# Protocol Plain Language Summary

## A clinical study of pembrolizumab in people with breast cancer (MK-3475-522)

**Protocol title:** A Phase III, Randomized, Double-blind Study to Evaluate Pembrolizumab plus Chemotherapy vs Placebo plus Chemotherapy as Neoadjuvant Therapy and Pembrolizumab vs Placebo as Adjuvant Therapy for Triple Negative Breast Cancer (TNBC)

## Why is this study needed?

Researchers are looking for new ways to treat a type of breast cancer called **triple negative breast cancer (TNBC)**. TNBC grows fast and is hard to treat. The standard of care to treat TNBC is chemotherapy and then surgery. **Chemotherapy** is a type of medicine intended to destroy cancer cells or stop them from growing. Researchers want to learn how well pembrolizumab works to treat recently diagnosed TNBC when given before and after surgery. **Pembrolizumab, the study medicine,** is an immunotherapy**,** which is a treatment that helps the immune system fight cancer.

The goal of this study is to learn if people who received pembrolizumab with chemotherapy before surgery (**neoadjuvant treatment**) have fewer cancer cells in their tumor and lymph nodes removed with surgery compared to those who received placebo with chemotherapy. A **placebo** looks like the study medicine but has no study medicine in it. Using a placebo helps researchers better understand the real effects of the study medicine.

Another goal of this study is to learn if people who received pembrolizumab after surgery (**adjuvant treatment**) live longer without their cancer growing, spreading, or coming back compared to those who received placebo.

## Who will take part in this study?

About 1,150 people with recently diagnosed TNBC will be in this study. They will be ages 18 years and older and:

- Have TNBC that is growing fast and has not spread to body parts outside the breast
- Have not received cancer treatments for this or for other type of cancer.

## What treatments are being given during the study?

During the study, all people will receive **chemotherapy,** the standard of care, given either weekly or once every 3 weeks before surgery. In addition, people will also receive a type of protein to increase white blood cells needed to fight infection.

People will also receive one of these:

- **Pembrolizumab**, the study medicine, given once every 3 weeks before and after surgery
- **Placebo**, given once every 3 weeks before and after surgery

People will receive their assigned treatments through a vein (intravenously or IV).

People may also have radiation therapy after surgery, based on the number of cancer cells removed. **Radiation therapy** is a treatment that uses beams of intense energy (similar to X-rays) to shrink or get rid of tumors.

## How is this study designed?

Neither the people nor the researchers will know which treatment a person is receiving in this study (double-blind study). People will receive pembrolizumab or placebo during the study. This study has 2 parts.

| Treatment group | Part 1: Before surgery | Part 2: After surgery |
|---|---|---|
| **Pembrolizumab**<br>People will have twice the chance of being assigned to this group | Pembrolizumab plus chemotherapy for about 6 months | Pembrolizumab for about 6 months |
| **Placebo** | Placebo plus chemotherapy for about 6 months | Placebo for about 6 months |

During the study, people will have blood, tumor, urine, and imaging tests, have physical examinations, and answer questions about how they are feeling. After treatment, researchers may follow up with people until they no longer want to be in the study, the study ends, or they are no longer alive.

People may be in this study for up to 8 years.

## What are the goals of this study and how will they be measured?

| Main goals | How they will be measured |
|---|---|
| To compare **pathological complete response (pCR)** of people who receive pembrolizumab plus chemotherapy to people who receive placebo plus chemotherapy | The number of people whose tumors and lymph nodes removed during surgery have no cancer cells that may be able to spread |
| To compare **event-free survival (EFS)** of people who receive pembrolizumab plus chemotherapy followed by pembrolizumab after surgery to people who receive placebo plus chemotherapy followed by placebo after surgery. | The length of time that people are alive during the study without the cancer growing, spreading, or coming back |
| **Other goals** | **How they will be measured** |
| To compare **overall survival of** people who receive pembrolizumab plus chemotherapy to people who receive placebo plus chemotherapy. | The length of time that people are alive after joining the study. This will be measured in all people included in the study and people with certain types of TNBC tumors. |
| To learn how **pCR and EFS,** may change when measured differently than in the main goals in people who receive pembrolizumab plus chemotherapy or placebo plus chemotherapy. | Researchers will measure responses throughout the study:<br>• **pCR** using a different definition<br>• **EFS** in people with TNBC tumors |
| To compare the **health-related quality of life (HRQoL)** of people who receive pembrolizumab plus chemotherapy to people who receive placebo plus chemotherapy | People will answer sets of questions during the study to measure their HRQoL, including questions about their overall health and ability to complete daily activities |
| To learn about the **safety** of pembrolizumab plus chemotherapy and how well people **tolerate** them | The number of people who:<br>• Had an **adverse event (AE)** up to 90 days after their last dose. An AE is a health problem that happens or worsens during a study and may or may not be caused by the treatment.<br>• Stopped treatment due to an AE |

## What are the possible benefits and risks?

People in this study may or may not have the cancer stop growing or go away after receiving the treatments in this study. This study has an external group of experts that oversees the overall risk and benefit. If the group of experts decides that the study treatment is not safe or does not show benefit, the study may be stopped.

More information about the benefits and risks for a person may be found in the Investigator's Brochure, Protocol, and Informed Consent documents.