

DOCUMENT TITLE: Breast Cancer – Chemotherapy Treatment

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REVIEWED BY: Medical Oncologists

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DOMAIN: Oncology – Breast Cancer Treatment

LANGUAGE: English

DOCUMENT TYPE: Systemic Therapy Overview

CLINICAL CONTEXT: Treatment decision support (non-prescriptive)

DEFINITION OF CHEMOTHERAPY

Chemotherapy is a systemic breast cancer treatment that uses medicines to stop or slow the growth of cancer cells.

Chemotherapy travels through the bloodstream and affects cancer cells throughout the body.

It primarily targets rapidly dividing cells, which include cancer cells.

HOW CHEMOTHERAPY WORKS

Breast cancer cells grow and divide rapidly and in an uncontrolled manner.

Chemotherapy works by:

- Destroying cancer cells
- Preventing cancer cells from dividing

Because chemotherapy circulates in the bloodstream, it treats both the original tumor and cancer cells that may have spread.

METHODS OF ADMINISTRATION

Chemotherapy medicines may be administered:

- Intravenously through an IV, port, or catheter
- Orally as pills or capsules

Most chemotherapy regimens use a combination of two or more medicines.

INDICATIONS FOR CHEMOTHERAPY

Chemotherapy may be used:

- After surgery (adjuvant chemotherapy)
- Before surgery (neoadjuvant chemotherapy)
- For advanced-stage or metastatic breast cancer

ADJUVANT CHEMOTHERAPY

Adjuvant chemotherapy is given after surgery to destroy remaining cancer cells.

It reduces the risk of breast cancer recurrence.

Chemotherapy after surgery may be recommended when:

- Cancer has spread to nearby lymph nodes
- Cancer is hormone receptor-negative
- Cancer is HER2-positive
- The patient is pre-menopausal

NEOADJUVANT CHEMOTHERAPY

Neoadjuvant chemotherapy is given before surgery to:

- Shrink large tumors
- Increase the likelihood of breast-conserving surgery
- Reduce lymph node involvement

It also allows clinicians to assess tumor response to treatment.

CHEMOTHERAPY BY STAGE

Early-stage breast cancer includes:

- DCIS (Stage 0)
- Stage I
- Stage II
- Stage IIIA

Advanced-stage breast cancer includes:

- Stage IIIB
- Stage IIIC
- Stage IV

Chemotherapy is commonly used in advanced and metastatic breast cancer, often combined with other systemic therapies.

CHEMOTHERAPY REGIMENS

Chemotherapy regimens consist of one or more medicines given in cycles.

Early-stage breast cancer often uses combination regimens.

Advanced-stage breast cancer usually uses single-agent chemotherapy.

TREATMENT CYCLES AND DURATION

Chemotherapy is given in cycles:

- Treatment period
- Followed by recovery period

Most chemotherapy regimens last:

- 3 to 6 months

Dose-dense chemotherapy uses shorter intervals between cycles.

CHEMOTHERAPY SIDE EFFECTS

Chemotherapy can damage healthy rapidly dividing cells.

Common side effects include:

- Hair loss
- Nail changes
- Mouth sores
- Nausea and vomiting
- Digestive symptoms

TREATMENT ADHERENCE AND SUPPORT

Chemotherapy is most effective when taken as prescribed.

Treatment schedules may be adjusted to manage side effects.

Support services such as nurse navigators and social workers can assist patients.

FINANCIAL CONSIDERATIONS

The cost of chemotherapy depends on:

- Medicines used
- Treatment duration
- Treatment location

Most insurance plans cover chemotherapy.

Financial assistance programs may be available.

DOCUMENT SCOPE

This document provides educational information on chemotherapy for breast cancer.

It does not replace individualized medical advice.

