

Editor's Note

It is a great pleasure to note that the number of contributions by our staff to 'reflection' has increased considerably. This is no doubt due to their increased interest in publication of the various interesting procedures and the cases they deal with on a day to day basis.

In addition to the departmental and hospital based CMEs our Consultants have visited a number of medical colleges around the country to inform/ appraise their colleagues on some of the recent advances that have been made in the treatment of various diseases. We have also taken steps to extend our services to reach our patients in different cities with frequent visits by our doctors.

All our staff are looking forward to the Eid holidays starting first week of July. We wish all our readers a very happy "Eid Mubarak".

31st Annual General Meeting of United Hospital Limited



United Hospital Limited held its 31st Annual General Meeting on Sunday 29 May 2016 at 4:00 pm in the Conference Room of the hospital. The meeting was chaired by Mr Hasan Mahmood Raja, Chairman, United Hospital Limited and attended by Mr Faridur Rahman Khan, Managing Director, other Directors of the company and shareholders of the hospital.

In his welcoming speech, the Chairman informed the shareholders about the various activities of the hospital as well as

the performance of the United Nursing College. He thanked the doctors, nurses, care givers and various other categories of staff whose effort have resulted in the success that has been achieved in providing service to the patients contributing to the reputation of the hospital.

The shareholders, following presentation and discussion, approved the Audited Report for the financial year ending in December 2015. They expressed satisfaction on the overall status of the hospital.

United Group Paper Award Ceremony 2016 at UIU



United Group Paper Award Ceremony 2016 was held on 22 April 2016 at United International University Auditorium. Mr Nurul Islam Nahid, MP, Honorable Minister, Ministry of Education, Government of the People's Republic of Bangladesh was present as the Chief Guest.

Mr Hasan Mahmood Raja, Chairman of United Group and United Hospital in his welcome speech said that the Group wanted to create a research friendly platform where potential researchers will be provided all kinds of support in pursuance to their research works. He emphasized on applied research which would

directly contribute to the society and economy of the country and mentioned that United Group will be ready to commit a fund of Taka five crore per year for such research works in our country.

The Chief Guest Mr Nurul Islam Nahid said, no nation can prosper without research and research helps create new knowledge and technology that contributes to building a knowledge based society. He congratulated United Group for taking up the noble initiative in promoting research and development activities by recognizing the researchers in the fields of science and technology. He also added that this initiative would encourage the researchers and scientists and promote research in Bangladesh and contribute to its development.

Among others Mr Faridur Rahman Khan, Managing Director, United Hospital & Vice-Chairman, Board of Trustees, UIU, Prof Dr M Rezwana Khan, Vice Chancellor, United International University and Prof M Muhibur Rahman, Chairman, Paper Award Evaluation Committee were also present.

This year 21 papers, published in 2013, were selected for the award in the field of Science and Engineering, Medical and Life Science, and Agriculture.

United Group reiterated its intention to continue its pledge for awarding up to 40 researchers every year for their quality research on contemporary academic issues.



Removal of Any Abnormal Bony Growth Around the Large Joint or Long Bone is Urgent- A Case Report

Dr A H M Rezaul Haque, Dr Masum Billah

Aneurysm/pseudo-aneurysm or nerve compression may develop anywhere in the course of neurovascular supply (mostly along the long bone or around large joints) due to injury of the vascular wall by any abnormal bony growth or exostosis. It is rational to perform operation after closure of epiphysis. But in popliteal space it should be done as early as possible as waiting for closure of epiphysis may create new complications (transformation to carcinoma or aneurysm). So, early detection and management can be beneficial for the patients.

Case history: A 14 years old boy was admitted in UHL through OPD-1 as a known case of osteochondroma/bony growth on lower 1/3rd of left femur for 7 months. Suddenly he developed flexion deformity, pain, swelling on popliteal fossa and inability to move left knee joint for 8 days. The x-ray of his left knee joint revealed spiky bony projection/growth in postero-medial aspect and lower 1/3rd of left femur.

On local examination of left lower limb, there was a swelling in postero-medial aspect and lower 1/3rd of left thigh which was hard, fixed and tender. Redness was present. Local temperature was raised. Range of Motion (ROM) of the left knee joint was painful and restricted. Left ADP was palpable. He could move his toes and ankle actively. No neurological deficit was found. MRI of left knee reported Known case of osteochondroma with suspected malignant transformation/inflammatory

After proper counseling with patient's attendant about the swelling and its treatment outcome, patient underwent Excisional Biopsy of Osteochondroma of left knee under G/A and the tissue was sent for histopathology.

Findings of Operation: There was a huge sac full of clotted blood, surrounded by a thin membrane. Half of the clot was removed, extended from lower 1/3rd of left femur to back of popliteal fossa at



medial site. A bony stalk (approx 3cm X 2cm) was seen above the left distal femoral condyle, which was excised and sent for histopathological examination. His post-operative period was uneventful.

He was in regular follow up, his swelling was reduced, he was able to move his left knee actively, distal circulation of left lower limb was normal with no neurological impairment. After four months Doppler USG of left popliteal fossa was done which revealed huge pulsatile mass and he was advised to consult with vascular surgeon.

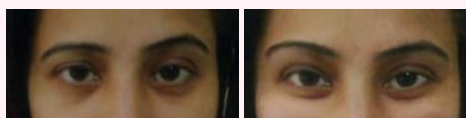
Face and Neck Lift Without Surgery: A revolutionary step ahead in Aesthetic Plastic Surgery

Dr Md Abdul Mabin

Certain signs of aging, such as Crow's Feet (wrinkles on the lateral angle of eyes), lines on the angle of mouth etc, become visible quite early. As aging progresses, sagging of face, neck and body occurs due to pull of gravity and progressive weakness of muscles resulting in prominent wrinkle on the forehead, glabellar line, naso-labial fold, marionette line, décolleté neck creases etc. The natural process of aging is unstoppable and once it starts, one loses the aesthetic look for life time.

For those men & women who want to delay the appearance of the signs of aging by ten to fifteen years and want to be rejuvenated and noticed by the near

Right eye brow lifted without surgery to have same horizontal line



Before

After

and dear ones, ANTI-PTOSIS THREAD LIFT, a special aesthetic technical procedure, is a simple and good choice; it involves only a few needle pricks! The treatment procedure should be started early, just when one begins to think that they are showing signs of aging. Work on SMAS (the un-stretchable fascia of the face) is done with the specially made thread of different quality, each specially made for each area to achieve best desired results. There are absorbable and non-absorbable materials of different size and length to meet need of individual patient. At times, the threads are combined for a better and long lasting result. It is safe and less time consuming (a full face and neck lift procedure takes less than an hour under local or general anesthesia). Recovery period is also short, a week of discomfort at the best. With this super minimally non-invasive excellent NANO technology, patient receives immediate result without scar and there is no need of hospitalization as

well. All around the world, Plastic Surgeons now agree that the development of these 4th generation products launched recently has brought Cosmetic Surgery close to Cosmetology. This technique applied on patients with facial paralysis also gave very good results.

The artistic goal is not to remove every line from a face. Many lines are caused by animation muscles, and to remove all these lines would mean to release the attachments of all the muscles of expression. While a perfectly smooth face might look good in still photography, it looks like a mask in real life. A face without expression is a face without passion or personality. The goal should be to look better without looking like an entirely different person.

Face lift without any surgery



Before

After

Pre-Ramadan Health Talk



During Ramadan, fasting radically alters the diet, slowing the body's metabolism and sometimes causing discomfort. However, good health can be maintained by consuming adequate nutrients during meals. On the occasion of the Holy Month of Ramadan and as part of CSR activities, United Hospital Limited organized 5 (Five) Awareness Sessions on "Eating Healthily During the Month of Ramadan" at the corporate office of SGS Bangladesh Limited, Li & Fung (BD) Limited, US Embassy, Dhaka, Edison Group & Unilever (BD) Limited. Ms Chowdhury Tasneem Hasin, In-Charge, Dietetics & Nutrition Department of United Hospital conducted the 5 sessions.



Neonatal Implication of Maternal Antiphospholipid Syndrome

Dr Runa Laila, Dr Nargis Ara Begum

The presence of antiphospholipid antibody (aPL) in pregnant mother is associated with a wide spectrum of adverse obstetric outcomes and neonatal complication. The passive transfer of maternal autoantibodies to the fetus results in an increased risk of prematurity, intrauterine growth restriction, thrombocytopenia & developmental delay. Antiphospholipids antibodies have an impact on neurodevelopment during fetal life by cross reaction of these antibodies with myelin, brain ependymal and choroid epithelium. Persistence of these antibodies in the neonate lead to thromboembolism and ischemic stroke provided there is a concurrent infection and/or inherited thrombophilic disorders. Pregnant mother need close monitoring of the placental circulation, fetal growth & development and serum antiphospholipid antibody level of mother.

The antiphospholipid syndrome (APS) comprises presence of two major components:

1. Presence in the plasma of at least one type of autoantibody known as an antiphospholipid antibody lupus anticoagulant (LA), anti-cardiolipin (aCL), anti-beta-2 glycoprotein I antibodies.
2. The occurrence of at least one of the following clinical manifestations: venous or arterial thromboses, or pregnancy morbidity (Preterm, Low birth weight, Small for gestation, IUGR, Spontaneous Abortion, Recurrent miscarriage).

The antiphospholipid syndrome (APS) with absence of any associated disease is known as primary APS and that associated with SLE or another rheumatic or autoimmune disorder is termed as secondary APS.

Recommended therapy for mother with APS include prophylaxis (low molecular-weight heparin and low dose aspirin) for those with no history of thrombosis and therapeutic dose of heparin for those with a history of thrombosis. Therapy should be discontinued at the time of delivery. Breast feeding women

may use heparin and warfarin.

Passively acquired maternal antiphospholipid antibodies (aPL) can impair the physiologic development of a fetus during pregnancy not only by causing thrombosis of the placental vessels, but also by directly binding trophoblast cells, modifying their functions and by complement activation. About 30% of neonate born to mothers with aPL passively acquire these auto-antibodies. In spite of maternal treatment, the rates of these auto-antibodies in both preterm and low birth weight babies are still high around 17%. Prematurity related outcome in neonate born to mother with APS including indirect hyperbilirubinemia, anemia, apnea, intraventricular hemorrhage, retinopathy of prematurity, bronchopulmonary dysplasia, NICU admission, prolonged stay in the NICU, assisted ventilation and neonatal death are frequently common.

Antiphospholipids' antibody including lupus anticoagulant (LA), anti-cardiolipin (aCL) and anti-beta-2 glycoprotein I antibodies should be performed in neonate at birth and every 3 to 6 monthly up to 3 years of age. During neonatal period, some other relevant investigation should be done like anti RO, anti La, protein C, protein S, PT, APPT and platelet count. The assessment of babies comprises of clinical examination, growth monitoring and neurodevelopment milestones in every 3-6 monthly for at least upto 5 years of life. The occurrence of thrombosis is rare in neonate but long term follow up shows autism spectrum disorder, learning disability, hyperactivity disorder and psychomotor delay associated with axial hypertension in some children born to mother with APS.

If a prospective study is done on the babies born of those mothers had antiphospholipid syndrome than we can have an understanding of the future health through regular neuropsychological assessment, special recommendation is for high risk children.

Urinary Incontinence: It is Not Beyond Help!

Dr Hasina Afroz

Mollika, a beautiful girl, of 22 years, came to Obs & Gyn OPD of United Hospital; she was shy, apprehensive & upset because she was leaking urine continuously for 8 years. Her husband left her because of this after her baby died during the process of devastating hard obstructed labour, following which she stated leaking urine, a classical case of True Incontinence. Ultimately she returned back to her father's residence; where she was also not happy. As nobody gave her company & she couldn't take part in any household activities as uriferous smell came continuously from her body. We examined Mollika and found a large defect of more than 4 cm on the anterior vaginal wall through which urine was leaking. Her vagina was stenosed & scarring was seen around the defect. We admitted her in the hospital. After all necessary investigations, surgery was done on her by local repair with flap splitting method. The operation took about 3 hours time with minimum blood loss. A catheter was kept for continuous bladder drainage for 21 days. Her post-operative period was uneventful. After removing the catheter, a small amount of urethral incontinence was seen for which she was advised for

pelvic floor exercise and she was discharged for home. After 1 month, on follow up examination she was found absolutely cured. This is a tragic story of true incontinence of one Mollika. But there are so many Mollikas in our country. A report by UNFPA revealed more than 70,000 thousand cases of female suffering from this devastating condition Vesico Vaginal Fistula (VVF) & Recto Vaginal Fistula (RVF). We have the experience of successful surgery in about more than thousand cases of which 85% patients were fully cured & went back to their normal life.

Other different types of urinary incontinence which are:

Urge incontinence: When a patient can't hold urine, when there is an urge to pass or when a woman passes urine without any apparent reason, it is called urge incontinence.

Stress incontinence: This is strictly an anatomical problem. In this condition the patient leaks urine during coughing, sneezing, jogging, laughing & other movements also. The factors responsible are developmental weakness of supporting structure maintaining bladder neck, child birth trauma by untrained dai,

during pregnancy by high level of progesterone, post-menopausal, any trauma, following radical pelvic surgery etc.

Management: Before management we have to confirm the diagnosis by physical examination & thorough investigation.

Medical management: Some patients can be managed by counseling & medication, others will need surgery. Surgical management types are as follows

- Anterior colporrhaphy
- Kelly's cysto-urethroplasty
- Combined abdomino-perineal route: Burch colposuspension
- Sling procedure
- Recent advances: TOT (trans obturator test)
- TVT (tension free vaginal tape)

Operations are easy to perform by experienced hands which need less hospital stay & also have better result.

Most of the women do not seek medical help, they think it is incurable & this has happened due to their bad luck. But there is prevention and treatment and they have the right to get management.

Plate and Screw Fixation Together with Anterior Cervical Dicsectomy and Fusion at Two or More Levels, Is It Necessary?

Dr Syed Sayed Ahmed, Dr Rashad Riasat Haque, Dr Md Nurul Akhter

This specific study was aimed to assess the functional and radiologic outcomes for patient with anterior cervical discectomy and fusion (ACDF) with cage alone without screw and plate fixation for cervical disc prolapse and other degenerative diseases causing cervical myelopathy and radiculopathy at two or more levels.

Patients with cervical degenerative disc disease from September 2007 to October 2015 were assessed retrospectively. A total of 30 patients were treated by ACDF and fusion with cage (Titanium/ PEEK/ Continued) at two or more levels of cervical disc and other degenerative diseases during this period. We have not used plate and screw except in trauma and subluxation cases. All the patients who underwent ACDF and fusion with cage alone were assessed in consideration of radiologic and clinical outcomes, Robinson's criteria and posterior neck

pain, arm pain described by a 10 point visual analog scale and overall functional status were used to assess clinical outcomes. Subsidence, rate of fusion, kyphotic angle and the degenerative changes in adjacent segments were examined during follow-up examination.

VAS (Visual Analog Scale) was checked during each follow-up for all patients and Robinson's criteria were used. Fusion rates were 96.66% (29/30); subsidence rates were 6.6% (2/30); local and regional kyphotic angle difference showed no significant difference. At the final follow-up, adjacent level disease developed in 10% (3/30) of patients.

In two or more levels, ACDF and fusion with cage alone would be a better choice than additional screw and plate fixation with regard to clinical and radiologic outcome. The same surgeon used plate and screw routinely for two or more levels

previously and follow-up of these patients revealed significant neck movement restriction and subsequent development of further disease at level above and below. Without plate and screw, there is not much complain regarding movement and follow-up revealed no further disc prolapse at level above and below.

In two or more levels, ACDF with cage alone does not require fixation by plate and screw and definitely improves the functional quality of life of the patient and prevent subsequent complications. We suggest that with routine use of plate and screw in two or more levels, surgery may not improve the functional outcome.

Keywords: ACDF with cage alone, ACDF with plate fixation subsidence, Adjacent level degeneration, Fusion rate.

This Paper Was Presented In 32nd Annual Meeting, Cervical Spine Research Society-europe, 11-13 May 2016, Prague.

Fibrous Dysplasia- A Case Report

Dr Biplob Kumar Halder, Prof Dr Shahidul Islam, Dr Jan Mohammad, Dr Umme Iffat Siddiqua, Dr Sohel Abdullah

A 43years old gentleman, an executive of an Airline Office came to United Hospital orthopedic department with history of pain in left hip joint. Patient was normotensive and non-diabetic. He was then sent to the Radiology & Imaging Department

for MRI of pelvis. On STIR images subtle hyperintensity was noted in left iliac bone and along the left acetabular margin. Then he was asked to do a CT scan of pelvis which showed expansile irregular lytic and sclerotic lesion in left iliac bone and along the left acetabular margin. However the joint space and adjacent soft tissues were unremarkable. Then our provisional diagnosis was fibrous dysplasia and the patient was then further advised to do a confirmatory bone biopsy (CT guided) which confirmed Fibrous Dysplasia.

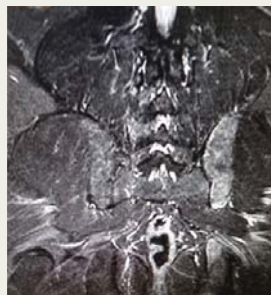
Fibrous dysplasia is a non-neoplastic disorder where normal bone marrow is replaced with fibrous tissue resulting in formation of bone that is weak and prone to expansion. It can affect any bone in the body but most often occurs in the:

- Femur • Tibia • Ribs • Skull
- Humerus • Pelvis.

The significant complications are fracture, deformity, functional impairment and pain. This disease can affect single bone (monostotic) or multiple bones (polyostotic) and may occur in isolation or in a complex genetic disorder termed McCune-Albright Syndrome. More rarely fibrous dysplasia may be associated with intramuscular myxoma in a condition termed Mazabraud's Syndrome.



CT Image: Fibrous Dysplasia of left hip bone



MRI Image: Fibrous Dysplasia of left hip bone

Verification of MLC Based Electronic Tissue Compensator in Cancer Radiation Treatment Using Portal Dosimetry

Ramaa Lingaiah, Anisuzzaman Bhuiyan, Faruk Hossain, Kh Anamul Haque & Karthick Raj Mani

Anatomic contour irregularity and tissue inhomogeneities can lead to significant radiation dose variation across the complex radiation treatment volumes found in the head and neck cancer. These dose inhomogeneities can routinely create focal hot or cold spots of 10-20% despite beam shaping with blocks or beam modification with wedges. In head and neck cancers the need to compensate for external and internal heterogeneities in topology and density has been recognized for many decades. Various techniques have been used to make missing tissue compensation. These methods generally give suboptimal results for the following reasons: 1) design and fabrication can be time consuming for both patient and technicians 2) fabrication can be very labor intensive and 3) small modification of the treatment plan requires a new fabrication of the compensators.

In this work we intend to use electronic tissue compensator (ETC) to compensate for the missing tissue and internal heterogeneity; the dosimetric verification was done using portal dosimetry which is an emerging verification tool.

Materials & Methods:

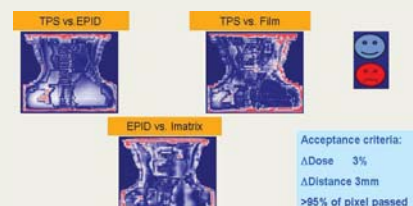
Treatment planning: The head and neck region of the RANDO phantom scanned with 2mm slice thickness data was used in this study. The DICOM data was transferred to Eclipse treatment planning system (Ver. 11, Varian Medical Systems, Palo Alto, USA). A parallel opposed beam portal (Anterior-Posterior & Posterior-Anterior) was created for the field size of 16 x 18cm² with 6MV photons. The electronic tissue compensator was added in both the fields to compensate for the missing tissue and the internal heterogeneity. The optimal fluence was converted into actual fluence for both dynamic and static MLC based delivery using leaf motion calculating algorithm.

ETC algorithm: Patient geometry is considered in determining

the compensation surface, but heterogeneity is accounted for in the field fluence calculation, not in determining the compensation surface. The algorithm checks the penumbra area to keep the difference in the fluence between the margin area and areas nearer to the fluence center less than 20%. Border surface includes points those are closer than from 5 mm (low energies < 10MV) to 7.5 mm (high energies ≥ 10MV) from the field edge. To avoid overshoots at the edges due to scattered compensation, the border surface is allowed to receive 80% to 100% of the prescribed dose.

Dose verification: The plan was transferred to the verification plan and exported through record and verification system. The influence was measured with the portal imager in the integral mode. Portal Dose Image Prediction (PDIP) algorithm is used to verify the TPS calculated and measured fluence. The fluence was also measured using the IMRT Matrix and film. The gamma evaluation was compared with IMRT Matrix, PDIP and film measurements with TPS fluences. The absolute dosimetry was measured by 0.6cc Farmer chamber and compared with TPS.

Results: The gamma evaluation was done using 3% delta dose and 3mm delta distance criteria. We found that more than 95% of the pixels were coinciding between the TPS and the portal dosimetry. The IMRT matrix and film measurements also had a close agreement between the TPS fluences. The superior spatial resolution (0.38mm) and the dose linearity of the aSi detector facilitated the portal dosimetry as a good tool for the fluence verification.



The Pharmacy Department of United Hospital

United Hospital Pharmacy Department has placed a leading role in implementing advanced clinical pharmacist patient care services in United Hospital where pharmacists work collaboratively with nurses and physicians directly on patient care areas to review medication orders and manage drug therapy.

The Pharmacy Department of United Hospital provides a comprehensive range of pharmaceutical services to all patients. Its objective is to provide patient-focused pharmaceutical care in order to achieve definite outcomes that improve patients' quality of life. The pharmacy department consists of a team of qualified, friendly and professional pharmacists in addition to the best pharmacy assistants. The department is headed by professionally com-

the use of protocols and procedures.

The main services provided by the Pharmacy Department are:

In-Patient Pharmacy Services

In-patient Pharmacy is located at the basement of the hospital. It supplies medication to the hospital's in-patients. Pharmacists check the patients' prescriptions for accuracy and appropriateness of treatment at the point of dispensing. Upon discharge, patients are counseled on their discharged medications before leaving the hospital. The in-patient pharmacy provides services to the wards and other units of the hospital through the unit dose supply system. For the unit dose dispensing, each dose is packed individually and kept in patient bins. The

Two pharmacists, nine pharmacy dispensers & seven pharmacy aides are working for in-patient services. They pro-actively escalate communications to resolve and improve any workflow issues to ensure all team members are suitably informed. Moreover, they are fully aware of the ordering and stock maintenance procedures. They assist in the effective control of stock in the dispensary and year end stock inventory.

Out-Patient Pharmacy Services

Outpatient pharmacy can be described as a diverse clinical practice environment. Most Pharmacists in the outpatient pharmacy provide multiple roles ranging from dispensing and counseling to medication therapy management



petent, legally qualified registered pharmacist who directly supervises and ensures the correct dispensing, compounding, and distribution of medication for IPD and OPD.

United Hospital Pharmacy Department provides pharmaceutical care to more than 250 in-patients & more than 600 out-patients daily in the hospital. The Pharmacy Department also participates in a number of hospital committees, including the Drugs and Therapeutics Committee, the Infection Control Committee etc. it maintains a close working relationship with doctors & nurses to ensure the delivery of an optimum pharmacy service to all patients.

Pharmacy Department oversees medication procurement, storage, dispensing, and utilization throughout the hospital. Service quality is ensured through

unit dose drug distribution system is used to reduce the possibility of medication errors in hospital. Patients targeted for clinical pharmacy support have their medicine needs assessed and documented in a care plan that forms part of the patient record.

One Ward Pharmacist makes regular floor/ward visit and solves various problems on spot. The Ward Pharmacist is responsible for the regular checking of DD-box, crush-cart & the inventory of narcotic drugs. They play an important role in the skill development & training for new nurses. They further implement changes where necessary (through review and update of existing SOP or implementation of new SOP) in liaison with the Pharmacy In Charge.

(MTM) services and transition of care. The environment provides patients with the opportunity to speak one-on-one with a pharmacist and schedule MTM services and/or disease management services.

Our Out-patient Pharmacy is located on the ground floor of the hospital. Prescriptions from both internal and external doctors are accepted here. A



wide range of medications are available at the Outpatient Pharmacy. Pharmacists monitor patients' medications and ensure each patient receives appropriate drug therapy. Pharmacy dispensers fill in the prescriptions which are then counter-checked and dispensed by the pharmacists. During this process patients are offered assistance with medication-related problems; pharmacists review prescriptions for proper dosing and identify potential interactions with other medications; and pharmacists provide clear and complete instructions for storage of medications. Pharmacists also counsel patients on the appropriate use of medications. Three pharmacists, seven pharmacy dispensers & three pharmacy aides are working for out-patient services.

Procurement, Storage & Distribution of Drugs

The Pharmacy department is responsible for procurement of drugs and plays a vital role in promoting rational, cost-effective drug usage through an efficient delivery system. Medicines are appropriately stored and packaged to ensure that the medicine is not inactivated due to light, temperature etc. There are six pharmaceutical grade

refrigerators at pharmacy department. All thermolabile drugs like insulin, vaccine, hormone injection, some anti-cancer drugs, suppository etc are stored in refrigerator at 2 to 8 degree centigrade and these drugs are carried out by maintaining proper cold chain (with an ice-box). Temperature log is strictly maintained. Temperature in the storage

these items.

Controlled and narcotic drugs dispensing

Ministry of Health, Bangladesh has a section dealing with pharmaceutical affairs. Pharmacists at United Hospital participate in formulating health and drug policies, particularly those on the selection, procurement and distribution of narcotic drugs. They also serve as sources of information on this for doctors and patients and participate in the preparation of pharmacopoeias and other official documents for internal use at hospital. Log books are specifically maintained for controlled use of narcotic drugs under the supervision of registered pharmacists. Narcotic drugs like morphine, pethidine etc are dispensed only by a pharmacist.



area is maintained at room temperature or below 25 degrees centigrade by central A/C system. All thermostable drugs are stored in regular shelves. Pharmacy store receives medicine from vendors as per purchase order (PO) & creates goods receive note (GRN) to give entry to medicines electronically. It follows first-in first-out (FIFO) system to dispense medicines. One pharmacist; two pharmacy dispensers & one pharmacy aide are working at pharmacy store.

Cytotoxic Reconstitution

The anticancer drugs are known to be mutagenic (causes chromosomal damage), teratogenic (adverse effects on the fetus) and carcinogenic, so extra precaution should be taken while storing, diluting, administering the drugs and disposing the waste. So, all cytotoxic drugs are reconstituted in a state-of-the-art clean room environment. For this purpose, separate rooms are available at oncology day care & 6th floor. One dedicated pharmacist is working in this area who calculate the dilution for cytotoxic medications and perform the final compounding or reconstitution of

Drug Information Services

With the development of specific and potent synthetic drugs, the emphasis of the pharmacist's responsibility has moved substantially towards the utilization of scientific knowledge in the proper use of modern medicines and the protection of the community people against dangers that are in-built in the use of medicine.

Pharmacists at United Hospital are responsible for regulatory control and drug management, academic activities, training of other health workers, and research. In all these fields, their aim is to ensure optimum drug therapy, both by contributing to the preparation, supply and control of medicines and associated products, and by providing information and advice to those who prescribe or use pharmaceutical products.



Health Awareness Talk as Part of CSR



On the occasion of World Health Day 2016 and as part of CSR activities, United Hospital organized a "Health Awareness Session on Diabetes and Kidney Diseases" for the employees of ROBI Axiata Limited, International

Beverages Private Limited (A subsidiary of The Coca-Cola Company) on Monday 11 April & Sunday 17 April 2016 and two sessions for the H & M on Wednesday 20 April 2016. The theme of the World Health Day for this year

was "Beat Diabetes" with the focus on creating awareness to prevent and treat diabetes. Dr. Tanveer Bin Latif, Consultant Nephrologist of United Hospital conducted all the sessions.

CKD Patients Should be Careful About the Risk of Painless Myocardial Infarction (Heart Attack)

Dr Tunaggina Afrin Khan

Chronic kidney disease increases the risk for developing ischemic heart disease, and lately it is thought to be related with painless acute myocardial infarction (AMI). Typical chest pain is clinically most important in AMI because it encourages patients to seek immediate medical attention, leading to early diagnosis and early revascularization and thus improved prognosis. However, AMI without typical chest pain can be unrecognized by patients and discovered only on subsequent routine electrocardiography or cardiac enzyme analysis, and in such cases, patients may delay seeking medical attention. Painless AMI is often followed by silent myocardial ischemia. Silent myocardial ischemia seems to be an independent predictor of future cardiac morbidity and mortality. Also, patients with painless AMI have been reported to have worse short-term and long-term outcomes than patients with painful AMI.

Chronic kidney disease (CKD) is an independent risk factor for cardiovascular disease. There is a graded, independent association between reduced estimated glomerular filtration rate (eGFR) and the risk for death, cardiovascular events, and hospitalization. Silent myocardial

ischemia and painless AMI may be associated with end-stage renal disease. Subjects with painless AMI are older and more likely to be women with lower mean eGFR compared to those with painful AMI. The risks of presenting with painless AMI versus painful AMI are significantly higher for patients having eGFRs of < 45 ml/min/1.73 m². Patients with AMI but without chest pain are at increased risk for higher in-hospital mortality, adverse short and long term outcome.

CKD has been a well-known risk factor for atherosclerosis and IHD (ischemic heart disease). Cardiovascular disease on the other hand causes >50% of deaths in patients with CKD. CKD is usually accompanied with hypertension and diabetes. The synergistic effect of CKD-related mechanisms such as anemia, inflammation, and metabolic derangements may accelerate coronary atherosclerosis and promote plaque vulnerability to rupture and thrombosis. According to the PROSPECT study, after percutaneous coronary intervention of all culprit lesions in acute coronary syndromes, patients with CKD versus those without CKD have more extensive and severe atherosclerosis remaining in their coronary trees, with plaques

composed of greater necrotic cores and less fibrous tissue. The anatomic and functional integrity of cardiac sensory receptors and afferent neurons is a major factor in the perception of myocardial ischemia. Inadequate receptor stimulation or receptor dysfunction may block pain perception, and pathologic changes of the afferent fibers may hinder impulse conduction. Also, conduction of the afferent impulse may be affected by various gating mechanisms. As gates exist in the dorsal horn of the spinal cord and in the thalamus, multiple stimuli generated from varying locations may converge and effectively cancel each other out. In patients with CKD, the prevalence of diabetes is high, and neuropathy is a common complication. Loss of kidney function causes a buildup of body waste products in the blood and leads to multiple chemical imbalances, which can have toxic effects on the nerves. Uremic neuropathy may affect the central, peripheral, or autonomic nervous systems. CKD with silent MI patients have worse outcome. Proper and timely diagnosis is important. In that case serial troponin-I level with increasing value is diagnostic of MI in CKD rather than single observation.

Awareness on Safety Measures

On 28 April 2016 an awareness session was held by Gulshan Thana team staff where the Police Department under the leadership of OC, Gulshan Thana briefed approximately 50 staff of United

Hospital. The briefing was on general safety and contingency measures to remain alert and safe from unwanted attackers or intruders at home, workplace and in daily life.



Prevalence of Transfusion Transmissible Infections (TTIs) Among the Voluntary Blood Donors

Dr Md Redwanul Huq Masum, Dr Rabeya Rahman, Prof Brig Gen (Retd) Zahid Mahmud

Transfusion Transmissible Infections (TTIs) are the most important preventable hazard related to blood transfusion. Exact estimates of the risk of TTIs are necessary for monitoring the safety of blood transfusion and evaluating the efficiency of presently employed screening procedures.

All blood donations in the blood bank of UHL are voluntary and non-remunerated. Donors reporting to the blood bank of UHL are tested for Hepatitis B Virus (HBsAg), Hepatitis C Virus (Anti HCV), HIV (Anti HIV 1 & 2), Syphilis (VDRL), and Malaria (Malaria parasite, MP) as a part of mandatory screening.

Prevalence of TTIs in the last 1 year (March, 2015 – February, 2016), among voluntary blood donors in the blood bank of United Hospital, is shown in the following table (Table 1):

Total no of voluntary blood donors	HBsAg positive, No. (%)	Anti HCV positive, No. (%)	Anti HIV 1 & 2 positive, No. (%)	VDRL(RPR) reactive, No. (%)	MP found, No. (%)
22,419	52 (0.23%)	04 (0.018%)	02 (0.009%)	Nil	Nil

Prevalence of TTIs in Program office, Safe Blood Transfusion Program, DMCH, Dhaka among voluntary blood donors in 2008 is shown in the following table (Table 2):

Total no of voluntary blood donors	HBsAg positive, No. (%)	Anti HCV positive, No. (%)	Anti HIV 1 & 2 positive, No. (%)	VDRL(RPR) reactive, No. (%)	MP found, No. (%)
96,572	1,045 (0.2976%)	112 (0.0319%)	5 (0.0014%)	65 (0.0185%)	2 (0.0006%)

Comparison between the above two prevalence (Table 3):

Duration	HBsAg positive, No. (%)	Anti HCV positive, No. (%)	Anti HIV 1 & 2 positive, No. (%)	VDRL (RPR) reactive, No. (%)	MP found, No. (%)
2008 at DMCH	1,045 (0.2976%)	112 (0.0319%)	5 (0.0014%)	65 (0.0185%)	2 (0.0006%)
2015 – 2016 at UHL	52 (0.23%)	04 (0.018%)	02 (0.009%)	Nil	Nil

It is obvious from the available data that, prevalence of TTIs among voluntary blood donors has decreased greatly in Bangladesh, as the data shows many of these diseases were more prevalent among the population in 1980s and 1990s. There are several reasons for lower prevalence of TTI in this country in recent years.

The Bangladesh Government passed “Safe Blood Transfusion Law 2002” in the National Parliament in the year 2002 to ensure safety, adequacy, accessibility and efficiency of blood transfusion at all levels. This law is a regulatory law for setting up blood transfusion centers, management, blood collection, blood storage, blood testing and transfusion to avoid unauthorized practices of human blood transfusion

- Therefore in June 2008, the Government of Bangladesh has further published “Safe Blood Transfusion Rules 2008”.

Other reasons for decreased prevalence of TTI are:

- Implementation of strict donor selection criteria in the blood banks
- Awareness of the TTIs among the general population and health professionals
- Use of sensitive laboratory screening tests for the TTIs.

Medical Waste: A Global Burden

Dr Kasekh Akhtar Jahan

Expansion of health care facilities as well as the recent trend of using disposables has led to an unprecedented burden of health care related waste. Since the last three decades, unregulated handling of biomedical waste is emerging as a serious threat to human health and safety. The concern over HIV/AIDS and other blood borne infections has led to an increased professional and environmental activism towards this issue. At the global level, 18 to 64 per cent of health-care institutions are reported to have unsatisfactory medical waste management facilities; predictors include lack of awareness, insufficient resources and poor disposal mechanisms. Improper medical waste management is alarming in Bangladesh and it poses a serious threat to public health. It is a common observation in Dhaka City that poor scavengers, women and children collect some of the medical wastes (e.g.

syringe-needles, saline bags, blood bags etc.) for reselling these despite the deadly health risks. The collection of disposable medical items, its re-sale and potential re-use without sterilization could cause a serious disease burden.

United Hospital has a comprehensive medical waste management program in the hospital consistent with the local law. For proper management, the hospital uses color coded paddle operated bins for segregation of different types of medical waste in all areas of the hospital. In addition to this, United Hospital has dedicated sharp containers for safe handling and disposal of sharp objects.



After segregation at the point of care, all solid medical wastes are stored in a separate central store which is collected and taken away by PRISM Bangladesh (the only government approved medical waste management organization in Bangladesh) for ultimate waste treatment at their premises. The hospital has its own ETP (Effluent Treatment Plan) for disinfection of liquid waste before disposal to sewerage system. Close monitoring is done in every steps of medical waste management inside the hospital. Further continuous ongoing, on-job staff training also takes place regarding proper medical waste management of the hospital.



Visits to United Hospital



- A delegation from Chevron Bangladesh, Dhaka Office led by Dr Mohammad Lokman Hossain, Medical Specialist, Dhaka Health and Medical, Chevron Bangladesh visited United Hospital on Tuesday 17 May 2016.



- A delegation from Falck Global Assistance, Sweden (one of the leading companies in medical assistance based in Sweden and also the official insurance company for the expats of Embassy of Sweden, Dhaka) led by Mr Alexander Segerborg, Network Manager of Falck Global along with Mr Magnus Andre, Second Secretary, Embassy of Sweden, Dhaka visited United Hospital on Wednesday 8 June 2016.

Corporate Agreement Signing

- Amann Bangladesh on Tuesday 19 April 2016.
- Druk Air Corporation Limited on Monday 25 April 2016.



- United Hospital signed a Corporate Medical Services Agreement with United International University on Tuesday 17 May 2016. Prof Dr M Rezwan Khan, Vice Chancellor of United International University and Mr Najmul Hasan, CEO of United Hospital Limited were the authorized signatories from United International University & United Hospital Limited respectively. Under this agreement, faculties, employees and their dependents of United International University can avail special healthcare facilities at United Hospital.
- BRAC Bank Limited on Sunday 22 May 2016.
- Summit Communications Limited on Tuesday 31 May 2016.
- German Development Cooperation (GIZ) Limited on Wednesday 1 June 2016.

Antenatal Classes for Expectant Mothers



As a part of patient education and consequent value addition to treatment. The 7th antenatal class under the supervision of Obstetrics & Gynaecology Department was organized on Saturday 14 May 2016. Participants were the pregnant mothers (with a companion) who are availing United Hospital Obstetric prenatal care. Dr Afsari Ahmed, Junior Consultant, Obstetrics & Gynaecology, Ms Tasneem Hasin, In-Charge, Dietetics & Nutrition, Ms Umme Kulsum Laizu, Clinical Physiotherapist and Ms Sajeda, Senior Staff Nurse of United Hospital gave presentations on various topics.

Awareness Session on Earthquakes

On 2 June 2016 an awareness session on earthquakes & fire safety was arranged at United Hospital. The session was conducted by Major AKM Shakil Newaz, Director, Operation and Maintenance of Fire Service & Civil Defense. The main focus was on workplace safety & management/strategic side of fire & earthquake prevention,

general and contingency safety measures, remaining alert & safe from earthquakes and in daily life. Staff from different departments of the hospital attended the session.



Get Together of Internship Providers for Medical Physicist of Dhaka University

On 15 May 2016, Ms Hanufa Ahmed, In-Charge Training, Human Resource United Hospital attended an invitation from Mr Muhammad Abdul Kadir, Chairman and Dr Khondkar Siddique-e-Rabbani, Dean of the Department of Biomedical Physics & Technology, University of Dhaka. Dr Rabbani expressed his earnest gratitude to United Hospital for providing internship to the MS Medical Physics students of

Biomedical Physics & Technology Department to observe and gain practical experience at the Department of Radiation Oncology United Hospital. The meeting with vote of thanks was arranged by the Chairman for the internship provider hospitals and institutes where members from Ahsania Mission Cancer and General Hospital,



National Institute of Cancer Research & Hospital (NICRH), National Institute of Nuclear Medicine and Allied Sciences (NINMAS) at BSMMU, Square Hospital Limited & United Hospital Limited participated.

Seminars & Workshops

- A Presentation on “VITROS Innovative Technology of Dry Chemistry” was arranged on Tuesday 5 April 2016 at United Hospital. Dr Anita Ittop, Technical Manager, Ortho-Clinical Diagnostics Technical Manager, India did the product presentation. Brig Gen (Retd) Prof Zahid Mahmud, Consultant, Haematology of United Hospital delivered the welcoming speech.
- A scientific seminar on “Advances in Management of Type 2 Diabetes” was arranged on Thursday 7 April 2016 at United Hospital. Dr Nazmul Islam, Consultant, Diabetes & Endocrinology of United Hospital was the speaker.
- A scientific seminar on “ZIKA VIRUS - A New Threat?” was arranged on Wednesday 13 April 2016 at United Hospital. Dr Afsana Begum, Associate Consultant Internal Medicine, United Hospital was the speaker of the seminar. Internal Medicine Consultants Dr Pradip Ranjan Saha, & Dr Md Iqbal Hossain, Consultant Laboratory Medicine Brig Gen (Retd) Prof Dr A F S A Wasey and Consul-

tant Neonatology Dr Nargis Ara Begum of United Hospital were present as Panel of Discussants.

- A scientific discussion on “High Sensitive Troponin I” was arranged on Monday 25 April 2016 at United Hospital. Dr Jaganathan Sickan, Associate Medical Director, Medical & Scientific Affairs, Abbott, Singapore was the speaker.
- A scientific seminar on “Update on Advanced Management Practices in Radiology & Oncology” was arranged on Tuesday 10 May 2016 at the Seminar Hall of Hotel Dallas International, Rajshahi. Dr Jan Mohammad, Consultant, Radiology & Imaging & Dr Saumen Basu, Consultant, Radiation Oncology, United Hospital were the speakers of the seminar.
- A scientific seminar on “Replacing Renal Function in Critical Care Areas: Practice and Evidence” was arranged on Wednesday 11 May 2016 at United Hospital. Dr Tanveer Bin Latif, Consultant & Dr Tania Mahbub, Specialist, Nephrology, United Hospital were the speakers. Nephrology Consultants Prof M

Mujibul Haque Mollah & Prof Nurul Islam were present as Panel of Discussants.

- A scientific seminar on “Update of Advanced Management Practices in Orthopaedic Surgery & Oncology” was arranged on Tuesday 24 May 2016 at the Conference Room of General Hospital, Narayanganj. Dr A H M Rezaul Haque, Consultant, Orthopaedic Surgery and Dr Saumen Basu, Consultant, Radiation Oncology, United Hospital were the speakers.
- A scientific seminar on “Early Use of Chemotherapy Increases Survival in Prostate Cancer” was arranged on Thursday 2 June 2016 at United Hospital. Dr Md Sajjad Hossain, Consultant, Medical Oncology, United Hospital was the speaker. Dr Ferdous Shahriar Sayed, Consultant, Medical Oncology, Dr Md Rashid Un Nabi, Consultant, Radiation Oncology, Dr M Zahid Hasan, Consultant, Urology & Dr Ashim Kumar Sengupta, Associate Consultant, Medical Oncology of United Hospital were present as Panel of Discussants.

Strengthening and Expansion of Newborn Birth Defect (BD) Surveillance in Bangladesh

A two days progress preview meeting arranged by BSMMU was held from 1st to 2nd June 2016 on “Strengthening and Expansion of Newborn Birth Defect (BD) Surveillance in Bangladesh”. There were 16 doctors from different centers who participated in the meeting. Nursing Department's Ms Bina Biswas, Acting Unit

Supervisor, NICU United Hospital did a presentation on “Newborn Birth Defect from July 2015 to May 2016”. The chief guests were from DGHS, WHO Bangladesh, BSMMU, NNPD, NBBB and other institutes. The main discussion was on feedback and future plan of the training.



International Nurses Day 2016

On 12 May a rally was held by United Hospital nurses along with students of United College of Nursing. This was followed by a cake cutting ceremony. Flowers & get well cards were distributed to the admitted patients afterwards. In the evening a cultural program was held. The ceremony began with a welcoming speech from CNO Dr Monette B Brombuela and Honorable Managing Director Mr Faridur Rahman Khan.

Some of the distinguished guests included His Excellency the Ambassador of The Philippines Vicente Vivencio T Bandilo and their Cultural Officer Ms Loren S Arce, Head of Nursing, Nursing Supervisors and faculty members from different hospitals and nursing colleges. A Candle Lighting ceremony was held followed by the Nightingale Pledge.



Condolence & Prayers

- Manager of Food & Beverage / Catering Humayun Reza Khan lost his father Mr Nazir Ahmed Khan on 10 April 2016.

Congratulations & Best Wishes to the Following Staff and Their Spouses



New Baby

- Deputy In-Charge, Marketing Syed Ashraf-ul-Masum had a baby boy Syed Zarif bin Ashraf on 27 April 2016.
- Customer Relation Officer Md Kamrujjaman had a baby girl Sawda Jaman on 7 May 2016.
- Customer Relation Officer Jemi Sultana Runa had twin girls Marwa Nawar and Safa Nawar on 6 June 2016
- Customer Relation Supervisor Jasmin Akther Mou had a baby boy Taaraz Bin Taufiq on 7 June 2016.
- Nursing Department's Staff Nurse Minati Datta had a baby girl Ankita Sarker (Diya) on 2 February 2016.

Awareness Session on Hand Hygiene



On the occasion of International Nurses Day 2016, United Hospital Limited organized an "Awareness Session on Hand Hygiene" on Monday 9 May. Nursing Department of the hospital conducted two sessions at Scholastica Limited, Junior Campus and Gulshan International School, Shahjadpur, Gulshan, Dhaka. Trained nurses of United Hospital demonstrated hand hygiene techniques and a practical presentation was given. Around 300 students participated from both the schools.

Eid Mubarak



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