NHS Board Meeting
31 March 2021

Lanarkshire NHS Board
Kirklands
Fallside Road
Bothwell
G71 8BB
Telephone: 01698 855500
www.nhslanarkshire.scot.nhs.uk

SUBJECT: ROBOTIC ASSISTED SURGERY

1. PURPOSE

The purpose of this paper is to invite the NHS Board to homologate the decision made by Board Members at the Board Briefing Session on 9 March 2021 in relation to the order of a Surgical Robot, that will be located, initially, at the Golden Jubilee National Hospital.

For approval	☒	For Assurance	☐	For Information	☐

2. ROUTE TO THE BOARD

This paper has been prepared by Paul Cannon, Board Secretary.

3. SUMMARY OF KEY ISSUES

At the Board Briefing Session on 9 March 2021, Board Members were asked to consider making a decision on the order of robotic surgical equipment, as this decision could not wait until the formal Board meeting at the end of March 2021. The order had to be confirmed by 11 March 2021 in order for the equipment to be delivered, and paid for, in the current financial year.

Board Members unanimously agreed to the request from the Golden Jubilee National Hospital, and confirmed that NHS Lanarkshire should agree to the arrangements (including accepting revenue costs) as set out in this paper, to allow the Golden Jubilee National Hospital to proceed to place the order to purchase the robotic equipment.

Board Members also agreed that this should be communicated to the Golden Jubilee National Hospital on 10 March 2021, and that formal approval of the decision be brought to the Board at the meeting on 31 March 2021.

The background and issues discussed are set out in more detail in Appendix 1.

4. STRATEGIC CONTEXT

This paper links to the following:

Corporate objectives	☒	AOP	☒	Government policy	☒
Government directive	☒	Statutory requirement	☒	AHF/local policy	☐
Urgent operational issue	☒	Other	☐		

5. CONTRIBUTION TO QUALITY

This paper aligns to the following elements of safety and quality improvement:

Three Quality Ambitions:

Safe	☒	Effective	☒	Person Centred	☒

Six Quality Outcomes:

Everyone has the best start in life and is able to live longer healthier lives; (Effective)	☒
People are able to live well at home or in the community; (Person Centred)	☒
Everyone has a positive experience of healthcare; (Person Centred)	☒
Staff feel supported and engaged; (Effective)	☐
Healthcare is safe for every person, every time; (Safe)	☒
Best use is made of available resources. (Effective)	☒

6. MEASURES FOR IMPROVEMENT

The summary sets out the clinical benefits and the measures for improvement that will be sought through reduced complications, readmissions, and lengths of stay for patients.

7. FINANCIAL IMPLICATIONS

These are set out in the paper, and the Director of Finance confirmed that these have been taken account of in terms of future financial planning.

8. RISK ASSESSMENT/MANAGEMENT IMPLICATIONS

There was a significant reputational and workforce attraction risk if the robotic assisted surgery offer was not taken up.

9. FIT WITH BEST VALUE CRITERIA

This paper aligns to the following best value criteria:

Vision and leadership	☒	Effective partnerships	☒	Governance and accountability	☒
Use of resources	☒	Performance Management	☐	Equality	☐
Sustainability Management	☒				

10. EQUALITY IMPACT ASSESSMENT / FAIRER SCOTLAND DUTY

Not Applicable.

11. CONSULTATION AND ENGAGEMENT

Not Applicable.

12. ACTIONS FOR THE BOARD

Approve	☒	Accept the assurance provided	☐	Note the information provided	☐

The Board is asked to formally homologate the decision taken at the Board Briefing Session on 9

March 2021 to ask the Golden Jubilee National Hospital to place the order for the Robotic equipment.

13. FURTHER INFORMATION

For further information about any aspect of this paper, please contact:

Jane Burns
Medical Director

Judith Park
Director of Acute Services

Background

At the end of November 2020, West of Scotland Board Chief Executives, through the Regional Planning Group, were asked to progress a regional plan for the development of robotic assisted surgery. The North and the East Regions were asked to submit plans also.

This was in the context of a national plan proposed by Scottish Government to provide capital in 2020/2021 for 6 robots across Scotland, 3 of which were to be earmarked for the West of Scotland.

Given the attention focussed on the response to the pandemic, the West of Scotland Regional Planning Group suggested a pause. However, each Region was asked to develop a plan as this was a one off opportunity to utilise national capital funding in the current financial year. Each robot costs around £2.2m.

A plan was rapidly developed and brought to the Regional Planning Group in early February 2021, which essentially saw 2 robots being provided in Greater Glasgow & Clyde to be used by themselves, NHS Ayrshire and Arran and NHS Dumfries and Galloway.

The third robot was to be located in NHS Lanarkshire serving the populations of NHS Lanarkshire and NHS Forth Valley.

Clinical Benefits

Robotic assisted surgery is an advanced form of laparoscopic surgery. It allows a surgeon to perform any complex surgical procedure with more accuracy, control, and flexibility than conventional surgical procedures. Surgeons use computer controlled and self-powered robots to assist them during the surgery, especially in the manipulation and positioning of surgical instruments. Robotic assisted surgery is less painful and causes less scarring than open surgeries. It can be used in almost all types of surgical specialties.

Advantages of Robotic Assisted Surgery

Robotic surgery provides substantial benefits to both patients and surgeons.

For patients:

- Reduced risk of infection due to smaller incisions
- Minimal scarring
- Reduced discomfort and pain
- Shorter hospitalization
- Reduced blood loss and transfusions
- Faster recovery time and return to routine activities

For surgeons include:

- Exceptional precision
- Increased proficiency
- Greater visualisation
- Easy access to hard-to-reach areas

Robotic assisted surgery is performed using a surgical system, which is a combination of machinery, computer, and electronics that provides surgeons an intuitive tool for controlling surgical

instruments. General anaesthesia is used during the surgery. The surgeon works from the computer console in the operating room. They control several precision-guided robotic arms that hold and manipulate miniaturised instruments to make small incisions in the patient.

A small video camera attached to a robotic arm provides the surgeon with a magnified view of the operating site. The surgeon's finger, hand, and wrist movements are transmitted to the surgical instruments attached to the robot's arms through computer console. The robotic arms are able to rotate 360 degrees, which allows the surgical instruments to be moved with greater control, precision, and flexibility than in standard laparoscopic surgeries. The surgery team supervises the robot throughout the surgery.

Robotic assisted surgery is in the early stages of implementation out with highly specialised services in the UK and, in Scotland, only a small proportion of surgeons are trained in its deployment. Urological surgery, in view of the high proportion of pelvic surgery (and in particular prostatic surgery) undertaken has had the greatest experience of this type of practice, utilising the Da Vinci robot that was installed at the Queen Elizabeth University Hospital as a regional resource.

Most of the Higher Surgical Trainees in Urology within the West of Scotland training system have received training in robotic-assisted urological surgery. It has become clear that these senior trainees in urology are reluctant to apply for consultant posts in a Board without access to robotic assisted surgery.

Some existing Consultant Urologists have already left posts in NHS Lanarkshire & other neighbouring Boards to take up posts in NHS Greater Glasgow & Clyde where they can have access to robotic assisted surgery. It is clear that in the next few years as the availability of the equipment becomes available, this is likely to be a direction of travel across other specialties including General Surgery, Gynaecology and potentially ENT Surgery.

There are therefore significant reputational benefits in being able to attract clinical staff to a Board that has invested in this surgical technology and, conversely, there are significant risks of not being able to offer this resource. The local clinical community are supportive of moving towards robotic assisted surgery.

Financial Impact

Capital - there is no impact on the Board's Capital Plan going forward. The purchase of the equipment is being fully met by the Scottish Government.

Revenue - the revenue costs associated with this plan for NHS Lanarkshire have been estimated to be within a range of between £300,000 and £550,000 per annum, but these estimates are subject to further ongoing refinement. The Director of Finance will meet these additional revenue costs.

Timescales

Due to the timescales involved NHS Lanarkshire would not be ready to site a surgical robot until well into 2021/2022 as there would be a lead time for training the surgeons, and once a robot is installed in an operating theatre it can only be used for robotic assisted surgery. This loss of capacity would be especially problematic at a time when we will have a sizeable elective backlog from Covid-19.

Given these constraints NHS Lanarkshire has worked with the Golden Jubilee Foundation to agree an arrangement whereby they accept the robot earmarked for NHS Lanarkshire for the first 9 months of 2021/2022. A patient flow from Lanarkshire will allow us to train our surgeons at the

Golden Jubilee and also provide the Golden Jubilee surgical team with additional robotic capacity in any down time.

In December 2022, a robot which was originally planned for the Golden Jubilee will be delivered to NHS Lanarkshire.

Following on from the initial period at the Golden Jubilee, the Board will work in partnership with NHS Forth Valley in the first instance, and progress the development of robotic surgery within other specialties as part of a regional delivery model.

The Golden Jubilee Foundation required confirmation from NHS Lanarkshire that the short term plan to utilise the robot at the Golden Jubilee was acceptable, until this can be situated in NHS Lanarkshire, and that our share of the ongoing revenue costs is accepted, so that the order could be placed, by 12 March 2021. Board Members were advised that if this was not confirmed by the due date, the capital funds available for the purchase of the robot for NHS Lanarkshire and NHS Forth Valley would not be available.