



AI for Breast Cancer Screening

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Breast Cancer Screening - Intro

Screening

Small subsidised
up-front cost



Early Detection

Low-cost high-profit surgeries,
Less expensive chemo
Better outcomes

Screening works!

up to **80%** of cancers are detected
~**70%** early stage



With **70% attendance:**

56% of all BCs are caught earlier in screening
40% at stage I-II when surgery is enough

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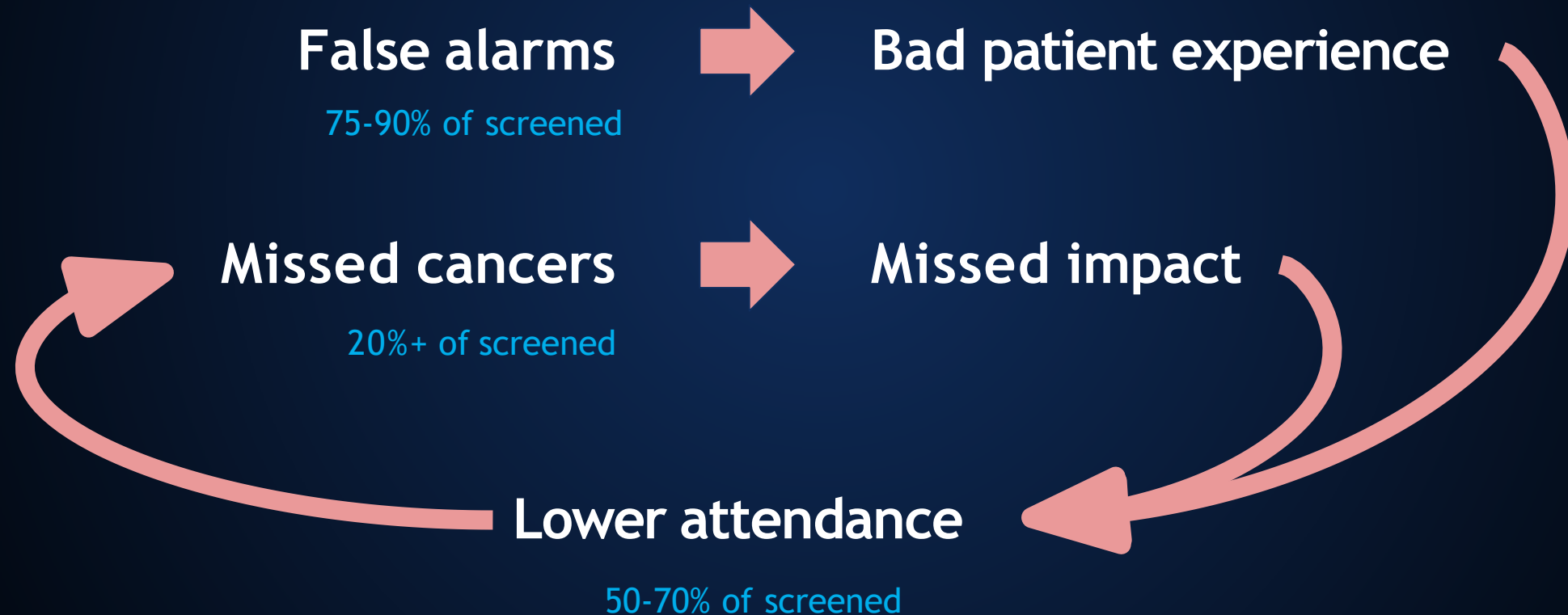
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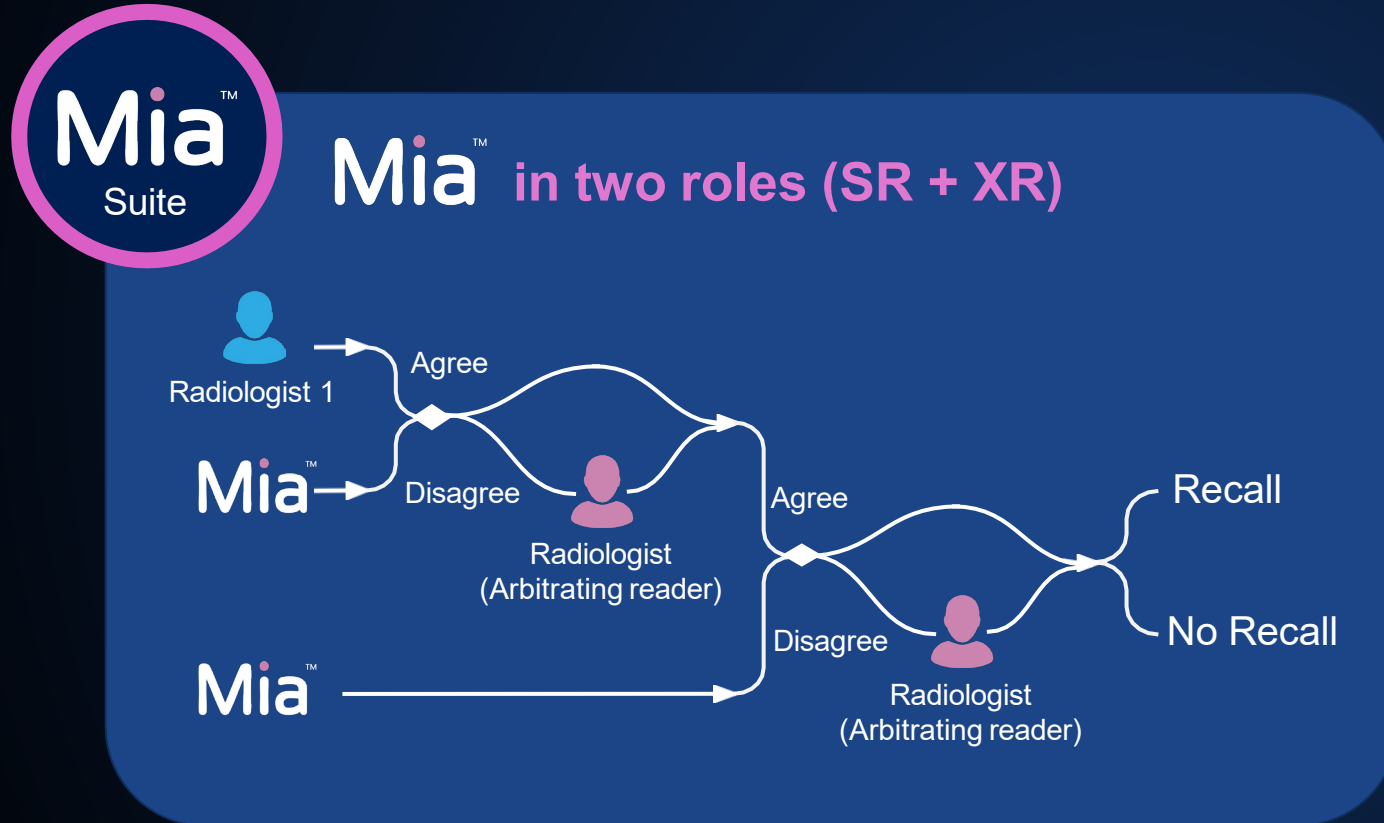
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Breast Cancer Screening - Problems



AI in Breast Cancer Screening - Opportunities



Missed cancers ↓

False alarms ↓

Direct Costs ↓

Patient Experience ↑

Patient Outcomes ↑

AI in Breast Cancer Screening - Status



Tested on 350k+ cases, deploying in 25% of NHS

Outcomes from live operation of Mia XR

- 26** extra proven cancers detected that doctors missed
 - All **26** cancers were missed by 2 doctors
 - Most worked up cancers are proven **invasive**

In the first pilot, every recalled woman had cancer, i.e. had zero false positives from the XR workflow



The New York Times
Using A.I. to Detect Breast Cancer That Doctors Miss

THE TIMES THE SUNDAY TIMES
TECH SUMMIT
AI is transforming how radiologists detect breast cancers
Kheiron Medical Technologies has developed deep-learning software to act as second reader of mammograms

nature medicine

THE TIMES
HEALTHTECH
Mammogram-reading AI starts work in hospitals

Impact opportunity

- ✓ Up to **13-20% more cancers detected** (up to +1.6 CDR)
- ✓ Possible **50% reduction of missed cancers**
- ✓ Possible **zero unnecessary recalls**



AI in Breast Cancer Screening - Economic Impact



“Back of the envelope” calculation assuming

50% miss reduction w/ AI
70% attendance



63% of all BCs caught early

75% miss reduction w/ AI
75% attendance



71% of all BCs caught early

(compared to 56% without AI)

AI Beyond Breast Cancer Screening



Reliable **response evaluation**

Precision **response evaluation**



Data-driven multi-disciplinary diagnostics

Precision treatment planning

Radiology
Blood markers
Genetics
Pathology