

# Service development, NICU expansion and dune bashing in Abu Dhabi

## FOCUS

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Consultant Dr Hisham Tawakiol preparing to scan a baby (above). Staff Nurse Tumi attending to a baby on nitric oxide (inset).

The original Corniche Hospital opened in 1977 adjacent to its current location, which opened in 1984. This was one of the first maternity hospitals to be opened in Abu Dhabi and resulted in a significant decline in the perinatal mortality rate in the Emirate of Abu Dhabi.

The United Arab Emirates (UAE) has a population of approximately 7.8 million consisting of less than 12% local Emirati with the remainder made up of ex-pat workers in a variety of industries/roles. The majority of the western ex-pat population are British, at well over 240,000 in number.

The Corniche is a stand-alone maternity hospital and is the largest maternity and neonatal facility in the UAE. It is owned by Abu Dhabi Health Services Company (SEHA), managed by Johns Hopkins Medical International and is Joint Commission International and Baby Friendly accredited. The Corniche was awarded Hospital of the Year 2012 across the five Abu Dhabi governmental hospitals.

With 235 maternity beds, three operating rooms and a 64 cot NICU, the

Corniche neonatal service is staffed by:

- seven consultant neonatologists
- 18 specialist neonatal doctors
- two fellows
- 110 nursing staff
- 13 unit attendants
- four respiratory technicians.

Additional trained personnel undertake auditory and oxygen saturation screening. In addition there is a satellite clinic – the Women's Health Centre – that provides outpatient midwifery care for low risk clients.

The current NICU, which underwent an expansion and rebuild two years ago, has:

- four intensive care rooms with a total of 27 cots
- two isolation rooms
- three special care nurseries with 35 cots.

Over 8,500 infants are delivered each year with approximately 30% by caesarean section. The routine care of extremely premature infants with equipment for cooling and nitric oxide use as well as amplitude-integrated electroencephalography (aEEG) monitoring is readily

available. Each year there are over 1,000 admissions to the NICU with two hundred neonates of less than 1500g birthweight whose care has been benchmarked through the Vermont Oxford Network database since 1998. The problems are very similar to many western NICUs with strategies to reduce bronchopulmonary dysplasia (BPD) and nosocomial infections. Extended spectrum beta lactamase (ESBL)-producing organisms are prevalent in the community and acquired gram negative sepsis is also not uncommon.

Like many stand-alone maternity and neonatal hospitals around the world, the longer-term plan is to integrate all services onto a main medical site – the Sheikh Khalifa Medical City (SKMC), approximately three miles away. This is where surgical services and sub-specialty paediatric services are located. Currently specialist surgical, cardiac, ENT and ophthalmic physicians and surgeons visit the NICU to assess infants with the neonatal team. The team transport these infants to and from the main hospital and

this has led to some challenging transfers and has enabled us to develop a great deal of experience. As in the UK, many neonatal consultants are able to undertake cranial ultrasounds, echocardiography and minor surgical procedures with modern equipment available on the NICU.

This does not mean that there aren't any challenges. Having adopted an American style, insurance-based healthcare system in the UAE, the patient can choose to use government or private hospitals but all will charge. Two-thirds of deliveries occur with SEHA and the remainder in the private sector. There are multiple insurance schemes and multiple levels of cover and some individuals are self-pay. There are many local private hospitals in Abu Dhabi that will take on obstetric care, but often when complications arise, women are advised to come to the Corniche resulting in many non-booked deliveries.

All this makes for a stressful but enjoyable environment. Recent initiatives to develop 'service lines' has enabled neonatologists in Abu Dhabi to begin to collaborate, looking at cot location and provision as well as joint guideline development. The lateness of these developments does have its advantages – fetal-medicine and obstetric services can be aligned along with future NICU provision.

The Corniche Hospital has developed its services to cater for an increasingly high-risk population. There has been recent development of a fetal-medicine unit, IVF services, NICU expansion and post-graduate education, with an accredited fellowship programme in neonatology and obstetrics and gynaecology. Comprehensive women's health services have also been developed including gynaecology. This specialisation has led to an influx of UK-trained consultants and, as a result, the Corniche Hospital has become the first hospital outside the UK to earn Royal College of Obstetricians and Gynaecologists (RCOG) accreditation for advanced training skills modules (ATSMs) in maternal medicine.

No NICU can function without neonatal nursing staff and like most specialised services in the UAE the expertise has to be imported. The largest group of nurses are from the Philippines but there are many from India, Malaysia, the Middle East, Europe and elsewhere including many British nurses in senior positions. An in-house neonatal course is run at the Corniche Hospital to train nurses to



Corniche Hospital beach volleyball team won the SEHA Employees Challenge in March. Back row: Julian Eason, Ismail Hamade and Nazi El Hajj Chehade. Front row: Ali Al Ketbi and Khaled Haji Karashi.

consistent standards. The ethnic mix stimulates a whole host of diverse learning, understanding and practices – the homemade snacks after a ward round are an education unto themselves!

When it comes to community care there are some exciting developments. A follow-up clinic for high-risk infants is available from the neonatologists and there are plans to develop further community services and follow-up in the near future. The largest clinic is a jaundice clinic as G6PD (glucose-6-phosphate dehydrogenase) deficiency is prevalent. Jaundice related to dehydration can occur and there is a lactation clinic freely available. The initiation of breastfeeding is excellent at over 80% of those discharged from NICU; the challenge is to maintain this in the community.

As first cousin marriage is common locally, and in other ethnic groups in the UAE, there are many congenital neurodevelopmental problems. Unusual metabolic conditions are also often encountered requiring complex initial and longer-term care.

Leisure is, of course, important and the area is open to exploration. Desert camping and dune bashing, mountain hikes, sailing and diving are just a few of the things on offer. It is a very family friendly environment and one of the safest places in the world to live. International competitions in cricket, Formula One, tennis and golf are frequent.



A dedicated neonatal ambulance.

The thirst for knowledge is large and local and international conferences are mainly held in Abu Dhabi and Dubai; speakers come from around the world, including the UK, USA and Australia. The UAE continues to grow and the Corniche Hospital needs to grow with it. The new hospital is likely to have 100 cots and an innovative design; a family-friendly environment and an exciting place to work. At the time of writing, there are 41 ICU/HDU infants in 29 spaces and guidelines and policies for the next Joint Commission International accreditation are being frantically updated. Does that sound familiar?

**Corniche Hospital** is currently recruiting qualified healthcare professionals for its NICU.

Interested? Check out the job advert in this issue of *Infant*.