

Certificate Course in Breast Surgery – (C²BS)

S. No.	Head	Comment
•	Name of Course	Certificate Course in Breast Surgery – (C²BS)
•	Convenor of Course	Head of Department of Surgery KGMU
•	Similar courses in other universities / colleges: • Specify new course	It is a new course in KGMU.
•	Duration in months	12 months
•	Maximum no. Of seats offered: per course	Two (02)
•	Frequency of course: (annual/6 monthly)	Annual
•	Eligibility criteria for candidates:	Candidate should have completed MS/DNB in General Surgery
•	Mode of selection: (Advertisement to enrolment)	Combined merit - based on MCQ based Entrance examination (80%) and viva (20% marks) Examination committee (for viva) <ul style="list-style-type: none"> • Dean Faculty of Medicine or nominee • Head of Department or nominee • Hon'ble Vice Chancellor nominee • External Expert (from reputed Govt/Private Institution) as decided by Board of Studies of Department of General Surgery KGMU
•	Fees for course including fee structure:	As per University rules

Syllabus/Curriculum of the course

1. Theoretical knowledge

The speciality of breast surgery requires documented and assessed knowledge in:

- Basic and clinical science aspect of breast anatomy, physiology, as well as pathophysiology of breast disease, especially carcinogenesis.
- Principles of breast investigations including detailed history, clinical examination, and imaging and screening procedures, as well as understanding the indication for and limits of diagnostic imaging procedures in different age groups. The candidate also has to be proficient in pre-operative diagnostic procedures (physical examination and biopsy).
- In depth knowledge of breast surgical treatment procedures and techniques
- In-depth knowledge of the principles involved in the following (direct practical experience is not expected):
 - Breast pathology benign and malignant
 - The use of radiotherapy for breast cancer (curative, adjuvant or palliative).
 - The use of chemotherapy for breast cancer in the preoperative and adjuvant setting and for advanced disease.

- The use of hormonal manipulation or substitution specifically for breast cancer patients or women at high risk.
- The use of biological agents for breast cancer.
- Genetics in breast cancer. A breast surgeon should be able to give advice to women with a family history of breast cancer.

2. Practical and clinical skills

Diagnosis

Training requirements:

- Participate in diagnostic clinics
- Participate in a breast screening recall and assessment clinics

Trainees are required to have a knowledge of diagnostic procedures that has been gained by attending breast clinics together with specialist breast radiologist and surgeon as trainers.

Trainees should attend these clinics initially as an observer, later seeing cases and presenting them to the trainers and, finally, when they are judged to be capable, seeing cases and making decisions on diagnosis themselves with the trainer in attendance at the clinic for consultation when required. Where breast cancer screening is carried out they should also attend these clinics for women who are recalled for assessment because of abnormalities on the initial mammogram.

This will ensure that the trainees know the procedures involved and have examined breasts in women with such tumours.

a. Management of primary breast cancer

Training requirements:

- Participate in preoperative clinics including oncoplastic/reconstructive clinics
- Participate in breast cancer –specific operating lists
- Participate in breast oncoplastic and reconstructive operating lists
- Participate in postoperative clinics (assessing wound healing, primary aesthetic outcome and recovery from surgery, is further surgery required, or follow-up etc.)

The trainee should understand which surgical procedures to recommend to each patient, and be clear about the protocols on which these recommendations are based (e.g. they must know the criteria by which tumours are judged suitable or unsuitable for breast conserving surgery).

The trainees should attend clinics at which the choice of the surgical procedures used for breast cancer surgery is discussed with the patient including clinics where reconstruction and reconstructions methods are discussed with the patient.

Trainees should also work on units where the plastic surgeon has a particular interest in breast disease, and has a link to a designated breast unit and supports the breast surgeon with techniques of tumour-specific immediate reconstruction. Alternatively, they will be provided an opportunity with a dedicated oncoplastic breast surgeon outside the institution.

The trainees should also attend at least two operating lists per week devoted to breast surgery during their specialty training year(s).

They should also attend lists in which immediate or delayed reconstructive surgery after both partial and total mastectomy reconstruction is carried out (either by oncoplastic breast surgeons or by breast surgeons together with the associated plastic surgeons).

b. Management of benign disease

Knowledge of the management of benign disease will in part result from attending and working at the diagnostic or pre-operative clinics. The trainee should achieve knowledge of operations to deal with inflammatory benign conditions, of which breast lumps falling under the broad diagnosis of 'benign' require excision (e.g. phyllodes tumour, borderline or high risk lesions), and of the management of

gynecomastia in the male. They should have performed also operations on benign or borderline breast diseases in the regular operating lists.

Medical and Radiation oncology

Training requirements:

- Participate in oncology clinics
- Participate in follow up clinics
- Participate in advanced/metastatic clinics

Trainees must have knowledge of the protocols to which the unit works for the purposes of advising women on whether they should receive adjuvant radiotherapy or systemic therapies, and which agents they should receive.

They must have attended clinics with the clinical oncologist at which decisions on adjuvant systemic therapy and radiation therapy are made. In units where there is a separate medical radiation oncologist, it is preferable that the radiation oncologist and medical oncologist see the patients together. However, if this is not so, the attendance should be at whichever clinic the full management is discussed.

Trainees must attend a number of follow-up clinics at which the side-effects of surgery and radiation can be assessed.

They must attend at least ten clinics at which women with advanced disease (both locally advanced and distant metastatic disease) are seen.

3. Multidisciplinary pre- and post-surgical case management meetings

Training Requirement:

- Participate in Multidisciplinary Meetings like tumor boards

The trainees must be able to show that they have attended regular, at least weekly, multidisciplinary meetings where specialized breast surgeons, radiation/medical/clinical oncologists, pathologists and radiologists plan surgery and post-surgical treatments.

Palliative care

In attending the oncology clinics the trainee should acquire knowledge in purposes and methods in palliative care.

Data collection

The trainee must be able to use a data collection system on Breast Cancer Diagnosis and Treatment.

By the end of the training the trainee should be able to show that he/she has

1. Attended at least 20 regular, at least weekly, pre- and post-surgical multidisciplinary case management meetings

2. Attended at least 40 outpatient clinics during a regular 1 year work on a surgical unit with at least 150 primary breast cancer cases a year, according to the local organization practise, including:

A. Diagnostic, preoperative and postoperative clinics

B. Clinics with a radiation/medical/ clinical oncologist at which the decisions on adjuvant therapy are made. C. Follow-up clinics at which the side-effects of surgery and radiation can be assessed

D. Clinics at which the management of women with advanced disease (both locally advanced and metastatic) takes place

E. Genetic/family historic clinics, in which women at risk are advised

F. Clinics at with oncoplastic and reconstructive counselling and planning are made

3. Personally performed during the last one year surgical procedures as follows

A: Assisted at (during one's entire career)

- at least 20 operations on benign or borderline lesions

- at least 30 axillary lymph node surgeries, including both full axillary dissections and sentinel lymph node biopsies

- at least 20 breast conserving cancer operations including at least 5 observed or assisted oncoplastic level I - II breast remodelling procedures

- at least 40 mastectomies, including at least 10 NAC- or skin-sparing mastectomies

- observed or assisted at 10 immediate and delayed total breast reconstructions using both implants and autologous tissue.

The candidates must keep a logbook signed off by their trainer of the operations they have attended as an assistant or operations they have carried out, supervised or unsupervised, and also of the clinics they have attended and the multidisciplinary meetings they have attended.

4. Outcome measures

Following training, the candidate should have sufficient knowledge, expertise and skill to enable independent practice within the setting of a multidisciplinary team. In particular the candidate should:

- Be able to communicate the diagnosis to the woman in the most appropriate way, explaining the different treatment options, facilitating decision making, and evaluating and taking into account the patient's preferences.
- Have direct experience of the different surgical techniques for the treatment of benign, borderline and malignant lesions and a detailed knowledge of the indications, contra-indications and complications for each technique.
- Have acquired knowledge regarding and principles of oncoplastic surgery and a basic knowledge of breast reconstruction.

He or she should also:

- Have a good knowledge of the literature.
- Have published either one scientific paper in the field of breast disease in a peer reviewed journal or written a chapter in a national or international textbook on breast disease or alternatively presented one paper (oral or poster) in a well recognized international congress on breast disease or cancer
- Be able to evaluate literature and write critiques of papers.
- Have visited other breast centres and attended national and international meetings on breast disease.
- Have sufficient knowledge of the ongoing research in breast cancer treatment.

TRAINING DETAILS

Content of training and learning outcome

Specialization in Breast Surgery requires the acquisition of "Theoretical knowledge" in the different aspects of breast disease, as well as practical and clinical skills not only in breast surgery but in the management of breast disease as a whole. It provides for the operative and non operative management, i.e. prevention, diagnosis, multidisciplinary decision making, loco-regional and systemic treatments, rehabilitation of patients, including the management of lymphoedema and pain.

Breast surgery cooperates with other specialties i.e., anaesthesia, radiology, internal medicine, rehabilitation medicine, obstetrics and gynaecology, plastic surgery, anatomy and pathology, genetics, radiation oncology, medical oncology, nuclear medicine, psycho-oncology and pharmacy in the management of patients. The acquisition of a multidisciplinary approach toward patient care must be the basis of the training in breast surgery.

The focus is on diagnosis and treatment. The breast surgeon must be capable of interpreting all types of radiological examinations of the breast. The breast surgical activity covers the pre-, peri- and post-operative period and follow-up of patients. The specialty also includes individual and general preventive activities, management of pain, palliation and rehabilitation.

Additionally breast surgeons are expected to have knowledge of anatomy, physiology, tumour biology, and pathogenesis of breast disease. They are expected to know the actions and toxic effects of drugs commonly used in breast diseases.

The trainee should have time and opportunities for practical and theoretical study. Access to adequate national and international literature should be provided in the departmental and central library.

The ratio between the number of specialists on the teaching staff and the number of trainees at any given moment should be tailored so as to provide close personal monitoring of the trainees as well as adequate exposure of the trainees to sufficient practical work.

The breast surgeon must be trained in the economics of health care, in the assessment of research methods and scientific publications and be given the option of research in a clinical and relevant field.

The breast surgery syllabus comprehensively describes theoretical knowledge and practical and clinical skills (= basis for an individual "logbook") mandatory for the qualification in C²BS.

The syllabus should not be viewed as static but will be continuously revised and up-dated by the members of the committee. It is noted that research and changes in medicine may lead to significant changes in theory and clinical practice and by that will influence the content of the syllabus.

The candidates are expected to up-date their level according to the recent surgical practice and scientific literature. To achieve the qualification as **CC in Breast Surgery** "theoretical knowledge" has to be documented and provided for eligibility and are assessed by examination.

"Practical and clinical skills" have to be documented and proved in the logbook for eligibility and may be additionally assessed by examination.



1. The first part of the document is a general introduction to the subject matter.

2. The second part of the document is a detailed description of the methods used in the study.

3. The third part of the document is a discussion of the results of the study.

4. The fourth part of the document is a conclusion and a list of references.