

**HOW TO BECOME BIARGS REGISTERED SURGEON (CERTIFICATION)**

1. **Completion of robotic surgeon training module (Competence level)**
2. **Registration with robotic society (BIARGS or equivalent)**
3. **Annual minimal dataset audit submitted to BIARGS and inclusion in trust appraisal process (Minimal dataset form)**
4. **Attendance at robotic scientific meeting at least once in three years**

**BIARGS REGISTERED SURGEONS**

1. **Surgical training in robotics for experienced Gynaecologist**

Initial training in robotics: 18-20 cases over 3-6 months with Procter support as required

Expected to have safe surgical skills in Gynaecology

Main core surgical training to include (See competence table)

• Port placement

• Correct use of arms

• Use of instruments

• Appreciation of lack of tactile feedback

• Patient positioning

1. **Assessment/Progress**

Minimum requirement in skill (Complication rate, annual audit)

Minimum requirement in volume (Minimum 25 cases per year / surgeon AAGL requirement, under discussion)

Quality assessment, Surgical videos

Objective evaluation

Registration with registered body

1. **Credentialing standards in Robotic surgery**

Minimum annual case load (Number of cases per surgeon/year under discussion)

Minimum skill requirement

Quality assessment (Minimum outcome measures)

Objective evaluation

Video case assessment

Registration with professional body (BIARGS in UK )

1. **Certification and recertification**

Surgical practice: Grand-father clause for existent gynaecological robotic surgeons extended due to COVID-19 till 30th November 2023

Completion of Robotic training module for gynaecologist /ATSM/ Subspecialty training

Professionalism

Assessment of knowledge, judgement and skill

Objective assessment and lifelong learning

Outcome standards and credentialing

1. **BIARGS surgeon registration**

Limited period of self-registration (Grandfather clause) extended due to COVID-19 till 30th November 2023

Confirmation of e-learning update

Certification of lab training

Minimum case load on console (under discussion, assessments on surgical audit minimum dataset)

Attendance of one scientific conference in three years for CME

Submission of basic annual data

Submission of Video

Annual appraisal within working Trust

1. **SERGS Requirements for Training centre**

Dedicated robot assisted surgical team

Stable robotic practice

Operational policy, procedure guidelines, treatment protocols

Clear policy for training the trainers

Certified trainer

Cross training facility

Minimum workload in gynaecological robotic surgery

Clinical governance frame work for robotic surgery

**BIARGS Robotic surgeon training module for gynaecologist**



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| **BIARGS Robotic surgeon training module for gynaecologist** | |  |  |  |  |  |  |  |
| POST RCOG or equivalent Certificate of Completion of Training (CCT) in Gynaecology | | | |  |  |  |  |  |
| **LEVEL 4 experience** |  |  |  |  |  |  |  |  |
| Unsupervised, independently competent to perform skills including console skills for surgically appropriate cases. | | | | | |  |  |  |
| (Satisfactory completion expected at Level 4) |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| ***Gynaecological surgeon should have anatomy knowledge and advanced surgical skills and Laparoscopic skills before training in robotic surgery.*** | **Date:** | | **Name: (Trainee)** | | | **Trainer:** | | |
|  | **Robot system:** | |  | | | | | |
|  |  |  |  |  |  |  |  |  |
| **Orientation & Preparation** | Competence Level | | | | | | | |
| Level 1 | | Level 2 | | Level 3 | | Level 4 | |
| **Date** | **Signature** | **Date** | **Signature** | **Date** | **Signature** | **Date** | **Signature** |
|  |  |  |  |  |  |  |  |  |
| Orientation of robotic theatre |  |  |  |  |  |  |  |  |
| Demonstrate effective team working |  |  |  |  |  |  |  |  |
| Demonstrate effective communication skills within theatre tram |  |  |  |  |  |  |  |  |
| Demonstrate situational awareness |  |  |  |  |  |  |  |  |
| Demonstrate importance of Human factor |  |  |  |  |  |  |  |  |
| Sterile preparation of robot |  |  |  |  |  |  |  |  |
| Bedside assistant |  |  |  |  |  |  |  |  |
| Reflective practice |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| **Knowledge** | Level 1 | | Level 2 | | Level 3 | | Level 4 | |
|  | **Date** | **Signature** | **Date** | **Signature** | **Date** | **Signature** | **Date** | **Signature** |
| Completion of the online theoretical training package |  |  |  |  |  |  |  |  |
| Understands mechanics of the Robotic assisted surgery |  |  |  |  |  |  |  |  |
| Awareness of the ergonomics of robotic assistance |  |  |  |  |  |  |  |  |
| Familiar with robotic components and instrumentation |  |  |  |  |  |  |  |  |
| Awareness of other modalities, benefits and potential complications with robotic surgery |  |  |  |  |  |  |  |  |
| Surgeon is able to adjust the surgical robot's settings |  |  |  |  |  |  |  |  |
| Awareness of the capital cost of the robotic system and life of robotic assisted instruments |  |  |  |  |  |  |  |  |
| Knowledge of different docking positions and the indications |  |  |  |  |  |  |  |  |
| Understanding of the use of electro diathermy in robotic surgery |  |  |  |  |  |  |  |  |
| Understands reasons for arm clashing and methods of correction |  |  |  |  |  |  |  |  |
| Knowledge of the potential complications of electro diathermy |  |  |  |  |  |  |  |  |
| knowledge of principles of laparoscopy and robotic surgery |  |  |  |  |  |  |  |  |
| Situational awareness |  |  |  |  |  |  |  |  |
| Communication skills |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| **General knowledge /Surgical competence** | Competence Level | | | | | | | |
| Level 1 | | Level 2 | | Level 3 | | Level 4 | |
| **Date** | **Signature** | **Date** | **Signature** | **Date** | **Signature** | **Date** | **Signature** |
| Knowledge of abdominal and pelvic anatomy |  |  |  |  |  |  |  |  |
| Aware principles of managing a critically ill surgical patient |  |  |  |  |  |  |  |  |
| Online modules |  |  |  |  |  |  |  |  |
| -          Consoles |  |  |  |  |  |  |  |  |
| -          Docking |  |  |  |  |  |  |  |  |
| -          Instrument insertion |  |  |  |  |  |  |  |  |
| -          Instrument removal |  |  |  |  |  |  |  |  |
| -          Undocking |  |  |  |  |  |  |  |  |
| Simulator training | Introduction |  | 2 hours |  | 30 hours |  |  |  |
| Have completed robotic simulation training |  |  |  |  |  |  |  |  |
| Satisfactory completion of wet lab training | Observation |  | Introduction |  | Advanced |  |  |  |
| **Robotic Assistant competence** | Level 1 | | Level 2 | | Level 3 | | Level 4 | |
| **Date** | **Signature** | **Date** | **Signature** | **Date** | **Signature** | **Date** | **Signature** |
| Knowledge of the operative room setup of the robotic system |  |  |  |  |  |  |  |  |
| Aware of principles of the robotic system |  |  |  |  |  |  |  |  |
| Be able to drape the Robot |  |  |  |  |  |  |  |  |
| Be able to respond to system errors |  |  |  |  |  |  |  |  |
| Able to drive the robot |  |  |  |  |  |  |  |  |
| Knowledge of how to position patient for robotic surgery |  |  |  |  |  |  |  |  |
| Undertake vaginal preparation for a robotic procedure |  |  |  |  |  |  |  |  |
| Demonstrate understanding port placement |  |  |  |  |  |  |  |  |
| Able to undertake port placement |  |  |  |  |  |  |  |  |
| Be able to dock the robotic system |  |  |  |  |  |  |  |  |
| Understand different docking positions and able to dock the robot |  |  |  |  |  |  |  |  |
| Be able to maintain a clear image by cleaning/changing the camera |  |  |  |  |  |  |  |  |
| Be able to insert, change and remove robotic instruments |  |  |  |  |  |  |  |  |
| Be able to understand reason for clashing and adjust the arm positions |  |  |  |  |  |  |  |  |
| Have understanding of the appropriate use of assistant port |  |  |  |  |  |  |  |  |
| Demonstrate understanding of communication with scrub team and needle/swab count |  |  |  |  |  |  |  |  |
| Demonstrate introduction and retrieval of surgical swabs from assistant port |  |  |  |  |  |  |  |  |
| Demonstrate introduction and retrieval of retraction swab (endorector) |  |  |  |  |  |  |  |  |
| Demonstrate introduction and retrieval of specimen bag |  |  |  |  |  |  |  |  |
| Be able to direct assistant for arterial clip application as console surgeon |  |  |  |  |  |  |  |  |
| Be able to perform laparoscopic adhesiolysis |  |  |  |  |  |  |  |  |
| Undocking and port closure |  |  |  |  |  |  |  |  |
| Be able to perform an emergency undocking procedure |  |  |  |  |  |  |  |  |
| **Robot console simulation** |  |  |  |  |  |  |  |  |
| Online modules |  |  |  |  |  |  |  |  |
| -          Vessel sealer |  |  |  |  |  |  |  |  |
| -          Diathermy |  |  |  |  |  |  |  |  |
| -          Needle driver |  |  |  |  |  |  |  |  |
| **Robot console surgical skills** |  |  |  |  |  |  |  |  |
| Demonstrate camera control and set up visual field |  |  |  |  |  |  |  |  |
| Demonstrate multi-arm control of the robotic instruments |  |  |  |  |  |  |  |  |
| Demonstrate hand-eye instrument coordination |  |  |  |  |  |  |  |  |
| Demonstrate wrist articulation |  |  |  |  |  |  |  |  |
| Demonstrate clutching of the robotic instruments |  |  |  |  |  |  |  |  |
| Demonstrate atraumatic tissue handling |  |  |  |  |  |  |  |  |
| Safe tissue cutting with the robotic system |  |  |  |  |  |  |  |  |
| Maintain safety of operative field |  |  |  |  |  |  |  |  |
| Demonstrate blunt dissection with the robotic system |  |  |  |  |  |  |  |  |
| Demonstrate micro dissection with the robotic system |  |  |  |  |  |  |  |  |
| Use of diathermy and colpotomy |  |  |  |  |  |  |  |  |
| Demonstrate plan for surgical specimen retrieval methods |  |  |  |  |  |  |  |  |
| Demonstrate use of needle driving with the robotic system |  |  |  |  |  |  |  |  |
| Demonstrate knot tying with the robotic system |  |  |  |  |  |  |  |  |
| Demonstrate suture handling with the robotic system |  |  |  |  |  |  |  |  |
| Demonstrate continuous and interrupted suturing with the robotic system |  |  |  |  |  |  |  |  |
| Understand the potential risks and ability to make appropriate operative decisions |  | | | | | | | |
| Be able to manage surgical complications (bowel/urinary/vascular injuries) |  | |  | |  | | | |
| Demonstrate effective communication with anaesthetic , theatre team and console surgeon |  |  |  |  |  |  |  |  |
| **Procedural tasks** | Level 1 | | Level 2 | | Level 3 | | Level 4 | |
| **Hysterectomy/ Pelvic surgery** | **Date** | **Signature** | **Date** | **Signature** | **Date** | **Signature** | **Date** | **Signature** |
| Sealing and dividing round ligaments |  |  |  |  |  |  |  |  |
| Identifying ureters |  |  |  |  |  |  |  |  |
| Opening the retroperitoneum |  |  |  |  |  |  |  |  |
| Ureterolysis |  |  |  |  |  |  |  |  |
| Demonstration of avascular surgical spaces |  |  |  |  |  |  |  |  |
| Demonstration of pararectal dissection |  |  |  |  |  |  |  |  |
| Demonstration of rectovaginal dissection |  |  |  |  |  |  |  |  |
| Demonstration of hypogastric nerve sparing surgery in endometriosis |  |  |  |  |  |  |  |  |
| Demonstration of pelvic lymphadenectomy in cancer cases |  |  |  |  |  |  |  |  |
| Identifying, sealing and dividing ovarian vessels |  |  |  |  |  |  |  |  |
| Incising vesicouterine peritoneum and developing vesicovaginal space |  |  |  |  |  |  |  |  |
| Sealing and dividing uterine vessels |  |  |  |  |  |  |  |  |
| Performing colpotomy |  |  |  |  |  |  |  |  |
| Suturing vaginal cuff |  |  |  |  |  |  |  |  |
| Robot assisted hysterectomy (3 cases at level 4) |  |  |  |  |  |  |  |  |
| Robot assisted BSO (3 cases level 4) |  |  |  |  |  |  |  |  |
| **Training Modules** |  |  |  |  |  |  |  |  |
| Basic local training |  |  |  |  |  |  |  |  |
| Simulator training |  |  |  |  |  |  |  |  |
| Online module |  |  |  |  |  |  |  |  |
| Wet lab |  |  |  |  |  |  |  |  |
| Competence based training (Level 4) |  |  |  |  |  |  |  |  |
| **Assessments** |  |  |  |  |  |  |  |  |
| Audit of cases |  | | | | | |  |  |
| NOTSS |  | | | | | |  |  |
| Reflective practice |  | | | | | |  |  |
| Annual update and submission of minimal dataset |  | | | | | |  |  |
| Annual Trust appraisal |  | | | | | |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Name: Trainee: |  | | |  | | | | |
| Name: Trainer : |  | | |  | | | | |
| Institute: |  | | | | | | | |
| Sign off for completion of robotic surgical module: |  | | |  | | | | |
| Date: |  | | |  | | | | |
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**BIARGS GYNAECOLOGICAL Robotic SURGERY: Minimum dataset for registration and recertification**

“Mandatory audit for new technique” BIARGS NOV 2019

**BIARGS annual minimal dataset audit form:**

** **

Please ensure All mandatory\* fields are completed

\* Hospital 1 Name: ………………………………………

\*Hospital 1 Name: ………………………………………

\*Hospital 1 Name: ………………………………………

\*Console Surgeon………………………………………

\*Robotic system …………………………………………

\*12 month audit period (Start date……./..…. /……..: End date ……/……/……….)

\*Meeting attended in last 3 years: ………………………………………………………………………………………………………………..

Date of Meeting ..…/..…/………

\*Total number of robotic cases (TOTAL PATIENTS) undertaken as primary surgeon:

**Table 1: Procedures undertaken by Console surgeon**

|  |  |
| --- | --- |
| **Procedure (one patient may have more than one procedure)** | **Number ( Zero and above)** |
| Robotic procedure for BMI > 35 |  |
| Robotic procedure with mini-laparotomy for specimen removal |  |
| Hysterectomy |  |
| Radical hysterectomy (Wertheim’s) |  |
| Ovarian mass excisions |  |
| Removal of retroperitoneal masses |  |
| Excision of rectovaginal endometriosis |  |
| Myomectomy |  |
| Pelvic Lymphadenectomy or Sampling |  |
| Para-aortic Lymphadenectomy or Sampling |  |
| Trachelectomy |  |
| Colposuspension |  |
| Sacrocolpopexy |  |
| Mesh removal |  |
| Tubal reconstruction |  |
| Other ( Please specify …..) |  |

**Table 2: Indication:**

|  |  |
| --- | --- |
| **Indication (one patient may have more than one indication)** | **Number ( Zero and above)** |
| \*High BMI >35 |  |
| \*Endometriosis |  |
| \*Fibroid uterus |  |
| \*Menstrual disorders |  |
| \*Pelvic mass |  |
| \*Frozen pelvis / previous surgery |  |
| \*Endometrial pathology / cancer |  |
| \*Cervical cancer |  |
| \*Ovarian cancer |  |
| \*Cervical Dysplasia |  |
| \*Cancer risk reducing surgery (Lynch Syndrome or BRAC gene career) |  |
| \*Prolapse |  |
| \*Incontinence |  |
| \*Mesh complication |  |
| \*Infertility |  |
| Other (Please specify --------) |  |

**Table 3: Perioperative outcome (Intraoperative, postoperative and Late up to 3 months). One patient may have more than one complication**

\*Complications: Yes/NO:

If Yes Total patient number with complication:

**Table 3a: Intraoperative Complications (complications during primary surgery)**

|  |  |
| --- | --- |
| **Intraoperative Complications** | **Number ( Zero and above)** |
| \*Anaesthetic problems: unplanned admission to HDU |  |
| \*Haemorrhage > 1 litre |  |
| \*Unexpected bowel injury: |  |
| \*Unexpected ureteric injury |  |
| \*Unexpected bladder injury |  |
| \*Unexpected vascular injury |  |
| \*Epigastric injury |  |
| \*Procedure abandoned |  |
| \*Unplanned Conversion to laparoscopy |  |
| \*Unplanned Conversion to laparotomy |  |
| \*Stoma due to bowel injury |  |
| \*Blood transfusion |  |
| \*Death ( Please give more details on CEPOD into robotic surgery) |  |
| Other (Please specify-----) |  |
| Other ( Please include any Clavian Dindo 3 and above complication not listed above----------) |  |

**Table 3b: Late complications (any event up to 3 months post-surgery)**

|  |  |
| --- | --- |
| **Postoperative Complications ( Day 0 to 3 months)** | Number ( Zero and above) |
| \*Return to theatre |  |
| \*Severe sepsis |  |
| \*DVT |  |
| \*Pulmonary embolism: |  |
| \*Blood transfusion |  |
| \*Pelvic haematoma /abscess: |  |
| \*Urinary tract leak |  |
| \*Bowel perforation |  |
| \*Vault Dehiscence |  |
| \*Unplanned readmission <30days |  |
| \*Death (Please give more details on CEPOD into robotic surgery) |  |
| Other (Please specify-----) |  |
| Other ( Please include any Clavian Dindo 3 and above complication not listed above----------) |  |

Table 4: Length of Stay (LoS)

|  |  |
| --- | --- |
| **\*Days of discharge** | **Number ( Zero and above)** |
| Day 0 |  |
| Day 1 |  |
| Day 2 |  |
| Day 3 |  |
| Day 4 |  |
| Day 5 |  |
| Day 6 |  |
| Day 7 or more |  |

Comments …………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

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**SUBMIT online** [**www.biargs.org.uk**](http://www.biargs.org.uk) **OR**

**Email to:** [**biargsbiargs20@gmail.com**](mailto:biargsbiargs20@gmail.com)

**References:**

* Esther M Bonrath et al. Ann Surg 2015; Comprehensive surgical coaching enhances surgical skill in the operating room. A randomised controlled trial
* Yule, Flin et al 2006 Medical educational
* SERGS GERS FORM www.sergs.org
* Surgeon skill variability
* (Birkmeyer et al. N Engl J Med 2013; 369:1434-42)

**On Behalf Of BIARGS Council**

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|  |  |  |  |
| --- | --- | --- | --- |
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