Breast Imaging

DR JONES
& PARTNERS
MEDICAL IMAGING

Current best practice – Mammography and Ultrasound

Dr Jones & Partners makes every effort to ensure we are providing the best examinations and protocols for each patient's clinical presentation. We have recently reviewed our protocols for Breast Imaging to ensure that we are working to suggested evidence based practice.

Mammography

For women with breast symptoms, over the age of 35, mammography should be the primary imaging tool *(Breast Imaging; a guide for practice)*. It can also be used for following up women with a previous breast cancer diagnosis and providing screening of asymptomatic women (Table 1).

The radiation dose from Digital mammography is extremely low, with the risk of radiation induced cancer being minimal *(Hauge et al 2014)*.

Dr Jones & Partners use tomosynthesis, an advanced form of mammography, using low dose x-rays to create three dimensional images of the breast. It is thought to overcome some of the limitations of standard mammography *(Radiologyinfo.org)*. The use of tomosynthesis may also result in the improved detection of breast cancers, particularly in women with dense breasts.

Ultrasound

Breast ultrasound should be the primary imaging modality for the under 35 age bracket in most situations. It is also the preferred modality for pregnant or lactating women as it doesn't use radiation.

The use of ultrasound as a screening tool may be appropriate as a supplement to mammography in symptomatic patients or those with dense breasts *(The Role of Ultrasound in Screening Dense Breasts, Thigpen et al, 2018)* where mammographic density can potentially mask cancers (Mammographic Density and Screening).

Table 1

Under 25 years	34 years & under	35 years & over	Pregnant or lactating women
+ Ultrasound is recommended as first imaging modality. + Mammography only justified if clinical or sonographical findings are suspicious or malignant.	+ Ultrasound is recommended as first imaging modality. + Mammography is acceptable when: • in upper range of age group • strong family history • suspicious clinical or sonographical findings.	+ Mammography recommended as first imaging modality. + Ultrasound acceptable when a mammogram has been performed within the last 6 months. + Ultrasound may be used in conjunction with mammography when: • further investigation of a clinical abnormality or mammographic finding is required • to guide the biopsy of a lesion.	+ Ultrasound is preferred modality as it doesn't use radiation. + Mammography justified if clinical or sonographical findings are suspicious or malignant.
Refer for **Ultrasound +/- Mammogram**		Refer for **Mammogram +/- Ultrasound**	Refer for **Ultrasound**

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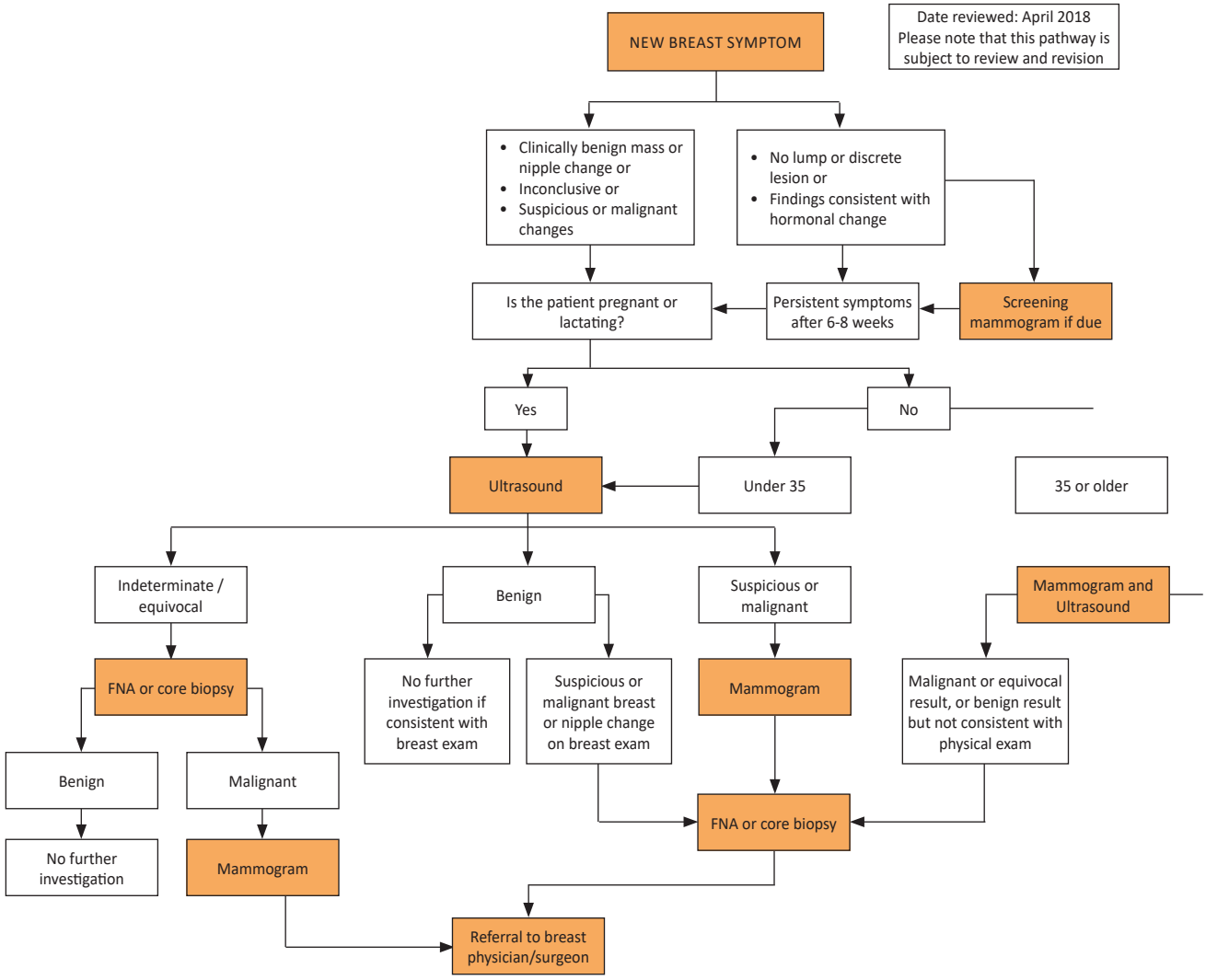
Figure 1

Pathway Diagram



Diagnostic Imaging Pathways - new breast symptoms

References:

Hauge IH, Pedersen K, Olerud HM, Hole EO, Hofvind S. The risk of radiation-induced breast cancers due to biennial mammographic screening in women aged 50-69 years is minimal. Acta Radiol. 2014;55(10):1174-9.

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