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01. THE EFFECT OF TUMOUR RISK AND PATIENT FACTORS ON THE THREE-YEAR SURVIVAL FOR WOMEN WITH EARLY STAGE TRIPLE NEGATIVE BREAST CANCER (TNBC) IN ENGLAND AND WALES: A POPULATION BASED COHORT STUDY WITHIN NATIONAL AUDIT OF BREAST CANCER IN OLDER PATIENTS (NABCOP)

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Introduction: Women with triple negative breast cancer (TNBC) have high risk of early mortality. We investigated factors influencing BC-survival for women with surgically treated TNBC, as part of NABCOP.
Methods: Women aged ≥50yrs receiving surgery for unilateral early stage (1-3a) TNBC in England and Wales between 2014–2017 were identified from linked national datasets. Competing risks survival models were used to investigate associations between patient fitness (comorbidity), tumour characteristics and BC survival at 3-years.
Results: 97% of 3,785 women aged 50-69yrs and 92% of 2,254 women aged ≥70yrs received surgery.
For women aged 60, 70 and 80yrs, with stage 1 TNBC and no comorbidities, 3%, 3% and 4% respectively had died from BC at 3-years, increasing to 15%, 18% and 22% respectively for stage 3a TNBC. Death from causes other than BC at 3-years was reported for <7% of women without comorbidities.
In comparison, the increase in rate of death from any cause among women with ≥2 comorbidities was mainly due to death from causes other than BC.
For women aged 60, 70 and 80yrs with stage 1 TNBC, death from any cause at 3-years was 8%, 12% and 20% respectively; increasing to 23%, 31% and 43% respectively for stage 3a TNBC.
Conclusion: Tumour stage and not older age mainly determined death from BC at 3-years in fit women. In women with poor fitness, death from any cause at 3-years was higher in older women. Fitness assessments are recommended in identifying older women who may benefit from the most active interventions.

02. DEVELOPMENT OF AN END-PRODUCT EVALUATION TOOL FOR ASSESSMENT OF SIMULATED AXILLARY CLEARANCE

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Introduction: Axillary de-escalation and omission of axillary lymph node dissection (ALND) in patients with low volume sentinel node disease has reduced trainee exposure and confidence. The concern is to equip surgeons to tackle complex axillary disease. An ALND simulator was developed and an end-product assessment tool was interrogated for construct validity.
Methods: Following ethical approval (IRAS:226651), 30 surgeons (10xconsultants,11xtrainees, 9xcore/FY) performed a simulated level III ALND with junior assistance. An end-product assessment tool was developed using an iterative process with experts in the field. Simulated ALND models and resection specimens were retrospectively reviewed and scored against the end-product assessment tool by two consultant surgeons.
Results: End-product scores differed significantly based on expertise (p=.038). Specifically, experts outperformed novices [median(IQR):expert=5(5)vs.novice=3(1);p=.037], trainees outperformed novices [median(IQR):expert=5.5(4)vs.novice=3(1);p=.022]. However, no significant difference was observed between trainees and experts (p=9.39). Similarly, nodal harvest was significantly greater amongst experts than novices (p=.000), and trainees than novices (p=.009), but not between experts and trainees (p=.463). No significant difference was observed between groups in haemostatic quality (p=.093), or damage to the axillary vein (p=.864), long thoracic nerve (p=.094), or thoracodorsal pedicle (p=.054).
Conclusions: An end product assessment tool developed for ALND distinguishes between surgeons of low and high volume experience. This is the first tool to assess competence in ALND and merits further validation. It is important to examine how the tool could better delineate differences between trainees and expert cancer surgeons.

03. IMPACT OF PROGESTERONE RECEPTOR STATUS ON ONCOLOGICAL OUTCOMES IN OESTROGEN RECEPTOR POSITIVE BREAST CANCER PATIENTS – A SYSTEMATIC REVIEW AND META-ANALYSIS

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Introduction: Assessment of oestrogen (ER) and progesterone receptor (PR) status provides important prognostic information in breast cancer. However, the impact of single progesterone receptor negativity is less well defined. A systematic review/meta-analysis were undertaken to examine the impact of progesterone receptor negativity on outcomes in oestrogen receptor positive breast cancer.
Methods: The study was performed according to PRISMA guidelines. Databases were searched to identify studies comparing disease free survival as the primary outcome and overall survival as the secondary outcome between progesterone receptor positive (PR+) and negative (PR-) status in ER positive breast cancer (ER+). A meta-analysis of time-to-effect measures was performed, specifically hazard ratios (HRs).
Results: Seven studies including 10613 patients in the ER+PR+ group and 2371 patients in the ER+PR- group met the inclusion criteria. Treatment characteristics did not differ significantly between the two groups. Patients in the ER+PR- group had a higher risk of disease recurrence over the study time period than those who had ER+PR+ disease (DFS HR 1.57; 95% confidence interval [CI]: 1.30 – 1.80; $p < 0.01$) and was more significant in patients who were HER2 negative (DFS HR 1.63; 95% confidence interval [CI]: 1.34 – 1.98; $p < 0.01$). A similar result was observed for overall survival (OS HR 1.60; 95% CI: 1.19 – 2.14, $p < 0.01$).
Conclusion: Progesterone receptor negativity is associated with a significant reduction in disease free and overall survival in ER+ patients. This has