Infection Glossary

Below is a quick list of commonly used medical terms that you may hear during the course of your medical stay, especially if an infection or medical error is involved. Our goal is to empower you with better understanding and more informed communication. It is not a complete list and as always we encourage you to ask your caregiver to explain any terms you do not fully understand.

Alicia Cole, Necrotizing Fasciitis Survivor

Action Plan - an Action Plan is the result of a Root Cause Analysis. The goal of the Action Plan is to find ways to prevent repeat of adverse events or close calls. The Action Plan addresses system and process deficiencies and improvement strategies are developed and implemented. The plan includes outcome measures to indicate that system and process deficiencies are effectively eliminated, controlled, or accepted.

Adverse Drug Events (ADE) - are those specifically associated with medication or therapeutic agents.

Adverse Events - Adverse events are incidents, therapeutic mishaps, injuries or other adverse occurrences directly associated with care or services provided within the jurisdiction of a medical center, outpatient clinic or other facility. Adverse events may result from acts of commission or omission (e.g., administration of the wrong medication, failure to make a timely diagnosis or institute the appropriate therapeutic intervention, adverse reactions or negative outcomes of treatment, etc.). Some examples of more common adverse events include: patient falls, medication errors, procedural errors/complications, and missing patient events.

Ambulate - to walk

Antibiotics – Antibiotics are powerful medicines that fight bacterial infections. Paul Ehrlich developed the first antibiotic in 1910, by changing dyes that selectively stained *Treponema pallidum*—the spirochaete that causes syphilis—into compounds that selectively killed the pathogen.

When used properly, antibiotics can save lives. They either kill bacteria or keep them from reproducing. Your body's natural defenses can usually take it from there. Antibiotics do not fight infections caused by viruses, such as

- Colds
- Flu
- Most coughs and bronchitis
- Sore throats, unless caused by strep

If a virus is making you sick, taking antibiotics may do more harm than good. Each time you take antibiotics, you increase the chances that bacteria in your body will be able to resist them. Later, you could get or spread an infection that those antibiotics cannot cure.

When you take antibiotics, follow the directions carefully. It is important to finish your medicine even if you feel better. Do not save antibiotics for later or use someone else's prescription.

Antibiotics resistance – the phenomenon in which bacteria acquire genes that allow them to survive in the presence of antibacterial drugs.

Antibodies – proteins present in the blood that recognize and bind to specific portions of bacterial proteins.

Aseptic – sterile.



Aseptic technique - is the effort taken to keep patients as free from hospital micro-organisms as possible. It is a method used to prevent contamination of wounds and other susceptible sites by organisms that could cause infection. This can be achieved by ensuring that only sterile equipment and fluids are used during invasive medical and nursing procedures.

Asymptomatic carrier – a person who shows no signs of illness, yet is able to transmit the disease to others.

Bacteria - Bacteria are very small living organisms made of only one cell. They are present just about everywhere: the air, the soil, and the skin. Many of them are microbes that cause diseases, but others are very helpful to humans. For example, bacteria in the intestine help digestion and we often use bacteria to make food products (yogurt, sauerkraut, etc.)

Bacteria were first observed by Antonie van Leeuwenhoek in 1676, using a single-lens microscope of his own design. He called them "animalcules". The name *bacterium* was introduced much later, by Christian Gottfried Ehrenberg in 1838, and is derived from the Greek word *bacterion*, meaning "small staff".

Though it was known in the nineteenth century that bacteria are the cause of many diseases, no effective antibacterial treatments were available.

Bacteria are said to be *aerobic* if they require oxygen and grow best at a high oxygen tension. *Anaerobic bacteria* do not require oxygen for growth. Obligatorily anaerobic bacteria can grow only in the complete absence of oxygen.

Barriers - Barriers protect people and property from adverse events. Questions assess barrier strength, fault tolerance, function and interaction/relationship to Rules/Policies/Procedures and Environment/Equipment.

For example: A negative pressure room for an infectious patient is a barrier to the spread of the disease. If the ventilation in the room stops working a critical barrier has been compromised.

Barium enema - a rectal injection of barium given to coat the lining of the colon and rectum. It is done before x-rays, in order to create better image of the lower intestine. Barium is a milky fluid that absorbs x-rays.

B cells – cells of the host's immune system that produce antibodies.

Bed Sores – the medical name for bed sores is Decubitus ulcers, a condition that is caused by continual, unrelieved pressure on one spot. The severity of decubitus ulcers range greatly depending on the amount of pressure and amount of time the decubitus ulcers existed without receiving proper treatment. Any bodily area, especially in spots where a particularly obvious bone spot exists, can develop decubitus ulcers -hips, heels, tailbones, elbows, and other areas.

There are decubitus ulcers prevention tips, including making sure patients are moved around enough to relieve any prolonged pressure from forming into bed sores.

In order to avoid bed sores from forming it is recommended to change the patient's position at least every two hours. In instances where ulcers have formed, it is essential to the healing process to have any pressure removed from the affected areas.

Bed sores are preventable and are considered 'Never Events' by the Centers for Medicare & Medicaid Services (CMS).

Biopsy - is the removal of a sample of tissue or cells from the body for examination. A pathologist usually does the examination of the tissue or cells. The tissue or cells are generally examined under a microscope to determine the presence of any abnormality.

Blood Transfusion - A treatment that involves receiving blood products (red cells, white cells, platelets, clotting factors, plasma, or whole blood) through a vein. The blood components may come from an unrelated donor, from a related donor, or may have been banked in advance by the recipient.

C-Diff (*C. difficile*) - *Clostridium difficile* is a bacterium that causes diarrhea and more serious intestinal conditions such as colitis. Those in good health usually don't get *C. difficile* disease. People who have other illnesses or conditions requiring prolonged use of antibiotics and the elderly are at greater risk of acquiring this disease. The bacteria are found in the feces. People can become infected if they touch items or surfaces that are contaminated with feces and then touch their mouth or mucous membranes. Increasingly, the disease can also be spread in the hospital. Healthcare workers can spread the bacteria to other patients or contaminate surfaces through hand contact. Treatment is with antibiotics.

Symptoms include:

- Watery diarrhea (at least three bowel movements per day for two or more days)
- Fever
- Loss of appetite
- Nausea
- Abdominal pain or tenderness

Cellulitis - is a bacterial infection of the deepest layer of your skin. Bacteria can enter your body through a break in the skin - from a cut, scratch, or bite. Usually if your skin gets infected, it's just the top layer and it goes away on its own with proper care. But with cellulitis, the deep skin tissues in the infected area become red, hot, irritated and painful. Cellulitis is most common on the face and lower legs.

You may have cellulitis if you notice

- Area of skin redness or swelling that gets larger
- Tight, glossy look to skin
- Pain or tenderness
- Skin rash that happens suddenly and grows quickly
- Signs of infection including fever, chills and muscle aches

Cellulitis can be serious, and possibly even deadly, so prompt treatment is important. The goal of treatment is to control infection and prevent related problems. Treatment usually includes antibiotics.

Centers for Disease Control and Prevention (CDC) – based in Atlanta, Georgia. The Centers for Disease Control and Prevention are a part of the U.S. Department of Health and Human Services. It is the primary Federal agency for conducting and supporting public health activities in the United States.

Centers for Medicare & Medicaid Services (CMS) - administers the Medicare and Medicaid programs, which provide health care to almost one in every three Americans. Medicare provides health insurance for more than 44.6 million elderly and disabled Americans. Medicaid, a joint federal-state program, provides health coverage for some 50 million low-income persons, including 24 million children, and nursing home coverage for low-income elderly.

Central line: A catheter (tube) that is passed through a vein to end up in the chest portion of the vena cava (the large vein returning blood to the heart) or in the right atrium of the heart.

Central lines have a number of different uses. A central line allows concentrated solutions to be infused with less risk of complications. It permits monitoring of special blood pressures including the central venous pressure, the pulmonary artery pressure, and the pulmonary capillary wedge pressures.



The near end of the catheter may also be connected to a chamber for injections given over periods of months. A central line saves having to have frequent small injections or "drips" placed in the arms. A central line may also allow a patient to have medicine or fluids at home instead of in the hospital.

The possible complications of a central line include air in the chest (pneumothorax) due to a punctured lung, bleeding in the chest (hemothorax), fluid in the chest (hydrothorax), bleeding into or under the skin (hematoma) and infection. If the line becomes disconnected, air may enter the blood and cause problems with breathing or a stroke.

A central line is also called a *central venous line* or a *central venous catheter* (CVC).

Clostridium perfringens: A type of bacteria that is the most common agent of gas gangrene and can also cause food poisoning as well as a fulminant form of bowel disease called necrotizing colitis.

Contagious – capable of transmitting a disease to others.

Cytokines – host proteins that play an important role in the controlling the reactions of the host immune system.

Cytotoxin – a chemical that kills cells.

Close Call - A close call is an event or situation that could have resulted in an accident, injury or illness, but did not, either by chance or through timely intervention. Such events have also been referred to as *near miss* incidents.

Close Calls receive the same level of scrutiny as adverse events that result in actual injury. As with adverse events, all Close Calls require reporting and documentation. Return to top of page

Contributing Factor - Contributing factors are additional reasons, not necessarily the most basic reason that an event has occurred.

Crepitus: A clinical sign in medicine characterized by a peculiar crackling, crinkly, or grating feeling or sound under the skin, around the lungs, or in the joints.

Crepitus in soft tissues is often due to gas, most often air, that has penetrated and infiltrated an area where it should not normally be.

CT Scan - a computed tomography (CT) scan uses x-ray technology to take multiple cross-sectional views of the inside of the body. A CT scan can take clearer pictures of organs, bone, soft tissue, blood vessels, and areas of the body not seen on regular x-rays.

Debridement - is used to clean dead and contaminated material from a wound to aid in healing, increase the tissue's ability to resist infection, and decrease inflammation. It can also be performed to get a tissue sample for testing and diagnosis. The procedure is most often performed for the following reasons:

To remove tissue contaminated by bacteria, foreign tissue, dead cells, or a crust

To create a neat wound edge to decrease scarring

To aid in healing very severe burns or pressure sores (decubitus ulcers)

Department of Health and Human Services (HHS)- is the United States government's principal agency for protecting the health of all Americans. HHS' Medicare program is the nation's largest health insurer, handling more than 1 billion claims per year. Medicare and Medicaid together provide health care insurance for one in four Americans.

HHS works closely with State and Local Governments and many HHS-funded services are provided at the local level by state or county agencies. The Department's programs are administered by 11 operating divisions, including eight agencies in the U.S. Public Health Service.

Deep Vein Thrombosis - A blood clot (thrombus) in the deep venous system of the leg is not dangerous in itself. The situation becomes life-threatening when a piece of the blood clot breaks off, travels downstream through the heart into the pulmonary circulation system, and becomes lodged in the lung. Diagnosis and treatment of a deep venous thrombosis (DVT) is meant to prevent pulmonary embolism (Blood Clot in the Lung.)

Edema - localized swelling.

Efficacy – effectiveness; the ability of a drug to cure or control an illness.

Emesis- vomiting.

Endemic – a disease that is common in a population.

Epidemiology – the study of disease patterns.

Erythema – feeling of warmth in a diseased area often accompanies edema.

Erythromycin – a common antibiotic used to treat infections caused by group A *Streptococci*.

Etiology – in the infectious disease studies, the root cause of a disease.

Excision - Surgical removal, as in the excision of a tumor.

Fascia – is thin, but very fibrous and strong, it is the soft tissue component of the connective tissue system that permeates the human body. Fascia forms directly under the skin and serves as a strong layer of connective tissue between the skin and muscles underneath it. It is responsible for maintaining structural integrity; for providing support and protection; and acts as a shock absorber.

Anyone who has skinned chicken breasts or trimmed meat has encountered fascia, the whitish colored thin sheets of tissue between the skin and muscle of the meat. Fascia functions as the body's first line of defense against pathogenic agents and infections.

Fatality rate – measurement of the number of people who, upon contacting a particular disease, will die from it.

Fever - refers to an elevation in body temperature. Technically, any body temperature above the normal oral measurement of 98.6 F (37 C) or the normal rectal temperature of 99 F (37.2 C) is considered to be elevated. Fever serves as one of the body's natural defenses against bacteria and viruses which cannot live at a higher temperature.

Foley Catheter - a flexible plastic tube (a catheter) inserted into the bladder to provide continuous urinary drainage.

The "Foley" has a balloon on the bladder end. After the catheter is inserted in the bladder, the balloon is inflated (with air or fluid) so that the catheter cannot pull out but is retained in the bladder as an "indwelling" catheter. Removal is accomplished simply by deflating the balloon and slipping the catheter out.

The "Foley" is named for the American urologist Frederic Eugene Basil Foley (1891-1966).

General anesthesia - is a type of anesthesia that works by putting the entire body to sleep. It is most often used during emergency or extensive surgery. Doctors trained in anesthesia (anesthesiologists) carefully balance the amount of anesthesia given by closely monitoring the body's functions. Medications are used to prevent pain, relax the muscles, and regulate body functions. When the surgery is over, medications are given to reverse the process.



Germs – The common definition of "germs" are small things people cannot see that make them sick. In scientific terminology, they are a small mass of protoplasm or cells from which a new organism or one of its parts may develop. Two such microorganisms are bacteria and viruses.

Gram-positive – bacteria that, when stained by the Gram method, appear purple. Gram-negative bacteria will appear pink.

Gram stain – method used to differentiate bacteria based on characteristics of the bacterial cell wall.

Hospital Acquired Infection (HAI) – Also referred to as Healthcare-*associated* infections. These are infections not found to be present or incubating at the time of admission, which patients acquire during the course of receiving treatment for other conditions within a healthcare setting. Healthcare-acquired infections are one of the top ten leading causes of death in the United States. (See also Nosocomial.)

Hyperbaric oxygen therapy (HBOT) - Hyperbaric treatment can literally save the lives and limbs of patients with wounds that are difficult to heal because of chronic medical conditions such as diabetes and poor circulation. It is also used to treat other difficult to heal wounds such as necrotizing infections (flesh-eating bacteria), radiation tissue damage, burns, carbon monoxide poisoning, smoke inhalation and scuba diving injuries. HBOT involves breathing 100% oxygen in a sealed chamber. This concentration is five times higher than normal air we breathe. The chamber is also pressurized to create 1.5 to 3 times normal atmospheric pressure. These changes can improve blood circulation and the blood's ability to deliver oxygen to the body.

Hygiene - The science of preventive medicine and the preservation of health. From the name of Hygeia, the daughter of Asklepios, the Greek god of medicine (whose staff with entwined snake is the symbol of medicine.) Asklepios had a number of children including not only Hygeia but also Panaceia, the patroness of clinical medicine. Hygeia also followed her father into medicine. As the patroness of health, Hygeia was charged with providing a healthy environment to prevent illness. In Greek, "hygieia" means health.

Incident Report - Most facilities require that an incident report be filed for patient injuries, medication errors, and injuries to employees or visitors. An incident report informs the administration about a problem so they can monitor trends to help prevent future trouble. It also alerts them to potential liability claims.

These confidential reports are kept by the risk management department and include the names of any persons involved and witnesses, facts about what happened, the consequences to the person involved, and additional relevant facts, such as your immediate actions and statements. Patients are not privy to incident reports.

Incubation period – the amount of time it takes from the initial exposure to the infectious agent to the development of disease.

Infectious Disease Specialist (IDS) - Also called Infection Control Professionals (ICP) or the more recent term of Infection Preventionist. Infection prevention and control professionals are healthcare facility staff members who implement measures to prevent the spread of infection to patients, employees and visitors across all healthcare settings. While many come from nursing backgrounds, ICPs increasingly are coming from other disciplines including microbiology and medical technology. The ICP functions as a member of the staff in the role of educator and consultant. Their responsibilities include:

Data collection and analysis
Outbreak investigation
Development and implementation of prevention and control strategies
Implementation of regulatory requirements

ICPs collaborate across departments within the facility, touching virtually every area including nursing, medical staff, administration, laboratory, pharmacy, housekeeping, and facilities engineering and construction.



Intensive-Care Unit (ICU) - A hospital unit that provides intensive observation, diagnostic, and therapeutic procedures for adults and/or children who are critically ill. An ICU excludes bone marrow transplant units and nursing areas that provide step-down, intermediate care or telemetry only. The type of ICU is determined by the service designation of the majority of patients cared for by the unit.

Intramuscular (IM) injection - is a shot where the needle goes into the muscle layer under the skin to deliver medicine. IM injections are deeper than subcutaneous injections (given under the skin).

Intubation - This is the process of inserting one end of a tube, called an endotracheal tube, into your airway. The tube is passed through your mouth (with an orotracheal tube) or nose (with a nasotracheal tube) and then through your throat and your vocal cords into your windpipe, called the trachea. The other end of the tube is attached to a mechanical ventilator.

Invasive Procedures - acts done to patients that come in contact with the wounds, blood stream, the inside of the body, or normally sterile parts of the body. (Invasive procedures invade the inside of the body.)

Isolation Precautions - The Centers for Disease Control's *Guidelines for Isolation Precautions in Hospitals* identifies several categories of isolation that are appropriate according to the mode of transmission of the infectious agent.

Strict isolation Precautions are used for highly contagious or virulent infections in which the agent may be spread by direct contact or droplet. Procedures include segregation in a private room; use of gowns, masks, and gloves; and sometimes special ventilation.

Contact Isolation Precautions are intended to prevent transmission of infectious agents, which are spread by direct or indirect contact with the patient or the patient's environment. This includes patients infected or colonized with Multi-Drug Resistant Organisms (MDROs).

Contact Precautions also apply where the presence of excessive wound drainage, fecal incontinence, or other discharges from the body suggest an increased potential for extensive environmental contamination and risk of transmission.

A single patient room is preferred for patients who require Contact Precautions. When a single-patient room is not available, consultation with infection control personnel is recommended to assess the various risks associated with other patient placement options (e.g. keeping the patient with an existing roommate).

In multi-patient rooms, at least a 3 feet spatial separation between beds is advised to reduce the opportunities for inadvertent sharing of items between the infected/colonized patient and other patients.

Healthcare personnel caring for patients on Contact Isolation Precautions should wear a gown and gloves for all interactions that may involve contact with the patient or potentially contaminated areas in the patient's environment. Donning Personal Protective Equipment (PPE) before room entry and discarding before exiting the patient room is done to contain pathogens, especially those that have been implicated in transmission through environmental contamination (e.g., VRE, *C. difficile*, noroviruses and other intestinal tract pathogens; RSV).

Laboratory-Confirmed Primary Bloodstream Infection (LCBI) - A primary bloodstream infection identified by laboratory tests with or without clinical signs or symptoms; most often associated with the use of catheters or other invasive medical devices.

Lymphedema - also called *Lymphatic obstruction*. The lymphatic system is a network of tissues and organs. It is made up mainly of lymph vessels, lymph nodes and lymph. Lymph vessels, which are different from blood vessels, carry fluid called lymph throughout your body.

The lymphatic system collects excess fluid and proteins from body tissues and carries them back to the blood-stream. Edema, or swelling, may happen when there is an increase in the amount of fluid or because of a blockage in the lymphatic system. The accumulation of lymph is called lymphedema.

Causes of lymphedema include:

- Infection
- Cancer
- Scar tissue from radiation therapy or surgical removal of lymph nodes
- Inherited conditions in which lymph nodes or vessels are absent or abnormal

Treatment includes physical methods, such as compression stockings, and medicines.

MRI – A special radiology technique designed to image internal structures of the body using magnetism, radio waves, and a computer to produce the images of body structures. In magnetic resonance imaging (MRI), the scanner is a tube surrounded by a giant circular magnet. The patient is placed on a moveable bed that is inserted into the magnet. The magnet creates a strong magnetic field that aligns the protons of hydrogen atoms, which are then exposed to a beam of radio waves. This spins the various protons of the body, and they produce a faint signal that is detected by the receiver portion of the MRI scanner.

A computer processes the receiver information, and an image is produced. The image and resolution is quite detailed and can detect tiny changes of structures within the body, particularly in the soft tissue, brain and spinal cord, abdomen and joints.

For an MRI, patients lie in a closed area inside the magnetic tube. Some patients experience a feeling of claustrophobia.

National Institutes of Health (NIH) -- NIH is the world's premier medical research organization, supporting over 38,000 research projects nationwide in diseases including cancer, Alzheimer's, diabetes, arthritis, heart ailments and AIDS. Includes 27 separate health institutes and centers.

NNIS- SSI risk index - A score ranging from 0 to 3, used to predict a surgical patient's risk of acquiring a surgical site infection.

Nosocomial - Originating or taking place in a hospital.

Necrotizing – Causing the death of a specific area of tissue. Causing necrosis; exuding a brown to green, putrid discharge containing tissue debris.

Necrotizing fasciitis - A dangerous infection of soft-tissue that starts in the subcutaneous tissue (just below the skin) and spreads along the flat layers of fibrous tissue that separate different layers of tissue (fascial planes). It most commonly occurs in the arms, legs and abdominal wall.

Symptoms include redness (erythema), swelling (edema) and tenderness. The degree of pain typically is greater than the severity of these findings and the person appears terribly ill with flu-like symptoms. Skin changes may include bullous lesions (blisters) and local skin anesthesia (due to blocking of little vessels in the skin). A crinkly or crackling feeling called crepitus indicates gas in the tissues but occurs in only about half of cases.

Emergency diagnosis and treatment are essential. Broad-spectrum antibiotic treatment and prompt surgical removal of dead and infected tissue decreases the death rate.

Outcomes - All the possible results that may stem from exposure to a causal factor or from preventive or therapeutic interventions (ie. mortality, cost, and development of a hospital–acquired infection).

Pathology – is the study and diagnosis of disease through examination of organs, tissues & bodily fluids.

PCA - commonly used abbreviation for *Patient-Controlled Analgesia*. Analgesia simply means relief of pain. PCA is a method by which the patient controls the amount of pain medicine (analgesia) they receive.

Post-infection sequelae – diseases, generally auto immune in nature, that occur following clearance of the original pathogen.

Private Reporting System -A system that provides information about the quality of health services or systems for the purposes of improving the quality of the services or systems. By definition, the general public is not given access to the data; instead, the data are typically provided to the organization or health care workers whose performance is being assessed. The provision of these data is intended as an intervention to improve the performance of that entity or person.

Process Measure - A measure of recommended infection control or other practices (ie. adherence with hand hygiene recommendations).

Public Reporting System - A system that provides the public with information about the performance or quality of health services or systems for the purpose of improving the performance or quality of the services or systems.

Pus – material consisting of white blood cells and extracellular fluid that comes from a wound.

Risk Adjustment - A summarizing procedure for a statistical measure in which the effects of differences in composition of the populations being compared have been minimized by statistical methods (eg, standardization and logistic regression).

Risk factor – a factor that, when present, increases the likelihood of developing a particular disease

Root Cause - A root cause is the most fundamental reason an event has occurred

Root Cause Analysis (RCA) - Root Cause Analysis is a process for identifying the basic or contributing causal factors that underlie variations in performance associated with adverse events or close calls.

RCAs have the following characteristics:

- The review is interdisciplinary in nature with involvement of those closest to the process.
- The analysis focuses primarily on systems and processes rather than individual performance.
- The analysis digs deeper by asking *what* and *why* until all aspects of the process are reviewed and all contributing factors are identified (progressing from looking at special causes to common causes). The analysis identifies changes that could be made in systems and processes through either redesign or development of new processes or systems that would improve performance and reduce the risk of event or close call recurrence.

To be thorough, an RCA must include:

- A determination of the human and other factors most directly associated with the event or close call and the processes and systems related to its occurrence; (there is rarely only one underlying cause)
- Analysis of the underlying systems through a series of *why* questions to determine where redesigns might reduce risk
- Identification of risks and their potential contributions to the event or close call. Determination of potential improvement in processes or systems that would tend to decrease the likelihood of such events in the future, or a determination, after analysis, that no such improvement opportunities exist.



To be credible, an RCA must:

- Include participation by the leadership of the organization and by individuals most closely involved in the processes and systems under review.
- Be internally consistent (i.e. not contradict itself or leave obvious questions unanswered). Include consideration of relevant literature. Return to top of page

Sentinel Event - are a type of adverse event. Sentinel events, as defined by The Joint Commission, are unexpected occurrences involving death or serious physical or psychological injury, or risk thereof. Serious injury specifically includes loss of limb or function. Major permanent loss of function means sensory, motor, physiologic, or intellectual impairment not previously present that requires continued treatment or life-style change.

The phrase *risk thereof* includes any process variation for which a recurrence would carry a significant chance of serious adverse outcomes. Sentinel events signal the need for immediate investigation and response.

Some examples of sentinel events include:

- death resulting from a medication error or other treatment related error
- suicide of a patient in a setting where they receive around-the-clock care
- surgery on the wrong patient or body part regardless of the magnitude of the operation and hemolytic transfusion reaction involving the administration of blood or blood products having major blood group incompatibilities

Sepsis – is the body's response to infection — an inflammatory process marked by an elevated heart rate, rapid breathing and abnormal temperature.

Severe sepsis occurs when your natural immune response to an infection goes into overdrive, triggering wide-spread inflammation and blood clotting in tiny vessels throughout your body. One or more organs may stop working properly or fail. Sepsis can lead to a dangerous drop in blood pressure (septic shock).

About 750,000 people in the United States get severe sepsis each year, and more than 200,000 people die of it.

Those at increased risk include older adults, hospital and surgery patients, and people with impaired immune systems. Neonatal sepsis affects a small percentage of newborns, particularly low-birth-weight and premature infants. Most commonly, bacterial infections lead to sepsis, but it may result from any type of infection — bacterial, viral, parasitic or fungal. Although sepsis often can't be prevented, getting prompt medical care for infections can reduce your risk.

Commonly called a "blood stream infection." Treatment depends on the type of infection, but usually begins with antibiotics or similar medications. Also known as blood poisoning, septicemia.

Shock – a decrease in blood pressure or volume, resulting in the lack of blood flow to the origins. May result in death.

Skin biopsy - is done to evaluate and/or remove a skin growth. It is most often done to diagnose bacterial or fungal infection, cancer, inflammatory skin disorders (such as psoriasis), or benign skin growths. There are four main types of skin biopsies:

Shave biopsy- The outer part of the suspect area is removed.

Punch biopsy- A small cylinder of skin is removed using a punch tool.

Wedge biopsy- Similar to a punch biopsy but somewhat deeper, this biopsy is often performed

with a scalpel in order to diagnose disorder of deeper layers of the skin.

Excision biopsy- The entire area of abnormal growth is removed.



Skin graft - is the removal and transplantation of healthy skin from one area of the body (source area or donor site) to another area (recipient area) where the skin has been damaged. The source sites most commonly used for skin grafts are the inner thigh, leg, buttocks, upper arm, and forearm.

There are three main types of skin graft techniques:

Split-thickness graft—This is the removal of the top layer of skin (epidermis) and part of the middle layer (dermis). This type of graft allows the source site to heal more quickly. However, the graft is also more fragile, and may be abnormally pigmented. This is the most common skin graft used.

Full-thickness graft—This is removal and transfer of an entire area of skin. Although this type of graft requires stitches to heal the source site, the final outcome is usually better. Full-thickness grafts are usually recommended for areas where cosmetic appearance is important, such as the face. However, full-thickness grafts can only be placed on areas of the body that have significant vascularization (blood vessels), so its use is somewhat limited.

Composite grafts—This is a combination of skin and fat; skin and cartilage; or dermis and fat, which are used in areas that require three-dimensionality, such as the nose.

The use of one's own skin as the source area is called an autograft. However, if there is not enough skin on the body to provide graft coverage for another area on the same body, then skin may be harvested from outside sources. These alternate sources are only meant for temporary use until your own skin grows back. Three common options:

Allograft—Skin taken from another human source, such as a cadaver.

Xenograft—Skin taken from an animal source.

Synthetic tissue

Staphylococcus aureus - *Staphylococcus* or *Staph*, is a type of bacteria, or large, single-cell organism. There are two common types of *Staph* aureus: one that is sensitive to most antibiotics and one that is resistant to many antibiotics. The form of *Staph* aureus that is resistant is called Methicillin-resistant *Staphylococcus aureus* or **MRSA**. 'Resistant' means that a specific type of antibiotic, in this case methicillin, and other related drugs, will not kill the bacteria. Methicillin is an antibiotic in the Penicillin family.

An infection caused by the "resistant" form of *Staph* must be treated with the correct antibiotic that will kill the infection. It does not mean that the infection will be harder to kill. But it may be more difficult for a patient to get well quickly if the correct antibiotic is not used first.

Staph organisms are hardy and may survive for three weeks even on a dry surface, though they thrive better in moist areas like the body's mucous membranes. As many as 30 percent of the public have *Staph* in their nose and nasal passages.

Subcutaneous - beneath the skin.

Subdermal – beneath the dermis, a lower layer of the skin.

Superbug: An informal term for a bacterium that has become resistant to antibiotics usually used to treat it, as methicillin-resistant Staphylococcus aureus (MRSA) or any multiresistant bacterium.

Superficial disease – generally a nonlethal disease. Infection is usually confined to a small area of the patient's body and does not spread via the bloodstream.

Surgical Site Infection (SSI) - An infection of the incision or organ/space operated on during a surgical procedure. Based on a 1993 National Nosocomial Infections Surveillance (NNIS) system report, SSIs are the third most frequently reported nosocomial infection, accounting for 14% to 16% of all nosocomial infections among hospitalized patients.



Surveillance - The ongoing, systematic collection, analysis, interpretation, and dissemination of data regarding a health-related event for use in public health action to reduce morbidity and mortality and to improve health.

Tachycardia – a very rapid heartbeat, usually defined as greater than 100 beats per minute.

TPN- an abbrieviation for *Total Parenteral Nutrition,* intravenous feeding that provides a patient with all of the fluid and the essential nutrients when they are unable to feed themselves by mouth. It generally looks like a bag of vanilla milkshake hanging from the patients IV pole.

Tube Feeding - Enteral feeding is the term used for the delivery of nutrients via a tube in patients who cannot receive food and nutrients normally because of a health condition.

Ultrasound - an ultrasound examines of the internal organs using high-frequency sound waves.

Ventilator - a specially designed pump that moves air in and out of the lungs and helps people breathe. This procedure allows oxygen and carbon dioxide gases to pass freely. The ventilator has special controls that regulate the mixture of oxygen and air that is delivered, as well as the rate and amount of air with each breath. Mechanical ventilation can be life-saving for people who have conditions that affect their breathing.

Virus- A microorganism smaller than a bacteria, which cannot grow or reproduce apart from a living cell. A virus invades living cells and uses their chemical machinery to keep itself alive and to replicate itself. It may reproduce with fidelity or with errors (mutations)- this ability to mutate is responsible for the ability of some viruses to change slightly in each infected person, making treatment more difficult.

DISCLAIMER: The information presented in this document and on our site is intended for general information and educational purposes. It is not intended to replace the advice of your own physician. Please contact your physician immediately if you believe you have a health problem.

