ibuprofen.
- aplastic anemia** Decrease in the numbers of all elements in the blood due to the death of their precursor cells in the bone marrow, where the cells usually mature; often associated with drugs which are toxic to these cells.
- arthralgia** Severe joint pain, usually characterized as non-inflammatory.
- arthritis** Inflammation or infection of a joint, leading to decreased and painful mobility of the affected joint.
- asplenia** Absence of the spleen, either congenitally (at birth) or later, often seen in persons with long-standing sickling disease. This condition makes the individual susceptible to infections by certain bacteria.
- asterixis** An involuntary jerking motion that occurs with various toxic or metabolic encephalopathies, especially hepatitis encephalopathy; most easily demonstrated when the patient is asked to extend his or her arms with the hands pointed up and the fingers extended.
- ataxia** The inability to coordinate muscle activity during voluntary movements of the head, limbs, or trunk; often associated with cerebellar or posterior spinal column dysfunction.
- atrophy** A process characterized by wasting of specific tissues, organs, or the entire body that can result from a variety of causes.
- attenuation** Decreased virulence of a pathogen through either natural or experimental means.
- auscultation** A method based on sounds or sound changes, used during a physical examination to gather data on internal organs like the heart, lungs, liver, etc.; the most common method involves the use of a stethoscope.
- autochthonous** Refers to a process that originated in the place where it is found.
- avirulent** Microorganism with limited pathogenic potential.
- axillus** Armpit; the area between the upper arm and chest wall where the two join.
- bacteremia** The presence of viable bacteria in the bloodstream; may be a transient phenomenon associated with dental care, or a persistent or recurrent condition resulting in clinical disease.
- bacteriocins** Proteins produced by certain bacteria that have lethal effects on related bacteria; although the effect has a more narrow range than antibiotics, it is more potent.
- bacteriuria** The presence of bacteria in the urine.
- bilbasilar** Pertaining to the bases of both lungs.
- bilateral** Pertaining to both sides of a symmetrically shaped tissue, organ, or the entire body; for example, the right and left lungs are bilateral organs.
- biliary tree** System of ducts through which bile is transported.
- biopsy** A procedure that involves the removal of specific tissues from patients for the purpose of diagnosis.
- bronchiolitis** Inflammation of the bronchioles (conducting airways of less than 1 mm).
- bronchitis** Inflammation or infection of the airways.
- bronchoalveolar lavage** The instillation of saline fluid into the airways of the lungs so that samples can be removed and the washings (fluids) can be analyzed for malignancy or infection; also done during bronchoscopy.
- bronchoscopy** The use of a flexible hollow tube to look directly at the trachea, bronchi, and larger airways in the lungs; it

is also possible to obtain samples (biopsies, fluids, brushings) through this device.

**bronchospasm** Episodic constriction of smooth muscles lining the bronchi in response to some kind of irritant or stimulus.

**cachexia** General weight loss or wasting due to a disease process or emotional imbalance.

**calcification** Focal area of increased deposition of calcium compounds.

**catheterization** The placement of a catheter, usually through the urethra, into the bladder in order to drain urine from the bladder.

**CD4-positive (CD4+) cells** Subset of T lymphocytes which are characterized by the presence of CD4 receptors on their cell membrane surfaces; they assist in turning on the immune response by activating other T and B lymphocytes; also called T-helper cells. Less than 200 cells per  $\mu\text{l}$  seen in AIDS patients.

**cellulitis** Inflammation or infection of tissues beneath the skin.

**cerebellar** Pertaining to the cerebellum (the portion of the brain concerning the coordination of complex movements and balance).

**cerebrospinal fluid** Fluid surrounding the brain and spinal cord.

**cervical** Pertaining to the neck or necklike portion of an organ.

**cervicitis** Inflammation of the mucous membranes or deeper structures of the cervix.

**chancre** The primary lesion of syphilis; typically dull red, hard, and insensitive with a center that erodes and ulcerates, then heals slowly over a period of 4 to 6 weeks.

**chemoprophylaxis** The use of chemicals such as antibiotics to prevent the occurrence of disease.

**chemotherapy** The use of drugs or chemical substances to treat disease.

**cholangitis** Inflammation or infection of the bile ducts.

**cholecystitis** Inflammation of the gall bladder.

**cholecystectomy** Surgical removal of the gall bladder.

**chorioamnionitis** Inflammation or infection of the chorion, amnion, amniotic fluid, and often the placental villi and decidua as well.

**chorioretinitis** Inflammation or infection of the light-detecting layer (retina) and the underlying vascular tissue (choroid) beneath it in the back of the eye, which can lead to progressive impairment of vision.

**cirrhosis** Destruction of a tissue or organ with loss of normal structure which is replaced with scar tissue; common in association with alcoholism, where it involves the liver.

**colitis** Inflammation of the colon.

**conjunctivitis** Inflammation or infection of the tissue protecting the front of the eye.

**convalescence** The period of time after a disease process has ended but before the return of optimal health is complete.

**coryza** Acute inflammation or infection of the nasal membranes, leading to a thin watery discharge from the nose, as is seen with the common cold.

**costovertebral angle** The area in the back where the last ribs join to their respective vertebrae.

**crepitant** Relating to the crackling sound (resembling the sound that occurs when rubbing hair between the fingers) that is heard in certain disease states.

**croup** The difficult, noisy respirations and hoarse cough that characterize laryngeal problems in children; this is often caused by parainfluenza virus.

**cushingoid body habitus** An increase in adipose tissue (fat) in certain areas of the body, legs, and trunk. Purplish stripes, especially on the abdomen (striae), are also seen associated with Cushing's disease.

**cyst** An abnormal membranous sac containing gas, fluid, or semisolid material.

**cystitis** Inflammation or infection of the urinary bladder; also called urinary tract infection (UTI). Associated with symptoms including painful urination, increased urination, and/or malodorous urine.

**cystocele** A hernia of the bladder; the hernia usually protrudes into the vagina.

**cytologic** Relating to the study of cytology (the anatomy, physiology, pathology, and chemistry of the cell).

**cytopathic** Changes in intracellular structures due to disease or toxins, usually leading to the death of the cell.

**cytotoxic** Destructive or damaging to a cell.

**debride** To remove devitalized tissue and/or foreign material from a wound.

**dermatomal** Pertaining to the area of skin which is served by one sensory spinal nerve.

**disequilibrium** Unsteady balance.

**disseminated intravascular coagulation (DIC)** A phenomenon which arises due to the depletion of clotting elements in the blood; caused by many disease processes; diffuse, severe hemorrhaging can occur; without treatment, it is often fatal.

**dorsal** Referring to the back or posterior aspect of a tissue or organ.

**dorsal root ganglion** Group of nerve cell bodies outside the spinal cord which convey sensory impulses to the brain.

**dysentery** A condition marked by frequent watery stools usually containing blood and mucus; often accompanied by pain, fever, and dehydration; typically the result of amebic, bacillary, helminthic, or viral infections.

**dyspepsia** Gastric indigestion (upset stomach) due to alterations of gastric function that are caused by various disorders of the stomach.

**dyspnea** Difficulty in breathing; also called shortness of breath.

**dysuria** Difficulty or pain on urination.

**eczema** An itchy, scaly, blistery, or raised rash often seen in children and associated with irritation of the skin.

**edema** An accumulation of large amounts of watery fluid in tissues throughout the body.

**effusion** Leakage of fluid from blood vessels or lymphatics into the tissues or a cavity; for example, referred to as pleural effusion when excess fluid is found in the pleural cavity around the lungs, perhaps as a result of inflammation.

**electromyography (EMG)** Test used to represent electrical currents associated with muscles.

**emesis** Vomiting.

**empyema** The collection of purulent material in the pleural space.

**enanthema** A mucous membrane eruption; typically occurs in relation to the skin eruptions that are symptoms of acute viral or coccal disease (exanthema).

**encephalitis** Inflammation of the brain.

**endemic** Describes the presence of a disease that persists in a community or group of people.

**endocarditis** Inflammation or infection of the tissue lining the inside of the heart; usually involves the heart valves.

**endometritis** Inflammation or infection of the lining of the uterus.

**endoscopy** Procedure involving the passing of a flexible hollow tube into the esophagus or rectum for the purpose of visualizing portions of the gastrointestinal tract; also useful for obtaining diagnostic samples.

**enteric** Relating to the intestine.

**enterotoxin** Exotoxin that causes fluid secretion in the gut.

**enzootic** Referring to a temporal pattern of disease occurrence in an animal population that is marked by predictable regularity with little change over time; for example, the pattern of hantavirus infection in deer mice.

**eosinophilia** Increased number of eosinophils (type of leukocyte) in the blood, often associated with parasitic infections.

**epidemic** Refers to the unexpectedly large number of cases of a disease or illness in a community.

**epididymitis** Inflammation or infection of the epididymis.

**epigastric** Relating to the area of the abdomen that lies between the margins of the ribs.

**epiglottitis** Inflammation or infection of the flexible flap of tissue which covers the larynx during swallowing.

**erythema** Reddening, usually of the skin or mucous membranes.

**erythema infectiosum** A mild facial rash in children that has a "slapped cheek" appearance; usually caused by parvovirus B19.

**esophagitis** Inflammation of the esophagus.

**ethmoid sinus** Air-filled cavity in the ethmoid bone located below the orbit of the eye and beside the nose.

**etiology** The cause of a disease or process.

**exanthema** A skin rash that occurs as a symptom of acute viral or bacterial infection.

**excoriate** To physically scratch or remove the skin.

**exotoxins** Proteins secreted by bacteria which have toxic effects on mammalian cells.

**extensor surface** The surface of a joint involved in extension or straightening of a limb.

**extradermatomal** Not confined to one dermatome.

**extradural** Referring to the outer side of the dura mater.

**extramedullary cranial ganglion** Outside the medulla oblongata (brain stem), in reference to the cranial nerves.

**exudate** Fluid resulting from inflammation or infection; contains an increased number of cells and an increased amount of proteins and other cellular debris.

**febrile** Relating to fever.

**flatulence** The presence of excessive gas in the stomach and intestines.

**flocculent** The presence of mucus or a mucus-like material in a fluid such as the urine.

**fomite** An object that is capable of transmitting an organism from one location to another; examples of such an object might include toys, clothing, utensils, or hairbrushes.

**fontanelles** Soft area between the cranial bones of an infant's skull, indicative of areas not yet ossified.

**fulminant** The sudden occurrence of an intense or severe process.

**gait** Manner of walking.

**gangrene** Necrosis due to any cause (for example, obstructed, diminished, or lost blood flow); may be localized or widespread; may be dry or wet.

**gastritis** Inflammation of the stomach, usually involving only the lining inside the organ.

**gastroenteritis** Inflammation of the mucous membrane lining of both the stomach and intestine.

**glomerulonephritis** Bilateral inflammatory changes of the glomeruli that are the result of renal disease rather than infection.

**granuloma** A collection of leukocytes, macrophages, and specialized cells of the reticuloendothelial system surrounding a focal area of chronic inflammation or infection; usually forms a nodular mass.

**granulomatous** Pertaining to or resembling a granuloma.

**guaiac** Used as a reagent to test for blood in the stool.

**Guillain-Barre syndrome** Inflammation of peripheral nerves leading to increasing weakness or paralysis; most often occurs in more distal areas before affecting portions of the body more proximally. Usually remits with resolution of the underlying disease.

**hallucinosis** A syndrome characterized by hallucinations that are caused by organic substances such as drugs and alcohol.

**hematemesis** Vomiting up blood.

**hematocrit** Amount of red blood cells (erythrocytes) in a given volume of blood; usually expressed as a percentage.

**hematogenous** Refers to anything produced by, derived from, or spread through the blood.

**hematoma** A collection of blood within an extravascular space such as an organ, a tissue area, or a potential space; the blood displays various colors and degrees of organization; a bruise.

**hematuria** The presence of blood in the urine.

**hemoconcentration** An increase in the number of red blood cells per unit volume of plasma.

**hemoglobinopathies** Disorders or diseases that are characterized by the destruction or breakdown of red blood cells as a result of abnormalities of hemoglobin structure; for example, sickle cell disease and thalassemia.

**hemolysis** Destruction or breakdown of red blood cells that leads to the release of hemoglobin into the blood.

**hemoptysis** Coughing up (expectoration) of blood or blood-streaked sputum from the lungs.

**hepatitis** Inflammation of hepatic (liver) cells.

**hepatomegaly** Enlargement of the liver.

**hepatosplenomegaly** Enlargement of the liver and spleen.

**hilum** The area of an organ where the nerves and vessels enter and exit; the lungs, kidneys, lymph nodes, ovaries, and spleen all have hilar areas.

**horizontal transmission** Passage of disease from person to person or by contact with infected materials.

**humoral** Referring to substances in the blood; in the immune system, this refers to antibodies to help fight disease rather than the cellular portion which involves leukocytes.

**hydrocephalus** Condition characterized by a large accumulation of fluid in the cerebral ventricles; this results in increased intracranial pressure and dilatation of the cerebral ventricles.

**hydrops** General term for the accumulation of clear, watery fluid in spaces or cavities throughout the body.

**hypercholesterolemia** The presence of abnormally high levels of cholesterol in the blood.

**hyperinfection** Infections caused by very large numbers of organisms that result from immunodeficient states.

**hypertension** Abnormally high blood pressure.

**hyponatremia** Abnormally low concentrations of sodium in the circulating blood.

**hypopituitary** Pertaining to a decrease in the amount of hormones produced by the anterior (forward) portion of the pituitary gland; involves hormones which affect growth, steroid production, thyroid gland function, and the regulation of the female reproductive cycle.

**hypoplasia** The underdevelopment of tissues or organs as a result of either atrophy or a decrease in the number of cells.

**hypotension** Abnormally low blood pressure.

**hypoxemia** Low oxygen content in the blood.

**icterus** See jaundice.

**idiopathic cardiomyopathy** Dilatation and weakening of the heart muscle with no known cause.

**Immunosuppressive** An agent or disease that prevents or interferes with the immune system response.

**Impetigo** Infection of previously damaged skin by group A streptococci or staphylococci; lesions usually drain honey-colored fluid.

**In utero** Inside the womb.

**indolent** Nearly or completely painless, sluggish, or inactive; used to describe a disease process.

**induration** Firmness in soft tissue.

**infarct** Tissue death often due to an interruption in the blood supply to that tissue.

**infiltrate** The invasion of the spaces in a tissue by materials not usually found in the tissue, such as tumors, infectious agents, white blood cells, etc.

**interstitial** Spaces between the components of a tissue; e.g., in the lungs this pertains to spaces between the lung parenchyma.

**intracranial** Within the skull.

**intrapartum** During labor or delivery.

**intraperitoneally** Within the peritoneal cavity.

**intrauterine** Inside the cavity of the womb, as for an unborn child.

**intubation** The placement of a tubular device from the oro- or nasopharyngeal cavity into the trachea in order to assist with ventilation.

**ischemia** Cellular injury and death due to the impairment of blood flow to a region.

**jaundice** Yellow cast of the skin and mucous membranes due to an increase of bilirubins (bile breakdown products) which occur because the liver is unable to clear these chemicals from the blood; often due to toxic or infectious hepatitis; also referred to as icterus.

**laryngitis** Inflammation of the larynx (voice box).

**laryngotracheobronchitis** Inflammation of the larynx and larger airways.

**lethargy** Drowsiness or decreased responsiveness.

**leukemia** General term used to describe a group of malignancies of either lymphoid or hematopoietic origin; progressive proliferation of abnormal leukocytes can be found in the blood, the hematopoietic tissues, and other organs.

**lumbar puncture** A procedure that is used to obtain cerebrospinal fluid for diagnostic purposes.

**lymphocytosis** An increase in the number of lymphocytes above normal.

**lymphoma** Cancer of the lymph cells or their precursors.

**Lymphoproliferative disorders** Any one of a group of cancers involving cells from which white blood cells or platelets are derived; includes lymphomas, leukemias, and multiple myeloma, among others.

**macular** Pertaining to lesions which are flat and which are often only detected because of a change in color or texture of the lesion from surrounding, normal tissue.

**maculopapular** Pertaining to lesions with properties which are both macular and papular.

**malabsorptive diarrhea** An increase in the total number or volume of stools due to a decrease in the absorption of nutrients (especially fats) in the small intestine.

**malaise** Generalized feeling of discomfort caused by any disease process.

**melena** Excretion of black, tarry stools containing blood that has been altered by intestinal substances.

**meninges** Thin, tough tissue surrounding the brain and spinal cord.

**meningitis** Inflammation of the meninges.

**aseptic** Low number of white cells in cerebrospinal fluid, predominantly lymphocytes, most frequently caused by infection by viruses or fungi.

**septic** High number of white cells, predominantly neutrophils, due to infection by bacteria.

**meningoencephalitis** Inflammation of the brain and surrounding membranes.

**metaphyseal** Relating to the conical portion of long bones that lies between the epiphysis and diaphysis.

**metastasis** The occurrence of disease at sites distant from and not connected directly with the site where the disease first appeared; this process is seen with many tumors and infections.

**microangiopathic hemolytic anemia** The destruction or breakdown of red blood cells as a result of diseases or disorders of the capillaries.

**mitral regurgitation** Any condition of the mitral valve between the left atrium and left ventricle that allows blood to flow back into the atrium when the ventricle contracts; normally, the valve shuts tightly, allowing no flow of blood back into the atrium; often heard as a heart murmur during auscultation.

**mitral valve prolapse** A defect in the valve between the left atrium and ventricle caused by a weakening of the tough connective tissue of the valve leaflets, which allows the valve to project back into the left atrium; during normal function, the valve closes tightly during ventricular contraction.

**morbilliform rash** Rash which resembles the flat to slightly raised (maculopapular) lesions seen in measles.

**mucocutaneous** Involving the skin and mucous membranes.

**murmur** Abnormal sounds heard on, auscultation of the heart, lungs, or vessels; this is a physical finding that has a variety of causes.

**myalgia** Soreness or aching of muscles.

**myeloma** Cancer of well-differentiated immunoglobulin-producing cells; progressive proliferation of plasma cells is seen with this type of malignancy.

**myocarditis** Inflammation of heart muscle cells.

**nares** Nostrils.

**nasopharyngeal** Pertaining to the nasal and pharyngeal cavities.

**necrosis** Death of cells, tissues, or portions of organs that results from irreversible injury; several different types of necrosis can be distinguished.

**necrotizing fasciitis** A destructive soft-tissue infection that causes necrosis of the superficial fascia and surrounding tissues; this is often a fulminant process.

**neonate** A newborn infant.

**nephrosis** Degeneration of renal tubular epithelium.

**neuropathy** Diseases or disorders affecting the cranial nerves or the peripheral or autonomic nervous systems.

**neutropenia** Abnormally low numbers of neutrophils in the circulating blood.

**nodular** Knotlike or raised, solid lesions of the skin or other organs.

**nonsuppurative sequelae** Complications, caused by a previous attack of a disease, that do not contain or drain pus.

**normotensive** Normal blood pressure; the usual readings in adults are seen between 90/50 and 150/90 mm Hg.

**nosocomial** Any hospital-acquired condition resulting from a person's hospital stay.

**nuchal rigidity** Stiffness of the neck, often associated with meningeal infection.

**occult blood** Blood present in body fluids such as stool which cannot be detected with the naked eye; the most rapid test for occult blood is a guaiac (Hem occult) test.

**opisthotonic** Spastic state in which the head and heels are bent backward and the torso extends outward.

**opportunistic Infection** An infection caused by an organism capable of causing disease only in individuals whose resistance to infection is lowered.

**opsonic** Pertaining to an agent (typically an antibody) that, when bound to an antigen such as bacterial proteins, enhances the ingestion of the antigen by white blood cells.

**organomegaly** Abnormal enlargement of the organs; visceromegaly.

**oropharyngeal** Pertaining to the oral and pharyngeal cavities.

**orthostatic hypotension** Decreased blood pressure caused by standing erect; often seen in patients who are dehydrated.

**osteomyelitis** Inflammation or infection of bone.

**otitis media** Inflammation of the middle ear behind the ear drum; visualized with an otoscope, which often shows the presence of fluid or pus behind the ear drum.

**ototoxic** Refers to a substance that has a toxic effect on the ear; some antibiotics, for example, have this property.

**palpation** A technique used during physical examination that involves the use of the hands to feel for organs, abnormal masses, pulses, or vibrations in the chest.

**pancytopenia** A significant reduction in the number of red blood cells, white blood cells, and platelets in the circulating blood.

**pandemic** Relating to a disease that is affecting the population of an extensive region, country, or continent.

**papular** Pertaining to lesions which are raised and well circumscribed.

**parasitemia** Presence of parasites in the blood.

**paravertebral** Beside a vertebra or the vertebral column.

**parenchyma** Cells of a gland or organ that are contained within and supported by the surrounding connective tissue network.

**paresis** Incomplete paralysis.

**paroxysm** The abrupt episodic recurrence of disease or disease symptoms; also, spasms or fits.

**pathogen** Any microorganism that causes disease.

**pathognomonic** Symptoms or lesions characteristic of a single disease process, on the basis of which a diagnosis can be determined.

**pelvic inflammatory disease** Inflammation of the female reproductive organs, typically due to infection.

**pericarditis** Inflammation of the sac covering the heart.

**periorbital** Around the eye socket (orbit).

**periosteum** The tough tissue surrounding the surface of any bone.

**periostitis** Inflammation of the periosteum (the thick fibrous membrane that covers the surface of the bone, except for the articular cartilage).

**peristalsis** The alternating waves of contraction and relaxation within the gastrointestinal tract that propel its contents onward.

**peritonitis** Inflammation of the peritoneum (the thin lining of mesothelium and connective tissue that lines the abdominal cavity).

**periumbilical** Pertaining to the area surrounding the navel (umbilicus).

**petechiae** Pinpoint, flat lesions due to hemorrhage of blood into tissues under the skin or mucous membranes.

**petechial rash** Small, pinpoint, and flat lesions of the skin and mucous membranes associated with hemorrhage beneath the tissue; similar to purpura, except the lesions seen with purpura tend to be larger.

**Peyer's patches** Lymphatic tissues in the walls of the large intestine.

**phagocytosis** The process by which cells ingest and digest solid substances such as tissue debris, bacteria, or foreign

material.

**pharyngitis** Inflammation of the pharynx, the muscular tube connecting the nose and mouth to the esophagus and larynx; sore throat.

**phenotypic** Pertaining to the effects of an organism's genes and the environment on its physical appearance, biochemistry, and physiology.

**photophobia** Abnormal sensitivity to light.

**pleocytosis** The presence of abnormally large numbers of cells; often refers to the increase in white blood cells that occurs during an infection.

**pleuritic** Referring to inflammation of the pleura (pleurisy).

**pleurodynia** Episodic pain due to transient intercostal muscle (muscles between the ribs which assist in respiration) spasms, caused by irritation of the pleura.

**pneumonia** Infection of the lung parenchyma.

**pneumonitis** Inflammation of the lungs.

**PPD skin test** A diagnostic test in which purified protein derivative is placed just under the skin; this test is used to determine if patients are infected with tuberculosis.

**portal circulation** The circulation of blood to the liver from the small intestine, the right half of the colon, and the spleen via the portal vein.

**post Ictal** Referring to a patient's condition following a seizure. Many people are less alert, and transient neurologic findings may be observed.

**preeclampsia** A condition of the late stages of pregnancy caused by accumulation of toxins in the blood; characterized by high blood pressure, swelling of the hands and feet, and the presence of proteins in the urine. If seizures are present, it becomes known as eclampsia.

**prion** Infectious protein, possibly self-replicating.

**proctitis** Inflammation of the rectum.

**proctocolitis** Inflammation of the colon (large intestine) and rectum.

**prodrome** An early symptom of a disease.

**prophylactic** Pertaining to agents or procedures which prevent disease processes in susceptible individuals; for example, giving vaccines or antibiotics to prevent infection before it occurs.

**prosthetic** Pertaining to a man-made replacement for a missing or defective body part, such as artificial limbs or heart valves.

**proximal phalanx** The part of a digit (fingers or toes) that is closest to its attachment to the body.

**pruritus** Itching.

**pseudomembranous colitis** Inflammation of the mucous membranes of the small and large intestines with the formation of false membranes composed of bacteria, white blood cells, fibrin, platelets, and necrotic material; occurs most frequently as a result of the action of exotoxins made by *Clostridium difficile*.

**ptosis** Drooping of the upper eyelid.

**punctate** Pertaining to lesions or markings which look like points or dots.

**purpura** Purplish lesions of the skin and mucous membranes due to hemorrhage beneath the tissues; usually less than 1 cm in size, lesions may be flat or raised.

**purulent** Related to presence, consistency, or formation of pus.

**pustular** Pertaining to a skin rash with the presence of pus in the lesions.

**pyelonephritis** Infection of the kidney with or without a concurrent bladder infection.

**pyrogenic** Causing fever.

**pyuria** The presence of pus in the urine.

**quadripareisis** Weakness of all four extremities.

**rales** Abnormal breathing sounds heard by auscultation of the lungs during respiration; classified as dry or moist.

**rectocolitis** Inflammation of both the rectum and colon.

**renal** Pertaining to the kidney.

**reticuloendothelial system (RES)** The specialized white blood cells (especially macrophages) and other cells in the lymph nodes, liver, and spleen.

**retinal** Referring to the retina.

**retinitis** Inflammation of the light-detecting tissue (retina) in the back of the eye.

**rhinitis** Inflammatory or infectious process involving the mucous membranes lining the nose.

**rhinorrhea** Thin, watery discharge from the nose; runny nose.

**rhonchi** Coarse, low-pitched sounds associated with the presence of secretions or obstruction of larger airways in the lungs during inspiration and expiration.

**rigor** Episodes of rigidity and chills that are occasionally brought on by infections and high fevers.

**ring-enhancing lesions** Lesions in the brain seen on computed tomography (CT) scans, consisting of lucent (less dense to X-rays), rounded masses surrounded by a region of increased density (especially with the use of vascular contrast material); often seen in certain infections of the brain.

**salpingitis** Inflammation or infection of a tube; usually the Fallopian tubes between the ovaries and the uterus.

**sclerosing cholangitis** Recurrent or persistent obstructive jaundice due to extensive, destructive fibrosis of the bile ducts; frequently progresses to cirrhosis, liver failure, or portal hypertension; most common in young men.

**sepsis** The presence of pathogenic microorganisms or toxins in the blood or tissues.

**septic abortion** Infection of the mother after the abortion of a fetus; can involve the uterus and become a widespread systemic infection.

**septic embolus** Clot (blood or other occlusive material) carried by the blood which contains infectious agents; often leads to systemic infection. Its occurrence can be sudden.

**sequela (pl. sequelae)** A condition that occurs as a result of a disease process.

**serum sickness** An immune complex disease that occurs approximately 1 to 2 weeks after a foreign serum or protein has been introduced into the body; local or systemic reactions can occur.

**sinusitis** Inflammation of the sinus cavities, often leading to headaches or nasal congestion.

**somnolent** Drowsy.

**specific gravity** A laboratory measurement that allows for comparison of the weight (density) of a liquid with that of distilled water; frequently used to determine the relative concentration or dilution of urine.

**splenectomy** Removal of the spleen.

**splenomegaly** Enlargement of the spleen.

**spongiform** Pertaining to a spongelike appearance; when this is noted in brain tissue, it is indicative of the presence of Creutzfeldt-jakob disease or another slow viral disease.

**stridorous cough** Cough associated with laryngeal blockage which results in a characteristic high-pitched cough.

**subcarinal** Refers to the area below the ridge that separates the right and left main bronchi at their junction with the trachea.

**subcostal retractions** Inward movement of the area between the ribs, associated with an increased respiratory effort.

**superantigen** An antigen which induces a T-cell response by binding to a T-cell receptor in an area outside of the antigen recognition site; usually results in the activation of many T cells.

**superinfection** An infection by organisms because of a previously acquired but ongoing infection (such as a bacterial pneumonia which sometimes occurs during or after a viral pneumonia).

**supine** Refers to lying on the back with the face directed upward.

**suppurative lymphadenopathy** Enlarged, tender lymph nodes from which pus is draining.

**syncope** Transient, brief episodic loss of consciousness (fainting).

**synergy** When the actions of two or more processes, structures, or agents are combined to yield a result that is greater than the sum of each individually; for example, antibiotics can be synergistic.

**tachycardia** Increased heart rate (> 100 beats per min in adults).

**tachypnea** Increase in respiratory rate (>20 breaths per min in adults).

**tenosynovitis** Inflammation of the tough sheath surrounding a tendon.

**teratogenic** Concerning agents which cause the abnormal development of an embryo, commonly resulting in fetal death or birth defects.

**thrombocytopenia** A decrease in the numbers of platelets.

**thrombosis** Clotting within a blood vessel that may lead to infarction of the tissues supplied by that vessel.

**tonsillitis** Inflammation of one or more tonsils, usually the palatine tonsil.

**trachoma** Inflammation of the conjunctiva due to a microbial infection; usually contagious, and accompanied by hypertrophy.

**transbronchial biopsy** During bronchoscopy, the removal of a small piece of lung tissue through the walls of a bronchus (airway).

**transplacental** Crossing the placenta; pertaining to any substance which passes from the mother to the fetus or vice versa.

**trismus** Spasm of the jaw muscles.

**tropism** Movement of an organism toward or away from a source of light, heat, or some other stimulus.

**tympanic membrane** The ear drum.

**ulcer** A lesion on the surface of the skin or mucous membranes caused by superficial loss of tissue; often accompanied by inflammation.

**urethritis** Inflammation of the urethra.

**vaccine** Weakened (attenuated) or dead (inactivated) bacteria or virus, inactivated toxin (toxoid), or genetically



engineered component of an infectious agent, used to promote immunity against a disease (such as smallpox or diphtheria).

**vaginitis** Inflammation of the vagina.

**vasculitis** Inflammation of blood vessels leading to lesions on the skin, mucous membranes, or internal organs.

**vegetation** A clot composed of platelets, fibrin, and microorganisms that typically adheres to a diseased heart valve or opening as a result of infection of the involved structures; the clot can release thrombi (smaller pieces) that travel in the bloodstream to cause infection or necrosis of distant areas.

**venipuncture** A procedure used to draw blood or inject a solution that involves puncturing a vein.

**vertical transmission** Passage of an infectious agent from the mother to an unborn child.

**vesicular** Pertaining to small, blisterlike lesions filled with clear fluid.

**vesiculopustular** Pertaining to blisterlike lesions containing pus.

**viremia** The presence of viable virus in the bloodstream.

**virulent** Refers to the particularly toxic effects of a pathogenic microorganism.

**wheeze** A high-pitched whistling noise made when narrowed airway passages cause difficulty in breathing.

**zoonotic** Pertaining to diseases or conditions usually affecting animals other than humans; however, following contact with infected animals or their tissues, humans can become infected.