



Looking at the Increased Use of Neoadjuvant Endocrine Therapy in the Elderly Population during the COVID-19 Pandemic

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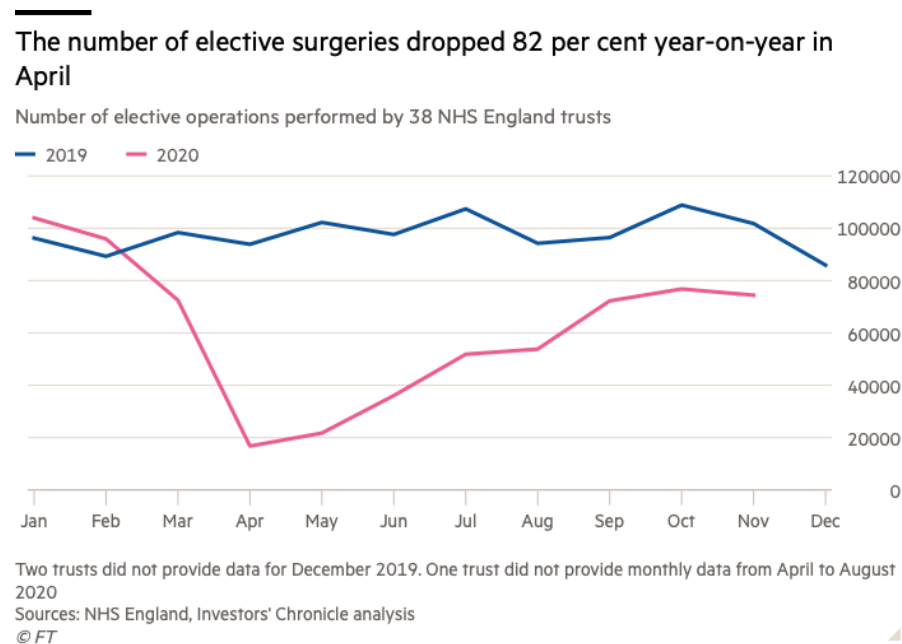
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Background

- Reduced reliance on surgery during the pandemic had resulted in the implementation of emergency guidelines



- The advice given emphasized the importance of neoadjuvant endocrine therapy (NAET) for postmenopausal estrogen receptor positive (ER+) patients



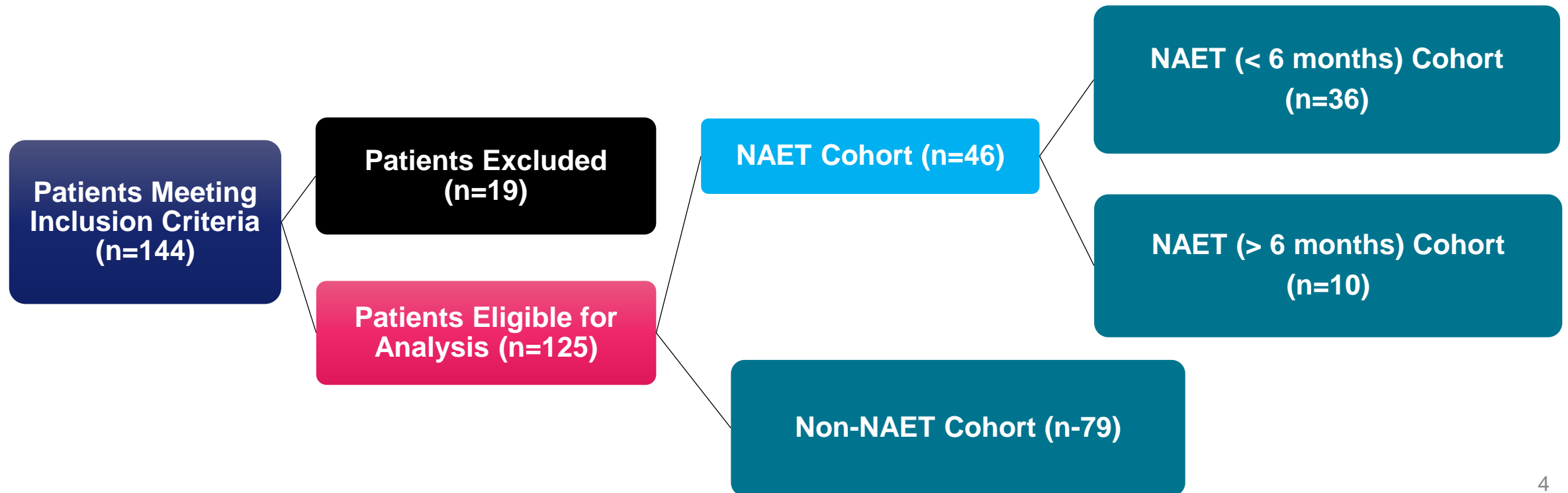
Objectives

- To consider the efficacy of NAET as a maintenance measure in elderly patients
- To compare treatment responses between defined patient cohorts



Methods

- Retrospective Single Centre Study
- Patients over the age of 60 years who had undergone treatment for newly diagnosed ER+ breast cancer at the Nottingham Breast Institute during the COVID-19 pandemic between March 2020 and April 2021 were analyzed





Results

Table 1. Average NPI values Before and After Surgery along with Average Changes in NPI score within all 3 Patient Cohorts

	Average NPI Before Surgery	Average NPI After Surgery	Mean Difference in Average NPI	P-Value
Non-NAET (n=79)	3.59	3.95	0.36	<0.001
NAET (<6 months) (n=36)	3.59	3.54	-0.05	0.503
NAET (>6 months) (n=10)	3.98	3.98	0.002	0.989



Tumour Size

Table 2. Average Tumour Sizes Prior to and After Surgery along with Average Changes in Tumour Size within all 3 Patient Cohorts

	Average Size Prior to Surgery (mm)	Average Size After Surgery (mm)	Mean Difference in Average Tumour Size (mm)	Percentage Change in Average Tumour Size	P-Value
Non-NAET	19.86	19.65	-0.21	-1%	0.813
NAET (< 6 months)	21	18.65	-2.35	-11%	0.03
NAET (> 6 months)	39	33.9	-5.1	-13%	0.213



RECIST Criteria

Table 3. Patients in Both NAET Cohorts Categorized by the Effectiveness of Treatment using the RECIST Criteria

	NAET (< 6 months) (n=36)	NAET (> 6 months) (n=10)
Complete Response (CR)	0% (n=0)	10% (n=1)
Partial Response (PR)	25% (n=9)	30% (n=3)
Stable Disease (SD)	69% (n=25)	50% (n=5)
Progressive Disease (PD)	6% (n=2)	10% (n=1)



Tumour Grade

Table 4. Alterations in the Biological Grade of Patients Within all 3 Patient Cohorts

	Percentage of patients maintaining biological grade following surgery	Percentage of patients who presented with higher grade tumours following surgery	Percentage of patients who presented with lower grade tumours following surgery
Non-NAET (n=77)	64% (n=49)	28% (n=22)	8% (n=6)
NAET (< 6 months) (n=36)	69% (n=25)	11% (n=4)	20% (n=7)
NAET (> 6 months) (n=10)	80% (n=8)	0% (n=0)	20% (n=2)



Nodal Involvement

Table 5. Examining the Changes in Nodal Involvement in All 3 Patient Cohorts Comparing Core Biopsy Data with Post-Operative Pathology

	Patients Initially Presenting with No Nodal Involvement		Patients Initially Presenting with Nodal Involvement	
	Percentage of patients maintaining no nodal involvement on post-operative pathology	Percentage of patients with increased nodal involvement on post-operative pathology	Percentage of patients not having increased nodal involvement on post-operative pathology	Percentage of patients with increased nodal involvement on post-operative pathology
Non-NAET Cohort (n=79)	64.8% (n=46)	35.2% (n=25)	62.5% (n=5)	37.5% (n=3)
NAET (Less than 6 months) Cohort (n=36)	90.6% (n=29)	9.4% (n=3)	75% (n=3)	25% (n=1)
NAET (More than 6 months) Cohort (n=10)	100% (n=8)	0% (n=0)	50% (n=1)	50% (n=1)



Conclusion

- Implementation of NAET as an emergency measure did not negatively affect the elderly patients involved
- Rather, NAET was an effective temporizing measure preventing progression of breast cancer in terms of tumour size, grade and nodal involvement
- Preliminary findings suggest that the ideal duration of treatment may be more than 6 months



Any Questions?