Unit one

The History of Medicine

Medical changes from 1945

There were many medical changes during World War Two but these changes continued after the war. In Britain, the biggest change was the establishment of the National Health Service (NHS) that provided free medical care for all regardless of wealth. Prior to this those who could not afford something like a penicillin jab had to go without or make the necessary sacrifices to get the necessary money. The NHS provided this for free.

Post-1945, many advances were made in the management of pregnancy and childbirth. This included the ability to induce labour and the use of epidurals to ease difficult pregnancies. As a balance to this, there was a move for less state intervention in childbirth and the development of the right for women to have more natural childbirth. In 1956, the National Childbirth Trust was set up. The chance of infant survival also improved as medical knowledge developed – as was seen in the work done to increase the survival rate of 'blue' babies. The greater use of scans after 1945 also helped to detect problems earlier.

More vaccines were developed to control childhood diseases. After the war the health of children was generally better than at any other time in history. Vaccines against polio, measles and rubella were developed in the 1950's and 1960's. Tests were also developed for defects in babies such as the amniocentesis for spina bifida and Down's Syndrome. Treatments were also developed for children with heart disease.

After 1945, major advances were also made in birth control. In earlier times there had been advances in rubber sheaths but they were seen more as a protection against syphilis as opposed to a form of birth control. The cap or diaphragm had been developed in the 1880's but its availability had been very much limited as people were kept in the dark as to its very existence. Marie Stopes did much to change attitudes as to give women more freedom when concerning birth control. However, pre-war social conventions had done much to prevent the total spread of her ideas throughout Britain. Many social conventions had been swept away during the war and by the 1950's the contraceptive pill had been introduced as was seen as a way of giving women more control over their own destiny – and certainly taking this away from domineering men. By the 1960's, the contraceptive pill was widely available, as was the IUD (Intrauterine device). This had first been developed in 1909 but was more widely available after 1945. Certain types of IUD were also linked to pelvic infection and septic abortions as late as the 1970's and 1980's. Such concerns did much to stymie its use.

Many very significant medical advances were also made after 1945. One of the most important was the discovery of DNA by Wilkins, Crick and Watson. These three were also helped by the work done

by Rosalind Franklin. DNA is the substance that makes life – a human cell that contains genes, which are made up of chromosomes, the basis of living tissue. This has in turn allowed the study of disease caused by defective genes such as in cystic fibrosis and Down's Syndrome. In recent years, researchers have been able to identify specific genes that are responsible for specific diseases.

New drugs have also been created post-1945. The success of penicillin during the war, prodded researchers to study other moulds. Streptomycin, found in chickens, was used successfully to treat TB. This treatment was pioneered primarily in America after 1946. Streptomycin was also found to be capable of treating many other diseases that penicillin could not. However, it was found that too much use of streptomycin could lead to the TB germ developing a resistance to its use. After 1951, streptomycin was used with Isoniazid in the fight against TB. This again was developed in America. By the 1970's, five antibiotics existed which could be used against TB. In recent years, despite this array of drugs against TB, there have been fears that TB can be resistant to all drugs that have been developed to fight it. The recent rise of TB in the more depressed areas of Britain's cities has concerned many doctors. The problems with streptomycin did lead scientists to study why drugs lost their effectiveness and also why some people suffered side effects when they were used and others did not. The development in pharmacology has been a major development since 1945.

Since 1945, there has been a greater use of steroids in medicine. These were used to relieve pain and inflammation. Cortisone was used in injection form to treat rheumatoid arthritis. Cortisone also had the important side effect of reducing the body's immune system. This made it useful to prevent the rejection of skin and kidney transplants. This in turn lead to the idea of using drugs to suppress the growth of cancers using cytotoxins.

The use of ultrasound and magnetic resonance since 1945 has also made it easier to diagnose disease. Ian Donald, Professor of Midwifery at Glasgow developed ultrasound in the 1950's for looking at unborn babies. Magnetic Resonance Imaging can be used to detect diseases without the use of radiation making it less harmful to the patient. Three-dimensional CAT scans can also be used. The less use of radiation the better as some patients can be harmed by exposure to large doses of radiation. MRI (Magnetic Resonance Imaging) does away with this problem. The use of modern equipment such as the endoscope has also allowed for the internal examination of patients without the need for surgery.

Kidney dialysis was first tried in 1914 but only became more widely available in the 1960's. The introduction of long term and repeated dialysis gave hope to patients who almost certainly would have died without this particular development.

Surgery in general has witnessed major developments since 1945. Far more operations can be carried out now on areas of the body that were rarely touched before 1945. Christian Barnard's heart transplant was on an organ that few surgeons would have operated on. His pioneering surgery inspired others to do likewise and now heart operations are very common, as is surgery on organs such as the liver and kidneys etc. Microsurgery and keyhole surgery are common place now – as is

the use of lasers in surgery. The major – though not exclusive – developments in surgery are as follows:

Post 1953: the development of a successful heart lung machine allowed more complicated heart surgery to take place. Techniques have improved greatly here with coronary bypasses to improve blood supply to the heart since 1953 and the replacement of heart valves since the 1960's. Artificial arteries have also been developed to improve blood flow. After 1961, pacemakers were introduced to maintain a regular heart beat.

From 1960 on, lasers were used to treat eye tumours etc.

Transplant surgery has also developed aided by drugs like cortisone, azathioprine and cyclosporin which have helped to reduce rejection. The first successful kidney transplant was done in Boston in 1954; the first heart transplant was in 1967 (performed by Christian Barnard); the first liver transplant was in 1963; the first heart and lung transplant was in 1982 and the first brain tissue transplant was in 1987.

Since 1945, there have been major developments in replacement surgery. Hip replacement was pioneered by John Charnley, orthopaedic surgeon at Manchester Royal Infirmary. Since then, there have been knees and elbows have been replaced.

In the area of reproduction, the development of IVF by Patrick Steptoe, led to the first test tube baby – Louise Brown – born in 1978. Steptoe's work has given much hope to those couples who want children but have had difficulties producing them. However, the issue of IVF brought with it many ethical issues which cause controversy to this day.

Since 1945, there have been massive strides in the treatment of cancer. The use of a combination of drugs, radiotherapy and surgery have greatly increased a cancer patient's chances of survival. During the 1950's, research linked smoking to lung cancer and other external factors have also been identified – such as excess sunlight potentially causing skin cancer. It is now thought that 15% of all cancers are caused by viruses.

The major disease that has tested the medical world since the 1980's has been HIV/AIDS. In the 1980's, government's touted HIV as near enough a death sentence and in Britain issued public health warnings on television showing icebergs crashing into the sea. Now, just twenty years on, combination drug therapy offers sufferers hope and a huge amount of research has gone into finding a cure or vaccination for this world-wide disease. 'New' diseases have also come to the fore including the Ebola virus.

There is a vast difference in the medical world of 1945 to that of 2002. Developments within medicine would have been expected but they have been in leaps in the last decades. Diseases that would have almost certainly killed in 1945 to 1950 are now usually treatable and in many instances curable.

Alexander Fleming and Penicillin

Alexander Fleming is alongside the likes of Edward Jenner, Robert Koch, Christian Barnard and Louis Pasteur in medical history. Alexander Fleming discovered what was to be one of the most powerful of all antibiotics – penicillin. This drug was to change the way disease was treated and cement Fleming's name in medical history.

One of the most important medical advances in history began by accident. On the morning of September 3rd, 1928, Professor Alexander Fleming was having a clear up of his cluttered laboratory. He was sorting through a number of glass plates that had previously been coated with staphyloccus bacteria as part of research Fleming was doing.

One of the plates had mould on it. The mould was in the shape of a ring and the area around the ring seemed to be free of the bacteria staphyloccus. The mould was penicilliumnotatum. Fleming had a life long interest in ways of killing off bacteria and he concluded that the bacteria on the plate around the ring had been killed off by some substance that had come from the mould.

Further research on the mould found that it could kill other bacteria and that it could be given to small animals without any side effects. However, within a year, Fleming had moved onto other medical issues and it was ten years later that Howard Florey and Ernst Chain, working at Oxford University, isolated the bacteria-killing substance found in the mould – penicillin.

IN 1941, a doctor, Charles Fletcher, at a hospital in Oxford had heard of their work. He had a patient who was near to death as a result of bacteria getting into a wound. Fletcher used some of Chain's and Florey's penicillin on the patient and the wound made a spectacular recovery. Unfortunately, Fletcher did not have enough penicillin to fully rid the patient's body of bacteria and he died a few weeks later as the bacteria took a hold. However, penicillin had shown what it could do on what had been a lost cause. The only reason the patient did not survive was because they did not have enough of the drug – not that it did not work.

Florey got an American drugs company to mass produce it and by D-Day (June 6th 1944), enough was available to treat all the bacterial infections that broke out among the troops. Penicillin got nicknamed "the wonder drug" and in 1945 Fleming, Chain and Florey were awarded the Nobel Prize for medicine. Post-1945 was the era of the antobiotics.

Unit 2

First Aid in Medical Emergencies

Medical Definition of FIRST AID

1. : emergency care or treatment given to an ill or injured person before regular medical aid can be obtained

(1) A bruise forms when a blow breaks blood vessels near your skin's surface, allowing a small amount of blood to leak into the tissues under your skin. The trapped blood may cause a bruise that at first looks like a black-and-blue mark and then changes color as it heals.

If your skin isn't broken, you don't need a bandage. But you can enhance bruise healing with these simple techniques:

- Elevate the injured area.
- Apply an ice pack wrapped in a towel or a cloth dampened with cold water. Do this for about 10 minutes. Repeat several times a day for a day or two after the injury as needed.
- Rest the bruised area, if possible.
- Consider acetaminophen (Tylenol, others) for pain relief, or ibuprofen (Advil, Motrin IB, others) for pain relief and to reduce swelling.

Consult your doctor if you:

- Notice very painful swelling in the bruised area
- Are still experiencing pain three days after a seemingly minor injury
- Have frequent, large or painful bruises, particularly if your bruises appear on your trunk, back or face, or seem to develop for no known reasons
- Have easy bruising and a history of significant bleeding, such as during a surgical procedure
- Notice a lump (hematoma) form over the bruise
- Are experiencing abnormal bleeding elsewhere, such as from your nose or gums or in urine or stool
- Suddenly begin bruising, but have no history of bruising
- Have a family history of easy bruising or bleeding

These signs and symptoms may indicate a more serious problem, such as a blood-clotting problem or blood-related disease.

If an animal bites you or your child, follow these guidelines:

- **For minor wounds.** If the bite barely breaks the skin and there's no danger of rabies, treat it as a minor wound. Wash the wound thoroughly with soap and water. Apply an antibiotic cream to prevent infection and cover the bite with a clean bandage.
- **For deep wounds.** If the animal bite creates a deep puncture of the skin or the skin is badly torn and bleeding, apply pressure with a clean, dry cloth to stop the bleeding and see your doctor.
- **For infection.** If you notice signs of infection, such as swelling, redness, increased pain or oozing, see your doctor immediately.
- **For suspected rabies.** If you suspect the bite was caused by an animal that might carry rabies — including any wild or domestic animal of unknown immunization status, particularly bats — see your doctor immediately.

Doctors recommend getting a tetanus shot every 10 years. If your last one was more than five years ago and your wound is deep or dirty, your doctor may recommend a booster. Get the booster as soon as possible after the injury.

Domestic pets cause most animal bites: Dogs are more likely to bite than cats. Cat bites, however, are more likely to cause infection because they are usually puncture wounds and can't be thoroughly cleaned. Bites from nonimmunized domestic animals and wild animals carry the risk of rabies. Rabies is more common in bats, raccoons, skunks and foxes than in cats and dogs. Rabbits, squirrels and other rodents rarely carry rabies.

The Centers for Disease Control and Prevention recommends that children or adults exposed to bats, or who are sleeping and discover bats present, seek medical advice, even if they don't think they've been bitten. This is because bat bite marks can be hard to see.

Seek prompt attention if:

- The wound is a deep puncture or you're not sure how serious it is.
- The skin is badly torn and bleeding significantly — first apply pressure with a bandage or clean cloth to stop the bleeding.
- You notice increasing swelling, redness, pain or oozing, which are warning signs of infection.
- You have questions about your risk of rabies or about rabies prevention. If the bite was caused by a cat or a dog, try to confirm that its rabies vaccination is up to date. If the bite was caused by a wild animal, seek advice from your doctor about which animals are most likely to carry rabies.

  Bats often carry rabies. And people have been infected without obvious signs of a bite. This is why the Centers for Disease Control and Prevention recommends that people in contact with bats — or even those who are sleeping and awaken to find a bat in the

bedroom — seek medical advice about rabies shots, even if they don't think they've been bitten.

- You haven't had a tetanus shot in the past five years and the wound is deep or dirty. You may need a booster shot.

Causes of chest pain can vary from minor problems, such as indigestion or stress, to serious medical emergencies, such as a heart attack or pulmonary embolism. The specific cause of chest pain can be difficult to interpret.

Finding the cause of your chest pain can be challenging, especially if you've never had prior symptoms. Even doctors may have a difficult time deciding if chest pain is a sign of a heart attack or something less serious, such as indigestion.

If you have unexplained chest pain lasting more than a few minutes, it is better to seek emergency medical assistance than to try and diagnose the cause yourself.

As with other sudden, unexplained pains, chest pain may be a signal for you to get medical help. Use the following information to help determine whether your chest pain is a medical emergency.

Heart attack

A heart attack occurs when an artery that supplies oxygen to your heart muscle becomes blocked. A heart attack may cause chest pain that lasts 15 minutes or longer, or it can also be silent and produce no signs or symptoms.

Many people who experience a heart attack have warning signs hours, days or weeks in advance. The earliest warning sign of an attack may be ongoing episodes of chest pain that start when you're physically active and are relieved by rest.

Someone having a heart attack may experience none, any or all of the following:

- Uncomfortable pressure, fullness or squeezing pain in the center of the chest lasting more than a few minutes
- Pain spreading to the shoulders, neck, jaw or arms
- Lightheadedness, fainting, sweating, nausea or shortness of breath

If you or someone else may be having a heart attack:

- **Call 911 or emergency medical assistance.** Don't tough out the symptoms of a heart attack for more than five minutes. If you don't have access to emergency medical services, have a neighbor or friend drive you to the nearest hospital. Drive yourself only as a last resort, and realize that driving yourself puts you and others at risk if your condition suddenly worsens.
- **Chew a regular-strength aspirin.** Aspirin reduces blood clotting, which can help blood flow through a narrowed artery that's caused a heart attack. However, don't take aspirin if you are allergic to aspirin, have bleeding problems or take another blood-thinning medication, or if your doctor previously told you not to do so.

Fainting occurs when the blood supply to your brain is momentarily inadequate, causing you to lose consciousness. This loss of consciousness is usually brief.

Fainting can have no medical significance, or the cause can be a serious disorder. Therefore, treat loss of consciousness as a medical emergency until the signs and symptoms are relieved and the cause is known. Discuss recurrent fainting spells with your doctor.

If you feel faint

- **Lie down or sit down.** To reduce the chance of fainting again, don't get up too quickly.
- **Place your head between your knees** if you sit down.

If someone else faints

- **Position the person on his or her back.** If the person is breathing, restore blood flow to the brain by raising the person's legs above heart level — about 12 inches (30 centimeters) — if possible. Loosen belts, collars or other constrictive clothing. To reduce the chance of fainting again, don't get the person up too quickly. If the person doesn't regain consciousness within one minute, call 911 or your local emergency number.
- **Check the person's airway to be sure it's clear.** Watch for vomiting.
- **Check for signs of circulation (breathing, coughing or movement).** If absent, begin CPR. Call 911 or your local emergency number. Continue CPR until help arrives or the person responds and begins to breathe.

If the person was injured in a fall associated with a faint, treat any bumps, bruises or cuts appropriately. Control bleeding with direct pressure

Foreign object in the ear

A foreign object in the ear can cause pain and hearing loss. Usually you know if an object is stuck in your ear, but small children may not be aware of it.

If an object becomes lodged in the ear, follow these steps:

- **Don't probe the ear with a tool.** Don't attempt to remove the foreign object by probing with a cotton swab, matchstick or any other tool. To do so risks pushing the object farther into the ear and damaging the fragile structures of the middle ear.
- **Remove the object if possible.** If the object is clearly visible, pliable and can be grasped easily with tweezers, gently remove it.
- **Try using gravity.** Tilt the head to the affected side to try to dislodge the object.
- **Try using oil for an insect.** If the foreign object is an insect, tilt the person's head so that the ear with the offending insect is upward. Try to float the insect out by pouring mineral oil, olive oil or baby oil into the ear. The oil should be warm but not hot. As you pour the oil, you can ease the entry of the oil by straightening the ear canal. Pull the earlobe gently backward and upward for an adult, backward and downward for a child. The insect should suffocate and float out in the oil bath. Don't use oil to remove any object other than an insect. Don't use this method for a child if ear tubes are in place or if you think the eardrum may be perforated. Signs of this are pain, bleeding or discharge from the ear.
- **Try washing the object out.** Use a bulb ear syringe and warm water to irrigate the object out of the canal, again provided no ear tubes are in place and you don't suspect the eardrum is perforated.

If these methods fail or the person continues to experience pain in the ear, reduced hearing or a sensation of something lodged in the ear, seek medical assistance.

Living in the city 5

A lot of people decide to move to the countryside nowadays. However, there are still many people who prefer stay in the town and say that they couldn't live anywhere else. So which place is better to live? Let's think about both of them.

I would like to start with the advantages and disadvantages of the big city life. Living in such a big city has a lot of advantages. There is a big offer how to spend free time. There are a lot of theatres, concerts and other ways of entertainment. There is always a lot to do and visit! There are a lot of possibilities of shopping. In various shopping centres and galleries you can buy whatever you want. What is more, there are a lot of working places in a city. Many big international companies have their locations in the cities, so it is much easier to find a job in a big city. Moreover, the public**transport** is developed quite well, so the commuting to work isn't a problem. On the other hand, there are some disadvantages of living in a big city. Cities are very crowded. Everywhere there are crowds: on the pavements and in the buses. What is more, the traffic is heavy and city's car parks are always very full. Sometimes it is very difficult to get from a given place to another. It may take hours! Moreover, the other disadvantage is the safety in a city, but actually the lack of safety. There is a big crime rates in cities. So you have to be very careful at nights when you leave your home.

I think that in the country the problem of crime isn't so big. There aren't so many people and they usually know each other well. The possibility of robbery or other crime is relatively lower. Life in the countryside is more peaceful and the life is also slower. What is more, it is less stressful. There isn't any time pressure and the traffic conditions are better. A lot of places you may reach on foot.

The city offers a lot: there are huge buildings, skyscrapers or some historic monuments. On the other hand, in the countryside there are a lot of breathtaking sceneries, space and other amazing places such as forests, lakes or mountains. Moreover, people in the countryside are quite different than people living in the city: they are relaxed, friendly and family-oriented. People in the city are like ants. They are always in hurry, busy and out of time. In the country people enjoy lives and take pleasure in their daily activities. As a disadvantage of living in the countryside we may consider the commuting problems. People who stay in the countryside often have to work in the nearest cities, so it may take a lot of time to get to it.

However, the living costs in the country are much lower, the variety of products in shops is smaller.

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Food preservation

The term food preservation refers to any one of a number of techniques used to prevent food from spoiling. It includes methods such as canning, pickling, drying and freeze-drying, irradiation, **pasteurization** , smoking, and the addition of chemical additives. Food preservation has become an increasingly important component of the food industry as fewer people eat foods produced on their own lands, and as consumers expect to be able to purchase and consume foods that are out of season.

The vast majority of instances of food spoilage can be attributed to one of two major causes: (1) the attack by pathogens (disease-causing **microorganisms**) such as **bacteria** and molds, or (2) oxidation that causes the destruction of essential biochemical compounds and/or the destruction of plant and animal cells. The various methods that have been devised for preserving foods are all designed to reduce or eliminate one or the other (or both) of these causative agents.

For example, a simple and common method of preserving food is by heating it to some minimum temperature. This process prevents or retards spoilage because high temperatures kill or inactivate most kinds of pathogens.

The search for methods of food preservation probably can be traced to the dawn of human civilization. People who lived through harsh winters found it necessary to find some means of insuring a food supply during seasons when no fresh fruits and vegetables were available. Evidence for the use of dehydration (drying) as a method of food preservation, for example, goes back at least 5,000 years. Among the most primitive forms of food preservation that are still in use today are such methods as smoking, drying, salting, freezing, and fermenting.

Early humans probably discovered by accident that certain foods exposed to smoke seem to last longer than those that are not. Meats, fish, fowl, and cheese were among such foods. It appears that compounds present in wood smoke have antimicrobial actions that prevent the growth of organisms that cause spoilage. Today, the process of smoking has become a sophisticated method of food preservation with both hot and cold forms in use. Hot smoking is used primarily with fresh or frozen foods, while cold smoking is used most often with salted products.

Because most disease-causing organisms require a moist environment in which to survive and multiply, drying is a natural technique for preventing spoilage. Indeed, the act of simply leaving foods out in the sun and wind to dry out is probably one of the earliest forms of food preservation.

Vacuum drying is a form of preservation in which a food is placed in a large container from which air is removed. Water vapor pressure within the food is greater than that outside of it, and water evaporates more quickly from the food than in a normal atmosphere. Vacuum drying is biologically desirable since some **enzymes** that cause oxidation of foods become active during normal air drying. These enzymes do not appear to be as active under vacuum drying

The precise mechanism by which salting preserves food is not entirely understood. It is known that salt binds with water molecules and thus acts as a dehydrating agent in foods. A high level of salinity may also impair the conditions under which pathogens can survive. In any case, the value of adding salt to foods for preservation has been well known for centuries. Sugar appears to have effects similar to those of salt in

preventing spoilage of food. The use of either compound (and of certain other natural materials) is known as curing. A desirable side effect of using salt or sugar as a food preservative is, of course, the pleasant flavor each compound adds to the final product.

Freezing is an effective form of food preservation because the pathogens that cause food spoilage are killed or do not grow very rapidly at reduced temperatures. The process is less effective in food preservation than are thermal techniques such as boiling because pathogens are more likely to be able to survive cold temperatures than hot temperatures. In fact, one of the problems surrounding the use of freezing as a method of food preservation is the danger that pathogens deactivated (but not killed) by the process will once again become active when the frozen food thaws.

A number of factors are involved in the **selection** of the best approach to the freezing of foods, including the temperature to be used, the rate at which freezing is to take place, and the actual method used to freeze the food. Because of differences in cellular composition, foods actually begin to freeze at different temperatures ranging from about 31°F (−0.6°C) for some kinds of fish to 19°F (−7°C) for some kinds of fruits.

The rate at which food is frozen is also a factor, primarily because of aesthetic reasons. The more slowly food is frozen, the larger the ice crystals that are formed. Large ice crystals have the tendency to cause rupture of cells and the destruction of texture in meats, fish, vegetables, and fruits. In order to deal with this problem, the technique of quick-freezing has been developed. In quick-freezing, a food is cooled to or below its freezing point as quickly as possible. The product thus obtained, when thawed, tends to have a firm, more natural texture than is the case with most slow-frozen foods.

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The language of doctors and nurses

Have you ever wondered what doctors and nurses are really saying as they zip through the emergency room and onto elevators, throwing cryptic phrases at one another? Or why they do it? Do you guess at the codes broadcast over the loudspeaker, or the words doctors and nurses use when speaking right in front of patients?

In *The Secret Language of Doctors*, bestselling author Dr. Brian Goldman opens up the book on the clandestine phrases doctors use to describe patients, situations and even colleagues they detest. He tells us what it means for someone to suffer from incarceritis, what doctors mean when they block and turf, what the various codes mean, and why you never want to suffer a horrendoma. Highly accessible, biting, funny and entertaining, *The Secret Language of Doctors* reveals modern medical culture at its best and all too often at its worst.

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horrendoma. Highly accessible, biting, funny and entertaining, THE SECRET LANGUAGE OF DOCTORS reveals modern medical culture at its best and all too often at its worst.
Goldman's second book is very different from his first titled "Night Watch". Although I enjoyed reading this second, I was finding myself a bit bored after a while. There were too many quotes from other books, too many statistics and not enough "secret language". I thought the book was going to be packed with more slang than it contained and less statistical information. To be honest, by three-quarters of the way through the book, I found myself skipping page after page after page just to hurry the book along. I felt too mired down in quotes from this person or that, or this book or that. Although I learned a few things, it wasn't what I thought it was going to be which is a bit disappointing.

Most people have visited a doctor's office or emergency room in their lifetime to gain clarity about an ailment or check in after a procedure. While doctors strive to ensure their patients understand their diagnoses, rarely do those outside the medical community understand the words and phrases we hear practitioners yell across a hospital hallway or murmur to a colleague behind office doors. Doctors and nurses use a kind of secret language, comprised of words unlikely to be found in a medical textbook or heard on television. In *The Secret Language of Doctors*, Dr. Brian Goldman decodes those code words for the average patient. What does it mean when a patient has the symptoms of "incarceritis"? What are "blocking" and "turfing"? And why do you never want to be diagnosed with a "horrendoma"? Dr. Goldman reveals the meaning behind the colorful and secret expressions doctors use to describe difficult patients, situations, and medical conditions—including those they don't want you to

know. Gain profound insight into what doctors really think about patients in this funny and biting examination of modern medical culture.Doctor Brian Goldman is an Emergency Room Physician in TorontoIn his position he gets to see acutely ill patients but often does not get to provide after care. However, he works in a system that rewards through-put and not quality of care and therefore pays a doctor more for dealing with a cold, a cut, or a broken arm; than spending the time it would take to counsel a patient about the lifestyle choices that underlie their medical issues. Doctors have come to be regarded as wizards who can cure all ills whereas too many medical conditions are the result of lifestyle choices—smoking, diet, exercise. Rather than depend on doctors and medical science to provide all the answers patients need to take responsibility for their own health.

The language thrown around hospitals between nurses and doctors therefore becomes both a means of transmitting a great deal of information in as few words as possible and an expression of their frustration—blowing off steam. Of making derogatory comments in a language that the public hopefully will not understand or misinterpret.

Personal Experience With Health Care

I have personally been affected by the mess that America calls a health system. In the same year, I had severe food poisoning and my stomach and intestines swelled. I had to be hospitalized for a day each, and was then sent home, even though I was still very ill. The reason? My family has no health coverage. Both my parents are very hard workers and own their own business. One would think that my household could afford health coverage, but we can't, despite the many hours a week and hard labor. So, without coverage, there are heavy bills to pay. My mom and I have calculated that my parents will be paying hospital bills long after I graduate from college. Because of two days in the hospital, six bags of saline, and a bagel from the hospital cafeteria. Insurance companies are too thorough and too picky with their selection process. The insurance companies choose people who are healthy, out of risk of serious illness, and are likely to pay. If someone starts out healthy, then becomes ill, then the insurance companies may deny some coverage.

My Personal Experience with Gender Identity Disorder

I am an eighteen year old girl and for as long as I can remember; being female didn't seem right to me. I felt like I was trapped in a body that wasn't mine and I still feel that way today. The gender I identify with is the opposite of what people perceive me to be. It is like someone played a nasty trick on me and now I am forced to be something I am not.

When I was little I hated getting dressed up for holidays, parties, or any other kind of occasion. My mom would buy me these

dresses and insist that I wore them. I started refusing to wear them and would not go anywhere if I had to. I went to a catholic school for a little while where it was required for me to wear a dress. Eventually my mother had to transfer me to public school because I was refusing to go. I preferred to hang out with my brother and the other boys on our street and play sports with them like football and hockey. I just identified with boys more and felt more like myself when I would hang out with them. I would get my clothes from the boys section and would always keep my hair very short. I remember hating Christmas because I would never get anything I asked for. I would get Barbie dolls and makeup, while my brother would get everything that I was asking for. At the age of thirteen my breasts started to develop and I hated them. I would wrap my chest up with an ace bandage to make them less noticeable. I didn't want anyone to see them and I didn't want them to be there.

I am not good at maintaining relationships. I never know where I stand in many relationships and what my role is. I have very few friends and I have never had a romantic relationship with anyone. I tend to stay to myself and don't go out to many social events. I tend to stay at home and keep to myself. My parents were worried about me and sent me to see a therapist. After seeing him a few times he diagnosed me with Gender Identity Disorder.

I have been thinking lately about transitioning to a male. This decision is going to be the hardest and most important decision I will ever have to make. There is a lot that goes into it and many different aspects to it. There is coming out and letting people know that I am male, changing my gender role, changing my name and even surgeries and hormone therapy. The hormone therapy will cause things such as deepening of my voice, growth of facial hair, redistribution of fat and a few other things. I also have the option of a mastectomy and a hysterectomy. Part of me is sure that I want to do at least some of these changes and another part of me is completely terrified. I feel as if I

have to choose between my own happiness, or that of my family's. I am confused and lost. I feel trapped in a body that isn't mine and I feel like I am trying to fit into a role that isn't me. I just don't know how to cope with all of this stress. Acting and dressing like a boy does not help with my stress at all. It just makes me realize how much I want to be male and how much I hate having to be female.

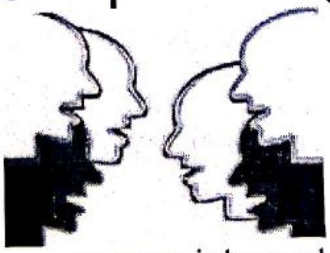
My parents try to be supportive of me, but I can tell that they are confused and upset. Sometimes they blame themselves and wonder what they did wrong. I feel like I am a disappointment to them. I wish I could help them understand, but I don't know how to explain it to them. This is just who I am and I want them to be able to accept that. I really want to go through with this. I think this is the only way that I am going to be happy. I just hope that I don't lose my family in the process. They may not ever understand, but if they love me for me, then I think they can grow to accept my transition.

Conversation Techniques

English hesitation strategies

Techniques	Examples	Advantages	Disadvantages
Pretend you haven't heard	*Pardon?* *Sorry?* *Eh?*	Simple – only one word to remember.	Everyone does it.
Repeat the question	*You mean...what is forty-five divided by nine?*	Lots of thinking time.	Can you remember the question?
Use delaying noises	*Well...* *Um...* *Er...*	You can use them several times in the same sentence.	If you use them too often you sound stupid.
Use *it depends*	*It depends.* *It depends on (the situation).* *Sorry? You want to know what I think about this?* *Well...um...it depends, really.*	You will sound intelligent. (Stroke your chin at the same time).	You can only use it when there is more than one possible answer.

Polite Ways to Interrupt in English



There are many reasons why a person may interrupt others while speaking. First and foremost, when interacting with US clients, Indian developers must learn about the conversational cues. These cues are different in American English than Indian English. If a lack of understanding of these cues creates a situation where the only

way to interact is to interrupt, it could cause the US client to get a bad impression of you and your team. If the client is often interrupted or the team members on the Indian side often interrupt each other, the American client will get the impression that the Indian team members are not effective communicators. This will not give a good impression of you, your team or your business.

The phrases below showcase the polite and impolite ways to enter a conversation if interruptions are necessary. Use the polite interruption phrases both with your US counterparts AND with your Indian teammates when on group calls.

How do we politely interrupt others in English? Below there are phrases to use and to avoid when interrupting others.

Phrases to Politely Interrupt
Try to use these phrases:

- "I'm sorry to interrupt, but...."
- "Before we move on to the next point, may I add...?"
- "Sorry, I didn't catch that, is it possible to repeat the last point.."
- "Excuse me (name), may I add to that...?"
- "Do you mind if I jump in here?"
- "Pardon me..."
- "I don't mean to intrude..."
- "While that is an important point, it's also important to add..."

How to stop people interrupting

Sometimes you do not want to be interrupted, perhaps because you have something important to say or perhaps because the other person has kept interrupting you for little good reason beforehand.

Remember also that interruptions may be to seek or give useful information and that they are a normal part of conversation, and not a slight to your character. Be cautious, then, in how often and when you power through the interruptions of others.

Don't pause

When you pause, even to take breath, you are giving other people the opportunity to interrupt.

They may be just jumping in or may read it as an invitation to comment -- the result, however, is the same.

Regulate your breathing. When you are talking for a long stretch before taking a big breath, the breath takes longer.

Don't send signals

When you are talking, you may be sending non-verbal signals that invite the other person to interrupt. Beyond pauses, these include:

- Raising eyebrows
- Open body language
- Relaxed body language
- Submissive body language
- Your speech getting slower
- Your speech getting quieter

If you can control your body language and speech, then you may offer less invitations. You probably cannot remove all signals, but if you are thinking 'no signals' then this will help too.

Ignore signals

When they send signals that they want to interrupt, simply ignore them. Carry on regardless, perhaps even doing such as increasing your speed or volume to signal back that you are not ready to be interrupted.

Don't look

If you are looking at them, then when they send interruption signals then you cannot claim not to have seen them. You can:

- Look up, as if you are envisioning the things you are talking about.
- Look at your hands as you carve your ideas out of the air.
- Close your eyes as you imagine internal pictures of what you say.

Speed up

A simple method of preventing interrupt is to talk quickly. When there are no gaps in what you say, then there is no chance of them interrupting.

In particular, when they try to interrupt, speed up your rate of speaking. This signals that you are not ready to finish yet.

Beware with this of becoming incoherent. Someone who talks too quickly may not be heard.

Get louder

Another way of powering through an interruption is to increase the volume of your speech, getting louder as the other person tries to interrupt. Talking loudly all the time also acts as dissuasion.

As with several other methods, this may be combined to make a more powerful interrupt.

Signal power

Do send signals of power, indicating to other first that you have the right to talk for longer and also that you will fight back powerfully if they do interrupt.

Use powerful body language

Use power body language in general, for example expanding our body space with large gestures and hands-on-hips, touching others and . You can also use the power interrupt beforehand as a signal.

Use the power stare

The *power stare* may be used to prevent interrupt. This involves looking intently at people for longer than the normal glance. Rather than look up or away as you speak, look directly into the eyes of people, scanning around each person whilst pausing at each one.

The potential reaction to this may be deflected by cloaking it in enthusiasm for the subject. Its intensiveness, however, clearly signals that you are not willing to give up control of the conversation

posted by Daylle Deanna Schwartz

bringing in other people

I've heard it before, "Ha, ha, what I said was a joke." But, it hurt! Comments that make you wince or embarrassed or hurt aren't funny. Period. And people who put you down are unhealthy for you to have in your life. When I was a DoorMat I was a target for people to make the little jokes or innuendos about one of my flaws. I'd laugh but each one gave my fragile self-esteem another little beating.

As I got stronger, I realized how unacceptable these mean comments were. I didn't need someone to point out my extra weight or unruly hair. I had eyes and could see it for myself. But it seemed like the more I felt good and improved my life, the more some people needed to find things wrong with me, and say so. They were like potholes on my way out of DoorMatville. I'd be feeling more empowered and SLAP—someone would point out what was wrong with me! A conversation with a lovely woman with her act together opened my eyes to the reality:

People who criticize others do it because they're don't like themselves and need to bring others down to share their unhappiness.

People who feel good about themselves want to make others feel good and don't need to knock the joy out of someone. It was a revelation for me and made lots of sense as I thought about the kind of people who loved to point out flaws. They were also unhappy with themselves and often lamented about their extra pounds or being unable to find a job they enjoyed or believing they weren't meant to be happy.

People who are dissatisfied with themselves try to bring others along for the ride. That's a good reason to seek out people who are happy with who they are.

Mark Twain "**Keep away from people who try to belittle your ambitions. Small people always do that, but the really great make you feel that you, too, can become great.**" I've gotten rid of my critics and made new friends who appreciate me and want to cheer me on, not tear me down. We support each other. In my DoorMat days I felt too insecure to be with people who had strong self-esteem and confidence. Being with those types made me feel worse about who I was. So I gravitated to the wounded and insecure people who felt better when they pointed out my flaws.

Pay attention to who you spend time with and how they make you feel. Friends should build you up, not try to make you feel worse.

I don't need friends to point out my extra pounds. I can see them. If I say something wrong, I can correct myself without being the butt of a joke. Choose your companions wisely. **Whether friends or relatives, seek to spend time with positive people.** If people pick at your flaws, let them know that you find their comments unacceptable and they need to stop. Don't get angry and bark at them. Just gently communicate that it must stop. And if it doesn't, walk out of the room or hang up the phone. No one has a right to use you for target practice. Love yourself enough to stop it and seek out kinder people.

Prefixes

Prefixes are word added to the beggining of words to create new word with different meaning.

prefix	Examples
un	unhappy undone
anti	antibiotic antisocial
ex	exsmaker exboss
micro	microscope microwave
multi	multi-media multi-national
over	oversleep - overeat
post	postwar - postgraduate
pre	prewar - prejudge
re	retype reread
co	co-worker co-operation
dis	disagree - disappear
sub	sub-category - subtitle
super	superfood - supermarket

Suffix

A Suffic is a letter or group of letters that is attached to the end of a word to form a new word.

~~Prefic~~ Suffic	Examples
ness	sickness heaviness
~~a~~tion	position - promotion
ment	replacement enjoyment
hood	child hood - mother hood
less	homeless useless
ist	scientist geologist
dom	freedom boredom
or - er	inventor creator reader
ship	friendship - hardship
ive	active - productive
ful	forgotful - hopeful

The role of a Pharmacist

Pharmacists are dynamic, patient-oriented professionals committed to fulfilling the health care needs of their patients. Pharmacy is a profession that is expanding in new directions to meet the health care needs of all Canadians.

Currently, there is a movement beyond the traditional compounding and dispensing of medication towards a more professional advisory and primary health care role. Pharmacists can apply their knowledge and skill to become directly involved in the healing and education of patients. The phrase "ask your pharmacist" is becoming increasingly common – and with good reason. Pharmacists are an integral part of the community and serve as an important source of knowledge.

Pharmacists are ready and willing to share their knowledge concerning:

- optimal drug therapy for patients with a focus on drug interactions and potential side effects

- optimal drug therapy for patients with a focus on drug interactions and potential side effects
- treatment of various medical conditions
- education and promotion of the general health of the public
- where to get emergency care

Although the pharmacists focus is changing, the pharmacist remains an expert in the application and usage of pharmaceuticals. This includes the formulation, compounding, storage, and dispensing of medication.

The pharmacist serves a wide variety of roles in a community where no two people are alike. Take the time to visit your local Pharmacist and ask questions to help improve not only your health but the health of your friends and family as well.

Malaria

A new threat

Malaria has been the scourge of humanity since the earliest times. And there are ominous signs that it is fighting back against modern science. In this short article ; we will be looking at the advances that have been made in the fight against malaria in modern times . we will also be discussing why, in spite of these advances , malaria has still not been eradicated , and in some ways , poses a greater threat to humanity than ever.

The first great breakthrough in the treatment of malaria was the discovery by Sir Ronald Ross , during the period 1895-98 , that the disease was transmitted by the female Anopheles mosquito . then Giovanni Grassi worked out the life cycle of the human malaria parasites . with the connection between malaria and the mosquito clearly established , steps could be taken to fight the disease .

One method was to attack the breeding places of the mosquito . It was known that mosquito lay their eggs in water . So , in malaria infested areas work was started on draining marshes and stagnant pools , and trying to ensure generally that there were no areas of water where mosquitoes could breed . where areas of still water could not be drained , they were sometimes covered with oil or detergent , which made them unusable by the mosquito.

One of the most interesting methods of preventing mosquitoes from multiplying is to introduce a different variety of mosquito into an areas when the two varieties mate , the females are infertile.

This kind of 'biological engineering ' has had some limited success in the field , but it is not always possible to reproduce laboratory conditions in real life. Since there are over 2600 different kinds of mosquitoes , the research problems are enormous.

The most obvious and easiest method of prevention is to use wire screens and mosquito netting to prevent people being bitten . But this may not always be possible in poor areas , and does not help when people are moving about .

Then people have to cover up and use some kind of protective cream or spray

A more flexible method is to take preventive drugs such as quinine . This drug was at one time extremely widely used , but during the Second World War most of the supply areas fell to the Japanese and alternative methods had to be found in the West . these drugs proved to be more effective in many ways , and the use of quinine tailed away .

Recently , however , there have been indications that certain varieties of malaria germs are becoming more resistant to modern drugs , and quinine is coming into use once more.

At one time it seemed that insecticides , especially DDT , might wipe out malaria completely . One of the most successful DDT campaign was carried out in India . In 1952 , at the beginning of campaign, seventy- five million Indians a year suffered from malaria . By 1965 , the spraying of DDT had reduced the number of case to 100000 .

However , as with the malaria germ and preventive drugs , there is evidence that mosquitoes are developing resistance to DDT . One of the reasons for this has been the initial success the operation .

People become careless . Also , owing to increases in the price of fuel , poorer countries found it impossible to maintain the eradication programme. The situation now is that malaria is staging a comeback , and there are new breeds of mosquito which are resistant to DDt .

So we see that there are various methods of fighting malaria. They involve :

a) Preventing mosquitoes from breeding .
b) Preventing mosquitoes from having the opportunity to bite people .
c) Using protective drugs and using insecticides .

Dangerous new developments are that some malaria germs are developing a resistance to modern drugs and the mosquitoes themselves are becoming resistant to insecticides.

Antibiotics

Contents

Antibiotics are used to treat or prevent some types of bacterial infection. They work by killing bacteria or preventing them from reproducing and spreading. But they don't work for everything. When it comes to antibiotics, take your doctor's advice.

Antibiotics don't work for viral infections such as colds and flu, and most coughs and sore throats.

Many mild bacterial infections also get better on their own without using antibiotics.

Taking antibiotics when you don't need them puts you and your family at risk of a longer and more severe illness.

When antibiotics are used

Antibiotics may be used to treat bacterial infections that:

- are unlikely to clear up without antibiotics
- could infect others unless treated
- could take too long to clear without treatment
- carry a risk of more serious complications

People at a high risk of infection may also be given antibiotics as a precaution, known as antibiotic prophylaxis.

Read more about when antibiotics are used.

How do I take antibiotics?

Take antibiotics as directed on the packet or the patient information leaflet that

comes with the medication, or as instructed by your GP or pharmacist.

Doses of antibiotics can be provided in several ways:

- **Oral antibiotics** – tablets, capsules or a liquid that you drink, which can be used to treat most types of mild to moderate infections in the body
- **Topical antibiotics** – creams, lotions, sprays or drops, which are often used to treat skin infections
- **Injections of antibiotics** – these can be given as an injection or infusion through a drip directly into the blood or muscle, and are usually reserved for more serious infections

It's essential to take antibiotics as prescribed by your healthcare professional.

Missing a dose of antibiotics

If you forget to take a dose of your antibiotics, take that dose as soon as you

remember and then continue to take your course of antibiotics as normal.

But if it's almost time for the next dose, skip the missed dose and continue your regular dosing schedule. Don't take a double dose to make up for a missed one.

There's an increased risk of side effects if you take two doses closer together than recommended.

Accidentally taking an extra dose

Accidentally taking one extra dose of your antibiotic is unlikely to cause you any serious harm.

But it will increase your chances of experiencing side effects, such as pain in your stomach, diarrhoea, and feeling or being sick.

If you accidentally take more than one extra dose of your antibiotic, are worried or experiencing severe side effects, speak to your GP or call NHS 111 as soon as possible.

4

Side effects of antibiotics

As with any medication, antibiotics can cause side effects. Most antibiotics don't cause problems if they're used properly and serious side effects are rare.

The most common side effects include:

- being sick
- feeling sick
- bloating and indigestion
- diarrhoea

Some people may have an allergic reaction to antibiotics, especially penicillin and a type called cephalosporins. In very rare cases, this can lead to a serious allergic reaction (anaphylaxis), which is a medical emergency.

Read more about the side effects of antibiotics.

Considerations and interactions

Some antibiotics aren't suitable for people with certain medical conditions, or women

who are pregnant or breastfeeding. You should only ever take antibiotics prescribed for you – never "borrow" them from a friend or family member.

Some antibiotics can also react unpredictably with other medications, such as the oral contraceptive pill and alcohol. It's important to read the information leaflet that comes with your medication carefully and discuss any concerns with your pharmacist or GP.

Read more about:

- things to consider before taking antibiotics
- how antibiotics interact with other medicines

Types of antibiotics

There are hundreds of different types of antibiotics, but most of them can be broadly classified into six groups. These are outlined below.

- **Penicillins** (such as penicillin and amoxicillin) – widely used to treat a variety of infections, including skin infections, chest infections and urinary tract infections
- **Cephalosporins** (such as cephalexin) – used to treat a wide range of infections, but some are also effective for treating more serious infections, such as septicaemia and meningitis
- **Aminoglycosides** (such as gentamicin and tobramycin) – tend to only be used in hospital to treat very serious illnesses such as septicaemia, as they can cause serious side effects, including hearing loss and kidney damage; they're usually given by injection, but may be given as drops for some ear or eye infections
- **Tetracyclines** (such as tetracycline and doxycycline) – can be used to treat a wide range of infections, but are commonly used to treat moderate to severe acne and rosacea

- **Macrolides** (such as erythromycin and clarithromycin) – can be particularly useful for treating lung and chest infections, or an alternative for people with a penicillin allergy, or to treat penicillin-resistant strains of bacteria
- **Fluoroquinolones** (such as ciprofloxacin and levofloxacin) – broad-spectrum antibiotics that can be used to treat a wide range of infections

Antibiotic resistance

Both the NHS and health organisations across the world are trying to reduce the use of antibiotics, especially for conditions that aren't serious.

The overuse of antibiotics in recent years means they're becoming less effective and has led to the emergence of "superbugs". These are strains of bacteria that have developed resistance to many different types of antibiotics, including:

- methicillin-resistant Staphylococcus aureus (MRSA)

- Clostridium difficile (C. diff)
- the bacteria that cause multi-drug-resistant tuberculosis (MDR-TB)
- carbapenemase-producing Enterobacteriaceae (CPE)

These types of infections can be serious and challenging to treat, and are becoming an increasing cause of disability and death across the world.

The biggest worry is that new strains of bacteria may emerge that can't be effectively treated by any existing antibiotics.

Medical vocabulary

Number	Word	Meaning
1	Antibiotics	Medication that kills bacteria and curse infections
2	bacteria	a disease causing organism
3	blood pressure	a rate at which blood flows through the body
4	cancer	disease caused by the uncontrollable growth of the cells
5	diabetes	type of disease typically involoving isulin deficiency
6	emergency	a medical problem that ~~reads~~ needs immediate attention
7	external	used on the outside
8	fever	higer than normal body temperature
9	germs	a micro – organism especially one that causes disease
10	heart attack	instance in which blood stops pumping through the heart
11	HIV	The virus that infects the human T-cells and leads to Aids
12	Pain	strong discomfort in a certain areas of the body
13	Painkiller	type of medicine that takes away or al the discomfort of an illness or injury

14	Prescription	a correct amount and type of medication needed to cure an illness
15	side effects	other symptoms that might occur as a result of a certain medication
16	symptoms	pain or physical changes that occur because of an illness or disease
17	Stress	Worry that causes muscles to tighten and blood pressure to rise
18	pharmacist	a person who fills a doctor's prescription and gives people advice about medication
19	pharmacy	a place where people go to buy medication and other medical supplies

Prescription a correct amount and type of medication needed to cure an illness

Symptoms that might occur as a result of a certain medication

Prescriptio a correct amount and type of medicine needed to cure an illness

Pain or physical changes that occur because of an illness or disease

Stress worry that causes muscles