

## **MEDIA RELEASE**

### **NATIONAL HEART CENTRE SINGAPORE (NHC) OFFERS HEART PATIENTS MINIMALLY INVASIVE ROBOT-ASSISTED MITRAL VALVE REPAIR SURGERY**

**SINGAPORE, 10 July 2009** – National Heart Centre Singapore (NHC) performs about 120 isolated valve surgeries a year of which two thirds are mitral valve repairs, using the conventional and minimally invasive procedure. Its mortality rate was only 1.92 percent, well below the international STS benchmark of 6 percent for mitral valve surgeries.

Compared to the conventional procedure, the robotic cardiothoracic surgery performed with the aid of advanced robotic systems such as da Vinci has two benefits.

Dr Chua Yeow Leng, a Senior Consultant for Cardiothoracic Surgery at NHC elaborates, “Recovery time is a big plus. Conventionally, a person who has to engage in strenuous activities can only return to work after three months. Now, with robotics, the same person can be fit for work within a month, and there will be much less pain and scarring.”

By keeping the breastbone intact, robotics also reduces the chance for post-surgical complications, such as infection of the chest wall.

#### **Giving heart patients a better alternative**

With an ageing population, heart disease is fast becoming a global problem. According to Dr Chua, heart disease can involve the muscles, valves or arteries.

“Today, we are looking for fast-track recovery from heart surgeries and that’s where robotics present a distinct advantage,” he says.

At present, da Vinci offers the most effective and least invasive treatment option available. Surgeons operate through tiny openings in the chest, eliminating the need for sternotomy – a large incision through the breastbone or sternum.

Open heart surgeries usually require an opening of about 15cm. Comparatively, with robotics, a much smaller opening, about 4cm is made on the right side of the body without disturbing the ribcage.

“Our robotic assisted minimally invasive cardiothoracic surgery (RAMICS) programme offers patients an alternative to conventional open heart surgery, to treat mitral valve disease,” explains Dr Chua, who has performed about a half dozen cases of robot-assisted valve repair so far. All his patients have since fully recovered.

NHC is currently the only centre in Singapore that performs this complicated procedure for mitral valve repairs.

The minimally invasive method of heart surgery can also be applied to other heart and thoracic conditions. The team at National Heart Centre Singapore has performed robotic-assisted operations including coronary artery bypass grafting, closure of congenital heart defects and excision of chest tumours since December 2006.

Robotic-assisted surgery requires a mature level of expertise since it involves a steep learning curve.

“Many centres globally have given up their robotic programs because of time and cost considerations. However, we believe this will become the new standard of care for heart patients in future,” says Dr Chua

Dr Tan Teing Ee, Senior Consultant for Cardiothoracic Surgery at NHC agrees, “Robotic-assisted surgery proved to be invaluable in cardiothoracic surgery as the system enabled immaculate precision while eliminating counter-intuitive motion and instrument tremor experienced in traditional procedures. There is a possibility it can become more widespread in cardiothoracic surgery over the next 5 to 10 years, just as it has expanded rapidly in urology for resection of prostatic tumours.”

The programme is currently funded by the SingHealth Endowment Fund to make it affordable for patients.

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**About the National Heart Centre Singapore**

The National Heart Centre Singapore (NHC) is a 185-bed national and regional referral centre for cardiovascular diseases. A one-stop facility with the largest heart specialists group in Singapore, NHC treats complex cases and sees the highest volume of heart patients locally.

Each year, we handle over 90,000 outpatient consultations, 6,000 interventional and surgical procedures and 9,000 inpatients. Our outcomes for heart attack treatment, balloon angioplasty with stenting and bypass surgery have been shown to be equivalent to international standards.

NHC is the first heart centre outside USA and in Asia to receive the prestigious Joint Commission International (JCI) since 2005, which is an assurance for safe and quality patient care for our patients.