

## MEDIA RELEASE

29 November 2022

For Immediate Release

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#### **Neck Intervertebral Disc Replacement – NUHS hospitals develop new motion-preserving spine surgical technique to benefit wider group of patients, with AH having a dedicated spine unit**

Singapore, 29 November 2022 – Every year in Singapore, thousands of people who face degenerative disc problems seek help at public healthcare institutions for debilitating neck, back and limb pain. These degenerative spine conditions are common. Based on a recent population study led by Dr Dennis Hey, the six-month local prevalence for neck pain is 23% across all ages, with majority of these people having more than six episodes of pain and lasting one week. The presentation of these spine conditions will continue to increase for many years to come, related to Singapore's ageing population and our citizen's general lifestyle habits. The causes of degeneration include ageing, obesity, poor lifestyle habits such as lack of exercise and poor posture, and occupational hazards.

2 Dr Dennis Hey, Founding Director at AH's new dedicated motion-preserving and minimally invasive spine unit and Senior Consultant Spine Surgeon at NUH, together with Dr Lin Shuxun, Consultant Spine Surgeon at AH and NTFGH, in dealing with this rapidly growing problem, started a focused practice at AH aimed to preserve function and increase mobility of the spinal column to meet the growing demand for spine care. A new surgical technique designed by Dr Hey is expected to benefit citizens across all age groups, and together, the two surgeons have operated on more than 100 spine levels in the past 15 months alone.

3 Disc replacements are regularly performed for patients up to the age of 45 to 50. Conventionally, disc replacement surgery is not recommended for seniors because of relatively poorer bone quality and stiff joints. For individuals over 50, the most favoured spinal instrumentation surgery is spinal fusion. The technique used by both doctors has now made it possible to perform disc replacements in all adults, including those above the age of 50, via a meticulous combination of soft tissue releases and accurate placement of implants. The surgeons are then able to render stiff spines mobile and find the optimal balance for stress dissipation by offloading unnecessary pressure across articulating surfaces, with the ultimate goal of spinal remobilisation. The procedure reduced any pain while restoring the physiological range of motion at the affected vertebral segment. This new technique overcomes traditional surgical obstacles such as stiff joints and osteoporosis, ultimately preserving motion of the spine.

4 Beneficiaries of this new technique include a wide range of patients, from the youngest adult aged 21 to the oldest senior, up to 75 years of age. Dr Dennis Hey explained, “Without the implementation of safe measures in the form of key surgical steps, forcing the implant into the disc space could result in catastrophic hardware problems and complications. The implant either does not move, or it breaks through the bone. This new technique loosens the joints of the spine safely and effectively to allow implantation of artificial discs without imposing much stress on spinal tissues. As a result, spinal mobility is maintained or enhanced, even in osteoporotic bones. For an ageing society where we are living longer and aspire to have a better quality of life, this new technique presents a rejuvenation option for better living. For example, a 70-year-old can now experience rejuvenated spinal motion like that of a 30-year-old. We hope to provide the same high quality outcome to a broader range of patients.” Dr Lin Shuxun elaborates, “We shift the paradigm of spine surgery from ‘fusion’ to ‘function’, to enable preservation of a flexible and naturally mobile spine, to the benefit of more senior patients.”

5 Dr Dennis Hey is currently working with an international design team to customize implant designs and sizes that are more suited for Asians on the petite end of the spectrum, creating smaller implants that better suit our spine anatomy which is expected to further improve our surgical outcomes.

6 The team led by Dr Dennis Hey comprising spine surgeons, pain physician and rehabilitation physician at Alexandra Hospital, hopes to reduce the need for unnecessary fusion surgeries and improve surgical outcomes hence promoting functional aging in the face of an aging population. This new technique together with other motion-preserving procedures such as keyhole endoscopic spine surgery and spinal injections will be made readily available to patients with spinal conditions.

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