United Hospital Quarterly Newsletter

reflection

Issue-7 | Quarter-3, 2014

Editors Note

On 24 August 2014, United Hospital stepped into the 9th year of its operation. The day was observed solemnly with Quran Khawni in the morning and special prayers after Asr prayers.

On this day we humbly remember those souls who dreamed about setting up a modern hospital about two and a half decades ago and laid the foundation of the hospital. We are also proud of those, the Directors of United Group, who have realised the dreams of not only the initiators but also the community and the people of Bangladesh.

I am sure all of you will endorse when I say that we are proud to be associated with United Hospital and that we will continue to work to provide the best possible service in healthcare.

This has been a busy quarter for our doctors and caregivers with many of them attending and contributing in various workshops and seminars. There is whole lot of such news in this issue.

We wish our readers a ***Very Happy Eid Mubarak***

BCPS Recognises Training at United Hospital

Prof M Mujibul Haque Mollah

All our young doctors who aspire to specialize in the subjects of their interest need to have post-graduate degrees like MD or MS and/or sit for FCPS examinations. An essential part of obtaining these qualifications is 'residency training'.

United Hospital had initially applied to Bangladesh College of Physicians and Surgeons (BCPS) to recognise the work of our doctors as part of their training requirement towards fulfilment of their course in January 2012. In July 2013 we had to re-apply due to some procedural changes adopted by BCPS.

In July, just before Eid, BCPS informed United Hospital that it had granted recognition to the training imparted in the departments of (i) Cardiology, (ii) Nephrology and (iii) Neuro-Surgery to the resident doctors. The duration of training to be counted is six months. It is indeed a great honour. United Hospital is grateful to BCPS for this recognition. We also thank the Consultants for their dedicated effort and express special gratitude to Hospital Management for their guidance and support.

We will continue our endeavour to get recognition for other major departments of the hospital. In connection with this, a team from BCPS visited United Hospital on 30th August 2014 to inspect work being done in our Oncology department and Radio Therapy unit in particular, in response to our earlier application.

We have now taken necessary steps to welcome doctors who are willing to work at United Hospital and would like to have their training recognised as part of their curricula requirement.

Bangladesh Cancer Congress 2014

United Hospital participated in Bangladesh Cancer Congress 2014 held from 22-23 August 2014 at Radisson Hotel, Dhaka. Cancer is one of the most fatal diseases worldwide which needs exclusive research and mass awareness among people to handle and reduce the disease. Oncologists from home and abroad attended the congress. Such congress gives our doctors an opportunity to exchange advanced knowledge and stimulate regional & international collaboration in different fields of cancer to meet the challenges. From United Hospital: Dr. Md. Rashid Un Nabi, Mr. Kartick Raj Mani and Dr. A F M Kamal Uddin presented papers; Dr. Ruhina Alam of United Hospital and Dr. Mostafa A Sumon presented papers in the Young Investigators Session and a Poster Abstract was also presented by Mr. Anamul Haque.

On August 22 Dr. Shyam Kishore Shrivastava Professor and Head of Radiation Oncology, Tata Memorial Hospital, Mumbai, Dr. Purvish M. Parikh, Director of Education and Research and Senior Medical Oncologist and Hematologist & Dr. Goda, Jayant Sastri, Clinical Scientist and Associate Professor, Radiation Oncology, ACTREC: Tata Memorial Centre, India visited United Hospital and met Mr. Faridur Rahman Khan, Managing Director, United Hospital Limited. They visited the Radiation Oncology, Medicine Oncology unit and the Nuclear Medicine department of the Cancer Center and showed keen interest for future collaboration and research.

Role of Cardiac Anesthesiologist in Beating Heart Cardiac Surgery

Dr Shahid Ahmed Chowdhury

Off Pump Coronary Artery Bypass (OPCAB) or Beating Heart surgery is a relatively new technique of coronary revascularisation and has several advantages over conventional CABG like avoidance of aortic cross clamp, reduced morbidity & mortality, reduced ICU stay & cost etc. OPCAB has been accepted & established as a popular technique in Bangladesh although we faced criticism ever since we started doing this procedure in 2002.

The role of a Cardiac Anesthesiologist is vital in OPCAB especially during coronary grafting since the Anesthesiologist has to manage all major problems such as serious hemodynamic compromise during cardiac manipulation by Surgeon, transient deterioration of cardiac pump function and acute myocardial ischemia or infarction. Management of hemodynamics during coronary grafting is a challenge in OPCAB demanding an anesthesiologist with thorough understanding of Coronary Blood Flow, Cardiovascular Physiology & Pharmacology. Importantly, he should maintain good communication with the surgeon during coronary anastomosis as the surgeon may not be aware of causing cardiovascular compromise by rough cardiac manipulation leading to more damage to the already ischemic heart. During this untoward situation, the anesthesiologist needs to maintain the patient's cardiovascular stability by positioning maneuvers, volume infusion, vasoconstrictor, vasodilator or inotrope & whatever is appropriate. He may even be required to pursue the surgeon for releasing heart pending progress of surgery because if this is not done in time the outcome of the procedure may not be good inspite of good grafting. At times IABP or CPB support may also be needed to salvage the heart. Standard non-invasive & invasive monitors including the high techs (PAC,TEE) are helpful to detect problems early & accurately. A prompt & appropriate Goal Directed Therapy (GDT) is the key for a safe & successful outcome in OPCAB surgery.

The post operative care of cardiac surgical patient is not like that of other surgeries. Patients are routinely kept on ventilator after surgery for stabilization of vital organ functions including cardiovascular, respiratory, renal and CNS and then weaned from ventilator & extubated. So long a patient is critically ill he remains under cardiac anesthesia care in CICU even after extubation.

ISO Accreditation

We had applied for ISO Accreditation of our laboratory to Bangladesh Accreditation Board (BAB) following which an Assessment Team led by Ms Anne Graedsen, Technical Director, Norwegian Accreditation, visited our laboratory in June 2014. The team identified Non Conformities and submitted a detailed report to BAB and to us. Towards the end of August, we submitted our responses to the non conformities. We are now expecting a re-visit by the Assessors Team sometime in October, after the Eid holidays.

Oncological Pain Management

Dr Israt Jahan, Dr Ashim Kumar Sengupta, Dr Ferdous Shahriar Sayed, Dr Rashid Un Nabi, Prof Dr Santanu Chaudhuri

The experience of pain in cancer is widely accepted as a major threat to quality of life so the relief of pain has emerged as a priority in oncology care. Cancer pain might be nociceptive or neuropathic. Initial and ongoing assessment of pain includes the evaluation of pain intensity using a numerical rating scale of 0 (indicating no) to 10 (indicating the worst pain imaginable). Pharmacologic therapies include non-opioids, opioids and adjuvant analgesics along with a variety of anti-cancer therapies.

For mild pain (2-3), non-opioid regimen to be started. If no response, in case of moderate pain (4-6), weak opioid regimen should be used as needed. If no response, in case of severe pain (7-10), strong opioid regimen should be the choice. Prophylactic laxatives and anti-emetics should be included in the protocol.

NSAIDs are useful in the treatment of painful conditions mediated by inflammation, including those caused by cancer, such as bone metastases. The NSAIDs do offer the potential advantage of causing minimal nausea, constipation, sedation or adverse effects on mental functioning.

Tramadol is a weak, oral, synthetic opioid which provides benefit in the relief of neuropathic pain.

Strong opioids like morphine, hydromorphone, fentanyl and oxymorphone are most widely used in Bangladesh. Although the oral route of administration is advocated, the patients presenting with severe pain requiring urgent relief should be treated and titrated with parenteral opioids, usually administered by the subcutaneous (s.c.) or intravenous (i.v.) route.

All patients should receive round-the-clock dosing with provision of a 'breakthrough dose' to manage transient exacerbations of pain. The 'breakthrough dose' is usually equivalent to 10-15% of the total daily dose.

Transdermal fentanyl is best reserved for patients whose opioid requirements are stable. They are usually the treatment of choice for patients who are unable to swallow, patients with poor tolerance of morphine and patients with poor compliance.

For pain from bone metastases which is difficult to control by pharmacological therapy, external beam radiotherapy or radioisotope treatment should be an option. Bisphosphonates should be considered as part of the therapeutic regimen for the treatment of patients with/without pain due to metastatic bone disease.

Neuropathic pain, either caused by tumor infiltration or due to paraneoplastic or treatment-induced polyneuropathy should be given either a tricyclic antidepressant or an anticonvulsant and subjected to side effects monitoring.

Steroids are mainly used to treat pain caused by swelling from peri-lesional oedema.

United Hospital Lab - Troponin I

Prof Dr K A R Sayeed

Cardiac Troponin I is the essential component of diagnosis and management of Acute Coronary Syndrome (ACS). In the United States, Troponin T is used for the same purpose.

Troponin I is subject to many studies and we would like to provide some important findings from there for all concerned care givers.

Normal Troponin:

For most laboratory tests, the reference interval (normal range) is selected to encompass the central 2 standard deviations (2SD) of a normal population. 2SD includes approximately 95% of an ideal population.

By using high sensitive TnI - Ultra cTn can be detected as low as 0.006ng/ml of a reference population. So the Troponin decision limit for several high sensitivity cTn assays can be set as low 0.04ng/ml. In the United Hospital Laboratory using STAT Troponin-I re-agent in 8200i Immuno analyzer the 99 percentile is 0.028ng/ml, analytical sensitivity is < or = to 0.01 and the diagnostic cutoff is 0.30ng/ml as per CLSI guide. Thus in United Hospital, our cutoff value for Troponin I or Positive Troponin (cTn) Result is 0.30ng/ml.

We have further mentioned in our report that "A significant change in the Troponin I level from admission to 3 hours may help establish an MI Diagnosis, even in patients with very low Troponin I".

Abnormal Troponin:

Most of the time increased level of Troponin I means myocardial ischemia but sometimes not. Sometimes the laboratory detects TnI above the 99th percentile in a patient without myocardial ischemia. How could this be?

There is a large body of literature on the subject of patients with elevated troponin and no other evidence of myocardial ischemia i.e. 'false positive' troponin. In a variety of single-institution retrospective review, the rate of these 'false positive' ranges from 0.2% to 4.8%. These 'false positive' fall into 4 categories.

1. **Non-ischemic pathology:** Acute pulmonary embolism, myocarditis, pericarditis, heart failure, intracranial insult, rhabdomyolysis, sepsis, shock, and renal insufficiency.
2. **No pathology:** The 1% of healthy adults whose TnI is normally above the 99th percentile.
3. **Wrong patient's blood in the tube:** wrong label in the tube, mixed up with some other tubes.
4. **Analytical false positive:** Analytical false positive troponin is a phenomenon that is an inherent weakness of the available assays. There is a variety of causes like lab staff failed to check the result, unmindful while carrying out the test etc. It is to be noted that non-ischemic causes of TnI elevation (renal insufficiency, CHF, toxin etc) are generally associated with low-level elevations (0.05-0.9ish). Most analytic false positives are actually quite high. We have observed them as high as 0.56.

"The golden rule of the thumb is that whenever you request for Troponin I, then please repeat the test exactly after 3 hours either to rule out or clinch the diagnosis of MI."

International Scientific Conference 2014 -BACVTS

On 20 & 21 June 2014 an International Scientific Conference was arranged by Bangladesh Association of Cardiac Vascular & Thoracic Surgeons (BACVTS) in Hotel Radisson, Dhaka. This year's theme was "Disseminating Surgical Care". Dr. Jahangir Kabir, President, BACVTS said in his keynote speech that this conference would provide opportunity to the surgeons, anesthetists, perfusionists and physicians to improve skill through exchange of views. Nearly 300 participants from home and abroad participated. From United Hospital Dr. Jahangir Kabir, Chief Surgeon and Director Cardiac Surgery, Dr. Asif Ahmed Bin Moin, Dr. Rezaul Hasan, Dr. Nizam Uddin Ahmed, Dr. Md. Zakir Hossain, Dr. Mirza Abul Kalam Mohiuddin, Dr. Md. Sayedur Rahman Khan, Dr. Mahbub Ahsan, Dr. Md. Abul Kashem, Dr. A Y M Shahidullah, Dr. Mohammad Arifur Rahman and Dr. Shahid Ahmed Chowdhury attended and presented 9 papers in the conference.

Physiotherapy in Gynaecology & Women's Health

On August 19, 2014 a workshop on "Physiotherapy in Gynaecology & Women's Health" a modern Approach to Improve Women's Health and Prevent Disability in Bangladesh was organized by the Physiotherapy Department of CRP, Mirpur. The theme of the workshop was "Save the Women's Health & Fit the Nation". From United Hospital the workshop was attended by Obs & Gynae Consultants Dr. Naseem Mahmud & Dr. Khoorshed Jahan Maula and SHOs Dr. Sofia Salam & Dr. Raina Rahman and from Physiotherapy Department Mr. Kazi Sofiur Rahman, Mr. Rayhan Uddin Biswash and Mr. Bijoy Das . Doctors, Physiotherapists and other health professionals of different hospitals attended the workshop.

Association Between Risk Factors of GDM and Glucose Challenge Test Status Among Urban Pregnant Women In Bangladesh: A Tertiary Care Hospital Experience

Dr Nazmul Kabir Qureshi, Dr Raina Rahman, Dr Imrul Hasan, Dr Naseem Mahmud

This paper was published and presented at AACE 23rd Annual Scientific & Clinical Congress, Las Vegas, USA. Category: Diabetes/ Pre-diabetes (original research). ***POSTER NO: 229***

Prevalence of gestational diabetes mellitus (GDM) varies significantly among different populations, ethnicities and with diagnostic criteria. High prevalence of family origin of diabetes, rapid urbanization, changes in lifestyle are contributing increased risk factors for development of GDM.

The study was carried out (December 2012- November 2013) to see frequency of risk factors of GDM among urban, pregnant women in Bangladesh and to find out association between risk factors of GDM and glucose challenge test (GCT) status among 149 urban Bangladeshi women with 24 weeks gestation who attended antenatal care in the United Hospital. Subjects were assessed for risk factors of GDM from history, clinical examinations, medical records and GCT was done at 24 weeks of gestation.

As mean± SD (SE), subjects had pre-gestational age (years) as 27.19±3.31(0.27), BMI (kg/m2) as 23.86±1.95(0.16), SBP (mmHg) as 109.19±12.53(1.03), DBP (mmHg) as 70.12±9.96(0.82) and GCT-VPG (mmol/L) as 7.09±1.19(0.09). Table I shows presence and absence of GDM Risk factors frequencies (%) with corresponding GCT-VPG (mmol/L) as mean± SD (SE).

GCT screening was positive (≥ 7.8mmol/L) in 18.8% (n=28) subjects. Between risk factor positive vs negative subjects, GCT positive cases were as: age>25yrs as 22.7% vs 7.7%[p0.02], exercise<150min/wk as 25.5% vs 5.9%[p0.01], DM family history as 27.5% vs 5.2%[p0.01], BMI>25kg/m2 as 42.5% vs 10.1%[p0.01], PCOS as 29.4% vs 15.7%[p0.07], bad obstetric history as 45.2% vs 11.9%[p0.01], acanthosis negricans as 36.8% vs 16.2%[p0.03], macrosomia as 25% vs 18.6%[p0.74], previous history of GDM as 64.7% vs 12.9% [p0.01], IGT as 100% vs 14.2%[p0.01], IFG as 100% vs 15.4%[p0.01].

Age>25yrs was the most frequent (73.8%) risk factor followed by physical inactivity, DM family history, BMI>25kg/m2, PCOS, bad obstetric history etc. Mean GCT-VPG (mmol/L) was significantly higher, mostly those with previous GDM, IFG, IGT, BMI>25kg/m2, acanthosis negricans etc. GCT screening was positive among 18.8% subjects. GCT screening was significantly positive among those having previous history of GDM, IFG, IGT, BMI>25kg/m2, DM family history, physical inactivity etc. This study revealed that risk factors of GDM are highly frequent among urban Bangladeshi women and significantly associated with GCT status at 24 weeks of gestation.

Table: Frequency of GDM risk factors and GCT status among Bangladeshi urban pregnant subjects at 24 weeks of gestation.

	Study subjects (n=149)				
	GDM risk factor positive		GDM risk factor negative		
Risk factors of GDM	Frequency (%)	GCT-VPG (mmol/L) mean± SD (SE)	Frequency (%)	GCT-VPG (mmol/L) mean± SD (SE)	p value
age>25yrs	110(73.8)	7.21±1.30(0.12)	39(26.2)	6.74±0.71(0.11)	0.03
exercise<150min/wk	98(65.8)	7.23±1.30(0.13)	51(34.2)	6.71±0.82(0.11)	0.01
DM family history	91(61.1)	7.35±1.31(0.14)	57(38.9)	6.68±0.83(0.11)	0.01
BMI>25kg/m ^{2}	38(25.5)	7.83±1.59(0.25)	111(74.5)	6.82±0.87(0.08)	0.01
PCOS	34(22.8)	7.57±1.70(0.29)	115(77.2)	6.94±0.95(0.08)	0.01
bad obstetric history	31(20.8)	7.72±1.50(0.27)	118(79.2)	6.92±1.04(0.09)	0.01
acanthosis negricans	19(12.8)	7.86±1.57(0.36)	130(87.2)	6.98±1.09(0.09)	0.01
macrosomia	4(2.7)	7.32±1.25(0.63)	145(97.3)	7.09±1.19(0.09)	0.69
previous history of GDM	17(11.4)	8.41±1.43(0.35)	132(88.6)	6.92±1.05(0.09)	0.01
IGT	8(5.4)	9.35±0.94(0.33)	141(94.6)	6.96±1.07(0.09)	0.01
IFG	6(4)	9.46±1.08(0.44)	143(96.0)	6.99±1.09(0.09)	0.01

P value reached from independent T test.

2nd ICMPROI 2014

2nd ICMPROI 2014, International Conference on Medical Physics in Radiation Oncology Imaging was held from 22-24 August 2014 in Bangabandhu Sheikh Mujib Medical University (BSMMU), Dhaka. On the first day of the conference, Prof. Dr. Santanu Chaudhuri, Consultant & Director, United Hospital Oncology Centre chaired a session on “Special Procedures and Techniques”. A paper on “A Preliminary Evaluation of Respiratory Gated Volumetric Modulated Arc Therapy in the True Beam Linear Accelerator” was presented by Mr. Faruk Hossain, Physicist, Oncology Department of United Hospital on behalf of our Consultant and Chief Physicist Mr. Karthick Raj Mani.

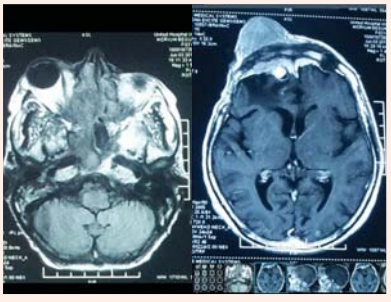
Recurrent Meningioma in Extreme Age

Dr S S Ahmed, Dr Shuvamay Chowdhury

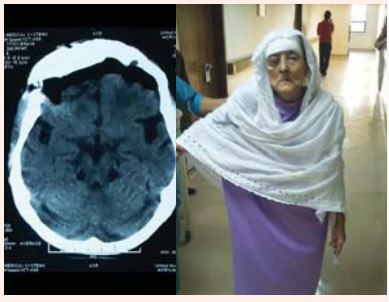
An 83 year old lady was admitted via the ER with history of nasal bleeding followed by nasal blockage & increasing difficulty in breathing, headache & generalized weakness for last few weeks. She was operated twice for frontal meningioma (2003 & 2005) elsewhere. She was admitted with GCS- E4+V2+M6 (12/15) and proptosis of right eye. Both nasal cavity and nasopharynx was filled with tumour mass which was the main reason for her breathing problem. CT scan demonstrated bifrontal tumour extending into frontal, ethmoidal, sphenoidal and maxillary sinus. Considering her age and extensive nature of the tumour, attempting to remove the whole tumour was thought to be life threatening but her respiratory distress was so severe that the family members and she decided to take this risk and agreed to proceed for surgical removal of the tumour.

She underwent total removal of the tumour and Acrylic Cranioplasty (reconstruction of frontal bone, orbital and maxillary bone). Autologous Duroplasty was carried out to prevent CSF leak.

Fortunately she made excellent, uneventful recovery and the respiratory distress resolved entirely. Recently enquiry over phone revealed that she has been enjoying good quality of life in her village home.



Pre Operative

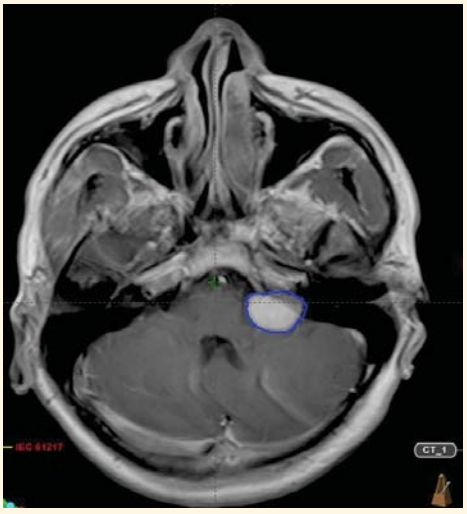


Post Operative

Stereotactic Radiotherapy (SRT) for Acoustic Neuroma-First Time in Bangladesh

Karthick Raj Mani, Anisuzzaman Bhuiyan, Faruk Hossain, Anamul Haque, Vivin Frederick, Dr Paul T Henry, Dr Md Rashid Un Nabi, Dr Ferdous Shahriar Sayed, Dr Ashim Kumar Sengupta, Prof Dr Santanu Chaudhuri

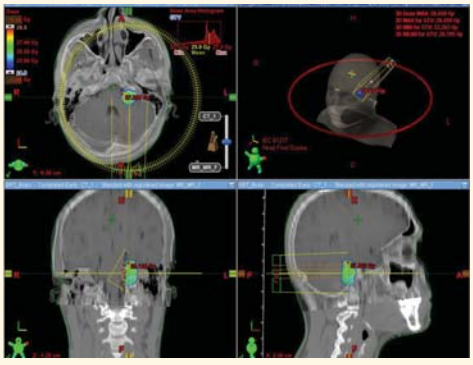
A 27 year old gentleman diagnosed with Acoustic Neuroma on the left was referred to the department of Radiation Oncology from the Neurosurgery department. He presented with history of



tinnitus (ringing in the ears) in his left ear for several months along with moderate headache. MRI revealed a 2.5 x 1.7 x 2.0cm mass in the left internal auditory canal (Figure 1). Audiogram of the patient showed that his hearing was intact at a near normal level in the left ear. After Tumour Board consultation it was decided that the best treatment option in his case was radiotherapy as the recurrence rate (5-10%) and hearing loss probabilities (93%) with stereotactic radiotherapy were statistically similar to surgery.

After proper counseling and discussion regarding the treatment and its side effects the patient wanted to go in for SRT. Patient was positioned supine on CT simulation, immobilized using IMRT reinforced thermoplastic mask and aligned using room based laser system. CT scans were acquired from vertex to C7 with a slice thickness of 2mm. CT data set was fused with MRI dataset to enhance the delineation accuracy. Gross Tumour Volume (GTV) was delineated and a 2mm safety margin given to form a Planning Target Volume (PTV) along with delineation of all organs at risk like facial nerve, 5th cranial nerve, cochlea, brainstem, optic tracts, optic chiasma, eyes, lens, temporal lobe and normal brain.

The planning objective was to deliver 25Gy in 5 fractions to the PTV on a daily fractionation schedule. Treatment was delivered with True Beam Linear Accelerator which is capable of delivering the dose within sub millimeter accuracy using Volumetric Modulated Arc Radiotherapy technique along with daily Cone Beam-CT verification. Multi-planar reconstruction of a patient with dose distribution is illustrated (Figure 2). The daily target localization using CBCT were



within $\pm$2mm through out the treatment. The patient completed the treatment without any early complication. He is being followed up for assessment of disease status and adverse effects endpoint.

On short follow up we found that there was no complaint about tinnitus and the headache decreased by 40%. The patient did not complain about hearing difficulties. He is planned for an Audiogram after 6 weeks. Using Stereotactic Radiotherapy technique we are able to reduce the conventional number of fraction from 30 to 5 fractions successfully and effectively treat benign diseases like Acoustic Neuromas, Pituitary Adenomas, Cranio Pharyngiomas, Meningiomas and AVMs with high accuracy, minimal side effects thus giving the patient a good quality of life.

Mother & Child Care Centre of United Hospital

The Obs & Gynae department started its journey in September 2006. The aim of the department is to provide international standard medical care and services to the women of Bangladesh. Its focus is on Women's Health highlighting on the responsibilities & importance of general medical care for women, to provide guidelines to pregnancy related issues & the female reproductive system.

The staff providing services to the department are academically qualified, clinically experienced & well trained. Our approach to patient's problems/ concerns is being a good listener, providing direct personal help and giving them the confidence that we are here to serve them. The specialized services are offered throuth our OPD, IPD & Emergency units.

The OPD involves specialist consultation, immunization, screening services and management of high risk pregnancies, sub-fertility and oncology. IPD services are normal vaginal delivery, observational management and surgery of all obstetrics/gynaecology related cases including laparoscopic surgery.

The department is enriched by regular full time consultant Dr. Naseem Mahmud and Dr. Nusrat Zaman and other visiting consultants as well as five Specialists & five SHOs who provide 24 hours 7 days a week care to Obs/Gynae patients. The department carries out normal and all high risk child births, counseling women through out pregnancy from giving pre-natal diagnosis to delivery and post-natal care and all the screening for gynae basics, pre-conception, sub-fertility, recurrent pregnancy loss, breast disease and bone and cancer screening which enable us to counsel women to be more aware of their own health status today, tomorrow and in the future.

The Neonatalogy department also started its journey in 2006 under the supervision of a Consultant and five doctors including Specialist/registrar and senior house officers. Initially nursing staff was around 18 to 20, along with other supporting staff together with the start of providing services by the Neonatalogy Department, an 8 bedded Neonatal ICU also became functional.

During NICU's early days almost 95% of our patients were inborn. Most of the

Newborn Care in Bangladesh - Challenges

Dr Nargis Ara Begum

This paper was presented in the Neonatal department of KK Women's and Children's Hospital, Singapore on 5 April 2014. The presentation was aimed to highlight the current status of "newborn care" in Bangladesh.

Over the last few decades, Bangladesh has achieved a remarkable success in health but not in all sectors. Survival and well being of neonates is still a great challenge for us. The country is on track to achieve Millennium Development Goal MDG 4 related to child mortality reduction by 2015. Under 5 mortality and infant mortality reduction rate is satisfactory over last 2 decades. Despite this encouraging trend, neonatal mortality rate is unacceptably high. Current neonatal mortality rate of Bangladesh is 32 per 1000 live births. The achievement of MDG 4 clearly depends on further progress on neonatal survival.

It is estimated that in our country about 100,000 babies die because of complications in pregnancy and childbirth and another 150,000 die before reaching the age of one month. A large number of home deliveries (70%) conducted by unskilled mid-wives are responsible for this sad state

of neonatal health. We do understand that delivery care and improvement in newborn care need training and motivation of all categories of health works and eventually

babies needed level-1 care such as requiring management of hypocalcaemia, hypoglycemia, and neonatal jaundice with infrequent level-3 care (very sick neonatal care). Our journey was not a smooth one. We struggled hard to improve ourselves both qualitatively and quantitatively. Gradually the staff strength increased as the workload increased. At present our nursing staff is 30 and we have 5 Specialists and 5 Senior House Officers who are always working round the clock. For the improvement of manpower quality, regular classes are held for nurses, where we give special emphasis to the new staffs. Along with training we are arranging frequent screening of performances by examination. They are trying heart & soul to achieve upto the mark results to become a part of our team. To invoke the knowledge gained and to remain upto date, regular departmental and research activities are practiced here. We also encourage attending international and national seminars & symposiums. We have strengthened our foothold by preparing articles on surfactant administration in preterm babies for Respiratory Distress Syndrome and about transcutaneous billirubinometry for detection of early neonatal jaundice. All these papers which were read in different nation and international conferences were highly appreciated. With the course of time we became equipped with 5 conventional ventilators and 1 high frequency ventilator. We are a pioneer in offering new dimension in managing neonatal hyperbillirubinemia by using LED blue phototherapy machine which helped a number of babies to escape exchange transfusion. A recent addition to our armamentarium is universal hearing screening for all our Neonatal Intensive Care and nursery babies. For our youngest preterm babies who were passing long days in NICU, we are providing bedside USG for brain, echocardiogram for heart and eye examination to rule out Retinopathy of Prematurity. We ensure the future of premature babies by giving a strict guideline to parents on how to handle them. We are proud to have an expert counseling team and a counseling room with standard library. We also follow a strict protocol to train new parents about initial baby care before discharge of the babies.

We are striving to be the ambassadors of neonatology in Bangladesh and are putting in immense hardwork wtih satisfactory output for the well being of babies.

this training and motivational activities have to be taken up to grass root level. The Government of Bangladesh along with non-government organizations and professional bodies has taken strong initiatives for all healthy and sick newborns. These are:

1. Essential Newborn Care (ENC) and Postnatal Care (PNC).
2. Pre-term birth management initiatives - antenatal steroid and kangaroo mother care (KMC)
3. Preventive measure for birth complication and neonatal resuscitation.
4. Prevention of neonatal infection by promoting early breastfeeding, hexisol wash of umbilicus and early detection and management of neonatal sepsis even in lower level facility.

Institutional neonatal care existed in government as well as private level. Government hospitals do not have facility for mechanical ventilation, surfactant administration and other intensive neonatal care. In private facility, intensive neonatal care started its journey over the last one decade managing very critical newborn babies with the help of high tech logistic support and skilled manpower. Six private hospitals are doing newborn mechanical ventilation, four hospitals are giving surfactant to critical respiratory distress syndrome babies, three hospitals are managing critical cardiac problems of newborns. Premature babies eye checkup - ROP (retinopathy of prematurity) and universal hearing screening for all newborn babies are practiced in four hospitals ensuring vision and hearing before hospital discharge.

Important challenge in private as well as in government neonatal care is unavailability and use of total parenteral nutrition (TPN). Other private sector challenges are - lack of adequately trained staff (doctor, nurse, paramedics, pharmacist), rapid turnover rate of trained staff to government institution and lack of insurance coverage system for paying huge bills of patients.

Improvement of knowledge and practice of newborn care in the community as well as in facilities is the real challenge.

Observation of World Physiotherapy Day 2014

United Hospital observed the World Physiotherapy Day on 8 September 2014. This year's theme was "Movement for Life - Fit to Take Part," highlighting Physiotherapist's key role in promoting

full participation in day-to-day activities by people with injury, chronic disease or disabilities and to help them fulfill their potential.

The day is observed every year around the world drawing attention to the profession's contribution in promoting global health and provision of treatment to people suffering from physical problems arising from ageing, injury, disease, illness and environmental factors. Their aim is to improve a person's quality of life and movement potential.

Like previous years, the Department of Physiotherapy set up a booth in the lobby and provided complimentary services to around 150 patients and visitors.

A seminar was also arranged at the Department of Physiotherapy where Consultants and Specialists of different departments were present together with invited guests including Honorable Ambassador of Kingdom of Saudi Arabia Dr. Abdullah Bussairy as Special Guest and Honorable Member of Parliament Ms. Simin Hossain Rimi as Chief Guest. Physiotherapy In-Charge Kazi Sofiur Rahman presented an Overview of Physiotherapy Department. The main objective of the seminar was to raise awareness among all regarding existing Physiotherapy treatment service options at United Hospital. Prof Dr Md. Mahbubur Rahman, Consultant, Neuro Medicine and Dr. Mohd. Maniruzzaman, Consultant, ICU also spoke on the occasion.

Seminar By Society of Organ Transplantation

The 2nd National Convention and Scientific Seminar organised by Society of Organ Transplantation (SOT), Bangladesh was held from 13-18 September 2014. Focal discussion was on the recent advances for cadaveric transplant particularly kidney, liver, heart and lung. Prof Nurul Islam, Consultant of Nephrology, Dr. Jahangir Kabir, Chief Surgeon and Director Cardiac Centre from United Hospital attended the conference. Prof Nurul Islam chaired two academic sessions and also presented papers on Experiences of Renal Transplant in United Hospital and the Role of Coordination in case of Cadaveric Transplant and Acceleration of Transplant Program in Bangladesh. Dr. Jahangir Kabir delivered his speech on Heart Transplantation in Bangladesh and its future perspective.

Fetal Anomaly Scan- When & Why?

Dr Shakila Parveen

Foetal anomaly scan is one of the most important ultrasound examinations during the gestation period. This examination is performed with a trans-abdominal probe during the 18-22 second week of gestation, normally at 20 weeks.

An anomaly scan isn't performed earlier in the pregnancy because the baby's internal organs are not fully formed and after 24 weeks a full anatomical examination may not be possible because the baby will often be in a difficult position.

It usually takes about 20 minutes. However, it may take a longer time particularly when the position of the baby is not ideal to look at certain organs of the body such as the heart when the baby's spine is anterior (facing up).

The objectives of screening for fetal abnormalities

Pregnancy can be an anxious time for many mothers. The ultrasound can positively reassure the mother of normality in her baby. The majority of pregnancies do not encounter any problems.

Ultrasound will also enable the early diagnosis of major malformations such as anencephaly which are incompatible with life. This can identify anomalies that are amenable to intra-uterine therapy and can also easily detect other malformations which warrant post-natal attention such as gastroschisis, needing surgery.

However, one of the most important objectives of screening for fetal anomalies is parental preparation. It has aided the doctor to optimize management of the pregnancy and prognosticate fetal survival. If a problem is detected, the expected course of events is discussed with parents and right care is given as soon as birth.

What are the abnormalities that can be detected?

Structural abnormalities which can be detected include: hydrocephalus (swelling of the head with excessive fluid), anencephaly (absence of the brain), achondroplasia (dwarf), omphalocele (protrusion of the gut through an abdominal defect), spina bifida (defect in the spine), cleft palate / lips, heart defects (such as "hole in the heart") and club foot.

How reliable is ultrasound scan in the detection of fetal abnormalities?

The detection rate of fetal abnormalities can vary widely from 16% to 85%. The detection of severely and lethal anomalies is consistently better - between 60-86%.

This discrepancy in detection depends largely on the image quality which again depends on size of the mother, position of the fetus, amount of amniotic fluid, sophisticated machine and finally the examiner's experience.

Pattern of Distant Metastases in Breast Malignancy: A Cross Sectional Observational Study

Dr Ruhina Alam, Dr Md Margub Hussain, Dr A. M. M. Shariful Alam

Breast cancer is one of the most common malignancies in women and cancer metastases are responsible for the majority of cancer related deaths. Therefore, predicting the development of distant metastasis in patients with breast cancer beforehand may help to prevent these deaths by an effective treatment strategy and an appropriate follow-up plan.

With this purpose in mind, a cross sectional observational study about the pattern of distant metastasis in breast malignancy was undertaken in Dhaka Medical College Hospital from 1 January, 2012 to 31 December, 2012. Total of 164 female breast cancer patients with distant metastasis who attended department of surgery and department of radiotherapy of DMCH during this time period were included in this study.

The mean age at diagnosis of Metastatic Breast Carcinoma (MBC) was 41 years-50.6% patients presented with Initially Metastatic Breast Carcinoma (IMBC) and 49.4% patients presented with Relapsed Breast Carcinoma at a Distant Site (RBCD). Infiltrating Duct Cell Carcinoma (95.7%) was the commonest histological type of tumor, 54.6% of patients had metastasis at a single site with only 6.7% of patients having metastases at more than two sites. Bone was the commonest site of metastasis, either as single site (35.4%) or part of multiple sites (39%). Vertebrae alone was the commonest site of bony involvement. Bone and liver were the predominant sites of single metastasis among patients who had single site metastasis from Estrogen Receptor/ Progesterone Receptor positive tumor (p=0.02).

Young patients were found to have more triple negative tumor (p=0) and triple negative tumors were found to be predictive factors for metastasis in lung and brain (p=0.037). Poorly differentiated tumors showed increased incidence of multiple sites metastasis (p=0.018) - 91.4% and 67.7% of patients had Metastasis Free Interval (MFI) and Disease Free Interval (DFI) ≤ 5 years, respectively. Completion of treatment for primary tumor showed a reduction in the number of metastatic sites (p=0,003) and an increased Metastasis Free Interval (p=0). Initial tumor status and nodal status were not found to be significant risk factors for metastasis, but patients with an initial T1 tumor had a significantly higher Metastasis Free Interval (p=0.00).

A significant number of patients of breast cancer present with Initially Metastatic Breast Carcinoma (IMBC). Bone is the commonest site of metastasis and is common in Estrogen Receptor/ Progesterone Receptor positive tumor, whereas a triple receptor negative tumor increases the chance of development of lung and brain metastasis. Young patients had more triple receptor negative tumors, indicating a genetic, rather hormonal basis for their breast carcinoma. These findings indicate that the innate characteristics of primary tumor e.g. tumor grade, hormone receptor and immune receptor status are more important risk factors for development of distant metastasis, rather than the initial tumor size and level of lymph node involvement. This is also supported by the finding, that a number of patients are developing distant metastases even after completing their treatment.

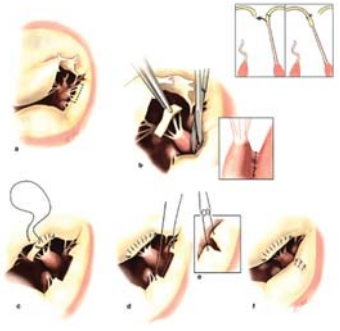
NB: This original work was presented in the "Young Researchers Session" of Bangladesh Cancer Congress 2014

Mitral Valve Repair- Our Experience

Dr AYM Shahidullah, Dr Jahangir Kabir

The mitral valve is the primary target in rheumatic valve disease, degenerative valve disease, bacterial endocarditis and other uncommon diseases. Mitral valve regurgitation may also result from primary myocardial diseases such as ischemic cardiomyopathy, dilated cardiomyopathy or hypertrophic obstructive cardiomyopathy. Functional ischemic mitral regurgitation is associated with a doubling in mortality among patients with mild or greater degrees of mitral regurgitation after myocardial infarction. Rheumatic heart disease (RHD) is the leading cause of mitral valve (MV) disease in the developing world. Mechanical MV replacement has its attendant complications. MV repair avoids these complications, permits growth and preserves left ventricular geometry and function.

A study was done on 22 patients who under went Mitral Valve Repair at United Hospital. Among them 17 were male (77.27%) and 5 were female (22.72%). The age range was from 15 years to 70 years. Twelve patients (54.54%) were in NYHA class III or IV and 10 patients (45.45%) were NYHA class I or II preoperatively. In 15 patients (68.18%) Mitral Regurgitation due to ischemia, 2 patients (9.09%) due to torn chordae, 1 patient (4.54%) due to torn chordae and AML rupture & 4 patients (18.18%) presented with annular dilation and leaflets thickening. Mitral valve repair techniques included ring annuloplasty in 2 patients (9.09%). CABG with posterior annuloplasty in 13 patients (59.09%), CABG with SAVE procedure with mitral posterior annuloplasty in 2 patients (9.09%), quadrangular resection and reconstruction with posterior annuloplasty on 1 patient (4.54%), posteromedial commissuroplasty with posterior annuloplasty in 1 patient (9.09%), repair of torn chordae with repair of AML in 1 patient (9.09%), repair of torn chordae alone in 1 patient (9.09%) and posterior leaflets chordal transposition in 1 patient (9.09%).



Overall, hospital mortality was 3 (13.63%). One patient needed reoperation due to bleeding from LIMA bed. In late postoperative period 15 patients (78.94%) were on NYHA class I and 4 patients (21.05%) were on NYHA class II. Trans thoracic echo revealed residual MR (Grade II) in 3 patients on late postoperative period.

Though our result is not comparable to other centers in developed countries, we are definitively in a learning curve. We have taken some measures to improve our selves in mitral valve repair. Long term follow up may allow more appropriate selection of patients for a good outcome.

Visits to United Hospital

- A delegation from "NEXtCare- Arab Gulf Health Services, UAE" (a member of Allianz Group and a leading third party administrator (TPA) for health insurance in the GCC and MENA region led by Dr. Syed Maniruzzaman came to United Hospital to sign a corporate agreement on Monday, 7 July 2014.
- A delegation from Japan Bangladesh Medical Association (JBMA) led by Dr. Kunio Saiki, Medical Attaché of Embassy of Japan, Dhaka along with Dr. Sheikh Aleemuzzaman, JBMA Bangladesh General Secretary came on Tuesday, 12 August 2014 to initiate the Corporate Medical Service agreement for their Japanese staff posted in Bangladesh.
- A delegation from "K" Line Bangladesh Limited led by Major Syed Mizanur Rahman (Retd.), General Manager along with 4 Japanese national business associates came to United Hospital to see the existing facilities on Sunday, 17 August 2014.

- A delegation from Saudi Airlines led by Dr. Mohamad Daghstani, Health Consultant, Jeddah, Saudia Arabia, visited United Hospital to sign Corporate Healthcare Agreement for Crew Airlines based in Bangladesh on Thursday, 4 September 2014.

- A delegation from British High Commission, Dhaka, comprising of 14 members (expats & their family members) visited United Hospital to see the services availabile in the hospital on Sunday, 14 September 2014.
- Employees and families from U.S. Embassy, Dhaka led by Dr. Chanda McDowell, Regional Medical Officer came to United Hospital on Monday 22 September 2014 to see the hospital's existing facilities.
- On 17 August 2014 a team of 5 led by Dr. M. Sadiqur Rahman, Director (DIG), Central Police Hospital, Rajarbagh visited United Hospital to see the facilities of our laboratory medicine, different floors and F&B / Training / IT / Pharmacy & Housekeeping Units.

Medical Campaigns

Dr. Md. Sajjad Hossain, Consultant, Medical Oncology Department of United Hospital went to Nargis Memorial Hospital (Pvt.) Limited in Khulna to see patients on Wednesday, 9 July 2014.

Dr A M Shafique, Associate Consultant, Cardiology visited Khulna on 20 August and Chittagong on 10 September 2014 to see patients in the two cities.

Dr. Syed Sayed Ahmed, Consultant, Neuro Surgery Department went to Sylhet to see patients on Thursday 28 & Friday 29 August 2014.

Corporate Signing

Corporate Signing between Orbis International & United Hospital Limited was held on Saturday, 16 August 2014.

Corporate Signing with Arcofemi Healthcare Limited & United Hospital Limited was held on Saturday, 16 August 2014.

Corporate Signing between Meredian Group & United Hospital Limited was held on Saturday, 16 August 2014.

Corporate Signing between Bangladesh – Turkish Group & United Hospital Limited was held on Saturday, 23 August 2014.

Corporate Signing with Azim Group of Companies & United Hospital Limited was held on Monday, 1 September 2014.

Corporate Signing between Bangla Trac Group & United Hospital Limited was held on Monday, 1 September 2014.

Corporate Signing between Exim Bank Limited & United Hospital Limited was held on Tuesday, 16 September 2014. Dr. Mohammed Haider Ali Miah, Managing Director & CEO, Exim Bank Limited and Dr. Dabir Uddin Ahmed, Director Clinical Operations of United Hospital Limited were the signatories.

Corporate Signing with Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) was held on Thursday, 25 September 2014.

Training on Critical Care Device

On 19 August 2014 a Training on Critical Care Device where a trainer of Convatec India conducted the training program. The focus of training was reduce risk of skin breakdown, prevent infection spread, save nursing time and improve patient care in ICU by using different advanced devices like: Fecal Incontinence Management System, Intra-Abdominal Pressure Monitoring Device & Hourly Diuresis Monitoring System. From United Hospital critical care doctors Dr. Mir Atiqur Rahman, Dr. Tamanna Yasmin, Dr. Hasib Uddin Khan and Nurses Ms. Jahanara Akter, Ms. Khadijatul Cobra, Ms. Champa Roy and Ms. Kanika Halder attended the training.

Seminars, Workshops & Training Sessions

A Scientific Seminar on "Recent Advances in Nuclear Medicine & Oncology" was arranged on Saturday, 27 September 2014 at the Seminar Hall of National Medical College, Dhaka. Prof. Dr. Md. Aref Rahman, Principal, Dhaka National Medical College was present as Chairman while Prof. Dr. Md. Abul Bashar, Professor and Head, Department of Cardiology, Prof. Dr. A.B.M Fazlur Rahman, Professor and Head, Department of Orthopedics & Advisor, Seminar Committee, and Capt. (Retd) Dr. M.A. Salam, Director, all from Dhaka National Medical Institute Hospital were present as special guests. Dr. Molla Abdul Wahab, Consultant, Nuclear Medicine and Dr. Md. Rashid Un Nabi, Consultant, Radiation Oncology made presentations covering their respective subjects.

From 19 to 22 July 2014, a 4 days workshop on IV Cannulation was arranged by Janata Traders for the nurses at United Hospital. Mr. Sudipto Sanyal and Mr. Shaminul Islam from Janata Traders facilitated the workshop. A total of 194 nurses from different units of the hospital attended the workshop.

A two days TOT Training for doctors & nurses on "Clinical Management of Dengue (DHF) in Hospitals to Reduce Deaths Due to Dengue and Improving Surveillance & Reporting" was held in DGHS conference room, Mohakhali, Dhaka on 13 and 14 August 2014. Medicine Specialist Dr Nazmul Kabir Qureshi, Medicine SHOs Dr Md Fazlul Haque & Dr Arman Hossain, Specialist Pediatrics & Neonatology Dr. Runa Laila, CNO Dr. Monette B. Brombuela and Nursing Area In-Charge Ms. Shahida Parvin of United Hospital Limited attended the training.

United Hospital Limited organized Training Session on "Basic Trauma Handling & CPR with Basic Life Support (BLS)" for the staff members of Lafarge Surma Cement Limited on Monday, 15 September 2014. The session was conducted by Dr. Masum Billah, Specialist, Orthopedics and & Dr. Md. Shafiqul Islam, Senior Medical Officer (SMO).

On 19 August 2014 a day long training program on "Management & Prevention of Gestational Diabetes Mellitus (GDM) in Bangladesh" was organized by Bangladesh University of Health Sciences (BUHS) and supported by Diabetic Association of Bangladesh and World Diabetes Foundation. Six participants from different departments of United Hospital attended the training.

Workshop on Absolute Dose Determination in High Energy Photons & Electrons using IAEA TRS-398 Protocol

On 18 September 2014, a Dosimetry Workshop was held on "Absolute Dose Determination in High Energy Photons & Electrons using IAEA TRS-398 Protocol" in the Department of Radiation Oncology, United Hospital, Dhaka. Total of 14 participants, mainly Medical Physicists attended the workshop. The primary goal of the workshop was to refresh /increase basic understanding of absolute dosimetry & influence factors which really matter for real values of medical physics community to upgrade the treatment system. Dr. Md. Shakilur Rahman, PSO, SSDL of Bangladesh Atomic Energy Commission chaired a round table session. At the end of the workshop, certificate of attendance was given to the participants.

Obs & Gynae's Dr. Afsari Ahmad (Junior Consultant) and Dr. Razia Parvin (SHO), Nurses Mr. Teodolfo Clarete & Ms. Taslima Akter, Chowdhury Tasneem Hasin (In-Charge-Dietetics and Nutrition) and Ms. Sanzida Sharmin, Dietician attended the training program organised by Bangladesh University of Health Sciences (BUHS).

United Hospital Quarterly Newsletter
reflection
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Congratulations & Best Wishes to the following Staff and their Spouses

New Baby

- Staff Nurse Nahida Akter of 3rd Fl had a baby boy Majid Hayder Nabil on 18 June 2014.
- Engineer Shaikh Ashanur Rahman had a baby boy Shaikh Ahnas Rahman on 19 June 2014.
- Customer Relations Officer Afroza Unzam had a baby girl Umaiza Afsheen Binte Nahid on 20 July 2014.
- Dietician Shahela Akter Nasrin had a baby girl Faizul Nehar Nobi Prozapoti on 24 June 2014.
- Accounts Executive Fahmida Quader of Finance & Accounts Department had a baby boy Ramin Wajdi on 4 August 2014.
- Senior House Officer Dr. Muzammel Haque of Neuro Medicine Dept had a baby boy Zaveer on 8 August 2014.
- Asst. In-Charge Business Office Mr. Md. Abdullah Al Harun of Finance & Accounts Department had a baby girl Aretha Binte Harun on 10 August 2014.
- Staff Nurse Momota Ekka of 3rd Fl had a baby boy Samowal Wadhikary on 19 August 2014.
- EMO Dr. Md. Rezaul Islam of Accident & Emergency Unit had a baby girl Zareefa Binte Reza on 3 September 2014.
- Staff Nurse Razia Sultana of CICU and Accident & Emergency Unit's Brother Golam Mostahan Khan had a baby boy Rabbi on 10 September 2014.
- Customer Relations Officer Nasrin Akter had a baby boy Md. Tazammul Haque Tazi on 17 September 2014.

We Congratulate the Newly Weds on the Auspicious Occasion of their Marriage

- Staff Nurse Jerin Halder of Day Care Oncology Department got married to Rajib Biswas on 13 June 2014.
- Staff Nurse Anjela Beauty Halder of Nuclear Medicine Department got married to Shyamol Sarker on 4 July 2014.
- Technician Md. Boni Amin of Nuclear Medicine Department got married to Afsana Parvin (Tania) on 11 July 2014.
- Customer Relations Officer Musfiqul Alam Khandaker got married to Mustan Shariah Omi on 1 August 2014.
- Customer Relations Officer Mijanur Rahman got married to Mitu Akter on 2 August 2014.

Condolences & Prayers

- Staff Nurse Hamida Khatun of Accident & Emergency Department lost her father Mr. Md. Abdur Rashid on 20 June 2014.
- Customer Relations Supervisor Sujit Chakraborty lost his father Mr. Shishir Chakraborty on 13 July 2014.
- Store In-Charge Mahmud Hassan lost his mother Mrs. Anjumanara on 28 July 2014.
- Manager Admin & Security Major Md. Moinul Hossain (Retd) lost his mother Mrs. Laila Begum on 11 September 2014.
- Prof. Dr. Santanu Chaudhuri, Consultant & Director of United Hospital's Oncology Centre lost his mother Mrs. Swapna Chaudhuri on 19 September 2014.

Humanity Photo Award 2013 Beijing, China

An award giving ceremony was held in Beijing for the biggest photo festival of Documentary Photo contest. This award ceremony is held every 2 years. A total of 70,000 photographs were submitted from 103 countries worldwide and Dr. Md. Rashid Un Nabi was among the top 10 photographers in the Architectural section. His photos (12) were taken of the Buddhist Temple of Sukothai, Thailand.

New Consultants

Professor Maj. Gen.
Dr Ziauddin Ahmed (Retd.)
MBBS, MRCP, FRCPI, FRCP (Glas.), FCPS
Department of Nephrology

Dr Selina Akter
MBBS, FCPS (Obs Gyne)
Dept. of Obstetrics & Gynecology

Professor Maj. Gen.
Dr M Ali Akbar (Retd.)
MBBS, FCPS (Bangladesh), FCPS (Pakistan), FICS (USA)
Department of Urology

Professor Brig. Gen.
Dr M Nazmul Ahsan (Retd.)
MBBS, FCPS
Dept. of General Anesthesiology

Eid Mubarak

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