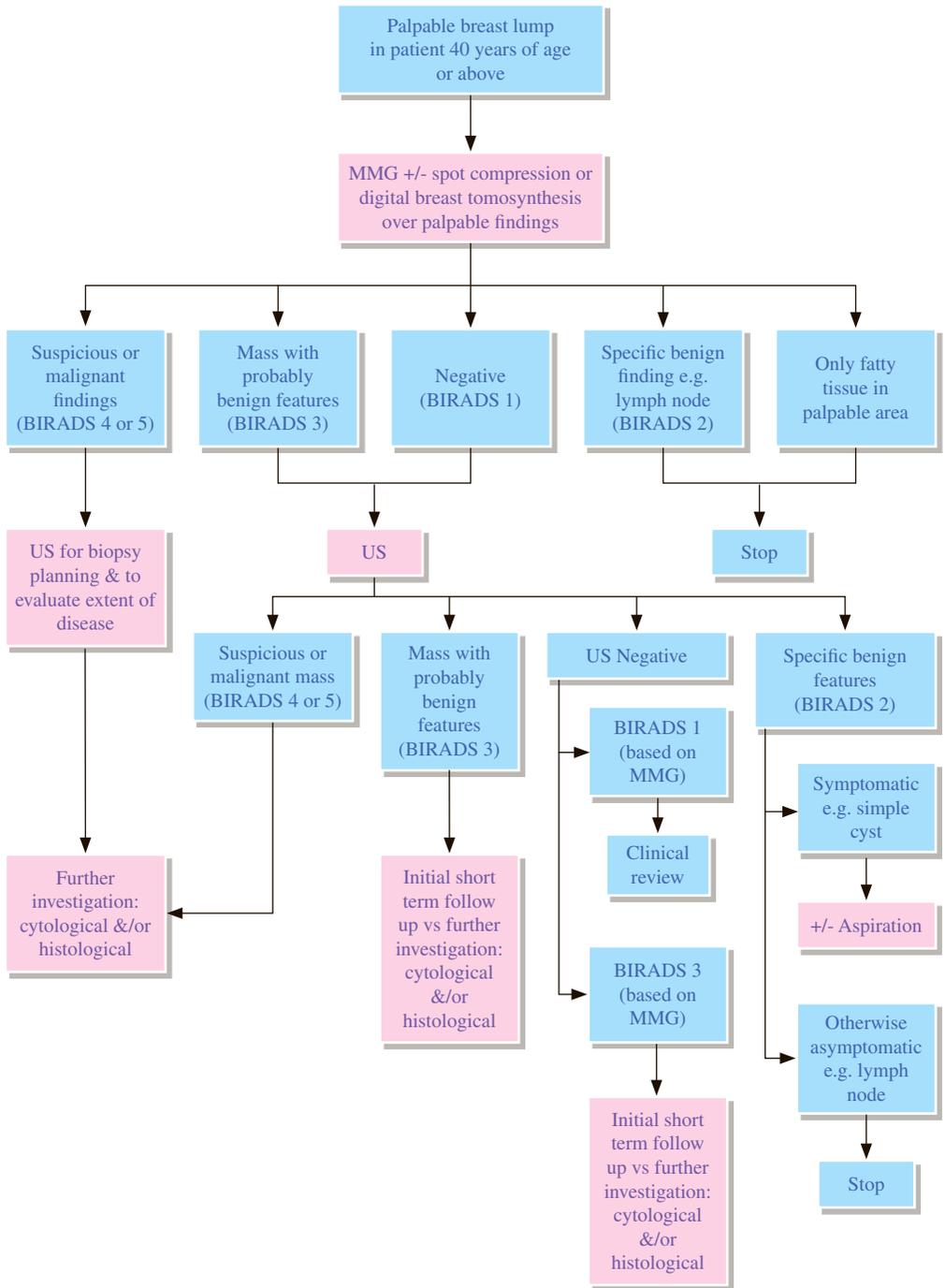
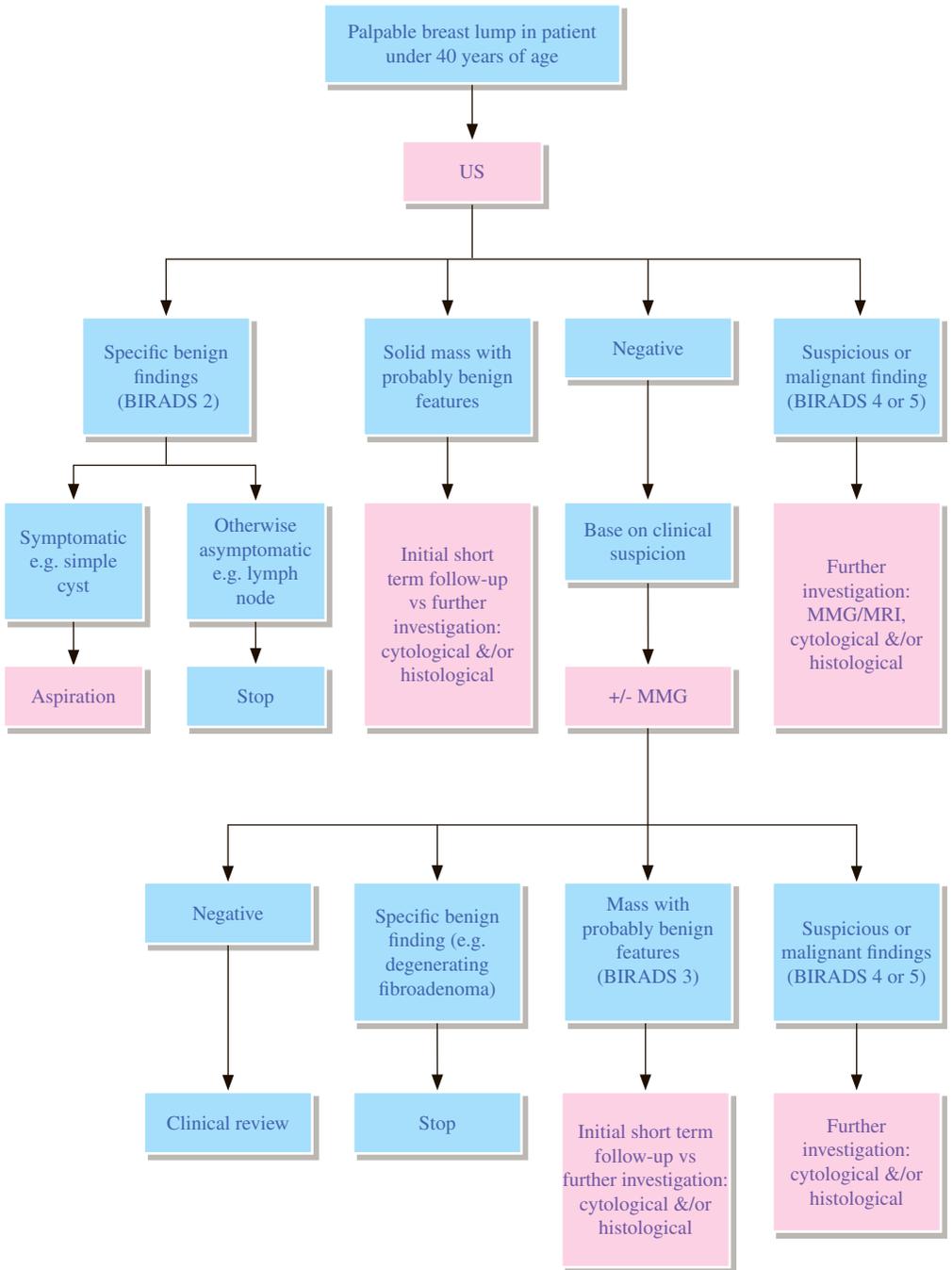


BR 1 Palpable breast lump





REMARKS

1. General

- 1.1 Less than 7% of breast cancers occur in women under 40 years of age.³
- 1.2 Risk factors for breast cancer are^{4,5,8}:
 - 1.2.1 Major risk factors : BRCA1 or BRCA2 mutation
first degree relative with a BRCA1 or BRCA2 mutation
history of radiation to the chest between the age of 10 and 30
certain clinical syndromes e.g. Li-Fraumeni syndrome
 - 1.2.2 Minor risk factors : history of lobular carcinoma in-situ or atypical lobular hyperplasia
history of atypical ductal hyperplasia
history of breast cancer including ductal carcinoma in-situ
very dense breasts
hormonal replacement therapy
more menstrual cycles
nulliparity or late age at first live birth
obesity
never breastfed
alcohol consumption

2. Mammography (MMG)

- 2.1 Diagnostic MMG is the initial exam for evaluating a palpable mass for women aged 40 or older. Because of increased radiation risk, lower sensitivity of MMG, and lower incidence of breast cancer in younger women, US is therefore the initial imaging modality in younger women.⁹
- 2.2 A negative MMG does not exclude breast cancer.⁶
- 2.3 Low-dose radiation increases breast cancer risk among high-risk women especially at a younger age.⁸
- 2.4 The risk of developing breast cancer from radiation exposure secondary to MMG in women under the age of 35 is estimated to be 7 excess cancers per million women per year per rad.⁷

3. US

- 3.1 US is useful in avoiding unnecessary biopsy of cysts.⁷
- 3.2 US is helpful in differentiating benign from malignant solid masses but tumours like medullary and colloid carcinoma may look benign sonographically.³
- 3.3 For evaluation of a palpable mass, US is the modality of choice for women under age of 30 and can also be used as the first line investigation for women aged 30 to 39 years.⁹

4. MRI

- 4.1 MRI may be useful for evaluating the extent of biopsy proven breast malignancy in glandular tissue. Otherwise it is less cost-effective than MMG and US as the initial imaging examinations for evaluating palpable mass.⁹

5. Pathological diagnosis

- 5.1 If a palpable mass is not visible by either MMG or US, the lesion should be assumed to be solid, and biopsy should be considered if the clinical findings are suspicious of malignancy.³

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