We must take RESPONSIBILITIES

Recently we went to a place called Loudon – a small village in picturesque Scotland for holidays. As we entered the village, we saw a plaque depicting “Loudon – birth place of Alexander Fleming”. The history suddenly became alive in a moment and my mind and soul instantly filled with an overbearing sense of gratitude to this great man whose discovery in the early twentieth century saved countless lives and changed the course of human history. Penicillin – the first antibiotic was discovered. Even though the discovery was made in 1928, its large scale use started in 1940’s. This was followed by introduction of a host of antibiotics over the following years – some designed to kill the bacteria and some to halt their growth respectively called bactericidal and bacteriostatic. As we rejoiced arrival of these life saving drugs, within a short space of time we came to realize that all was not well and the enemy was far clever than we thought. The challenge was thrown back to human population. The microbes were getting resistant to the antibiotics faster than we thought and the race to win the battle was a lot closer than we imagined.

Before penicillin came to clinical use, two other antimicrobials namely sulfonamide and Salvarsan were in use - the latter compound to treat syphilis. But presence of antimicrobials was documented long before the modern discovery and as early as 350 BC, traces of tetracycline was found in the tooth enamel of a Sudanese tribe and it was found that infection rate in that population was low. Traditional Chinese medicine, qinghao, has been in use for thousands of years to treat infection and its active compound, artemisinin, was found out in 1970 which has been successfully used to treat malaria in recent years. There are other examples of antimicrobial activities of various materials including soil and molds.

The arrival, in quick succession, a large number of antibiotics raised hope of combating infection but as mentioned above, the hope descended to a degree of despair as we found out that resistance by the microbes to those life saving drugs was happening as quickly. Contrary to general perception, drug resistance is not a new phenomenon and as early as late 1930’s soon after the launching of sulfonamide, resistance against this valuable drug was noted. There are many factors to account for drug resistance and many of us from all walks of the society, knowingly or unknowingly, are contributing to this.

Some resistant bacterial genes are found in the environment and many of them are successful at transmission of infection which poses a grave threat because it is difficult to contain that. The microbes survive by mutation, modification, enzymatic activities and efflux mechanism. Huge amount of antibiotics are being

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HERNIA

WHAT IS HERNIA?
Hernia is a weakness in the abdominal muscles that allows fatty tissue or an organ such as the intestines to protrude through the weak area. Hernias can occur at many places in the body, most commonly in the groin. Sometimes a weak spot in the abdominal wall can even be present at birth.

WHERE DOES HERNIA OCCUR?
Hernia occurs most often in the groin, abdomen, around the navel or through previous sites of abdominal surgery.

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WHAT ARE THE SYMPTOMS OF HERNIA?
Each type of hernia has different symptoms. The symptoms of hernia can appear both gradually or suddenly. Different people feel varying degrees of pain. Some people even feel that something has ruptured or given way. Other symptoms may include:
commercially manufactured for human consumption but many millions of metric tons of antibiotics are released into the environment and biosphere thus providing an ideal environment for development of resistance. Dumping of antibiotics by pharma industry has been a matter of concern and there was a case in this country when large quantity of ciprofloxacin was released into a river. Interestingly, less than half of the antibiotics produced globally are used for therapeutic use in human, other areas of use being in agriculture, aquaculture, animals, pest control, household cleaning products etc. Antibiotics are now used in animals for non therapeutic purpose by some. As a result, not just in India, but all over the world there has been development of multidrug resistant (MDR) bacteria and mortality from such infection is rising rapidly.

The priority must be to contain this phenomenon of antibiotic resistance as a matter of extreme urgency. There should be an immediate ban on the counter dispensation of antibiotics, strict control in its use, valid and responsible prescription from doctors, nonuse for viral infection, ban on non therapeutic use in animals and agriculture, controlled therapeutic use in animal husbandry and agriculture and a safe method of disposal of unused antibiotics and the waste product. The industry has been rather reluctant to infuse fund for further research into the development of more effective antibiotics which has got to change as medical practitioners, we need to think carefully how to prescribe in a responsible way and whether we need to use a combination and cyclical use of antibiotics or we need to think about rehabilitating the older generation of antibiotics which have not been in use for some time.

The time is essence and a concerted effort is necessary now. The clinicians, microbiologists, ecologists, educationists, policy makers, legislative bodies, agriculturists, pharmaceutical industries have all got to take responsibilities and work together and overcome the danger we all face in today's world. Medical science is no longer within a geographical boundary and infection certainly is not. The war has been waged - we have to win or perish.

Post your comments to sujitkp@btinternet.com

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**PLASTIC AND COSMETIC SURGERY**

**WHAT IS PLASTIC SURGERY?**
The word 'plastic' is derived from the Greek word 'Plastos' meaning "to mould"; so this is also known as 'Reconstructive Surgery'. Plastic Surgery enables the surgeon to reconstruct on a patient on wounds, on birth defects, or on some acquired deformities.

**WHEN IS PLASTIC SURGERY NEEDED?**
As has just been mentioned, plastic surgery may be needed for various reasons or conditions:
- To cover a wound caused by loss of skin after burns, accidental injuries, or as an aftermath after the removal of a tumor.
- To reconstruct birth defects like cleft lip or palate, absent ears or fingers, extra fingers or toes that are joined with each other, birth tumors on the skin or defects involving the genitals.
- To reconstruct acquired deformities caused long after burns or accidental injuries, treat fractures of small bones of the face or hands, large hernias or deformities caused by diseases of the skin, muscle or bone.

**WHAT IS COSMETIC SURGERY?**
Cosmetic Surgery is an attempt to make a normal or unattractive feature look more attractive, whereas in Plastic Surgery an abnormal or missing part of the body is reconstructed into a normal one.

**SOME INFORMATIONS REGARDING PLASTIC SURGERY**
The material used for reconstruction is the patient's own skin, muscle or bone; but it is used in such a way as to cause least difficulty in the area from where it is taken. Some times (like skin) it grows back to normal within a few days.

Plastic Surgery is a necessity and not a fancy, in today's world of advanced medicines and safer surgeries. There is no reason why a person should live with his or her defect or deformity, facing psycho-social issues throughout life. The costs of treatment, in most instances, have been kept low to suit patients from all classes of society.

The result of plastic surgery is a continuing process and takes months after the surgery for the final aesthetic result. This itself calls for patience, and active cooperation of the patient with the surgeon.

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Consultant Plastic Surgeon
**HERNIA**

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*Feeling of weakness, pressure, burning, or pain in the abdomen, groin or scrotum*  
*A bulge or lump in the abdomen, groin and scrotum that is easier to see when the person coughs and it disappears when the person lies down*  
*Pain when straining, lifting or coughing*

**WHAT ARE THE CAUSES OF HERNIA?**  
Hernias can occur in a person due to a weakness in the abdominal wall that the person is born with. If there is a weak point in a muscle wall, pressure from extra body weight, coughing, heavy weight lifting or from straining during bowel movements can force the muscle apart allowing the internal organs to push its way through. Once this problem occurs, the defect (hernia) will continue to enlarge until it is repaired.

**HOW MANY TYPES OF HERNIAS ARE THERE?**  
There are mainly 9 types of hernias. The different types of hernias are- Inguinal, Ventral, Femoral, Umbilical, Epigastric, Hiatal, Acquired or Congenital, Reducible or Non-reducible and potentially life threatening hernias. All these types of hernias occur in the different regions of the body and due to different reasons.

**HOW CAN HERNIA BE PREVENTED?**  
There is no guaranteed way to prevent getting hernia or to prevent recurrence of a hernia. The most important ways by which hernias can be prevented is to stay healthy by following some important guidelines:

* Practice good nutrition such as eating food which contains sufficient amount of fibre as it helps a person to avoid constipation. It will also help to keep the muscles healthy

* Maintaining a healthy body weight is also important. If a person is overweight, he/she needs to immediately think about losing weight to ease the pressure on the abdominal muscles

* Gentle exercise is very important to tone and strengthen the abdominal muscles. These exercises should be done regularly

* One should also use proper lifting techniques and also avoid lifting weights that are too heavy for an individual

* Smoking should be avoided. Chronic coughing from the lung irritation caused by smoking can increase the risk of developing hernia. Heavy smokes also tend to develop abdominal hernias at a higher rate than non smokers. This happens due to weakening of the abdominal wall because of exposure to nicotine

**HOW CAN HERNIA BE TREATED?**  
Hernia can be repaired through surgery. If hernia remains untreated, it may increase in size and become indurcible and painful. Most importantly, if any hernia is left untreated, it may even lead to obstruction, strangulation (gangrene) of intestines which may need complicated surgery and a delayed recovery.

**WHAT ARE THE DIFFERENT WAYS BY WHICH HERNIAS CAN BE REPAIRED?**  
Nowadays surgeons use several hernia repair techniques to treat it. Depending on the size of hernia, patients may need only regional anesthesia and sedation for the procedure. The ways by which hernias can be repaired are tension free mesh repair and laparoscopic repair.

**HOW IS THE REPAIR PERFORMED LAPAROSCOPICALLY?**  
There are mainly two methods of laparoscopic repair: transabdominal preperitoneal repair and extra-peritoneal repair. It is a minimally invasive procedure which allows the patient to quick recovery, less pain during first days, fewer post operative complications such as infections and less risk of chronic pain. In the case of hernia, a mesh is used to perform the repair. There are many types of mesh available, but surgeons typically use a woven, sterile material made from a synthetic material, such as polypropylene as well as light weight composite meshes. The mesh is placed under or over the weakness or it can be in the form of a plug that goes inside the hole. Mesh applied to the weak zone are very sturdy and strong, yet extremely thin. It is also soft and flexible to allow it to easily conform to the body's movement, position and size.

**HOW SOON CAN A POST OPERATIVE PATIENT GET BACK TO WORK?**  
A patient (without any complication) can get back to work by 7 - 10 days.
ARE YOU SLEEPING WHEN YOU SHOULD BE AWAKE?

What do you mean by sleep disorder?
When the sleep is “not in order” or abnormal it is called sleep disorder. It has a range, starting from simple snoring to a condition where the oxygen intake in the lungs falls to a great extent even when the patient is awake (called Obesity Hypoventilation Syndrome).

Why does it occur?
Mostly sleep disorders occur due to some partial obstruction in the upper airway passage (from nose up to the voice box or larynx), in some cases this occurs due to abnormal control of breathing by brain, which thankfully is not that common.

![Diagram of upper airway passage]

Thus it starts with simple upper air passage obstruction during sleep, but as the severity increases it happens to progress to conditions called Hypopnea then to Apnea, where the breathing completely stops for some time resulting in the oxygen level in our blood to go down significantly due to momentary complete obstruction of air passage. These events happen several times during one episode of sleep.

What do you mean by Apnea and Sleep Apnea?
The condition of stoppage of breathing is called APNEA, and as it occurs during sleep it is termed as SLEEP APNEA.

Why are we so concerned about sleep disorders?
The answer is very simple but alarming. It occurs at all age groups (from children to aged), and can lead to the following problems as – high blood pressure, diabetes, hormonal disruption, depression, heart problems (abnormal heart beat, heart failure), stroke, death in sleep (called silent death), memory problems, increased daytime sleepiness leading to poor performance at work/school or increased road traffic accidents. Additionally in children, it very frequently leads to decreased hearing because of some fluid like substance accumulating behind the ear drum. People suffering from this disorder are more than 30%, and the number is increasing. With advanced research and scientific knowledge, this condition is better understood by the doctors today and hence, thankfully can be treated completely.

What happens when a patient comes to the clinic?
A thorough history of the events in presence of sleep partner is desirable, following which various examinations in the clinic are performed. Depending on the outcome of history and clinical examination, an investigation called sleep study may be recommended.

What is sleep study?
This is a study performed during sleep. It is completely painless and non invasive and is done at patients home during his/her sleep. Several parameters are measured during overnight sleep of a person, like, change in oxygen level (how frequent and how much), ECG changes, nature of sound produced with position during sleep, EEG changes etc. Collectively the test quantifies the severity of the disorder.

What happens next?
Depending on the history, clinical examinations and the required investigations, a treatment plan is framed; apart from some lifestyle changes like - height appropriate weight reduction, stoppage of smoking, avoidance of alcohol before sleep, avoidance of few group of medications (if the patient is on them routinely) etc. surgical or non surgical measures are advised which would address to his/her type of disorder.

What happens in non surgical option of management?
In non-surgical measure:
- Medications like those for rhinitis are prescribed
- Mandibular advancement splint is prescribed
- CPAP (Continuous Positive Airway Pressure) machine is also advised.

What do you mean by surgical measure of sleep disorder management?
In surgical measures, the main idea is to relieve patients from the obstruction, thus surgically the area of obstruction is located and widened. LASER is one of the useful tools for this procedure, which is available at Peerless Hospital, Kolkata. It makes the surgery much faster, precise and blood less. The common procedures performed for sleep disorder management are as follows (depends on the individual patient need):
- Endoscopic removal of intra nasal mass.
- Septoplasty / Turbinoplasty
- Adeno-tonsillar removal
- LASER assisted Uvulo-Palatoplasty
- Hypopharyngeal mass removal
- Laser/Coablation debulking of tongue base.
- Laryngeal inlet procedures
- Jaw protrusion techniques

Where can we go to get the benefit of treatment for this disorder?
The department of ENT Head and Neck Surgery at Peerless Hospital have doctors who are well trained in addressing this disorder and are doing it successfully for several years.

Don't ignore this condition, as it is “A SILENT KILLER”