### **Decisional tool (pros and cons of each modality**):

* Factors for lumpectomy:
  + Preserves the breast: Removes only the cancer while keeping most of the natural breast tissue, addressing the patient’s concern about body image.
  + Shorter recovery time: Compared to mastectomy, recovery is generally quicker.
  + Psychological comfort: Patients often feel more confident retaining their breast shape.
* Factors against lumpectomy
  + Need for radiotherapy: Radiation treatment is required to reduce recurrence risk, which can cause tiredness or skin irritation.
  + Possibility of a second surgery: If the cancer margins aren’t clear, additional surgery might be necessary.

### **Decisional tool (pros and cons of each modality)**:

* TRAM Flap (Uses abdominal tissue for reconstruction)
  + Pros:
    - Uses your own tissue, making the breast feel and look more natural
    - No need for an implant, which aligns with Mdm Tan’s preference
    - Creates a flatter tummy, like a "tummy tuck"
  + Cons:
    - Longer surgery and longer recovery time (5-7 days)
* LD Flap (Uses back muscle for reconstruction)
  + Pros:
    - Less impact on core strength
    - Shorter recovery time than TRAM flap (3-5 days)
  + Cons:
    - May still r**equire implant or fat grafting for volume,** which Mdm Tan prefers to avoid
    - Potential tightness

# Decisional tool (pros and cons of each modality):

Lumpectomy:

* Pros:
  + Preserves the natural breast, which is Mdm Lee’s priority.
  + Less invasive surgery with shorter recovery time, no drain required
  + Suitable for early-stage breast cancer with good outcomes.
* Cons:
  + Requires post-surgical radiotherapy, which involves multiple hospital visits.
  + There is a chance that cancer margins may not be clear, requiring a second surgery, which Mdm Lee is willing to accept.

# **Decisional Tool: Pros and Cons of Each Modality**

#### **Oncoplastic Surgery (Breast-Conserving Surgery with Reconstruction)**

✅ **Pros:**

* **Breast Preservation:** Allows for tumor removal while maintaining breast shape.
* **Improved Symmetry:** Uses plastic surgery techniques to ensure balance and aesthetic outcome.
* **Less Psychological Impact:** Retains natural breast, which may help with body image concerns.

❌ **Cons:**

* **More Complex Surgery:** Longer operative time and recovery compared to a standard lumpectomy.
* **Requires Radiotherapy:** Post-surgical radiotherapy is still needed to lower recurrence risk.
* **Potential Need for Second Surgery:** If margins are not clear, another surgery may be necessary.

#### **Mastectomy Without Reconstruction**

✅ **Pros:**

* **Definitive Tumor Removal:** Eliminates all breast tissue, reducing recurrence risk.
* **No Need for Radiotherapy (in Most Cases):** If lymph nodes are not involved, radiotherapy may not be required.
* **Shorter Overall Treatment Course:** No need for post-surgical radiotherapy, reducing hospital visits.

❌ **Cons:**

* **Loss of the Breast:** May have significant emotional and psychological impacts.
* **Permanent Change in Body Image:** No breast shape preservation unless opting for reconstruction.
* **Longer Initial Recovery:** More extensive surgery compared to lumpectomy.

# **Decisional Tool: Pros and Cons of Each Modality**

#### **Neoadjuvant Chemotherapy (NACT) + Lumpectomy Attempt**

✅ **Pros:**

* **Possibility of Breast Conservation:** If the tumor responds well, a lumpectomy may be possible instead of a mastectomy.
* **Early Treatment of Systemic Disease:** Chemotherapy addresses potential micrometastases early.
* **Allows for Tumor Response Monitoring:** Helps assess how the tumor behaves before surgery.

❌ **Cons:**

* **Risk of Incomplete Response:** If the tumor does not shrink enough, mastectomy may still be required.
* **Chemotherapy Side Effects:** Includes nausea, fatigue, hair loss, and a weakened immune system.
* **Longer Treatment Timeline:** Surgery is delayed while undergoing chemotherapy.

#### **Mastectomy Without Neoadjuvant Chemotherapy**

✅ **Pros:**

* **Definitive Tumor Removal:** Removes the entire breast, eliminating the tumor completely.
* **Avoids Chemotherapy Side Effects (Initially):** Some patients may not need chemotherapy upfront.
* **Shorter Time to Surgery:** No waiting period for chemotherapy response before proceeding with surgery.

❌ **Cons:**

* **Loss of the Breast:** Can have a significant emotional and psychological impact.
* **No Chance for Breast Conservation:** Even if the tumor could have shrunk, mastectomy is the only option without NACT.
* **Potential Need for Post-Surgical Chemotherapy:** If lymph nodes are involved, chemotherapy may still be needed after surgery.

# **Decisional Tool: Pros and Cons of Each Modality**

#### **Lumpectomy + Radiotherapy**

✅ **Pros:**

* Preserves the natural breast, which may be psychologically beneficial.
* Less extensive surgery, meaning shorter recovery time.
* Less immediate impact on body image compared to mastectomy.

❌ **Cons:**

* Requires post-surgical radiotherapy, which involves multiple hospital visits and additional costs.
* Risk of needing a second surgery if clear margins are not achieved.
* The combined treatment process (surgery + radiation) can be longer and more expensive in the long run.

#### **Mastectomy Without Reconstruction**

✅ **Pros:**

* Eliminates the need for radiotherapy in most cases, reducing long-term treatment costs.
* Lower likelihood of needing further surgery.
* Avoids additional costs associated with breast reconstruction.

❌ **Cons:**

* Complete removal of the breast, which may have a significant psychological impact.
* Longer initial recovery time compared to lumpectomy.
* Permanent change in body image, which some patients may struggle with.

**Decisional Tool: Pros and Cons of Each Modality**

#### **Lumpectomy + Radiotherapy**

✅ **Pros:**

* **Faster Recovery:** Less invasive than mastectomy, allowing a quicker return to normal activities.
* **No Drain Management:** Drains are usually not needed after a lumpectomy, which is ideal for patients without a caregiver.
* **Breast Preservation:** Maintains the natural shape of the breast, reducing psychological impact.

❌ **Cons:**

* **Need for Radiotherapy:** Requires multiple sessions over several weeks, which may be inconvenient.
* **Risk of Re-excision:** If margins are not clear, a second surgery may be needed.
* **Longer Overall Treatment Course:** Combining surgery and radiotherapy means the treatment process is extended.

#### **Mastectomy**

✅ **Pros:**

* **No Need for Radiotherapy (in most cases):** Avoids the time and inconvenience of radiation therapy.
* **Lower Recurrence Risk:** More definitive removal of cancerous tissue, reducing the chance of local recurrence.

❌ **Cons:**

* **Longer Recovery:** More extensive surgery requiring a longer healing period.
* **Need for Drain Management:** Post-surgical drains require daily care, which can be difficult without a caregiver.
* **Permanent Breast Removal:** This may have emotional and psychological impacts.

# **Decisional Tool: Pros and Cons of Each Modality**

#### **Lumpectomy + Radiotherapy**

✅ **Pros:**

* **Breast Conservation:** Preserves the natural breast, which may be important for some women.
* **Less Extensive Surgery:** Shorter recovery time compared to mastectomy, no drain needed

❌ **Cons:**

* **Requires Radiotherapy:** Essential after lumpectomy to lower recurrence risk, which Ms. Lim strongly wants to avoid.
* **Multiple Hospital Visits:** Radiotherapy involves several weeks of treatment, which may be inconvenient.
* **Risk of Additional Surgery:** If margins are not clear, a second surgery may be needed.

#### **Mastectomy Without Reconstruction**

✅ **Pros:**

* **Avoids Radiotherapy in Most Cases:** Since the entire breast is removed, radiation therapy is usually not required unless lymph nodes are involved.
* **Lower Recurrence Risk:** Removes more breast tissue, reducing the risk of local recurrence.
* **One-Time Treatment:** No need for prolonged post-surgical treatment like radiotherapy.

❌ **Cons:**

* **Longer Initial Recovery:** Mastectomy is a more extensive surgery than lumpectomy, drain is needed, which needs to be removed at a subsequent visit.
* **Permanent Breast Removal:** May have emotional and psychological impacts.
* **No Breast Shape Preservation:** If opting against reconstruction, there will be a permanent change in body image.

# Decisional tool (pros and cons of each modality):

Lumpectomy + Radiotherapy

* Pros:
* Preserves the natural breast, which may be important for some women.
* Less invasive with a shorter recovery time.
* When combined with radiotherapy, the recurrence rate is similar to a mastectomy, addressing Mdm Chua’s concerns
* Cons:
* Requires radiotherapy, which means multiple hospital visits.
* 5-15% chance of needing a second operation if the margins are not clear.
* If margins are unclear and not treated with further surgery, the risk of recurrence increases.

Mastectomy

* Pros:
  + Lower risk of local recurrence compared to lumpectomy alone.
  + No need for radiotherapy in most cases, reducing follow-ups.
  + May provide greater peace of mind for patients with high anxiety.
* Cons:
  + More extensive surgery with a longer recovery period.
  + Permanent loss of the breast, which may affect body image.
  + If reconstruction is chosen, it involves additional procedures.

# Decisional tool (pros and cons of each modality):

Hormonal Therapy (For Patients Who Cannot Undergo Surgery)

* Pros:
  + Non-invasive, no surgery or hospital stays.
  + Can slow or stop cancer growth, especially in slow-growing tumors.
* Cons:
  + Does not remove the cancer, only controls it.
  + Requires long-term medication and monitoring.
  + Not suitable for all types of breast cancer (only works for hormone-receptor-positive cancers).

Lumpectomy + Radiotherapy (Breast-Conserving Surgery)

* Pros:
  + Less invasive surgery, suitable for elderly patients.
  + Preserves the breast while effectively treating cancer.
* Cons:
  + Requires radiotherapy, which involves frequent hospital visits and may be tiring, especially since Mdm Lim has weaker legs and cannot ambulate well
  + Risk of needing a second surgery if margins are unclear.
  + May not be ideal for patients with limited mobility or multiple health issues.

Mastectomy (Complete Breast Removal)

* Pros:
  + No need for radiotherapy in most cases.
  + Lower risk of local recurrence.
* Cons:
  + More extensive surgery with a longer recovery time.
  + Higher surgical risk for elderly patients with multiple health issues.
  + More physically demanding post-operative recovery