**Brand Name:** Xeloda **Generic:** capecitabine **Type:** small molecule

Year Accepted/Phase: 1998

# Mechanism:

Capecitabine is converted to 5-FU in the body, where it interferes with the synthesis of DNA and RNA in cancer cells, leading to cell death.

# **Chemical Structure:**

## Indication:

Xeloda is indicated for the treatment of metastatic breast cancer, colorectal cancer, and gastric cancer.

## Clinical trials:

### **Phase III Trials for Breast Cancer**

**Pubmed:** https://pubmed.ncbi.nlm.nih.gov/15681523/

Purpose: Evaluate the efficacy and safety of capecitabine compared to standard

chemotherapy regimens in patients with metastatic breast cancer.

**Dates:** Conducted in the late 1990s and early 2000s.

**Results:** The Phase III trials demonstrated that capecitabine was as effective as standard chemotherapy regimens in terms of response rates and overall survival, with a more favorable side effect profile.

**Impact:** These trials led to the approval of capecitabine for the treatment of metastatic breast cancer.

### **Phase III Trials for Colorectal Cancer**

**Pubmed:** https://pubmed.ncbi.nlm.nih.gov/17194911/

Purpose: Evaluate the efficacy and safety of capecitabine compared to

5-FU/leucovorin (the Mayo Clinic regimen) in patients with advanced colorectal cancer.

**Dates:** Conducted in the early 2000s.

**Results:** The Phase III trials showed that capecitabine was as effective as the Mayo Clinic regimen in terms of response rates and overall survival, with a more convenient oral dosing schedule.

**Impact**: These trials supported the approval of capecitabine for the treatment of colorectal cancer.

### **Phase III Trials for Gastric Cancer**

Pubmed: https://pubmed.ncbi.nlm.nih.gov/17522863/

**Purpose:** Evaluate the efficacy and safety of capecitabine plus cisplatin compared to 5-FU/leucovorin plus cisplatin in patients with advanced gastric cancer.

**Dates:** Conducted in the mid-2000s.

**Results:** The Phase III trials demonstrated that capecitabine plus cisplatin was non-inferior to 5-FU/leucovorin plus cisplatin in terms of overall survival and progression-free survival, with a more favorable safety profile.

**Impact:** These trials supported the approval of capecitabine for the treatment of gastric cancer.