

Text alerts help NUH save lives

Home, The Straits Times (Friday, 04 June 2010)

By Judith Tan

Hospital's doctors informed of lab results via SMS and can treat patients swiftly



Dr Yip showing the mobile device on which he now receives instant results of laboratory tests, which would previously have taken up to an hour to reach him. -- ST PHOTO: NG SOR LUAN

HER blood test revealed abnormalities that could prove life-threatening if not addressed at once.

So teacher Rajeswari Balasupramaniam, 28, was immediately summoned to the National University Hospital (NUH) by her doctor, so he could act to enable her blood to clot normally.

The chain of events - which would previously have taken up to an hour - took only a few minutes, thanks to an SMS sent directly from the laboratory to cardiologist James Yip.

Dr Yip, who is also the hospital's chief medical information officer, said that in a typical month, NUH deals with 1,700 to 1,800 critical blood, X-ray and magnetic resonance imaging results.

The use of SMSes to notify doctors of laboratory results ensures that medical attention can be administered swiftly.

Now implemented hospital-wide, after a successful launch by NUH's coronary care unit in 2008, the system - whereby results are automatically sent to doctors - has produced tremendous results.

Direct communication between doctors and laboratories or diagnostics departments has increased to between 95 and 99 per cent, up from 68 per cent when results were relayed to doctors via a call centre operator.

But with NUH doctors getting up to 60 phone texts a day, there is the possibility that messages can be missed, said Dr Sophia Ang, vice-chairman of the NUH medical board.

To avoid that happening, if doctors do not respond within 10 minutes, the call centre is alerted and operators manually get in touch with either the doctor who ordered the test or a colleague from the same department.

'While we leverage on IT to get things right on the ground, we still need to turn to the human touch some of the time,' said Dr Ang, an anaesthetist and the hospital's patient safety officer.

The benefits of such alert programmes mean Tan Tock Seng Hospital will be initiating a similar system by August.

It had good feedback from a pilot project conducted in 2006 and 2007.

Another public hospital which can testify to the usefulness of using such alert systems is KK Women's and Children's Hospital.

Since 2007, it has had in place a system called 'Code Green' - a rapid response system for emergency caesarean deliveries.

In emergencies, the system immediately activates a team of doctors and nurses specialising in intensive and critical care through a hospital-wide announcement on the public address system.

Once the code is announced, the designated team assembles immediately to give appropriate care to the patient.

The hospital's chairman for the division of medicine, Professor Chay Oh Moh, said 'Code Green' resulted in an average turnaround time of 7.6 minutes from the decision being made to resort to a caesarean section, to delivery of the baby.

The international norm is between 20 and 30 minutes.

Meanwhile, buoyed by the success of its SMS alerts, NUH is even thinking of transmitting diagnostic charts and scans via MMS.

But Dr Ang cautioned that it is still early days.

She said: 'Unless the screen resolution on the phones is really clear, there is a possibility we could miss a shadow that is indicative of a tumour or other conditions.'