

**ROBOTICS IN** 

GYNAECOLOGY

(INCLUDES ONCOLOGY)



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The Robotic surgery, or robot-assisted surgery, allows surgeons to perform many types of complex procedures with more precision, flexibility and control than is possible with conventional techniques. Robotic surgery is the most advanced form of minimally invasive surgery. Robotic surgery has been rapidly adopted by hospitals globally for use in the treatment of a wide range of conditions. The most widely used clinical robotic surgical system (Intuitive da Vinci Robotic System) includes a camera arm and mechanical arms with surgical instruments attached to them. The surgeon controls the arms while seated at a computer console near the operating table. The console gives the surgeon a high-definition, magnified, 3-D view of the surgical site.

A certified robotic Surgeon can perform pelvic surgical procedures including gynaecological and complex gynaecological oncological surgeries with enhanced precision, improved dexterity and allowing them to optimise treatment compared with traditional techniques and other minimally invasive procedures. Using robotic surgery, surgeons can perform delicate and complex procedures that may have been difficult or impossible with other methods. The journey of a certified Robotic Gynaec Surgeon starts with understanding and getting familiar with the advanced systems, followed by rigorous skill drill exercises and on-site training leading to a formal assessment to be certified as a Trainee Surgeon. After accomplishing this the surgeon with adequate experience and exposure to open surgery can apply for dedicated proctorship program under the guidance of Senior Robotic Surgeons to master the art of robotic surgery and to demonstrate adequate proficiency. After completing the equivalency pathway training the surgeon is given the coveted tag of a Robotic Surgeon with permanent credentialing to use the advanced robotic system as a console surgeon

# LEARNING OBJECTIVES

Defining the robotic surgical platform, its features, setup and organisational requirements, and troubleshooting measures.

- Developing the psychomotor skills required to safely operate the da Vinci robotic surgical platform Leveraging surgical case observation in defining how the robotic surgical platform is integrated into the operating room and how the platform can be best utilized in clinical practice.
- Developing clinical efficiency through comprehensive team training
- Guidance for Equivalency training / Fellowship opportunity

# LEARNING METHODOLOGIES

During this program, your experience will include:

- Exposure to discussions on robotic technology, human factors and surgical evaluation tools
- Robotic surgical platform training
- Hands-on simulation, dry lab experiences
- Skill drill exercises
- Surgical case observation
- Development of competencies and skills to safely operate the Intuitive Surgical DaVinci Robot

# **COURSE MODULES**

#### Module 1

## **Introduction to Robotic Program**

- Fundamentals of Robotic Surgery (FRS)
- Human Factors: Situational Awareness in robotic OR

Human Factors: Errors & Violations

#### Module 3

#### **Technical skills development**

- Dry lab (skill development model)
- Docking on Mannequin
- Simulation Skill Development

# Module 2

## Robot set-up

- Start up and calibration
- Patient cart positioning, port placement
- Docking sequence
- Choosing the right instruments
- Troubleshooting

#### Module 4

# Non-Technical Skills development

- Team Training Workshop
- Simulation Team Training
- Briefing & Debriefing
- Communication Skill Development

# INTUITIVE

#### **Hand's on Practice Sessions:**

## **Patient positioning**

- Surgical procedure setup & facilitation
- Surgical teams' role & responsibilities
- Human Factors: Team dynamics
- Live case demonstration





