

The Introduction of Vacuum-Assisted Excision (VAE) Techniques in Breast Care Unit at Medway Maritime Hospital from 2017 to the present: A Quality Improvement Project

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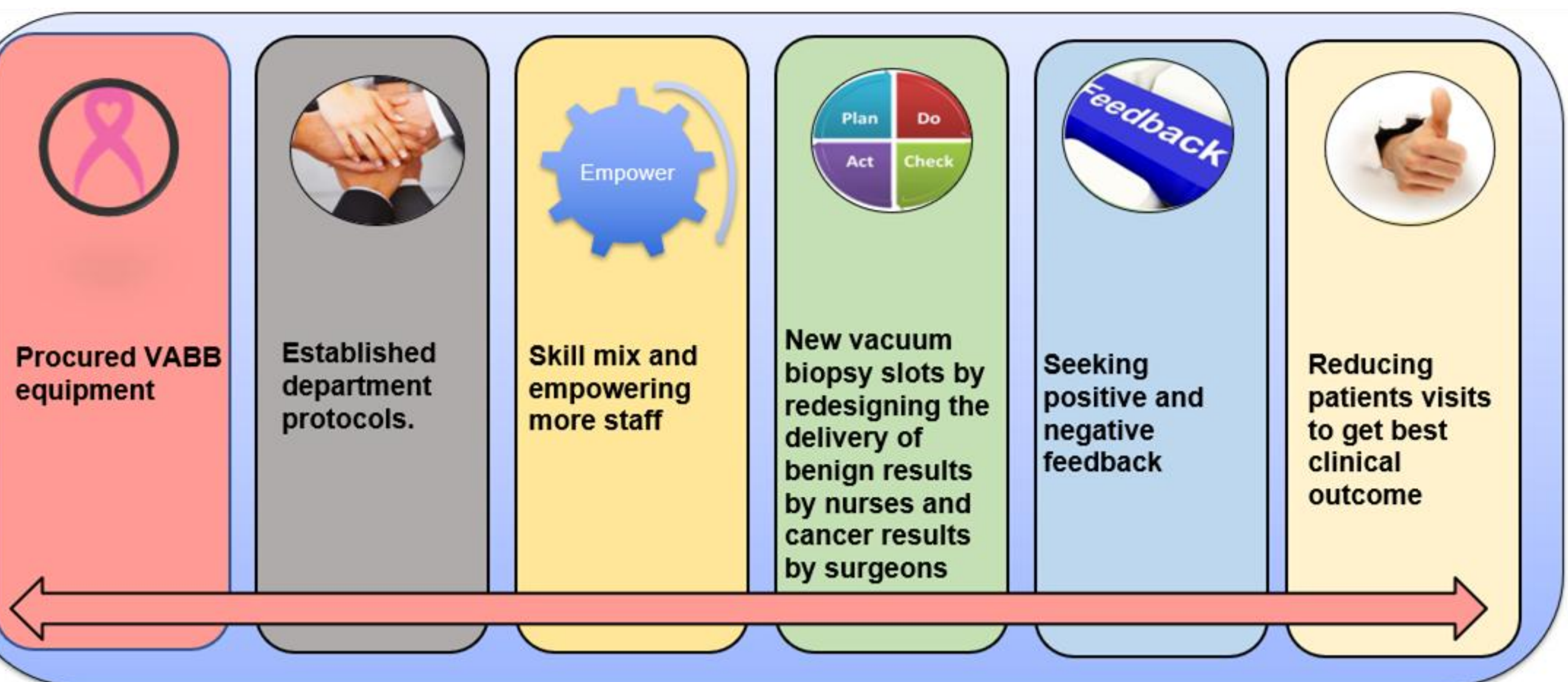
Background

- In the UK, breast cancer remains the most commonly diagnosed cancer in women and the second commonest cause of cancer deaths¹.
- Medway Screens 85,000 women of ages 50-70 every 3 years with 243 breast cancers diagnosed in the year 2023-2024
- B3** lesions are of uncertain malignant potential, accounts for 7% of all breast lesions, most **B3** lesions are NOT upgraded to malignancy following pre-operative biopsy.
- Prior 2014: B3 were treated surgically, costing total of £2344 for each procedure with at least an 8-hour admission.
- In 2014, Introduction of Vacuum assisted excision (VAE), a technique used to excise abnormal tissue that is found on mammogram.
- Medway was outliers in pre-excision diagnostic and benign biopsy rate.

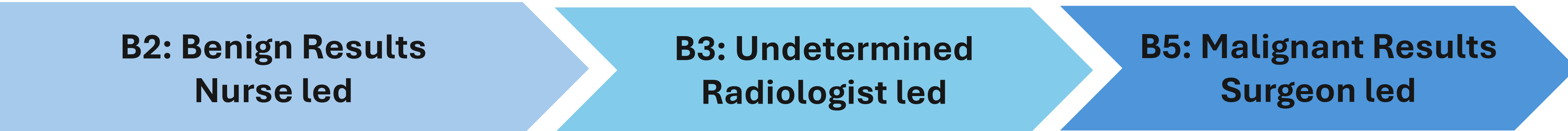
Aim

- As per NHSBSP standards:
- Increase pre-operative diagnosis rate of non-invasive cancer to $\geq 90\%$.
 - Reduce the number of unnecessary operative procedures/open biopsies in women with benign lesions to $<0.75/1000$.

Actions Taken



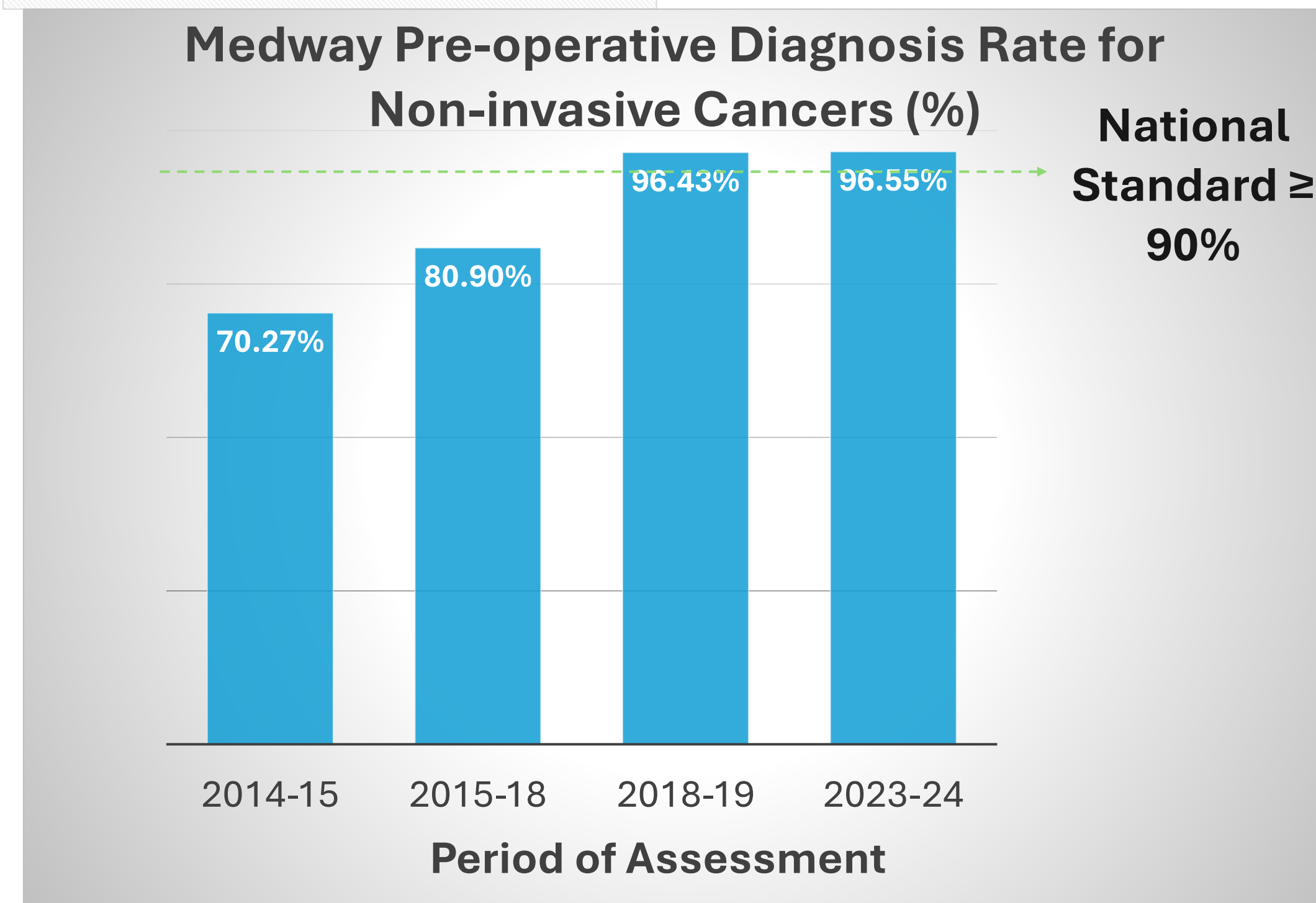
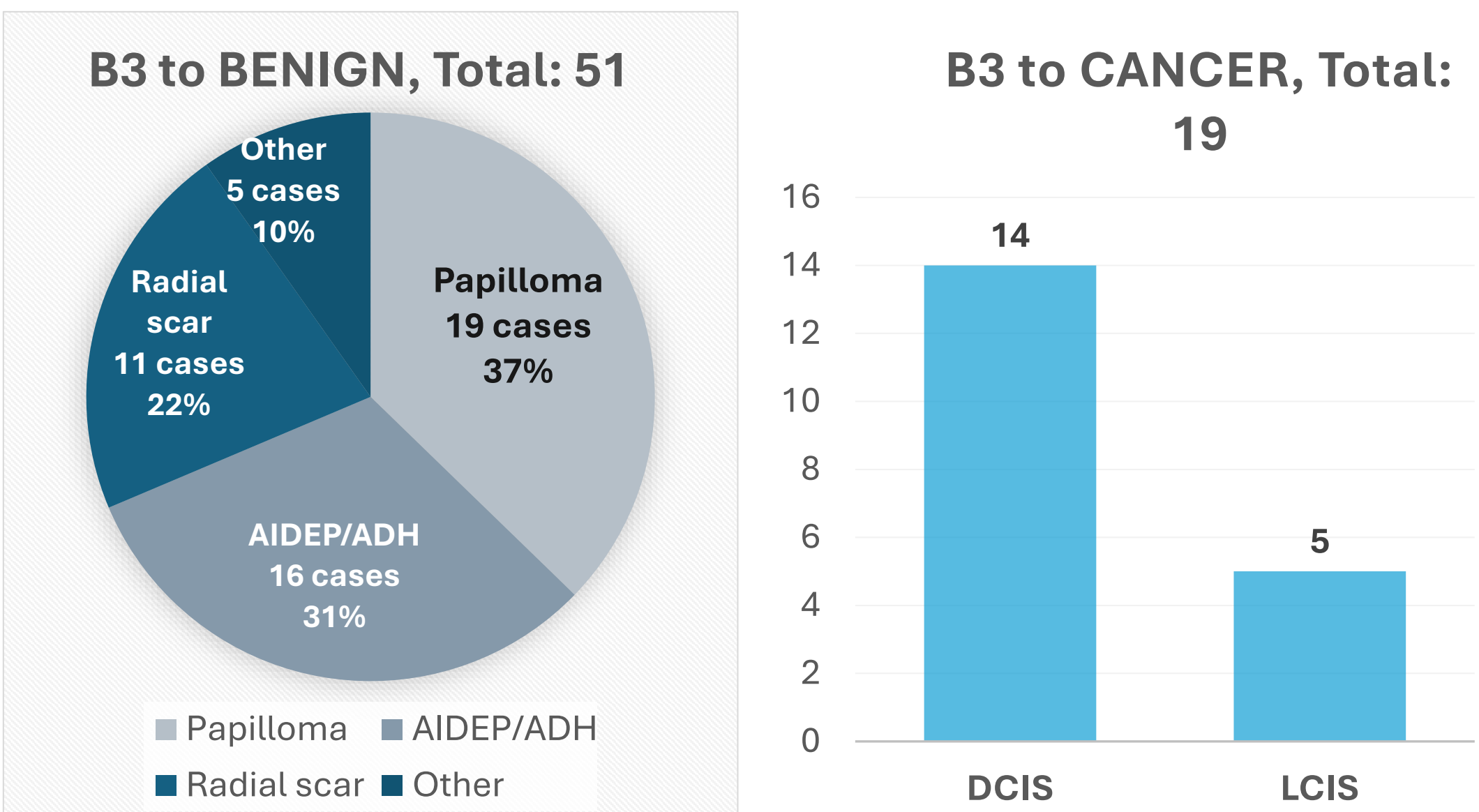
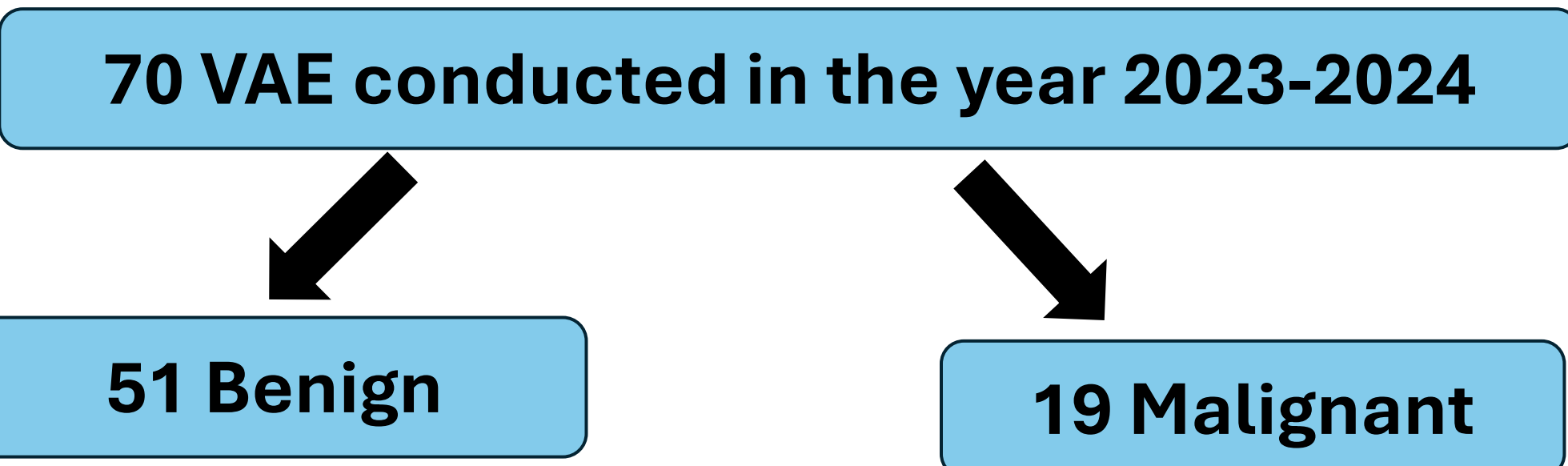
Changes in Workflow



- B2 Benign results**
Breast care nurse arranges phone call and results given via phone.
In 2023-2024, 320 results were benign and given via phone by breast care nurses. This created new slots as these patients were previously seen face-to-face by doctors.
- B3 Undetermined results**
Vacuum biopsy conducted. Two options:
 - Upgrade the lesion to non-invasive cancer
 - Downgrading to benign**Or**
- B5 malignant**
Given option of seeing surgeon directly so results given directly by surgeons
182 cases (Direct Referrals)

Results

B3 Histopathology	Histology at first core (7G VAB)	Upgrade on final histology (VAE)
AIDEP	16	12
Lobular Neoplasia	2	2
Flat Epithelial Atypia	1	1
Papillary Lesion without Atypia	19	2
Radial Scar/Complex Sclerosing Lesion	11	2
Mucocoele Like Lesion	2	
Total VAEs	51	19



Summary

- We have continued to improve and deliver above standard performances.
- VAE is a useful modality that has improved patient care and significantly reduced cost
- High preoperative diagnosis rate combined with a low open biopsy rate indicates that women do not undergo surgery unnecessarily.
- This increases the efficiency of surgical theatre slots – surgeries for those who need it.
- We are now one of the best performing units in the south-east region for the prevalent benign open biopsy rates. We have been complimented by NHS improvement, QA and NHS England for improving 31 and 62-day target.
- Our model is simple and reproducible by other teams and hospitals.
- Medway breast unit remains below national average for staffing.
- We have worked hard to provide quality care for our community who deserves the very best and we are very proud of it.
- “High quality care, now and forever”.



Saving the NHS £135,030 Yearly!

References

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