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For Immediate Release

NEWS RELEASE

Public Hospitals’ Pharmacy System Wins Top Project Management Award

_Singapore, March 30, 2015_ - The Outpatient Pharmacy Automation System at National University Hospital, Tan Tock Seng Hospital and NHG Pharmacy has won the Singapore Project Management Institute’s (SPMI) Project Of the Year Award.

The Ministry of Health Holdings’ IT arm, Integrated Health Information Systems (IHiS), received the trophy from the Minister of State for Trade and Industry, Mr Teo Ser Luck, at the SPMI regional symposium on Thursday, March 26.

SPMI is the Singapore branch of the global professional accreditation body, Project Management International.

Developed and project managed by IHiS with the healthcare institutions, the outpatient pharmacy system halves patient waiting times, substantially improves medication safety, and reduces rework by two-thirds.

IHiS Chief Executive Officer, Dr Chong Yoke Sin, said: “We have created in OPAS one of the region’s fastest high speed, high capacity pharmacy systems. It involves integration of seven multi-disciplinary technologies and robotics from various industries worldwide, with locally developed software.

“The system is also the region's first to combine different packaging machines for drugs in blister packs, boxes and loose form into one system, and to use robotic armatures from the Swiss car manufacturing industry in healthcare.

“In addition, the system harmonises three healthcare institutions’ workflows into one seamless process. These require a wide range of expertise and outstanding project management skills.”

Today, IHiS has designed the system to be flexible, with different combinations of robotics used at the pharmacies of National University Hospital, Tan Tock Seng Hospital and NHG Pharmacy.
The solution is also easily scalable to keep pace with increasing patient volumes as Singapore’s population ages rapidly.

IHiS plans to implement the pharmacy system at more healthcare institutions over the next two years.

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**Chinese Names**

Integrated Health Information Systems (IHiS) 綜合保健信息系統公司
Chief Executive Officer, Dr Chong Yoke Sin 钟玉璇博士
National University Hospital (NUH) 国大医院
Tan Tock Seng Hospital (TTSH) 陈笃生医院
National Healthcare Group Pharmacy 国立健保集团药房

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This release is issued by Integrated Health Information Systems (IHiS).

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**About Integrated Health Information Systems (IHiS)**

IHiS is a healthcare-IT leader, transforming patient care through excellence in technology. Managing highly integrated systems across Singapore’s public healthcare sector, its IT professionals support about 40,000 healthcare staff at all public hospitals, national specialty centres and polyclinics.

IHiS architects and oversees the performance of the clinical, business and healthcare analytics systems of the healthcare institutions. It played a key role in six Singapore hospitals becoming among the first public institutions in the Asia Pacific region to achieve HIMSS EMRAM Stage 6, an international benchmark for advanced technology used to in patient care.

IHiS is at the forefront of innovation, driving new standards in quality care. [www.ihis.com.sg](http://www.ihis.com.sg)
About National University Hospital (NUH)
NUH is a tertiary hospital and major referral centre for a comprehensive range of medical, surgical and dental specialties including Cardiology, Gastroenterology and Hepatology, Obstetrics and Gynaecology, Oncology, Ophthalmology, Paediatrics, Orthopaedic Surgery and Hand and Reconstructive Microsurgery. The Hospital also provides organ transplant programmes for adults (in kidney, liver, pancreas) and is the only public hospital in Singapore to offer a paediatric kidney and liver transplant programme.

Staffed by healthcare professionals who rank among the best in the field, NUH offers quality patient care by embracing innovations and advances in medical treatment.

In 2004, NUH became the first Singapore hospital to receive the Joint Commission International (JCI) accreditation, an international stamp for excellent clinical practices in patient care and safety. Today, patient safety and good clinical outcomes remain the hospital’s focus as it continues to play a key role in the training of doctors, nurses and allied health professionals, and in translational research which paves the way for new cures and treatment.

A member of National University Health System, it is the principal teaching hospital of NUS Yong Loo Lin School of Medicine and Faculty of Dentistry. For more information, visit www.nuh.com.sg

About Tan Tock Seng Hospital (TTSH)
TTSH is one of Singapore’s largest multi-disciplinary hospitals with more than 160 years of pioneering medical care and development. The hospital has 36 clinical and allied health departments, 15 specialist centres and is powered by more than 6,000 healthcare staff.

TTSH sees over 2,000 patients at its specialist clinics and some 460 patients at its emergency department every day. It is part of National Healthcare Group, providing holistic and integrated patient care. With a strong quality culture steeped in patient safety, TTSH constantly challenges itself to provide faster, better, cheaper and safer care for patients.

To achieve this, the hospital keeps abreast and believes in investing in its staff, facilities, medical technology and system improvements. In recognition of its commitment to excellent patient care and its comprehensive range of quality healthcare services, TTSH has been awarded the ISO 9001 certification and the prestigious Joint Commission International (JCI) accreditation. www.ttsh.com.sg

About National Healthcare Group Pharmacy
NHG Pharmacy, a business unit of National Healthcare Group, manages the pharmacy services and retail pharmacies at all NHG Polyclinics. It aims to support its customers to achieve the best results for their prescribed therapy, and promote the safe and responsible use of medication.

At the nine NHG Polyclinics, NHG Pharmacy works collaboratively with the physicians and other healthcare professionals to manage the patients with chronic illnesses. Patients also regularly consult the pharmacists for treatment of their minor ailments.
Photos

Outpatient Pharmacy Automation System (OPAS)

OPAS comprises multi-disciplinary technologies such as robotic arms, medication picking robots, conveyors, LED, barcodes and RFID, to automate fast prescription filling.

Robots automatically pick and dispense box-packaged medication.

The Smart Conveyor System moves medication totes quickly.

Robotic arms pick and place correct totes on shelves behind the front dispensing counters.

To download high res images, go to:
https://www.dropbox.com/sh/mvilapxby75ukui/AABnKuAeXVp0t5RLxZJpuNtOa?dl=0
Outpatient Pharmacy Automation System (OPAS) – Fact Sheet

OPAS comprises components from:

1. Germany
   - **Box-automated dispensing machines (ROWA):** Rowa is an award-winning box picking machine from Germany (it won the Red Dot design) with a high accuracy rate of 99.96%. TTSH, NUH and NHG Pharmacy are the first to install Rowa Vmax model in South East Asia.

2. United States
   - **A high speed loose tablet automated dispensing machine (PARATA):** Based in US, Parata is the only loose tablet robot that is able to cap vials and is the fastest among its competitors. It also has a high accuracy rate of 99.99%. The Parata Max at TTSH, NUH and NHG Pharmacy are the first ones to be supplied out of US.

3. Switzerland
   - **Industrial robot armatures (used in car manufacturing industries) to accurately pick and store medication totes:** The robotic arms are used in mass production industries requiring precision assembly. They are customised for OPAS and are used for the assembly process of medication totes. This is the first time they are being used in healthcare.

4. Singapore
   - **A barcode-enabled conveyor system to quickly move medication totes from point to point:** This Singapore-assembled conveyor uses customised parts from China.

   - **Guided picking of manually selected items via pick-to-light LED:** The custom-made LED lights, with parts from China and Thailand, have four different light colours fitted into the manual picking shelves. These enable pharmacy staff to pick the medication for four patients accurately at the same time.

   - **RFID-enabled capabilities:** The RFID-enabled shelving and RFID barcode readers use High Frequency (HF) technology that detect each tote’s location on the shelf, allowing for faster and easier assembly and identification of patient’s medication.

At the system’s nerve centre is an integrated intelligent software developed by NCS that coordinates ROWA and PARATA, and orchestrates the entire process from the time medication is ordered to when it is ready for collection.