

## Editors Note

August is a very special month for all of us who work at United Hospital. On the 24th day of the month of August in the year 2006 the hospital was inaugurated in presence of dignitaries and high officials from both within and outside the country. We started our OPD activities from the next day 25th August and opened our doors for in-patients on 9th September. We remember when the first patient came for registration. We still recall that one of our Consultants spent the night in the hospital when the first patient was admitted. All of us, including the staff from KPJ of Malaysia, were awe struck when on the very first day of their activity the Cardiac Surgery department did 3 CABGs. The staffs were engulfed in a pall of gloom when we had our first mortality case. And there are, of course, a lot of things that have faded away into deep recesses of our memory.

But that was then. Today we are proud of being where we are. Every day when we see a person, who had come for cure, leaving the hospital in a healthy state, our hearts fill with pride. At the end of the day it is a matter of immense satisfaction for being a part of a process/ system that is engaged in the business of making people feel better.

This Quarter we had a very difficult time in selecting articles for printing in the newsletter as we were inundated with contributions from many of you. You would have noticed that we have added four pages in just our 3rd issue, to accommodate the large number of articles. We hope that you will keep on submitting your write ups so that we can continue with, at least, the current number of pages.

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

## Closing and Certificate Giving Ceremony of IAEA Training Course at United Hospital

On 22 August 2013 United Hospital and Bangladesh Atomic Energy Commission jointly arranged the Closing and Certificate Giving Ceremony of "IAEA Training Course: The transition from 2D to 3D Conformal Radiotherapy (and IMRT)", at the former's premises.



World renowned oncologist Prof J P Agarwal of TMC, India, Associate Prof Ahmed Nadeem Abbasi of Aga Khan University, Karachi and Medical Physicist Dr Madhava Bhatt of Adelaide, Australia came to facilitate the course. 22 participants from 6 different Institutions (BSMMU, NICRH, DMC etc) of Bangladesh including United Hospital took part in the course. The day long course consisted of practical sessions of IMRT and presentation of results from practical sessions followed by course evaluation.

At the closing ceremony Prof Dr Santanu Chaudhuri, Director, Cancer Center of United Hospital welcomed all guests and participants of the course. Mr A S M Firoz, Chairman, Bangladesh Atomic Energy Commission, Prof Dr Shahanz Afroz, Member Bio-Science, Bangladesh Atomic Energy Commission, Prof Hafizur Rahman Ansari, Vice President, Oncology Club, Mr Faridur Rahman Khan, Managing Director of United Hospital along with other high officials and doctors were present.

The comprehensive World Class Cancer

Center of United Hospital prioritizes manpower building, technical upgradation and knowledge dissipation. This programme was targeted towards young oncologists of Bangladesh, with an intention to propagate the upgradation of new technologies in our country.

United Hospital has recently added, in addition to the existing Linear Accelerator the latest technology for cancer treatment-The **TrueBeam**.

The TrueBeam system (an advanced medical linear accelerator) integrates and synchronizes performance of imaging and treatment technology, allowing faster and more precise image-guided radiotherapy. Its speed means shorter treatment times, which leads to less interruption of patients' daily lives.

Patients are managed at United Hospital Oncology Center with multimodality approach as per international protocols through Tumour Board decision (whenever required) by eminent and acclaimed Oncologists.

PET-CT (along with Medical Cyclotron), Digital Mammography with Stereotactic Biopsy are the most supportive tools for cancer detection, staging and overall management.

With the help of other departments (like surgery, medicine, gynaecology, gastroenterology nephrology, cardiology, ENT etc) and critical care units (like ICU, CCU, HDU) we want to continue our journey towards our Hospital's goal...to be.....**Exceptional People, Exceptional Care.**



World Heart Day was created in 2000 to inform people around the globe that heart disease and stroke are the world's leading cause of death, claiming 17.3 million lives each year and the numbers are rising. By 2030, it is expected that 23 million people will die from Cardio Vascular Diseases (CVDs) annually – that is equal to the population of Australia!

World Heart Day takes place on 29 September each year. Together with its members, the World Heart Federation spreads the news that at least 80% of premature deaths from heart disease and stroke could be avoided if the main risk factors, tobacco, unhealthy diet and physical inactivity, are controlled.

This year's theme – *Take the Road to a Healthy Heart* - addresses the importance of a life-course approach to the prevention and control of cardiovascular disease (CVD) with a focus on women and children. This campaign highlighted the actions that can be taken throughout a person's life to reduce their risk of CVD.

United Hospital celebrates this day every year with a range of activities. Doctors, nurses and staff of the Departments of Cardiology, Cardiac Surgery, and Nursing as well as staff from other supporting departments attended a rally, early in the morning, that started from DIT circle 2 in Gulshan and culminated in the hospital premises. The rally was attended by about 150 people.



In the afternoon, before lunch, a discussion session was organized where Consultants from both the Cardiology and the Cardiac Surgery departments spoke about the importance of leading a healthy life not

only to protect ourselves from heart diseases but also for the overall well being of one's life. They highlighted the ways by which people can take the "Road to a Healthy Heart" and the precautions/ actions each one of us can take to improve our life style.

The issues discussed were not only for those who did not have any heart related problem but also talked about what can be done to gradually improve and/ or maintain and fight for better life style for those who were currently afflicted. The key to minimising the risk of CVDs and stroke was to stop smoking, regular intake of vegetables and fruits, avoiding fatty/ oily/ junk food, maintaining a weight suitable for our physique, control of diabetes if one was affected, free from mental stress and last but not least regular exercise – a minimum of 30 minutes physical work/ walking.

They emphasized that it was equally important to do regular health check-ups and consult a doctor immediately on

development of any symptom. Through knowledge and awareness, today we have the opportunity to prevent the future impact of heart disease and stroke by adopting heart-healthy living from childhood throughout adulthood.

## A case report of Diagnosis of Functioning Ectopic Left Kidney by DTPA and DMSA Renogram failed by Anatomical Imaging

*Dr Shamrukh Khan, Dr Mehedi Masud, Dr Mollah Abdul Wahab*

A male baby was born on 5 March 2012 by LSCS in a rural city. According to mother's statement the baby was born with distention of left side of lower abdomen. During antenatal check-up all pathological and ultrasonographical findings were normal. Then according to local physician's advice, the baby was admitted in a local hospital. During admission abdominal examination revealed soft distended abdomen, flank full on the left side. Ultrasonogram showed large cystic mass in left renal region extending upto epigastrium, congenital cystic kidney and right large retroperitoneal cystic mass. After that the baby was referred to Dhaka to consult with urologist. In Dhaka several investigations were done in different

hospitals such as micturating cysto-urethrogram, USG and IVU. In IVU normal functioning right kidney with dilated ureter was seen at its upper third congenital and non functioning or absent left kidney. These investigations provided no definite solution and it was still confusing. After that the patient was referred to United Hospital for DMSA and DTPA scanning. DTPA and DMSA scanning showed right kidney was normal in size, shape and position with uniform radiotracer uptake with normal excretion of radiotracer but left kidney was not visualized in normal left renal fossa, it was ectopically present in antero-lateral aspect of left pelvic region with irregular bean shape having low uptake. In DMSA relative renal function

of right kidney was 76.61% and left kidney 23.39% and DTPA renogram showed split renal function of right kidney as 84.64% and left kidney 16.36% of the total renal function. Using these two renogram studies pyeloplasty was done and after that the baby gradually improved with increasing body weight and reduced abdominal distension and got cured. As we all know Nuclear Medicine images at molecular level clearly show anatomical abnormalities. So if there is any suspected case of agenesis or absent kidney before going to any nephrotoxic study it is wise to have a Nuclear Medicine radionuclide study before any irreversible damage because this is the safest, cheapest and most efficient method.

## Acute Coronary Syndrome (ACS) and a case of Cardiac Arrest Survival

Dr Md Mujibur Rahman, Dr Fara Naz Huq, Dr Fatema Begum

A 40-year-old gentleman with diabetes and hyper tension presented to the Emergency room with complaints of severe central chest pain, shortness of breath and profuse sweating with restlessness for 2 hours. ECG was done immediately and was suggestive of AMI (Inferior) and the patient was being prepared for primary PCI but the patient had sudden cardiac arrest in ER. Immediately CPR was given and the patient was intubated. After stabilization, Coronary Angiogram (CAG) was done the next day which revealed Double Vessel Disease and revascularization was planned. On 3<sup>rd</sup> day CABG was done with 3 grafts and after only 12 days of hospital stay, he was discharged from United Hospital with a new life.

Acute Coronary Syndrome (ACS) is a clinical condition due to reduced supply of oxygen to the heart resulting from acute reduction in the coronary blood flow.

**Causes of ACS:** Narrowing of epicardial blood vessels secondary to atheromatous plaque.

**Sign/ Symptoms of ACS:** Sudden severe chest pain usually central and

compressive in nature radiating to the left arm, lower jaw or epigastric region, associated with sweating, palpitation and cold extremities.

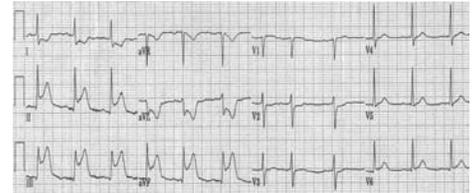


**Diagnosis of ACS:** At least 2 of the following: Angina or angina equivalent, Acute ischemic ECG changes. Typical rise and fall of cardiac marker.  
**Unstable Angina:** when new onset angina, worsening angina or angina becoming resistant to drugs. ECG – normal, ST depression (>0.5mm), T wave changes Normal cardiac enzymes, **NSTEMI:** Mild myocardial necrosis. Angina symptom, ST depression +/- T-wave inversion on ECG Elevated cardiac enzymes.  
**STEMI:** Angina, more severe symptoms, ST elevations on ECG or new LBBB. Elevated cardiac enzymes.

Acute medical treatment includes  
 i) **General treatment:** Oxygen, Analgesic, Nitrate. ii) **Anti platelet therapy:** Aspirin, Clopidogrel, Prasugrel. iii) **Anti coagulants:** UFH, LMWHS, Hirudin iv) **Reperfusion therapy:** Primary PCI or Coronary thrombolytic. v) **Platelet GP b/IIIa Receptor Antagonist:** Eptifibatide Abciximab, Tirofiban, vi) **Others:** Beta blocker, ACE inhibitor.

**Goal for reperfusion therapy by primary PCI:** Reestablish coronary patency, Salvage myocardium, Improve survival.

We can avoid coronary events by correction of cause and control of risk factors e.g. Stop smoking, controlling dyslipidemia, hypertension, diabetes, doing regular exercise and reducing stress. Early intervention helps prevent complications, decreases morbidity & mortality.



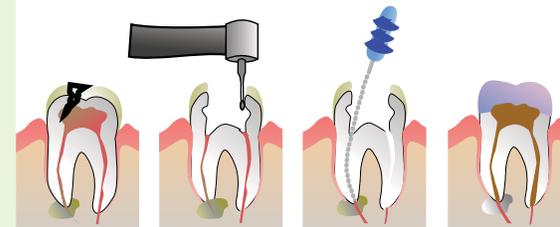
## Importance of PET/CT in the Diagnosis of Lymphoma – a case study

Dr Mehedi Masud, Dr Shamrukh Khan, Dr Molla Abdul Wahab

A 67 year old male patient was suffering from right cervical lymph node swelling, low grade fever and night sweating for last few months. He was treated by a local physician and was referred to a medicine consultant. The initial diagnosis by medicine consultant was metastatic carcinoma (poorly differentiated) after FNAC of right cervical lymph node. Then he was referred to Oncologist for primary search of the lesion. Therefore, he came to our Nuclear Medicine department for PET/CT scan. Radiotracer FDG (10.92mCi) was injected intravenously and whole-body PET/CT scan from vertex to mid thigh was performed. PET/CT findings revealed hypermetabolic multiple lymph nodes (left cervical, right supraclavicular, mediastinal

and abdominal) with extranodal hypermetabolic lesions in the multiple bones and skeletal muscles (right iliacus & psoas). No hypermetabolic lesion was seen in any visceral organs. Diagnosis by PET/CT finding was malignant lymphoma with severe involvement of musculoskeletal system. Review of histopathology slide of right cervical lymph node according to our advice showed anaplastic large cell lymphoma which synchronized with our PET/CT diagnosis. FDG-PET/CT can guide in reaching the correct diagnosis of lymphoma even after histopathology slides specially FNAC because PET/CT scan reveals the status of all the lymph nodes in the body whereas FNAC may miss the target lymph node besides the error of slide study.

## Root Canal Predictors



If you are having tooth pain, use this test to determine whether you might need a root canal. Hold some cold water in your mouth for a few seconds. Wait a bit: then tap gently on each of your teeth with the underside of a spoon. Does the cold or pressure cause more sensitivity or pain in one specific tooth? If so, check with your dentist.

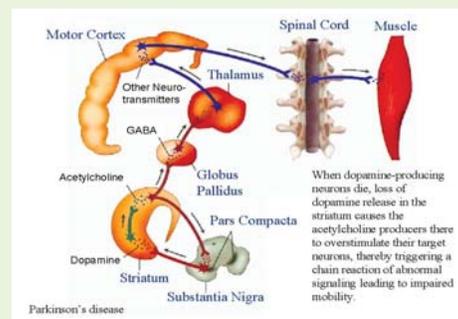
## Parkinson's Disease

**Dr Muzammel Haque**

Parkinson's disease is the progressive degenerative disorder affecting both voluntary and involuntary movements causing significant disability. The disease is named after an English doctor James Parkinson, who published the first detailed description in "An Essay on the Shaking Palsy" in 1877. Symptoms of Parkinson's disease emerge gradually and involve a combination of motor and non-motor symptoms. The motor symptoms of Parkinson's disease result from degeneration of dopamine producing cells in the Substantia Nigra pars compacta. The cause of this cell death is unknown. Early in the course of the disease, the most obvious symptoms are motor functions and these include bradykinesia, resting tremor, rigidity and postural instability. Later, behavioral problems may arise, including dementia and depression. Other symptoms

include sensory, sleep and emotional problems. Parkinson's disease is more common in the elderly, with most cases occurring after the age of 50. Modern treatments are effective at managing the early motor symptoms of the disease, mainly through the use of levodopa and dopamine agonists. Other drugs include anti cholinergic medication like Trihexyphenidyl, MAO-B inhibitors (Selegiline), COMT inhibitor (Entacapone) and Amantadine. MAO-B and COMT inhibitor are never being used alone. They are always used in combination with levodopa and carbidopa as an Add-on therapy. Anticholinergics play a role to control tremor but bradykinesia and rigidity is not controlled. Dopamine agonist is not as effective as levodopa in motor symptoms control. However they have less adverse effects and are prescribed to control mild symptoms. These drugs are suitable in younger patients. As the disease progresses these drugs eventually become ineffective at treating the symptoms and at the

same time produce a complication called Dyskinesia, marked by involuntary writhing movements. Surgery and deep brain stimulation have been used to reduce motor symptoms as a last resort in severe cases where drugs are ineffective. However, multidisciplinary approach with the help of Neurologist, Nurse, Physiotherapist and Occupational therapist is needed to improve the quality of life. Research directions include investigations into new animal models of the disease and of the potential usefulness of gene therapy and stem cell transplants.



## Promotional & Awareness Activities

- An information session on “**Modern Technique of ESR Measurement**” was arranged on Thursday 29 August 2013 at United Hospital. Dr Stefano Vanin, Application Specialist, Alifax Spa, Italy & Prof Dr K A R Sayeed, Consultant & Head of Laboratory of United Hospital were the speakers of the session.
- United Hospital observed World Physiotherapy Day on Sunday 8 September 2013. Dr Salahuddin Ahmed, Director Ancillary Services opened the special booth in the lobby to provide complimentary BMI services & free Physiotherapy Counseling.
- A Scientific Seminar on “**Recent Advances in Cardiology & Oncology**” was held on Tuesday 17 September 2013 at the B.P. Pati Hall of Kumudini Women's Medical College, Mirzapur, Tangail. Dr. A.M. Shafique & Dr Md Rashid Un Nabi were the speakers at the seminar.
- A Scientific Seminar on “**Recent Management of Upper GI Bleeding**” was arranged on Thursday 19 September 2013. Dr Mohammad Mahbub Alam, Consultant Gastroenterology Department was the speaker.
- Health Awareness Session for the employees of Airtel Bangladesh was held on Tuesday 9 July 2013 at their premises.
- Training Session on “Emergency Handling” for the factory doctors and medical assistants of Lafarge Surma Cement Ltd. held on Tuesday 24 September 2013 at the factory premises at Chattak, Sylhet.

- Awareness Session on “First Aid Training” was held on Saturday 7 September 2013 for the staff members of Bangladesh Edible Oil Limited (BEOL). The session was conducted by Dr. Shafiqul Islam.



## Visits

- Dr Md Abul Kashem, Specialist – Cardiac Surgery Department & Dr Syed Sayed Ahmed, Consultant - Neuro Surgery Department & Director Neuro Centre went to Chittagong & Sylhet respectively to see patients on Thursday 4 July 2013.
- Dr A M Shafique, Associate Consultant – Cardiology Department went to Chittagong to see patients on Thursday 29 August 2013.
- Prof Dr Md Mahbubur Rahman, Consultant – Neuro Medicine Department went to Sylhet to see patients on Thursday 12 September 2013.
- Dr Md Moshir Rahman, Consultant – Pediatrics Department went to Chittagong to see patients on Thursday 12 September 2013.
- Dr A M Shafique, Associate Consultant – Cardiology Department went to Sylhet to see patients on Wednesday 25 September 2013.
- Dr Asif Ahmed Bin Moin, Associate Consultant – Cardiac Surgery Department went to Chittagong to see patients on Thursday 26 September 2013.

## Unprotected Left Main Coronary Artery (ULMCA) Stenting-Single Center Experience

*Dr NAM Momenuzzaman, Dr K M Sohail, Dr A M Shafique, Dr Fatema Begum, Dr Kaiser N Khan*

Over the last 20 years, due to the improvement in stent technology and operators experience, percutaneous coronary intervention (PCI) is now being increasingly applied to treat ULMCA. A retrospective observational study including all patients treated at our hospital from January 2007 to October 2012 was conducted. We saw the clinical outcome of the 79 patients in terms of death and

target vessel revascularisation (TVR). Of the 79 patients 34% presented with stable angina, 32% with unstable angina, 22% with post MI angina and 12% with post PCI angina. Majority of cases LM to LAD (64.04%) stenting was done. Procedural success was almost 99%. No deaths occurred during the procedure. We lost total 4 patients (5.06%), one patient died during hospital

stay and 3 others during follow up. TVR was needed for 5 patients (6.3%), 4 patients needed repeat revascularization by CABG and one patient by repeat PCI. Elective PCI of de novo lesion in ULMCA stenosis is feasible with low procedural risk and offers good clinical outcome. Implantation of drug eluting stent for ULMCA decreased the risk of long term MACE.

## A Common Disease with Uncommon Association-A case of Fatal Acute Pancreatitis with Hyperparathyroidism.

*Dr Shakila Parveen, Dr Jan Mohammad, Prof Shahidul Islam*

A 51 year old lady was admitted in GHDU of United Hospital through ER on 5 March 2013 with the c/o severe abdominal pain and vomiting several times for one day and constipation for two days. Her history of past illness was significant for hypertension and diabetes.

On admission, the patient was dehydrated and drowsy, pulse- 80/m, BP- 80/60 mm of Hg. On examination, she had moderate tenderness over right hypochondriac and epigastric region, bowel sound was sluggish and shifting dullness was positive. She was diagnosed as a case of Acute Pancreatitis with DM and HTN. Treatment was started empirically with I/V Meropenem

and all antihypertensive drugs were put on hold. Investigations revealed total count of WBC 16,800/ mm<sup>3</sup>, Serum Amylase > 1500 U/L, Serum Lipase > 4000 U/L, Serum potassium- 6.2 mmol/L, Serum calcium- 2.98 mmol/L, Urine R/E- pus cell > 100 and Sugar-++++. Ultrasonography of W/A suggested Acute Pancreatitis. On the 3rd day of admission she developed electrolyte imbalance, urinary sepsis, AKI and was shifted to GICU. Follow up CT scan revealed Necrotizing Pancreatitis with loculated peri-pancreatic collection.

Culture of percutaneous drainage of peri pancreatic collection showed growth of gram negative bacilli. Later on, the

patient was treated by necrosectomy as well as cholecystectomy. As the patient had elevated serum calcium (> 3 mmol/L) and serum PTH level was 223.2 pg/ ml, USG of neck showed a small mixed echogenic mass in right lower parathyroid region. FNAC report of the nodule was parathyroid adenoma.

In spite of the effort of physicians and the modern treatment she received, she succumbed to her illness. The lady had necrotizing pancreatitis, stemmed from parathyroid adenoma. Pancreatitis is uncommonly linked to hyperparathyroidism, but it is often severe when the two are associated. The mortality rate of severe infected necrotizing pancreatitis is 25%-70%.

## Fibromyalgia and It's Management

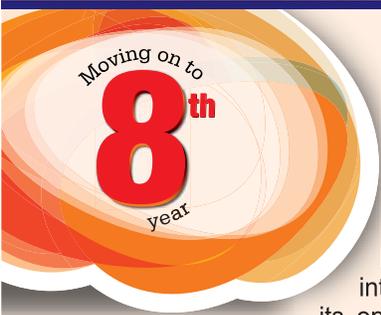
*Dr Shuvamay Chowdhury*

Fibromyalgia (FM) is a chronic condition that is characterized by pain, stiffness, and tenderness of muscles, tendons, and joints, restless sleep, awakening, feeling tired, chronic fatigue, anxiety, depression, and disturbances in bowel function to a point where it can interfere with a person's ability to carry on daily activities. Fibromyalgia affects predominantly women between the ages of 35 and 55.

The prevalence of FM in Bangladesh is about 4 in 100 people. The cause of fibromyalgia is not known and is not easy to diagnose because there are no visible signs of the disorder and no definitive laboratory test for fibromyalgia. These

patients seem to have an increased sensitivity to many different sensory stimuli and an unusually low pain threshold. The diagnosis of fibromyalgia is made purely on clinical grounds based on the doctor's history and physical examination. In patients with chronic widespread body pain, the diagnosis of fibromyalgia can be made by identifying point tenderness areas (typically, patients will have at least 11 of the 18 classic fibromyalgia tender points) commonly found around the elbows, shoulders, knees, hips, back of the head and the sides of the breastbone, by finding no accompanying tissue swelling or inflammation, and by excluding other medical conditions that can mimic

fibromyalgia. Although there is no cure for fibromyalgia, treatment can relieve some of the symptoms. Treatment programs are most effective when they combine patient education, stress reduction, regular exercise, and medications. Stress reduction and optimal sleep is encouraged. Duloxetine (Cymbalta) and Milnacipran (Savella), drugs that simultaneously increase the amount of two brain nerve transmitters, serotonin and norepinephrine, have been approved to treat fibromyalgia and its other associated symptoms in adults effectively. Some alternative treatments like acupuncture and meditation are also effective.



## United Hospital ..... Stepping into 8th Year

On 24th August 2013, United Hospital stepped into the 8th year of its operation. The day began with hoisting of the hospital flag at 5.30 am. A Quran Khani was held just before the office hours. The Managing Director of United Hospital, Mr. Faridur Rahman Khan did the honors of cutting the ribbon of a complimentary Health Check-Up booth at 9.30am, manned by Clinicians, Nurses and Nutritionists in the main lobby for the general visitors. Nearly 300 people took advantage of this and availed the service. A Doa Mahfil was held after Asr prayers which was attended by hospital staff and a large number of visitors.

Many of our readers may not know that the hospital was conceived by a group of doctors' way back in mid 80's with the objective of creating an international standard health care facility in Bangladesh. Late Prof Dr M M Hossain, MRCP, FRCP a Cardiologist and a former Director of Red Crescent Hospital in consultation with some renowned doctor friends including late Maj Gen Dr K M Siraj Jinnat, late Prof Dr Firoza Begum and Maj Gen (Retd) Dr A R Khan envisaged the concept of the hospital and formed a company in 1985 with 21 shareholders under the name of Continental Hospital. After relentless efforts, with the support and help of the then President Shahabuddin, Prof Hossain managed to get the present plot allotted to himself from RAJUK, in 1990 which he then transferred to the proposed hospital.



*Capt (Retd) Dr M M Hossain (sitting) the initiator of Continental Hospital in his office.*

Following award of design and construction contracts, a large number of medical professionals, businessmen and eminent

personalities joined hands with the hospital project and thereby increasing the number of shareholders of the hospital to 120. By end of 1995 a seven storied structure covering an area of approximately 350,000 sft was built. But unfortunately further work could not be carried out due to a variety of reasons including the demise of the doctors who were leading the project.

The company initiated a number of measures to revive the project including foreign collaboration but unfortunately nothing materialized. As the project virtually remained abandoned for a long time, the Continental Hospital Board decided to transfer the issued shares to a group / interested investor who would have the drive, enthusiasm and reputation to take up the challenge to implement and finish the project, following purchase/ acquisition of the shares.

In January 2004 United Enterprises & Co Ltd a concern of United Group acquired/ purchased majority share in the company and thereby became the driving force to implement the dreams of its original dreamers, after almost 20 years. The rest is history.



*Staff working for Continental Hospital: two of whom are still employed (i) Chitta Ranjan Das (2nd from left) and (ii) Maj. (Retd.) Nazeen Begum (3rd from left) currently Associate Professor in United College of Nursing.*

On 24 August 2006 our country saw the opening of an entirely different calibre hospital, totally diverse, on a different dimension, THE UNITED HOSPITAL.

A giant in the field of modern healthcare, the magnitude of what the hospital has achieved in the last 7 years, the enormity, the vastness of its reputation speaks for



itself. United Hospital stands tall in a fiercely competitive world of healthcare. Honesty, dedication and sincerity are the hallmark with which it distinguishes itself from the rest of the pack.

The first impression one gets on entering the hospital is the mammoth – sized, cavernous lobby. What draws one's attention is an extremely busy environment teeming with people engrossed in patient related matters. One notices a combination of hospital staff immersed in their varied job and the stream of patients, most of them walking, some in wheelchairs and a few of them in patient trolleys moving all around and availing the services in an immaculately clean and spotless environment. The lobby does not look like a hospital at all due to its relaxed atmosphere.

Starting with 356 employees on 24 August 2006, United Hospital has expanded and grown to almost 1,650 employees today. Every day these dedicated staff members report to work religiously with only one objective – to serve the patients. A comparison of our staff strength - then and now – is given below:

Staff Category	24 Aug'06	24 Aug'13
Doctors	37	260
Nurses	113	630
Support Service	206	750
<b>Total</b>	<b>356</b>	<b>1,640</b>

Our Patient Identification Number on the day of opening was 1000000001 and today it stands at 1000199200 meaning nearly 200,000 people have registered to take our service.

The commitment of our devoted staff members goes far beyond the call of duty. Thoroughly engaged in patient dealings, big and small alike, each and every employee contributes to the organization as a whole. We take great pride in serving the people of our community, both national and international. Our pledge to be **"better than the best"** remains our guiding principle and we take pride in staying true to our word. Our expert team of clinicians, nurses and combination of other hospital personnel provide the highest level of service.

United Hospital, over the years, has the distinction to be a pioneer in many aspects of treatment facilities. It was the first hospital to introduce

- i) a 500 slice CT Scanner
- ii) a 1.5 Tesla HD MRI machine
- iii) 2 Cath Labs including the technology of Rotablator, IVUS & FFR
- iv) 24 hour PCI facility for patients suffering from heart attack
- v) 2 fully equipped cardiac ambulances
- vi) Cyclotron (medical nuclear reactor) – the only one in the country
- vii) PET CT
- viii) Linear Accelerator with RapidArc & IGRT facility
- ix) TrueBeam Linear Accelerator (cyberknife)
- x) 3 CRRT machines (haemodynamic stabilization for critically ill patients)
- xi) Setting up of the largest dialysis centre in the country (including portable units)

The list can go on and on. The above has helped us in earning recognition not only amongst the patients but also amongst hospitals both within and outside the country as a pioneer in the health care arena.

Broadly speaking the hospital has been divided into a number of "Centres of Excellence" namely

1. Cardiac Centre - comprising Cardiology and Cardiac

- Surgery departments
2. Renal Centre - comprising Nephrology department including Kidney Transplant Unit and Dialysis Centre
3. Neuro Centre - comprising Neuro Medicine and Neuro Surgery departments
4. Trauma Centre - comprising Emergency and Orthopaedic departments
5. Mother & Child Centre - comprising Obs & Gynae, Neonatology and Paediatrics departments
6. Oncology Centre - comprising departments of Medical Oncology, Radiation Oncology, Surgical Oncology and Nuclear Medicine

We are also proud to have established one of the largest critical care units of over 100 beds. These are divided into sub-units i.e. (i) Cardiac Surgery ICU, (ii) Coronary Care Unit (CCU), (iii) Neonatal ICU, (iv) Paediatric ICU, (v) General ICU covering Neuro, Surgical and Medicine, (vi) General HDU and (vii) Cardiac HDU.

United Hospital has a culture of continuously training its staff – be it clinical or non clinical.

We have a massive in-house training programme which is engaged in educating and re-educating our staff to improve their knowledge and skill base. All categories of staff including doctors, nurses and staff from supporting departments have to attend a certain number of hours which is taken into consideration at the time of their Annual Appraisal.

The Board/Management of United Hospital puts special emphasis on education. We are setting up educational courses as well as collaborating



with other educational institutions to improve and expand the skill base of professionals. We have an ongoing post graduate course in Cardiology and Cardiac Surgery. A Nursing College has been set up providing 4 year Graduate course to students and a 2 year Graduate course to existing staff nurses. We are collaborating with Gono Bishwabidyalay whereby their students come to our Oncology Centre as part of their thesis requirement. With the active support of the Board we have initiated setting up of a Medical College and expect to admit students in 2014. We also have an ongoing collaboration agreement with the Parkway Health Group of Singapore (Gleneagles, Mount Elizabeth and Parkway hospitals). We have a training collaboration with Dhaka Shishu Hospital. In addition we have a number of secondment, internship and fellowship activities going on through out the year.

Thus it can be truly said that United Hospital is "unique". It not only does everything to improve the healthcare service that it is promise bound to provide to its patients and well wishers but is also meeting its social obligation by giving opportunities to outsiders to gain knowledge and educate themselves so that they can serve the country, in their respective capacity.

We would like to be a shining example in today's day and age and for times to come, to be an epitome of modern day healthcare centre. With humility, serving to the best of our ability we are totally committed to being **"better than the best"**.



## Collaboration with Dhaka Shishu Hospital

United Hospital Limited signed a cooperation agreement with Dhaka Shishu Hospital to train six young doctors from Pediatric Cardiac Centre of Dhaka Shishu Hospital. The training will be completed in three phases. In each batch two doctors will attend the training for two months. These doctors will have exposure at the CICU & NICU of United Hospital and they will shadow the Consultants of the concerned departments. Their training commenced from 1 September 2013. At the same time our nurses will get training in taking care of new borns and small babies in general wards and critical care areas from Shishu Hospital.

## Diabetic Foot Care

**Dr Nazmul Kabir Qureshi**

Diabetic patients may develop a serious condition called the 'diabetic foot'.

Diabetic foot is not a single disease rather this is a constellation of various conditions and complications e.g. paraesthesia, numbness, neuropathic-ischemic pain, dryness of skin, blisters, cellulitis, fungal infection, ulcer, abscess, foot deformities, osteomyelitis, gangrene which may lead to foot or limb amputation. According to ADA, 1 in every 5 diabetic people suffer from diabetic foot in their life time and overall 0.5% to 1% diabetics may undergo limb amputation. People with diabetes are

25 times more likely to lose a leg than people without the condition

Some Preventive tips for Diabetic Foot:

**Inspect Feet Everyday:** Tops and bottom, in between toes and nails should be checked frequently. Consult with doctor immediately if any cuts, abrasions, ulcer, corn- callous or ingrown nail is found.

**Feet** should be cleaned with mild warm water and soft soap and should be pat dry, specially between toes and later lotion should be used to avoid dryness.

**Nails** should ideally be cut after bath while soft and should be cut straight across avoiding the corners. For troublesome

thick nails, a Podiatrist's help should be taken.

**Foot Protection:** Diabetic people should never walk with bare-foot at any time. Self-treatment of corns, infections and ulcers is discouraged and recommended to seek help from experts.

**Shoes** should be soft, comfortable and must fit properly. Socks should be clean and dry .

Though the condition is not trivial, diabetic foot care is often neglected due to lack of awareness. Patients should be trained well to take care of their feet by diabetic educator and relevant expert to prevent the complications of the 'Diabetic Foot'.

## Visits to United Hospital



- A delegation from "U.S. Embassy, Dhaka" led by Dr. Chanda McDaniel, New Regional Medical Officer of U.S. Embassy, Dhaka came to United Hospital to meet with Clinical staff and visit different departments of United Hospital on Wednesday 4 September 2013.

- A delegation from "Japan International Co-operation Agency (JICA) Bangladesh Office" led by Ms. Miki Matsufuji, Health Administrator of JICA Bangladesh Office visited United Hospital on Thursday 12 September 2013, regarding the medical services for the JICA personnel working in Bangladesh.

- Six nursing students from different departments of Glasgow Caledonian University (GCU) and a Faculty Member from Grameen Caledonian College of Nursing, Bangladesh visited United Hospital Limited on Monday 2 September 2013.

## Corporate Agreements Signed with



- World Health Organization (WHO) on 1 July 2013.
- Airtel (BD) Limited on 28 July 2013.

## Incidence of Hyponatremia in an Advanced Hospital in Bangladeshi Lung Cancer Patients: A Retrospective Study

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

Hyponatremia is a common, potentially life threatening condition which is frequently seen in patients with malignant lung tumours with a mortality rate of as high as 5-50 %. SIADH, or Syndrome of Inappropriate Anti Diuretic Hormone secretion and depletion states together are responsible for about 2/3 rd of cases of these patients. Hyponatremia can also occur during the treatment of lung cancer with drugs like Vincristine, Melphelan, Cisplatin and Cyclophosphamide.

There are two major types of lung cancer i.e. Small Cell Cancer (SCLC ) approximately 15% and Non Small Cell Lung Cancer (NSCLC ) 85% . Western data

indicates hyponatremia to be only 1 % for NSCLC and about 15 % for SCLC. However, the incidence of Hyponatremia in Bangladeshi patients is not known and therefore, a hospital based study was undertaken to find out the incidence and prevalence of hyponatremia in our patients at United Hospital.

A total of 101 patients were evaluated who were treated at United Hospital between January 2011 and December 2012. Among them 17 were SCLC and 84 were NSCLC patients. All cases were diagnosed by FNAC. Hyponatremia was treated with oral salt and fluid restriction and few cases were treated with slow and prolonged hypertonic saline solution.

Workup for SIADH was not routinely done and therefore the incidence of SIADH in our patient population is not known.

The causes of such differences in the prevalence of hyponatremia between our study and the data published from the west may include greater mental stress and extreme pollution of the environment prevailing in Bangladesh. The high rates of hyponatremia in NSCLC may have an enormous role to play in the poor survival seen in these cases in our country, where low standards of management is generally implicated as the cause of high mortality. In any case, it is important to validate our observations in a bigger trial.

## A comparative efficacy analysis of 3D-conformal RT, fixed-field IMRT and RapidArc in Treatment of Pelvic Malignancy Treated with Elective Nodal Irradiation-A United Hospital Experience

*M Anisuzzaman Bhuiyan, Md Faruk Hossain, Dr Ashim Kumar Sengupta, Dr Rashid Un Nabi, Dr Ferdous Shahriar Sayed, Prof Dr Santanu Chaudhuri.*

### Aims and Objectives

The purpose of this study is to compare the dosimetric characteristics of 3D-conformal radiotherapy (3D-CRT), fixed-field intensity-modulated radiotherapy (IMRT) and RapidArc for pelvic region treated with nodal irradiation.

### Method and Materials:

In this study 35 patients with Carcinoma Cervix were included. All patients were simulated in supine position with full bladder. Target volume of cervix, Pelvic lymph nodes and organ at risk (bladder, rectum and small bowel) were delineated on CT dataset. Planning was done on Eclipse Planning System with AAA algorithm.

For 15 patients double arc RapidArc technique was used, standard 7-field IMRT for 10 patients and 3D-CRT with standard 4-field box technique was used for 15 patients. The goal was to deliver 50 Gy in 25 fractions to the planning target volume while meeting the normal-tissue dose constraints. The plans were compared based on dosimetric characteristics of target and organs at risk (OARs), monitor units (MUs), and appraised beam-on time.

### Result:

Both RapidArc and IMRT dose distribution were more or less same in target coverage but much better coverage from 3DCRT dose distribution. The number of MUs per fraction was (1188±156) for IMRT,

512±38 for RapidArc and 234±28 for 3DCRT. Treatment time on an average was 1.4±0.3 min for RapidArc, 8.0±0.5 min for IMRT and 3±0.2 min in 3DCRT.

### Conclusion:

Double arc RapidArc plan could provide slightly better OARs sparing bladder, rectum and small bowel when compared to IMRT and significantly better comparing to 3DCRT.

IMRT and RapidArc are capable of generating the clinical objectives determined by oncologists. Number of Monitor Units and the beam on time also less in RapidArc compared to IMRT-these improved the patient comfort and reduced the risk of intrafraction organ motion.



### Apple Health Benefits & Risks You Didn't Know

#### Apples fight Alzheimer's.

Apples contain quercetin, a powerful antioxidant that protects brain cells from degeneration.

**Apples prevent colon cancer.** When the natural fiber in apples ferments in the colon, it produces chemicals that help fight the formation of cancer cells.

**Apples stabilize blood sugar.** Apples are loaded with soluble fiber, which slows the digestion of food and the entry of glucose into the bloodstream.

**Apples fight high cholesterol.** Apples are low in calories and high in the soluble fiber pectin, which helps lower artery-damaging LDL blood cholesterol levels.

**Apples prevent high blood pressure.** Adults who eat apples are 37 percent less likely to have hypertension.

**Apples contain pesticides.** Apples

are vulnerable to worms, scale, and other insects, the conventionally grown varieties are usually sprayed with pesticides several times. Always wash fruit carefully before eating, and consider peeling waxed apples-the wax may prevent pesticide residues from being rinsed off.

**Apple cider or juice might cause bacterial infections.** E. coli and cryptosporidium have caused serious illness in people who consumed unpasteurized apple juice or apple cider.

## A case report-Congenital Fibromuscular Dysplasia in an Infant

*Dr Romina Sharmin Shanta, Dr Jan Mohammad, Prof Shahidul Islam*

Fibromuscular dysplasia is a non-granulomatous non-inflammatory, multifocal segmental angiopathy of musculature of arterial wall leading to stenosis of small and medium sized arteries. It is common in adults but rarely seen in children.

A 7 month old boy with febrile convulsion, tachycardia, hypertension with right sided hemi paresis was referred from Dhaka Shishu Hospital last May. He was provisionally diagnosed as a case of stroke and viral encephalitis. His blood urea, serum creatinine and CSF findings were within normal range without any AFB/ micro

organism. Leucocytosis (neutropenia with lymphocytosis) with thrombocytopenia was detected in hematological investigation. ESR was raised. Immunological study revealed no herpes simplex virus. Echocardiography showed mild LV dysfunction, 40% EF, dilated LA & LV with concentric LVH, moderate hypoplastic pulmonary arteries. X-ray chest was unremarkable. Right kidney was smaller in size (3.4 cm) on USG. Renal perfusion was impaired in both sides on Duplex study. Diffuse low attenuated areas with effacement of subjacent sulci were noted at the left fronto-temporo-parietal regions

in CT scan of brain suggesting acute cerebral infarcts at left MCA territory. CT angiogram revealed smaller right kidney with impaired nephrogram. Long segmental stenosis of 90%-95% in proximal and mid part of right renal artery and short segment stenosis of about 30%-40% was noted in proximal part of left renal artery. Radiological diagnosis was bilateral renal artery stenosis due to fibro-muscular dysplasia with mild coarctation of aorta.

FMD should be suspected in case of hypertension in younger age group and the presences of abdominal bruit.

## “Save Procedure” The Surgery to Save the Failing Heart

Dr Sumsul Arif Mohammad Musa, Dr Asif Ahmed Bin Moin, Dr Jahangir Kabir

Heart failure-the inability of the right or the left heart to maintain a forward flow is considered at present to be a major global health problem. Currently the most common cause of clinical heart failure is left ventricular dysfunction resulting from ischaemic heart disease. Myocardial infarct due to occlusion of the Left Anterior Descending (LAD) leads to change in the left ventricular shape and size. This includes the formation of an akinetic anteroseptal segment, bulging of interventricular segment towards right ventricle, change in the left ventricular geometry into spherical shape instead of normal conical shape and increase in LV internal diameter causing the anterior and posterior papil-

lary muscles to move away from each other, thereby giving rise to functional mitral regurgitation. This LV remodeling ultimately leads to congestive heart failure. Buckberg first introduced the potential surgical solution of changing the spherical chamber of the failing LV into an elliptical configuration by creating a conical chamber by placing a patch in the LV between the apex adjacent to the papillary muscles and the high up in the intraventricular septum, just beneath the aorta. The procedure is known as Septo-Anterior Ventricular Exclusion (SAVE). Between November 2006 till June 2013 the doctors at the department of cardiac surgery at United Hospital have performed 23 SAVE procedures. All

the patients suffered extensive antero-septal MI with depressed ejection fraction (35%-20%) with or without functional mitral valvular regurgitation. All of these patients had history of repeated hospital admission for heart failure (NYHA class III-IV). Postoperatively 3 patients died due to low cardiac output syndrome, 8 of them required intraaortic balloon pump support with average hospital stay of 14 days. EF improved after surgery from 35% to 45% (NYHA class II-III). Reverse remodeling procedure like SAVE may offer a less expensive alternative for these patients who even with extensive medical management for heart failure have a poor 3 year prognosis.

## Feeding Disorder (Food Refusal)

Prof Md Salim Shakur

A feeding disorder is diagnosed when, despite persistent attempts by caregivers, a child's behavior results in failure to eat or drink sufficient quantities or types of food to sustain weight, meet nutritional needs and/or grow. It is a common problem in children and cause of frequent medical visit in paediatric practice. Most of the time there is no well defined organic cause and negative feeding behavior only dominates. Anthropometrically children are initially satisfactory. However persistent food refusal may subsequently cause failure to thrive. Children exhibiting total food refusal accept only a highly restricted range and quantity of foods or refuse all food, resulting in dependence on liquid oral feedings (e.g. bottle feeds), or in rare extreme cases need enteral nutritional support (nasogastric tube feeding or gastrostomy tube feeds).

Children may refuse food for following reasons

- Forced feeding
- Over attention and parental anxiety to feed child
- Lack of appetite
- Individual difference in food acceptance (child with negativism, asceticism and frequently engaged in competition in 'battle of will' with parents to feed)
- Distaste or disgust at some food (e.g. vegetable, egg)
- Lack of experience of some foods at

- certain developmental stage
- Onset of neophobic response in the second year.



A child showing food refusal as evidence by turning face

### Management

Exclude possible organic cause-

- Take relevant medical, dietary, social and development history, try to understand family dynamics, quality of parent child relationship, parental feeding skill and personality of child and parents
- A thorough physical examination including anthropometry should be done
- Baseline investigation like FBC, peripheral blood film, stool and urine routine microscopic and culture.
- Other investigations if relevant (e.g. serum iron profile, tuberculin test in chronic febrile illness with FTT).

If there is any underlying organic cause it should be treated accordingly.

In such cases management of food refusal are-

- Don't force feed
- Restrict junk foods

- Feed in happy, relaxed environment
- Move from mash to 'bite and dissolve' foods from 7th month
- Encourage self feeding as soon as possible, by end of the 1st year
- Take uneaten food away without comment
- Allow the child to be messy at mealtime and to enjoy eating
- Don't use one food as a reward for eating another
- Give frequent small meals
- Offer variety of foods with some favourites
- Try to feed in larger group size (with other family members), if possible with other children
- Reassure the parents and advise to show patience particularly if the child is physically normal and development wise satisfactory.



Self feeding with encouragement when the child is eating improves feeding behavior



Food consumption is believed to be increased with eating in larger groups

## Certificate of Appreciation to Presenters of Hospital Monthly CMEs



On 6 July 2013 Certificate of Appreciation was awarded to the presenters of the Hospital Monthly CME for the January-June 2013 period by the Senior Management Staff and Consultants of different departments. The recipients were: Dr Shamira Nusrat & Dr Ahmed Tanvir Hasan, SHO of General Surgery, Dr Raina Rahman & Dr Polly Ahmed, SHO of Obstetrics & Gynecology, Dr A K M Shamsuzzaman Rana & Dr Rahana Akter, SHO of Neonatology, Dr Md. Muzahidul Islam & Dr Farha Anjum, SHO of Neuro Surgery, Dr Tamanna Yasmin, SHO, ICU, Dr Farah Naz Huq & Dr Mohammad Mujibur Rahman, SHO of Cardiology, Dr Zeenat Sultana, Specialist and Dr Nazmul Kabir Qureshi, Specialist, Internal Medicine.

## Fire Fighting Training in United Hospital

Like every year, this year also United Hospital organized a Fire Fighting Training program for the staff from different departments, particularly those who are most in touch with patients and who would be in a position to react immediately in case of any fire hazard. The training was imparted over a period of three days, from 27th to 29th August 2013. The first two days focused on lectures and theoretical aspects including (i) information on the types of fire, (ii) the different types of fire extinguishers, (iii) which type to be used in what type of fire, (iv) the actions to be taken immediately when fire is detected, (v) the precautionary measures to take, to ensure safety of the individual and the patients, (vi) knowledge about exit routes, (vii) assembly areas and a host of other topics. The third day was reserved for practical demonstration comprising use of fire extinguishers, evacuation methods and

procedures, first aid to the smoke affected people etc.

Trained personnel from Bangladesh Fire Service and Civil Defense Directorate in coordination with hospital authority selected the related subjects for the training and the experienced instructors of Fire Service imparted the training at the premises of United Hospital.

Total of 125 participants from different departments, including nursing, house keeping, security, admin, F&B etc, attended the theoretical classes. The third day the "Fire Drill" included (i) the use of stairways as an escape route in the event of fire or emergency, (ii) the use of crane and ladder to rescue people trapped in fire, (iii) taking immediate measures using first aid and



transferring the injured person in an ambulance to the nearest hospital. Participants also used fire extinguishers and water hydrants to extinguish different types of fire.

The three day training was very fruitful for the hospital staff. It helped the participants to learn the use of various types of fire extinguishers and also the techniques of fire fighting specific to hospital environment.



## Patient Satisfaction Award

A total of 60 staff from different departments of United Hospital received special Token of Appreciation on 4 September 2013 from the Hospital Management through the evaluation of "Patient Satisfaction and Relations Unit" based on their performance for the period April to June 2013.

## Eat Bananas

People whose diets are rich in potassium may be less prone to high blood pressure. Besides reducing sodium and taking other heart-healthy steps, eat potassium-packed picks such as bananas, cantaloupe, and oranges.



## Go for Garlic

Adding raw or lightly cooked garlic and onions to your meals may help keep you healthy. Both foods appear to possess antiviral and antibacterial properties and are believed to boost immunity.



## Congratulations & Best Wishes to the following staff and their spouses:

### New Baby

- Staff Nurse Asma Akter of Dialysis Unit had a baby boy Tahsin on 27 February 2013
- Staff Nurse Monika Roy 4th floor had a baby boy Rudro Mondol Rik on 29 March 2013
- Staff Nurse Hanufa Khanom of 4th Floor had a baby girl Tasnim Suha on 27 April 2013
- Staff Nurse Aklima Akter of Dialysis Unit had a baby girl Khadizatul Kobra on 6 May 2013
- Staff Nurse Rina Rani Das of 3rd Floor had a baby girl Taposree Bhowmik Trina on 27 May 2013
- Staff Nurse Anjuara Akter of Neuro Ward had a baby girl Mymuna Binte Rashed on 9 June 2013
- Staff Nurse Babita Das of Dialysis Unit had a baby boy Alberto Amadeus Turjo on 25 June 2013
- Staff Nurse Lutfa Khatun of Cardiac Surgery had a baby girl Sawda Afrin on 2 July 2013
- Pharmacist Morshed-UI-Alam had a baby girl Muntaha Morshed on 2 July 2013
- Staff Nurse Promila Biswas of CICU had a baby girl Mearcy Jenifer Hira on 3 July 2013
- Commercial Executive of Purchase Dept Mr. Md. Main Uddin had a baby boy Mohimunul Islam (Rubab) on 4 July 2013
- Staff Nurse Arifa Sultana of CICU had a baby girl Halima on 21 July 2013
- Staff Nurse Asma Akter of CHDU had a baby boy Alif on 12 August 2013
- Staff Nurse Mousumi Dey of Cardiac Surgery had a baby boy Lugdha on 22 August 2013
- Customer Relations Officer Mr. Md. Khairul Islam had a baby boy Yousuf Al-khair Imran on 25 August 2013
- Staff Nurse Rojina Akter of Neuro Ward had a baby boy Rajon on 31 August 2013
- Staff Nurse Mahmuda of Day Care Chemo Ward had a baby girl Adrita Jaman Mouli on 7 September 2013
- Staff Nurse Archana Roy of Family Medicine / Executive Health Screening had a baby boy Ayon on 9 September 2013.



## Condolences and Prayers

- Radiology Dept's Prof Dr Shahidul Islam lost his brother Alhaj Jainal Abedin on 31 July 2013
- Oncology Counselor Kazi Rumana Haque lost her father Mr. Kazi Nurul Haque on 12 August 2013

## We congratulate the Newly Weds on the auspicious occasion of their marriage

- ENT Specialist Dr Farzana Hoque got married to Dr Kamran Akhtar on 29 June 2013
- Medical Technologist Md Sohag Hossen of Radiology Dept got married to Tama Akter on 11 August 2013
- Medical Laboratory Technologist Md Arefin Alam got married to Mst Shammi Akther on 12 August 2013
- Medical Secretary Mariam Mumtahina in USG Unit (1st Floor) of Radiology Dept got married to Ahmed Kabir Rasel on 15 August 2013
- Customer Relations Officer Farhana Afroz got married to Riaz Rahman on 30 August 2013
- Pharmacist Md Golam Muktadir got married to Nayema Dewan on 2 September 2013

## Employee of the Month



This quarter, the "Employee of the Month" was awarded to Ruma Halder, Staff Nurse, Hemodialysis for July 2013 and Rosy Raksam, Staff Nurse of OPD2, Dental Department for August 2013.

## Awareness Course on Quality Management System for Clinical Laboratories

Md. Aksad Ali, Tamanna Taslim, Md. Nurul Momen, Md. Al Jahidi Hasan Chowdhury, Mohammad Nurul Momen and Md. Yunus Ali from the Laboratory Medicine Department attended an Awareness Training Course on ISO 15189 organised by UNIDO under Better Work and Standards Programme, held on 24-25 August 2013 in Dhaka.



We pray for our readers and wish them a Happy

*Eid Mubarak*

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