



Hospital Newsletter

IIT Guwahati Hospital

24x 7 emergency medical services available

AIMS AND OBJECTIVES

Serendipity sometimes knocks on your door to present a slice of opportunity for serving some of the best brains of this great nation. Although, the Hospital Newsletter was initially conceived as a nascent thought serving as a medium of dispensing quality information on human health; but given the fact that the positive response it got after the launch of 3rd Volume (e-version) last year e-launch of its 4th volume has now become inevitable. It is needless to mention that this year too 4th Volume (e-version) of the Hospital Newsletter which is now named as "Health Kaleidoscope" contains write-ups on vital health topics ranging from cancer prevention to heart attack, from uterine bleeding, paediatric care to pain management. The Institute hospital sincerely hopes that the present edition of the newsletter will provide our readers a glimmer of opportunity to ponder upon ways of improving their physical health and psychological well-being. So, here's wishing you all a great year ahead from the entire team of Medical Section.

Regards,

Team, Medical Section

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Dr. Anuj Kr. Baruah, MD

Cancer and its Prevention

Cancer in itself is a malignant term. A common saying is that, cancer has no answer. But actually what it is and why cancer is increasing day by day.

Cancer is a group of diseases involving abnormal cell growth with the potential to invade or spread to other parts of the body. Another common term related to cancer is 'TUMOUR'. In very old English, tumour means any kind of swelling. Nowadays literally tumour means a swelling of a part of the body, generally without inflammation, caused by an abnormal growth of tissue. In medical science a tumour means a new growth of tissue which sometime may be inflammatory in origin or a neoplastic growth. A neoplastic tumour is an uncontrolled proliferation of a clone of cells without useful function. A tumour may be benign or malignant. A benign tumour grows by expansion only without invading the nearby tissues or do not spread to the distant organs. A malignant tumour or cancer grows and invades the nearby tissues and it has the ability to spread to some other distant organs (metastasis).

Despite newer advances and clinical research and trials of promising new therapies, cancer remains a major cause of morbidity and mortality. The war against cancer is far from over. The effect of new treatments for cancer has been largely disappointing. The most promising approach to the control of cancer is a national commitment to prevention. Cancer is a disease of genes which may be inherited or acquired.

Key facts (World Health Organisation)

- Cancer is the second leading cause of death globally, and is responsible for an estimated 9.6 million deaths in 2018. Globally, about 1 in 6 deaths is due to cancer.

- Approximately 70% of deaths from cancer occur in low- and middle-income countries.
- Around one third of deaths from cancer are due to the 5 leading behavioural and dietary risks: high body mass index, low fruit and vegetable intake, lack of physical activity, tobacco use, and alcohol use.
- Tobacco use is the most important risk factor for cancer and is responsible for approximately 22% of cancer deaths.
- Cancer causing infections, such as hepatitis and human papilloma virus (HPV), are responsible for up to 25% of cancer cases in low- and middle-income countries.
- Late-stage presentation and inaccessible diagnosis and treatment are common. In 2017, only 26% of low-income countries reported having pathology services generally available in the public sector. More than 90% of high-income countries reported treatment services are available compared to less than 30% of low-income countries.

Prevention of cancer is a very useful and only tool to reduce the suffering from cancers. But as we do not know the exact cause of cancer the preventive strategies are also not that fruitful always. It is very sad to mention that despite our all efforts incidence of cancer is increasing day by day. In India, according to the estimation of Indian Council of Medical Research (ICMR) more than 17.3 lakh new cancer cases are there and more than 8.8 lakh deaths due to the disease by 2020. According to a recent report of ICMR the north-eastern part of India has the highest incidence of cancer in the country. In men, age-adjusted incidence rate of all types of cancers is the highest in Aizawl district of Mizoram followed by East Khasi Hills of Meghalaya. In women, the highest incidence is in Aizawl district followed by Kamrup urban district of Assam state. India accounts for the third highest number of cancer cases among women after China and the US, and is growing annually at 4.5-5 percent, according to new data.

For the prevention of cancer we should know about the risk factors of cancer. Following are the major risk factors:

- Tobacco use,
- Alcohol use,
- Dietary factors including low fruit and vegetable intake,

- Physical inactivity,
- Overweight and Obesity,
- Exposure to various carcinogens: Like, physical (U-V and ionizing radiation), chemical (formaldehyde, asbestos, aflatoxins), biological (infections by viruses, bacteria and parasites).

Above mentioned points are some known risk factors of cancer, not the real cause. Exact cause of cancer is still not known to us. Quiet often we see that some teetotaller, non-smoker, maintaining a disciplined life, also suffer from cancer and we cannot explain it. I have already mentioned above that, cancer is a disease of genes and it may be inherited or acquired. For example, some colon cancers, familial breast cancer, etc. are inherited. But most of the cancers of nowadays are acquired due to our rapidly changing environment and living style. Some individuals are already genetically pre-disposed to cancer generation and if they got exposed to those risk factors then they easily get affected by cancer. It is just like an already loaded gun, waiting for someone to push the trigger. So, we can try at least to prevent the trigger. Definitely, use of tobacco and alcohol should be strictly prohibited. Exposure to environmental carcinogens like U-V rays and ionizing radiation should be kept to minimum by using protective gears. Maintenance of hygiene will prevent infections causing cancer, like human papilloma virus infection and vaccination and other safety practices will prevent hepatitis virus infections like, hepatitis B and C. Environmental pollution with chemicals is another risk factor for cancer. It can contaminate air, water, soil and our foods also, e.g., arsenic, use of coal fire.

Physical inactivity, dietary factors, obesity and being overweight also play an important role as risk factors of cancer. We all know that these are also risk factors for some other non-communicable diseases like high blood pressure and diabetes mellitus. So, prevention of these risk factors has multifaceted benefits, so why should we wait. Because all these factors are intimately interconnected at the individual and contextual levels, estimating the specific contribution of each of these risk factors is difficult and might underestimate the cumulative potential risk. With restriction of high calorie diet, especially carbohydrates with high glycaemic index and remaining physically active always, we can prevent obesity and so the risk of developing diabetes, high blood pressure and several cancer types, like cancer of the oesophagus, colon and rectum, breast and kidney, etc. Every nation should ensure that they have a national food and nutrition action plan and food-based dietary guidelines. The consumption of traditional micronutrient-rich food items and food sources should be

encouraged to avoid replacement with salty foods and beverages, or foods rich in sugar and fats. Programmes promoting the consumption of five or more portions of fruit and vegetables per day have emerged in many countries with support from ministries of health and ministries of agriculture.

Since long time there is a big question “does psychological stress and social stresses affect cancer risk in human being”? Nowadays, it is almost confirmed that a state of chronic inflammation along with altered immune response play a major role in the development of all the non-communicable diseases (NCD), like diabetes mellitus, high blood pressure, cancer, etc. Our immune system plays an important role in preventing infections as well as development of abnormal cells. In AIDS due to reduced immunity patients develop various infections and cancer (Kaposi’s sarcoma). Any kind of chronic stress may lead to reduced immunity and development of various infections, like, harmful viral infections and which may lead to cancer. Another dimension of stressful life events is increased unhealthy habits like, smoking, alcohol abuse, excessive food intake and lack of physical activity.

So, prevention of chronic stress and chronic depression is nowadays a very important step towards prevention of cancer risk. Another burning issue, I think, more prevalent in our region is use of harmful chemicals in food and agriculture industry. Though, the recommendation of five or more portions of fruit and vegetables per day had emerged in many countries, can we dare to take it in the same way in our region. Exorbitant price rise and fear of harmful chemical ingestion along with fruits and vegetables, always chases us. At last only our own mind is there with us. Happiness of mind is known to kill cancers or suppress their growth. We should not give up hope. Positive thinking and mindfulness in everywhere should be our motto along with promotion of healthy lifestyle. Always mind that “Happiness keeps you healthy.”

Dr. Mala Borthakur, MD

Heart Attack

The human heart is a fist sized muscular organ lodged inside the chest cavity. It is fixed to the body with the help of major arteries and veins. The heart maintains the circulation of blood in the body. The heart's own blood supply is through the coronary arteries. These arteries are prone to develop blocks with substances flowing in the blood once there is inflammation and increased platelet stickiness along with many other known and unknown mechanisms, called atherosclerosis. Another condition called Coronary spasm, though less common cause coronary block without significant atherosclerotic obstruction can also cause a heart attack. As soon as the blood and oxygen flow through these vital conduits are restricted the muscle which they supply suffer and the person develops a heart attack of varying severity. Sometimes there is formation of smaller arteries which by pass the blocks and the blood circulation is 'somewhat restored' but to less than optimal. These show in ECG as STEMI or NSTEMI.

When a very large portion of the cardiac muscle mass suffers from circulatory block the remaining muscle cannot push out the blood from the cardiac chambers and Heart failure occur.

The heart is also an involuntary musculature which means that it continues to beat on its own whether we are awake or asleep, in health as well as in sickness. However, in sickness or anxiety and fever including heart ailments involving its muscle or its electrical system, its rhythm may get altered. This means that the heart also has an electrical system in place to generate impulses to jump start the heart before birthing and create our pulse and resulting blood pressure all through our lives. This regulatory system comprises of the electrical impulse generator SA node and its electrical wiring system called Bundle of HIS ending in

the Purkinje fibres, which is built into the heart. Any abnormality in this system may lead to arrhythmias or Rhythm disturbances of differing severity and risk and the most instantaneously fatal is the Cardiac Arrest or Sudden Cardiac Death. This condition is fairly common in young adults as well as in children, which is a matter of great concern and basis of much biomedical research.

Though there are no signature heart attack symptoms or sign, there are several to give the hint and raise the alarm. Also the risks factors need attention and continuous treatment to delay death and cardiac disability. The ECG show alteration in the above conditions, and available in nearby hospitals and clinics

Some heart attack symptoms are pressure over front of chest, tightness, pain, or a squeezing or aching sensation in chest or arms that may spread to neck, jaw or back called angina. Sensation of nausea, indigestion, heartburn or abdominal pain, shortness of breath, breaking out in cold sweat, fatigue or feeling very tired, light-headedness, sudden dizziness. One with diabetes may not have any warning symptoms due to neuropathy.

The cardiac risk factors include age, men 45 and above, women 55 and above, tobacco use, high blood pressure, high blood cholesterol and triglycerides, obesity, diabetes, metabolic syndrome of high BP, high blood sugar and obesity, family history, sedentary life, mental stress and anxiety, eclampsia and preeclampsia, Rheumatoid arthritis and SLE and as yet many more unknown risk factors.

As a result of cardiac risk the patient may develop arrhythmias, heart failure or sudden cardiac death.

If any person suffers any unusual chest and heart symptoms it is required to undergo basic ECG, ECHO, Holter monitoring, serum enzymes with a clinical examination and coronary angiogram or CT angiogram.

In case of Heart attack called MI or Myocardial Infraction, there may be need for immediate thrombolysis, resuscitation, stenting or a coronary artery bypass graft. In case of rhythm

disturbances pacemakers may need to be inserted, in heart failure medicine and external cardiac assisted devices, and in case of arrhythmias and absent heart sound, not breathing, no carotid pulse, a straight line ECG, may require hands only / or with rescue breath CPR with shock using a defibrillator and further treatment in cardiac intensive care unit.

Treatment options are available for continued use in each of the above diseases which can reduce morbidity and mortality.

Dr. Leena Barua, CMO(NFSG)

Abnormal Uterine Bleeding

Abnormal uterine bleeding is defined as any bleeding from the uterus which is not cyclical menstruation. It is common clinical problem with many causes.

Different types of abnormal uterine bleeding

- (1) Hypomenorrhoea- scanty menstruation for 1 or 2 days
- (2) Oligomenorrhoea- Cycle length >35 days
- (3) Polymenorrhoea- Cycle length < 21 days
- (4) Amenorrhoea- Absence of menses for 5 months or three cycles
- (5) Menorrhagia- Regular cycles, excessive flow or duration
- (6) Metorrhagia- Irregular cycles
- (7) Menometrorrhagia- Irregular cycles, excessive flow and duration

Hypomenorrhoea- Scanty menses which is otherwise regular may not be pathological since its regularity presupposes a normal hypothalamic-pituitary-ovarian relationship. In these women the uterine end organ may be at fault. Small hypo-plastic uterus, genital tuberculosis, Partial Asherman's Syndrome may cause hypomenorrhoea and it needs investigation and treatment.

Oligomenorrhoea- In some women pattern of menstruation extends to cycle lengths exceeding 35 days without any impairment of their fertility and requires no treatment. However, if the cycles are very erratic and infrequent investigation and treatment is required. This condition often occurs at extremes of reproductive life and in some lactating women. Other causes are genital tuberculosis and polycystic ovarian disease.

Polymenorrhoea- These women suffer from shortened cycles. Menorrhagia is often present. It is more common in adolescent girls and peri-menopausal women. The exact the aetiology is not known. This also occurs when women resumes menstrual cycle after a delivery.

Amenorrhoea – It denotes absence of menstruation. It may be physiological or pathological.

Physiological amenorrhoea prevails prior the onset of puberty, during pregnancy and lactation, and after menopause.

Pathological amenorrhoea is a result of genetic factors, systemic disease, endocrinopathies, disturbance of hypothalamic-pituitary-ovarian-uterine axis, gynatresia, nutritional factors, drug usage, psychological factor and other rarer causes.

Primary amenorrhoea refers to onset of failure of occurrence of menstruation for six months or longer in women who have previously menstruated. Any disturbance in the cascade ----- cerebral cortex--hypothalamus--pituitary-ovary-uterus may cause secondary amenorrhoea.

Metrorrhagia means any acyclic bleeding from the genital tract. In strict term it should be restricted to bleeding arising from uterus only. The bleeding may be intermittent or continuous. It is superimposed on a normal menstrual cycle

In elderly women neoplasm must first be ruled out. Other causes may be cervical polyp, vascular erosion, endo- cervicitis, cancer cervix, genital tract ulcers or growth, or presence of IUCD (intra uterine contraceptive devices).

Menorrhagia- It denotes cyclic regular bleeding which is excessive in amount or duration. It is usually caused by conditions affecting the uterus or its vascularity rather than any disturbance of function of the hypothalamic-pituitary-ovarian axis.

Causes-It can be divided into

- (i) Those due to general disease
- (ii) Those which are local in the pelvis
- (iii) Those caused by endocrine disorder

(iv) Contraceptive

(v) Iatrogenic

(i) *General disease*-i.e. leukaemia, coagulopathy, thrombocytic purpura, severe anaemia, General Tuberculosis in initial period e.t.c.

(ii) *Local pelvic causes*-

- Uterine causes-uterine fibroid, fibroid polyp, adenomyosis, endometrial hyperplasia.
- Chocolate cyst, ovarian feminising tumours, polycystic ovarian disease, endometresis.
- Uterine arterio-venous fistula and varicosity of vessels
- Salpingo -oophoritis, pelvic inflammatory disease, genital TB.
- Immediate puerperal and post abortion period

(iii) *Endocrine disorder*- Thyroid dysfunction i.e. hypothyroidism and hyperthyroidism in initial stage

(iv) *Contraceptive*- 5 to 10 % women suffer from menorrhagia in the first few months of IUCD implantation

(v) *Iatrogenic* causes are oestrogen and progesterone administration especially mini pills.

Dysfunctional uterine bleeding (DUB)- The term is especially used when menorrhagia is not associated with any genital tract abnormalities, general or endocrinological disease. Hormonal imbalance is the root cause of hyperplasia of endometrium that causes menorrhagia.

DUB is classified into two types

- (i) Anovulatory cycle (80%)
- (ii) Ovulatory cycle (20 %)

Anovulatory Cycle- Threshold bleeding or puberty menorrhagia

- Metropathia haemorrhagia
- Premenopausal DUB

Ovulatory cycle- Irregular ripening

Irregular shedding

IUCD insertion

Following sterilization operation

Puberty menorrhagia- The commonest cause lies in the hypothalamic pituitary-ovarian dysfunction. Immature development of these organs results in anovulation in the earlier years (1-5 years). Unopposed oestrogen causes endometrial hyperplasia. As the girl matures, the normal menstrual period starts.

Metropathia haemorrhagia- is seen in woman of 40-45 years.

Irregular ripening- It is an ovulatory bleeding due to deficient corpus luteal function. The breakthrough bleeding occurs before the actual menstruation in the form of spotting or brownish discharge.

Irregular shedding- It is rare and self-limited. It is due to persistent corpus luteum. The menstruation comes in time. It is prolonged but not heavy.

Dr.S.Majumdar,MBBS,DCH

Prevention and treatment of vitamin D deficiency in children

Vitamin D deficiency is increasingly being recognized the world over as also in India. Reports from various parts of India and in all age groups from neonates to adolescents as well as pregnant and lactating mothers have reported vitamin D deficiency to the tune of 30-90%.

Deficiency of vitamin D (with or without calcium deficiency) may result in rickets in an infant or adolescent or osteomalacia (abnormal mineralization of bone matrix) and muscle weakness in an older child/adolescent. Vitamin D deficiency may also have a negative impact on the peak bone mass resulting in low bone mineral density in childhood, which may subsequently result in osteoporosis in adulthood.

Besides the classical action of bone mineralisation vitamin D also has possible roles in immune function, autoimmune disease, allergies and certain cancers of breast, colon, prostate, cardiovascular disease metabolic disease and neurological disorders.

Less than 10% of vitamin D is derived from the diet while close to 90% is synthesized in the skin with sunlight exposure. Socio-cultural practices, darker pigmentation, a diet low in calcium and high in phytates and oxalates which depletes vitamin D, absence of fortification with vitamin D, genetic factors such as increased 25(OH)D-24-hydroxylase, which degrades 25(OH)D to inactive metabolites, geographical location of various places in the country (India extends from 8 to 38 degrees north latitude) and environmental pollution are some reasons proposed for vitamin D deficiency in Indian children . Together with these factors, changing lifestyles with sedentary behavior in children with indoor lifestyle (avoiding optimal hours of sun exposure between 10 AM to 3 PM, the best time to form Vitamin D in the skin) further reduce the sunlight exposure and thus increase the tendency for vitamin D

deficiency. Further, very few Indian foods are fortified with vitamin D and that too, with small amounts.

Definition : This is based on the serum concentrations of 25(OH)D. Although professional bodies recommend that the assessment should be performed by tandem mass spectrometry (TMS), most reports from India suggest that these are performed by enzyme-linked immunosorbent assay, chemiluminescence or radioimmuno assay. Very few centers have the facility for assessment of vitamin D with TMS. Although a fasting specimen is recommended, it is not required; further, diurnal variations are also not a major consideration. Measurement of the active form of vitamin D, 1,25dihydroxycholecalciferol for the assessment of vitamin D deficiency is not recommended. Data suggest that 20 ng/mL (50 nmol/L) can be set as the serum 25(OH)D level that coincides with the level that would cover the needs of 97.5 percent of the population ,thus, vitamin D concentrations of >20 ng/mL (50 nmol/L) are considered as sufficient, between 12-20 ng/mL (30-50 nmol/L) as insufficient and <12 ng/mL (<30 nmol/L) as deficient .

Calcium deficiency is difficult to define as there is no specific biochemical marker for the reserves of calcium (like 25(OH)D for vitamin D); therefore, these guidelines refer to dietary calcium deficiency.

Toxicity is defined as vitamin D concentrations of 25(OH)D of >100 ng/mL (250 nmol/L), testing for serum levels of calcium and vitamin D are recommended, especially in children with symptoms of hypercalcemia such as irritability, constipation and polyuria.

Screening for vitamin D deficiency: Routine screening of healthy children for vitamin D deficiency is not recommended. However, screening may be performed for children, who are at risk of vitamin D deficiency such as those with liver disease, renal disease, malabsorptive states or transplant patients.

Route of administration: Oral treatment is recommended; reports suggest that oral administration of vitamin D restores vitamin D concentrations more rapidly than by the intramuscular (IM) route. Further, vitamin D may be administered with a meal or on an empty stomach as absorption is independent of fed state.

Neonates and infants upto 1 year of age: Although there is likelihood of a high prevalence of vitamin D deficiency in apparently healthy term neonates who are born to vitamin D deficient mothers, due to financial and logistic limitations in the Indian context, routine screening for vitamin D concentrations in this age group cannot be recommended. Breastmilk is not an adequate source of vitamin D ; 400 IU of vitamin D has been shown to maintain serum 25(OH)D concentrations at >50 nmol/L in breastfed infants. Further, for formula-fed infants, the amount of formula milk to obtain 400 IU/day would be close to a liter, which a baby may not consume daily. Thus, for all newborns, 400 IU of vitamin D supplementation is recommended till one year of age; it is also recommended that supplementation be started in the first few days of life.

Maternal concentrations of vitamin D determine the status of vitamin D of her fetus and newborn. Thus, the neonate of a mother who has vitamin D deficiency is also likely to be vitamin D deficient. Hence, it is recommended that pregnant mothers receive 600 IU of vitamin D daily. This supplementation is also to be continued during lactation. However, to increase content of breast milk vitamin D, very large doses are required to be given to lactating mothers. Thus, it is recommended that infants be supplemented with 400 IU daily and mothers continue to take 600 IU daily for their own vitamin D needs.

There is an inverse association of body fat with vitamin D concentrations; vitamin D being a fat soluble vitamin is sequestered in adipose tissue. Thus, children who are obese may be given at least two to three times (between 400-1000 IU/day) more vitamin D for their age group to satisfy their body's vitamin D requirements.

TABLE: RECOMMENDATIONS FOR VITAMIN D AND CALCIUM DEFICIENCY – PREVENTION AND TREATMENT

Vitamin D	Prevention	Treatment
Premature neonates	400 IU/day	1000 IU/day
Neonates	400 IU/day	2000 IU/day
1-12 months	400 IU/day	2000IU/day
1-18 years	600 IU/day	3000-6000IU/day

Treatment with large dose(oral dose preferred)60000 IU weekly for 6 weeks above 3 months of age is also preferred followed by daily maintenance doses.

Calcium	Prevention	Treatment
Premature neonates	150-220 mg/kg per day	Maximum 175-200 mg/kg /day
Neonates	200 mg/day	500 mg/day
1-12 months	250- 500 mg/day	500 mg/day
1-18 years	600- 800 mg/day	600- 800 mg/day

Mrs. Ananya Satapathy, MPT

Is Your Spine Giving Problems?

Spine, the best structure of human beings that has enabled men and women to stand erect, has the mobility to move in many directions and stability to bear weights from many angles. We stand out from other creatures that envy this beautiful structure. But there's a catch, as the world changed so did our work ways. Instead of being erect we slouch more. Thanks to our desk jobs-be it the students, office bearers or common man.

Spine is divided into cervical (neck), thoracic (upper and midback), lumbar (low back), sacral and coccygeal area (tail bone). Desk jobs puts huge demands on all the parts of the cervical and thoracic areas. Prolonged sitting slouch the whole back. As a result we develop innumerable problems, causing neck, upper back, mid back, low back and coccygeal pain. Some commonly known names are spondylosis, Spondylolisthesis, myofascial pain syndrome, cervical/thoracic/lumbar derangements, piriformis syndrome and etc.

The structure of our spine is such so as to stay erect and vary between other positions. In order to stay in a fixed posture for prolonged period one needs adequate joint mobility and stability, adequate supporting muscles' strength and endurance (stamina) and adequate flexibility of all around soft tissue structures. The furniture used should also be customised according to job demands.

In a scenario where a person lacks any one of the above or all then the spine is bound to get stressed. If mobility of spinal joints is compromised say in the neck, stress falls over upper back, head moves into forward position, upper back muscles are over stressed, thoracic spine

curvature changes towards more convexity, shoulder droop down and forward, tightness of anterior.

Shoulder muscles, chest becomes congested (ribs and muscles), breathing is affected. If continued for more time the muscles get fatigued, taut bands and trigger points develop leading to myofascial pain syndrome, increased pain inhibits the muscles reducing strength leading to more fatigue and pain. Thus a viscous cycle of pain, fatigue, weakness and stress continues.

The cervical joints are stressed out, the intervertebral discs take the brunt; they displace compressing over the peripheral nerves causing radiating pain to hands and finger. If work posture not changed as days go by, then neck and upper back fail to take stress. To continue with the same activity the load falls over the low back structures that compensate for overstressed neck and upper back area. Hence a simple forward head slouching posture affects the whole spine, muscles and ligaments in long run. An improper supporting chair stress low back and in above similar pattern may affect neck or radiate pain down the legs, causing tightness of various hip and buttock muscles also.

This viscous cycle of pain, fatigue and prolonged posture needs to be broken to have healthy spine and better quality of life. Some points to guide:

- (1) Proper ergonomical modification of work place and setting.
- (2) Avoidance of prolonged postures-Taking breaks at regular intervals with distressing exercises.
- (3) Building one's own health with proper guidance by appropriate professionals (Physiotherapists, fitness experts, dieticians' e.t.c) at the night time-knowledge of own body and pain.

IMAGES 2018- *The year that has gone by*

WORLD HEALTH DAY 2018



World Health Day was organised by IIT Guwahati Hospital on an Institutional Level on 7th April 2018

Venue: IIT Guwahati Conference Centre

The theme for year 2018 was “ Universal Health Coverage: Everyone, Everywhere”



Guest of Honour Prof. Gautam Biswas, Director IIT Guwahati addressing the audience during World Health Day 2018



Chief Guest & Guest Speaker Dr. N. C. Borah, CMD GNRC Hospitals Pvt. Ltd. addressing the audience World Health Day 2018



Prof. A. K. Sarma, Chairperson, Organising Committee World Health Day 2018 address during World Health Day 2018



2nd Speaker Dr. A K Baruah, CMO (NFSG) & HOS Medical during his address on World Health Day 2018

*53rd Inter IIT Sports Meet
2018 held in IIT Guwahati*



Medical Team engaged in patient care duties during 53rd Inter IIT Sports Meet 2018

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