

Titre	A Phase 3, Multicenter, Randomized, Open-Label, Active-Controlled Study of Trastuzumab Deruxtecan (T-DXd) Versus Trastuzumab Emtansine (T-DM1) in Participants With High-Risk HER2-Positive Primary Breast Cancer Who Have Residual Invasive Disease in Breast or Axillary Lymph Nodes Following Neoadjuvant Therapy (DESTINY-Breast05)
Protocole ID	DESTINY-Breast05
ClinicalTrials.gov ID	NCT04622319
Type(s) de cancer	Sein
Phase	Phase III
Type étude	Clinique
Médicament	Trastuzumab déruxtécán versus trastuzumab emtansine
Institution	CIUSSS DU CENTRE-OUEST-DE-L'ILE-DE-MONTREAL HOPITAL GENERAL JUIF SIR MORTIMER B.DAVIS 3755 rue de la Côte Ste. Catherine, Montréal, QC, H3T 1E2
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Statut	Actif en recrutement
But étude	Patients with HER2-positive primary breast cancer (BC) who do not achieve complete response after appropriate neoadjuvant therapy are at higher risk of disease recurrence. More effective treatment options are needed for this patient population. This study will examine the efficacy and safety of trastuzumab deruxtecan (T-DXd) compared with trastuzumab emtansine (T-DM1) in high-risk patients with residual invasive breast cancer following neoadjuvant therapy. This study will examine trastuzumab deruxtecan (T-DXd) versus trastuzumab emtansine (T-DM1) in patients with HER2-positive primary BC who have residual invasive disease in breast or axillary lymph nodes with higher risk of recurrence, which includes patients who were inoperable at disease presentation or had pathological node-positive status after neoadjuvant therapy. The primary objective is to compare invasive disease-free survival (IDFS) between T-DXd and T-DM1 treatment arms in this population. The key secondary objective of the study is to evaluate disease-free survival (DFS).
Critères d'éligibilité	<ul style="list-style-type: none">• Adults ≥ 18 years old (local regulatory requirements will apply if the legal age of consent for study participation is > 18 years old)• Pathologically documented HER2-positive breast cancer (BC):<ul style="list-style-type: none">• HER2-positive expression defined as an immunohistochemistry (IHC) score of 3+ and/or positive by in situ hybridization (ISH) confirmed prior to study randomization• Histologically confirmed invasive breast carcinoma• Clinical stage at disease presentation: T1-4, N0-3, M0; patients presenting with T1N0 tumors are not eligible• Pathologic evidence of residual invasive carcinoma in the breast and/or axillary lymph nodes following completion of neoadjuvant therapy meeting one of the following high-risk criteria:<ul style="list-style-type: none">• Inoperable breast cancer at presentation (prior to neoadjuvant therapy), defined as clinical stages T4, N0-3, M0 or T1-3, N2-3, M0• Operable at presentation, defined as clinical stages T1-3, N0-1, M0, with axillary node positive disease (ypN1-3) following neoadjuvant therapy• Completion of neoadjuvant systemic chemotherapy, including taxane and HER2-directed treatment prior to surgery<ul style="list-style-type: none">• Systemic therapy must consist of at least 6 cycles of chemotherapy with a total duration of at least 16 weeks, including at least 9 weeks of trastuzumab (\pm pertuzumab) and at

least 9 weeks of taxane based chemotherapy. Patients may have received an anthracycline as part of neoadjuvant therapy in addition to taxane chemotherapy.

- Adequate excision as confirmed per medical records: surgical removal of all clinically evident disease in the breast and lymph nodes.
- An interval of no more than 12 weeks between the date of last surgery and the date of randomization.
- Known hormone receptor (HR) status, per local laboratory assessment, as defined by ASCO-CAP guidelines ($\geq 1\%$): HR positive status defined by either positive estrogen receptor (ER) and/or positive progesterone receptor (PR) status. HR-negative status defined by both known negative ER and known negative PR.
- Left ventricular ejection fraction (LVEF) $\geq 50\%$ within 28 days prior to randomization.
- Eastern Cooperative Oncology Group (ECOG) performance status of 0 or 1 at Screening.
- Has adequate organ function within 14 days before randomization.

Critères d'exclusion

- Stage IV (metastatic) BC
- History of any prior (ipsi- or contralateral) breast cancer except lobular carcinoma in situ (LCIS)
- Evidence of clinically evident gross residual or recurrent disease following neoadjuvant therapy and surgery
- Prior treatment with T-DXd, T-DM1 or other anti-HER2 antibody-drug conjugate (ADC)
- History of exposure to the following cumulative doses of anthracyclines:
 - Doxorubicin $> 240 \text{ mg/m}^2$
 - Epirubicin or Liposomal Doxorubicin-Hydrochloride $> 480 \text{ mg/m}^2$
 - For other anthracyclines, exposure equivalent to doxorubicin $> 240 \text{ mg/m}^2$
- History of other malignancy within the last 5 years except for appropriately treated CIS of the cervix, nonmelanoma skin carcinoma, Stage I melanoma skin carcinoma, Stage I uterine cancer, or other appropriately treated non-breast malignancies
- History of (noninfectious) interstitial lung disease (ILD)/pneumonitis that required steroids and/or has ILD/pneumonitis noted on computed tomography (CT) scan of the chest at Screening (asymptomatic interstitial changes confined to recent radiation therapy fields are not excluded)
- Known pulmonary compromise resulting from intercurrent pulmonary illnesses including, but not limited to, any underlying pulmonary disorder (eg, pulmonary emboli within three months prior to randomization, severe asthma, severe chronic obstructive pulmonary disease [COPD], restrictive lung disease).
- Any autoimmune, connective tissue or inflammatory disorders with pulmonary involvement (eg, Rheumatoid arthritis, Sjogren's, sarcoidosis, etc.), or prior lobectomy or pneumonectomy
- Medical history of myocardial infarction (MI) within 6 months before randomization, symptomatic congestive heart failure (CHF) (New York Heart Association Class II to IV), troponin levels consistent with MI as defined according to the manufacturer 28 days prior to randomization