

## A systematic approach of reading screening mammograms

- Step 1. Is the quality of the mammogram alright (positioning and image quality)?
- Step 2. Detection of mammographic abnormalities
- Step 3. Interpretation of mammographic abnormality → decide recall yes/no
- Step 4. If recall → determine BI-RADS code: 0, 4 or 5

### Detection of mammographic abnormalities:

- Compare right and left breast: pay attention to asymmetry
  - Horizontal masking
  - Oblique masking
  - Compare the edge of the fibro-glandular triangle. Pay attention to retraction (“tent sign”)
- Check the complete breast for calcifications (1 to 1 viewing / quadrant viewing)
- Compare current examination with previous examination: pay attention to changes over time
  - Image toggling
- Extra attention to:
  - Edge of the mammogram (pectoral region and inframammary angle)
  - “Forbidden areas” according to the lessons of Tabár
    - MLO: the “milky way” and the retroareolar region
    - CC: the medial half of the breast and the “no mans land” (retroglandular region)

### Interpretation of mammographic abnormality:

- Location of lesion: inside or outside breast?
- A known explanation of the lesion? Remark / annotation radiographer.
- Can it be an artefact?
- Real lesion or projection (superposition)?
  - image toggling, do the findings overlap each other now?
  - Spiculated mass: do the lines cross each other or do they originate from a mass?
- Is the lesion (partly) lucent?
- Is the lesion new or has it grown?
  - A new lesion: ALWAYS recall
  - Lesion unchanged but suspicious: ALWAYS recall
- Is the lesion become denser over time?
- Are there multiple lesions?
  - PAY ATTENTION TO “Satisfaction of search”
  - Multiple well defined masses: DON’T recall
- Is there a combination of lesions?
- Additional findings (axillary lymphadenopathy (NHL, psoriasis, RA?), breast implant rupture) → Contact GP or referral to appropriate medical specialist

**BI-RADS code (Dutch screening!!!):**

<b>Mammographic lesion</b>	<b>BI-RADS code</b>
Well defined mass	0
ill defined mass (> 25% unsharp)	4
Spiculated mass	5
Grouped calcifications	4
Mass with grouped calcifications	5
Architectural distortion, 2 views	4
Architectural distortion, 1 view	0
Asymmetry (1 view, focal or globale in 2 views).	0