ifen was 88%. By NPI group 5-year survival in the moderate 1 group was 90%, in the moderate II group it was 86% and in the poor prognostic group it was 77%. Tumour grade ($p = 0.03$) and node stage ($p = 0.01$) were significant independent predictors of survival. Tumour size, H-score, and Age were non-significant.

The 2 most heavily weighted factors in the NPI (grade and nodal stage) remain the most significant predictors of outcome after 5-years of Tamoxifen. Patients in the poor prognostic NPI group may be considered for extended hormone therapy.

O-30. Survival of elderly patients with breast cancer treated with primary Tamoxifen therapy

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University Hospital of North Staffordshire and West Midlands Cancer Intelligence Unit

Between 1990 and 2005, 181 elderly women over the age of 70 years (mean 82 years), who were either unfit for anaesthesia or reluctant to consider surgery were treated with Primary Tamoxifen therapy (PT). (49 patients under 70 years were also treated with PT, because of extensive disease or severe co-morbidity).

Patients underwent frequent and indefinite clinical follow up, to monitor tumour size and identify any possible need for change in management.

Patient survival and causes of any deaths have been studied using cancer registry data.

The overall 5 year survival of these patients is 34% and 10 year survival is 7%. 123 patients died at a mean of 31 months (7 days–103 months). 55 (45%) died from causes other than breast cancer. 47 patients (26%) required further treatment in view of disease progression. 32 women (18%) underwent limited surgery, 7 had radiotherapy (4%) and 8 had a change of hormonal treatment (4%).

The overall survival of these elderly patients is not unduly poor. Many women were considered to have died with the disease rather than as a result of the breast cancer. Patients receiving PT require careful follow up as one in four may require a change of management.

O-31. Trial of mastectomy versus Tamoxifen for treating elderly patients with operable breast cancer – results after a 20 year follow up

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Nottingham City Hospital

Background and Aims: This randomised trial of operable breast cancer treated by either wedge mastectomy or tamoxifen earlier showed a reduced incidence of local, regional and metastatic recurrence in the mastectomy group at 24 months follow up. 135 consecutive patients with breast cancer aged over 70 yrs and fit for surgery, with operable primary breast cancers were randomised.

68 were allocated to tamoxifen (Tam) and 67 to the mastectomy [(wedge mastectomy and excision of symptomatic axillary lymph nodes), (Mx)] Tam received continuous treatment with tamoxifen 20mg twice daily and wedge mastectomy on local progression. Mx received further excision or radiotherapy for locoregional recurrence and/or when local treatments were exhausted or metastatic disease diagnosed, tamoxifen.

Results: At 20 yrs follow-up only 2 patients of 131 are alive and this is therefore the final data on this trial.

	Tamoxifen group $n = 66$	Mastectomy group $n = 65$
Local recurrence	45 (68.1%)	16 (24.6%)
Regional recurrence	20 (30.3)	24 (36.9)
Distant metastases	23 (34.8)	27 (41.5)
Median time to death (mths)	73 ± 10	74 ± 18

Conclusions: There is no significant difference in regional recurrence, distant metastases or overall survival between the mastectomy and tamoxifen group in elderly patients with breast cancer at 20 yrs follow-up. In keeping with earlier reports, there has remained a significantly lower incidence of local recurrence in the Mx group.

O-32. A computer programme to calculate for the individual: the expected improvement in survival chance from adjuvant therapies

Blamey RW, Macmillan RD, Wishart G, Morgan DAL, Mitchell MJ. *Nottingham City Hospital*

The EBCTCG overviews of adjuvant therapies provide figures of relative risk reduction (RRR). Applied to the survival chance of the individual, shown by the Nottingham Prognostic Index (NPI) the absolute improvement expected from therapies for that individual, may be calculated.

The baseline figure ("observed 1980–86") is the survival in NPI groups in patients treated without any adjuvant systemic or local (RT) therapies. (1) The "Expected" figures are the effects on these from the relative risk reductions (RRR) demonstrated in the EBCTCG overviews for each therapy.

Example: Women 50+, % 10 year survival

NPI Group	Observed 1980-86 No Adjuvant (local, regional nor systemic)	Expected	
		Tam 5 yr (ER+) RRR 27%	CMF (all) RRR 11%
EPG	84	89	86
GPG	63	73	67
MPG I	59	70	64
MPG II	43	59	49
PPG	15	39	24

Patient age and pathological tumour characteristic (grade, LN stage, size, ER, VLI) must be entered. The expected improvements will be given for individual NPI values rather than for groups (Blamey, 2005).

Survivals have improved in the 1990's in all prognostic groups to a greater degree than predicted by the EBCTCG estimate of risk reduction for adjuvant systemic therapies.

A further calculation is given for the extra gain expected from improved local management (free margins, case selection for breast conservation, selective local and regional RT or clearance).

The combined figure gives the present day expected survival from modern therapeutic management.

The computer programme will be demonstrated during the meeting and will eventually be accessible on the EUSOMA website.

References: [1] Blamey RW et al., Reading the prognosis of the individual with breast cancer.

[2] Blamey RW et al., Improvement in case survival in breast cancer across the prognostic spectrum.

O-33. Validation of the Nottingham Prognostic Index (NPI) in a district general hospital (DGH) in the UK

Kuzhively R, Gray C, Barnsley A, Harper K, Robinson S, Dyson P, Barker P, Williams MR. *Cumberland Infirmary, Carlisle*

The NPI has been extensively validated as a predictor of outcome after treatment for breast cancer in Teaching and University Hospitals but has rarely been examined in a DGH setting. The NPI when accurate may be used to guide adjuvant treatments. This study examines prognosis in a consecutive series of 1061 patients presenting with operable primary breast cancer in whom the NPI was recorded after initial surgery. Patients of all ages were included in the study. All patients were under the care of a single surgeon, received treated according to protocols and were followed up on a long term basis at regular intervals by breast physicians in designated clinics. All data was stored prospectively on the BASO database by a data manager present in the clinics.

Results: Median age at presentation = 63 years. Median follow up = 49 months.

Grade	1	11	111
Patients	241	509	311
Lymph node status	1 (neg)	11 (1–3 pos)	111 (4+ pos)
Patients	624	285	152

NPI: 4 year survival (absolute)

	Patients studied	Deceased at 48/12	Alive at 48/12
Excellent	150	0	66 (100%)
Good	238	9	110 (92%)
Moderate	484	41	232 (85%)
Poor	189	50	59 (54%)

Analysis of Kaplan Meier survival curves for NPI using Log Rank (good and excellent combined); $p < 0.001$ (2df. Log Rank 85.09).

O-34. Young women with breast cancer; clinical, histopathological and prognostic considerations

Morgan A, Osborn GD, El-Saify W, Vaughan-Williams E, Williams RJL. *Royal Glamorgan Hospital*

Breast cancer comprises 22% of all cancers affecting women in the UK. Only 2% of cases occur in those aged ≤35, but the disease may be more aggressive in this age group.

We carried out a retrospective study of women presented to our hospital with breast cancer aged ≤35 years over 14 years considering mode of presentation, clinical staging, prognostic indices, tumour histopathology including type, size, Bloom-Richardson grading, lymph-nodal status, vascular invasion, ER. NPI, treatment modalities and outcome.

A total of 75 patients with median age of 32 (18–35) were diagnosed. 68 (90%) presented with a palpable lump, three (4%) with inflammatory cancers, two (3%) with pain and two (3%) with distant metastasis. Clinical features were considered suspicious in 62 (83%) patients, indeterminate in 8 (10%) and benign in five (7%). 16 (21%) women had a family history of breast cancer. Median pathological tumour size was 22 (5–90) mm, 66 (88%) had Invasive Duct Carcinoma and 41 (55%) showed Grade III Tumour. During a mean follow up period of 43 months (12–132) distant spread occurred in 19 (25%) women. Mortality was 24% (18 patients). Mean metastatic-free survival was 48 (5–108) months. Tables 1 & 2 conclude results.

Table 1. Prognostic Indices

Tumour Size			Nodal Status			Grade			NPI Score		
Size	Pt.	No. (%)	Nodes	Pt. No.	(%)	Gr.	Pt. No.	(%)	Score	Pt. No	(%)
Tx	5	7%	0	29	39%	CIS	4	5%	≤3.4	6	8%
Tis	1	1%	1 to 3	28	37%	I	4	5%	≤4.4	13	17%
T1	27	36%	4 to 9	11	15%	II	26	35%	<5.4	30	40%
T2	35	47%	≥10	7	9%	III	41	55%	>5.4	26	35%
T3	3	4%									
T4	4	5%									

Table 2. Treatment Modalities

Treatment	Pt. No.	(%)	Treatment	No.	(%)
Mastectomy	41	55%	Wide Local Excision	34	45%
– No Rec.	11	15%	Chemotherapy		
– Immediate Reconst.	27	35%	– Neo-Adjuvant	4	5%
– Delayed Reconstruction	3	4%	– Post Operative	41	55%
Axillary Surgery	64	85%	Radiotherapy		
– Node Clearance	53	70%	– Post Operative	40	53%
– Node Sampling	11	15%	– Palliative	4	5%
			Hormonal	58	77%

Prompt diagnosis of breast cancer in younger women is not always straight-forward, moreover, in our experience they often present with grade III, lymph nodes presenting tumour with considerably poor NPI score. We concluded that breast Cancer in young Women is biologically aggressive. Diagnosis and treatment of such group remains a challenging prospect.

ER: Oestrogen Receptors, NPI: Nottingham Prognostic Index.

O-35. Young age is not an independent prognostic factor

Blamey RW, Mitchell MJ, Macmillan RD, Robertson JFR, Pinder SE, Ellis IO, Elston CW, Lee A. *Nottingham City Hospital*

A common contention is that breast cancers in young women have worse prognoses than similar tumours in older women. In a previous publication [1] we showed that poorer overall survival was due to the higher proportion of Grade III tumours. Once standard prognostic factors had been taken into account (by use of the Nottingham Prognostic Index – NPI) survival was no different from that in older women.

Survival has improved in all NPI groups in the last 15 years and the contention remains that young age is an adverse prognostic factor. A new study in tumours diagnosed 1990-99 is