Main indications for breast MRI in the context of investigation and planning of breast cancer treatment
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These indications are derived from the reports, which can be consulted in the Publications section of the INESSS website.

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Glossary

- **Recommended**: The advisory committee considers, with a high level of confidence, that for the vast majority of situations, the benefits outweigh the disadvantages, and conversely.

- **Indicated in some cases**: The advisory committee considers, with a high level of confidence, that in some situations, the benefits outweigh the disadvantages, and conversely. The need to perform an MRI should be discussed in a cancer diagnosis and treatment multidisciplinary team meeting.

- **Not recommended**: The advisory committee considers, with a high level of confidence and based on scientific and experiential evidence, that the use is not justified or appropriate.

**Assessment of the level of evidence**: High, moderate, low and expert opinion.
**Main indications for breast MRI in the context of investigation and planning of breast cancer treatment**

**TYPE OF RECOMMENDATION**

**Recommended**

- Breast MRI is recommended:
  - in case of axillary lymphadenopathy which is most likely of breast origin, without a primary tumor detectable by clinical examination and conventional imaging (mammography plus breast ultrasonography).
    - Level of evidence: low
  - amongst women with a high risk of breast cancer who opt for a prophylactic mastectomy.
    - Level of evidence: low
    However, it is not necessary to repeat the MRI performed in the six months preceding the prophylactic mastectomy when this MRI was proved negative (BI-RADS 1 or 2).
    - Level of evidence: expert opinion

**Indicated in some cases**

The need for an MRI should be discussed in a cancer diagnosis and treatment multidisciplinary team meeting.

- Preoperative breast MRI may be considered:
  - in cases of Paget’s disease of the nipple when breast conserving surgery is desired and an associated tumor lesion could not be detected by clinical examination and conventional imaging (mammography plus breast ultrasonography).
    - Level of evidence: expert opinion
  - for breast cancer patients who have a discrepancy between imaging and clinical examination.
    - Level of evidence: expert opinion
TYPE OF RECOMMENDATION

Indicated in some cases

The need for an MRI should be discussed in a cancer diagnosis and treatment multidisciplinary team meeting.

- Preoperative breast MRI **may be considered**:
  - to clarify the extent of breast cancer when conventional imaging (mammography plus breast ultrasonography) detects multifocal involvement and breast conserving surgery is desired.
    → Level of evidence: expert opinion
  - in cases of **invasive lobular carcinoma** when breast conserving surgery is considered.
    → Level of evidence: low
  - when **invasion of the pectoralis major muscle** or chest wall is suspected on imaging or clinical examination.
    → Level of evidence: low
  - to plan the type of surgery for patients who have achieved multifocal **positive surgical margins** following a lumpectomy.
    → Level of evidence: expert opinion
  - for the selection of patients eligible for breast conserving surgery after **neoadjuvant chemotherapy** – but the systematic use is not indicated in these cases.
    → Level of evidence: expert opinion

Not recommended

- There is no sufficient scientific evidence or consensus to recommend preoperative breast MRI based solely on:
  - breast density;
  - age;
  - HER2-positive status;
  - a triple-negative cancer.