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INTERNATIONAL SOCIETY
OF GERIATRIC ONCOLOGY
To improve the care of older patients with cancer around the world

"With you, the World Leading GBCC"
10th ANNIVERSARY
Global Breast Cancer Conference
GBCC 2017
April 20 (Thu) - 22 (Sat), 2017
The Shilla Jeju Hotel, Jeju Island, Korea

Elderly Breast Cancer – Systemic Therapy

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Hong Kong Breast Oncology Group

Scientific Committee Meeting
International Society of Geriatric Oncology (SIOG 2017)

20th April, 2017

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Disclosures

.

Consultant or Advisory Role:

AstraZeneca, Aptus, Astellas, Eisai, GlaxoSmithKline, Foundation Medicine, Novartis & Pfizer

Due to time constraint, I will just be focusing on systemic therapy for EBC patients!

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Outline

- The undeniable emerging needs
- Current Dilemmas for Elderly BC patients
- Opportunities & Challenges
- Conclusion

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Age is a known risk factor…

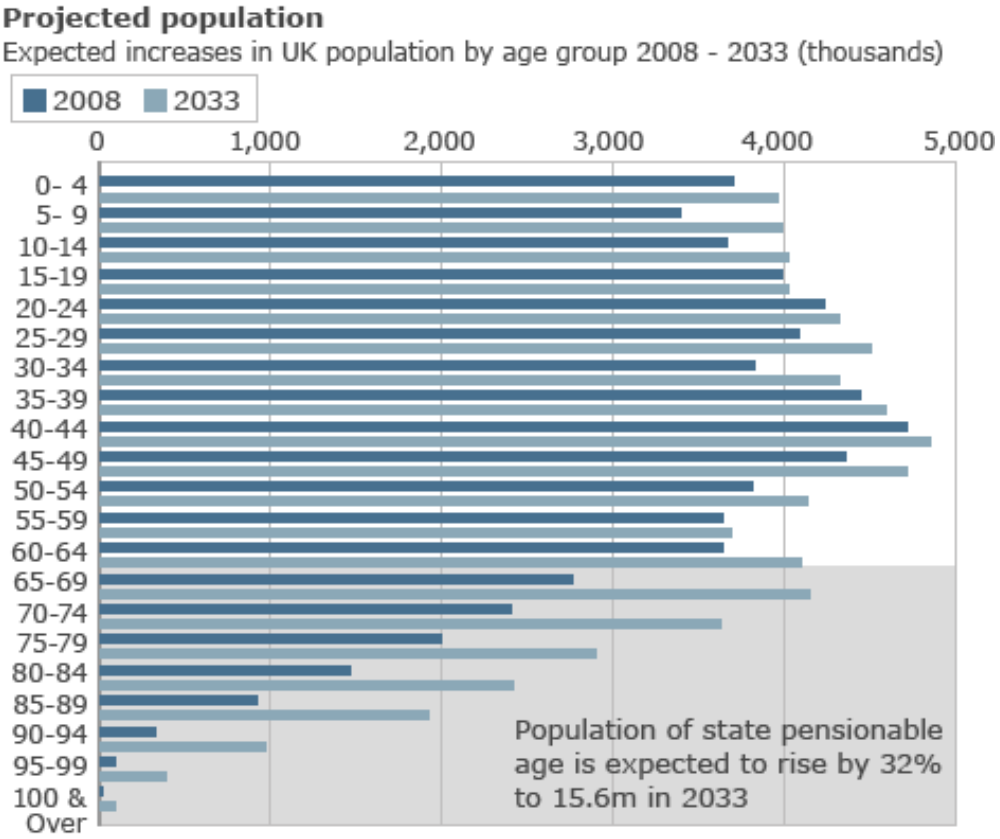
- **AGE** is one of the strongest risk factors for cancer development
- The aging population presents a major epidemiological challenge
  - **Demographic shift brought by the baby-boomer generation**

14th International Society of Geriatric Oncology, Lisbon, October, 2014
Wedding U. Future Oncol, 2015 Mar;11(6):893-5. doi: 10.2217/fon.15.4.

Aging Society & Aging Cancer Patients

By 2030, there could be 50% more people greater than 65 years old, and 100% more people greater than 80 years old

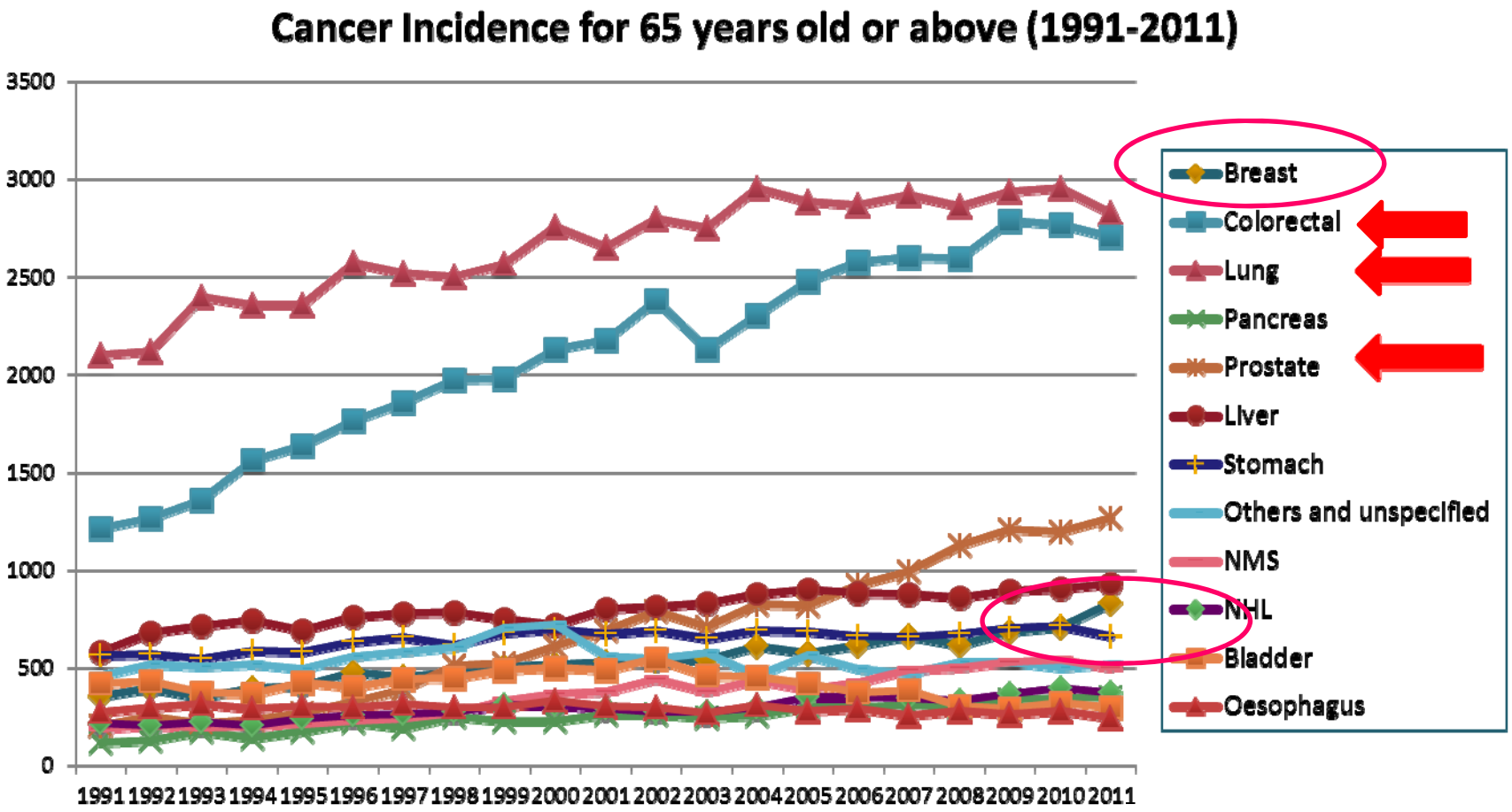
By the year 2030, most patients with cancer will be aged over 65 years and many will be frail.



Source: ONS

Agostar B et al. The management of cancer in the elderly: targeted therapies in oncology. Immunity & Aging. 2008 Dec 30;5:16. doi: 10.1186/1742-4933-5-16.

Age and Cancer Trends: A 20-year review of the Hong Kong Cancer Registry



VSM Lam, ST Yung, OWK Mang, RK Ngan, J Tsang HKICC 2014

Distribution of Female Breast Cancer by Age Group & Type in 2011

1 in 4
65 y.o. or above

年齡超過65歲之乳腺癌患者:
Invasive BC aged >=65":
818/3419 = 23.9%

Distribution of Female Breast Cancer by Age Group and Type (Invasive and Ca in-situ) in 2011
2011 年按年齡組別及癌腫分類 [原位(Ca in-situ)及入侵性(Invasive)] 乳癌的發病數字

Age (yrs) 年齡(歲)	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75-	80-	85+	All ages 所有年齡
Invasive 入侵性	0	0	0	0	3	22	68	173	360	620	524	434	397	225	170	154	123	146	3,419
Ca in-situ 原位癌	0	0	0	1	0	1	9	26	66	103	84	69	42	30	22	16	7	8	484
Total 總數	0	0	0	1	3	23	77	199	426	723	608	503	439	255	192	170	130	154	3,903

Age-specific Incidence rates of Female Breast Cancer (per 100,000 women) by Type (Invasive and Ca in-situ) in 2011
2011 年按癌腫分類 [原位(Ca in-situ)及入侵性(Invasive)]乳癌的各年齡組別發病率 (每十萬名女性人口計算)

Age (yrs) 年齡(歲)	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75-	80-	85+	Lifetime risk* 一生累積風險*	Crude rate 粗發病率	ASR (World)* 年齡標準化率 (世界)**
Invasive 入侵性	0.0	0.0	0.0	0.0	1.3	7.2	21.0	52.7	109.1	174.0	161.3						146.8	172.4	1 in 17	90.7	61.0
Ca in-situ 原位癌	0.0	0.0	0.0	0.5	0.0	0.3	2.8	7.9	20.0	28.9	25.9						8.4	9.4	1 in 112	12.8	8.8
Total 總數	0.0	0.0	0.0	0.5	1.3	7.6	23.8	60.7	129.1	202.9	187.						155.1	181.8	1 in 15	103.6	69.9

1 in 8
75 y.o. or above

* Cumulative lifetime risk before the age of 75. 一生累積風險(0-74 歲)

** Rates are standardized to the age distribution of the "WHO 2000" World Standard Population. Comparisons wit y if they use the same standard population for calculations.
年齡標準化發病/死亡率是根據世界衛生組織2000年標準人口計算。用於進行比較不同人群之間的疾病率時，需以同一標準人口為基

Source: Hong Kong Cancer Registry, Hospital Authority
資料來源: 醫院管理局香港癌症資料統計中心

Nov 2013

年齡超過75歲之乳腺癌患者:
Invasive BC aged >= 75:
423/3419 = 12.37%

Elderly cancer patients are different…

- Age-related reduced organ functions
- Multiple co-morbidities
- Changes in cognition
  - Dementia, delirium
  - 1%in 65-69 y.o., 41% in>90 y.o. having dementia
- Falls
- **Poly-pharmacy**
- Higher prevalence of **depression & anxiety**

Elderly cancer patients are different…

- Different cancer types
  - Marked increase in epithelial carcinomas from 40 to 80 y.o.
  - Cancer & aging share common etiologies – genomic instability & reduced rate of autophagy
  - **Breast Cancer among elderly are mostly hormone positive with slow tempo of disease.**

Impact of Aging on treatment decision making…

- Surgery – definitive vs palliative
  - Surgical and anaesthetic risk
- Radiotherapy – tolerance and toxicities
  - Poor nutrition or malnourished, cachexia
- Chemotherapy
  - Dose adjustment, dose reduction, tailored regimen
- Hormonal therapy
- Targeted therapy

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Misconception…
about Elderly Cancer Patients

- **“Chronological age used to be the sole important determining factor** driving the aging process”
- “Chronological age is the common reference to decide treatment plan for elderly cancer patients”
- “Elderly cancer patients do not tolerate chemotherapy or any anticancer agent easily”
- “There is much toxicities related to elderly with multiple comorbidities…”

Current Dilemmas

1) Therapeutic **nihilism**

- Elderly patients do not receive any treatment

2) The **intermediate** position?

- –Elderly patients may benefit from treatments

3) Blind therapeutic **enthusiasm**

- Elderly patients receive futile/non- beneficial treatments

Current Dilemmas

1) Therapeutic **nihilism**

- Elderly patients d

2) The **inte**

- –Eld ments

3)

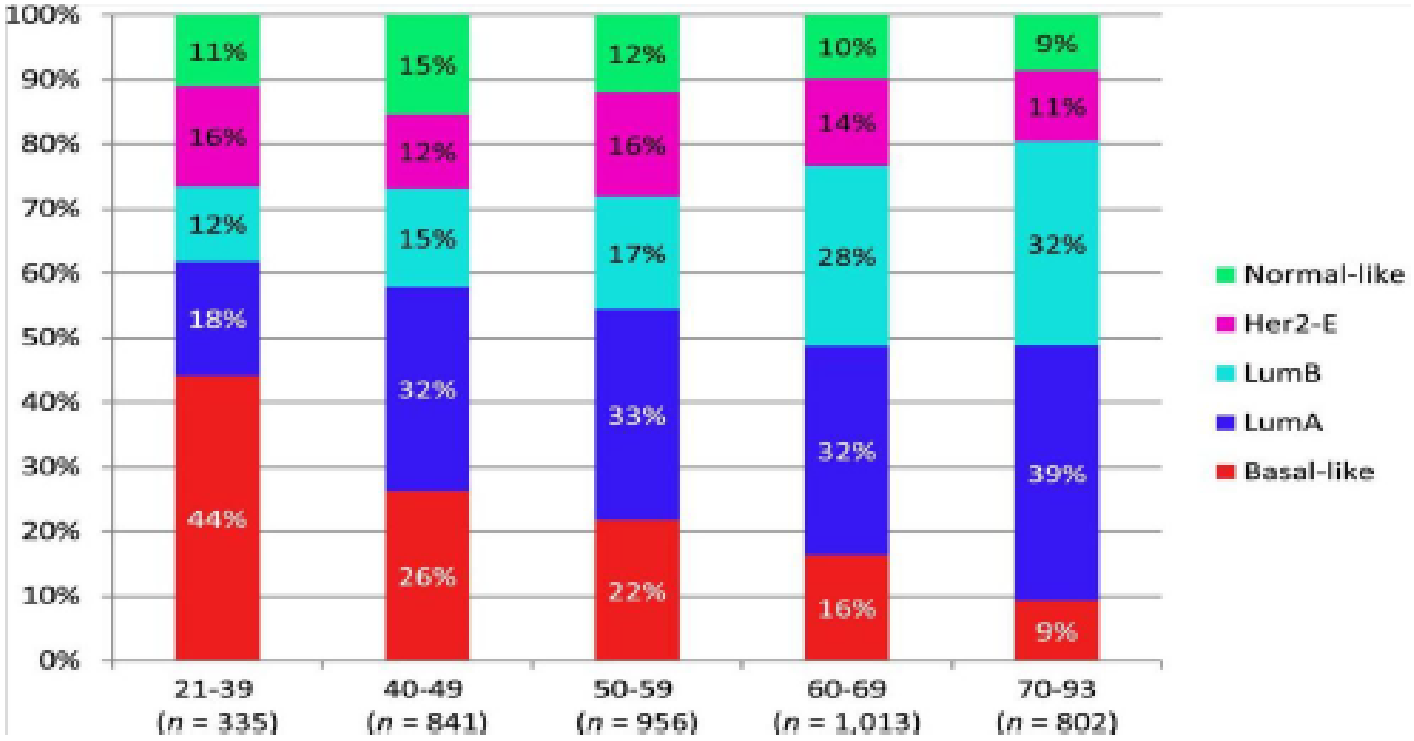
ial" treatments

Under-treatment vs **Over-treatment…**

Biology of Aging

- Almost all age-related changes lead to reduced organ function.
- There are **3 different trajectories** of aging:
  - Aging with pathology & disability
  - Normal aging with some disability
  - Successful aging with minimal disability
- **Aging** is a **heterogeneous** process…

BC biology according to age

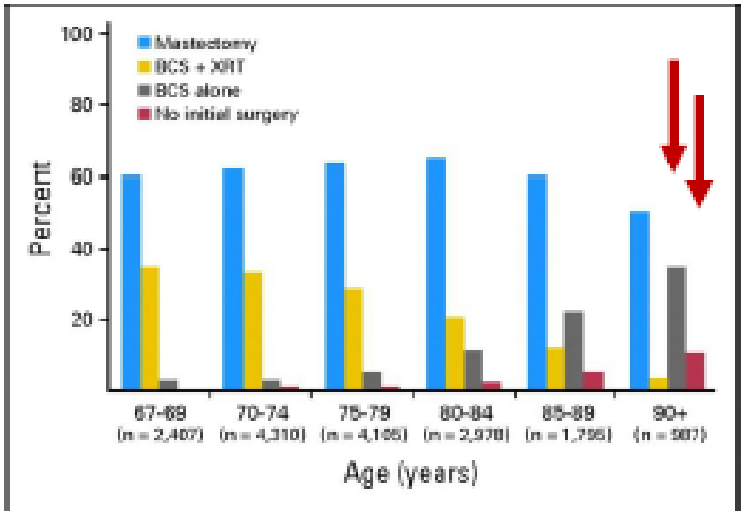


de Kruijf Mol Oncol 2014, Jenskins Oncologist 2014

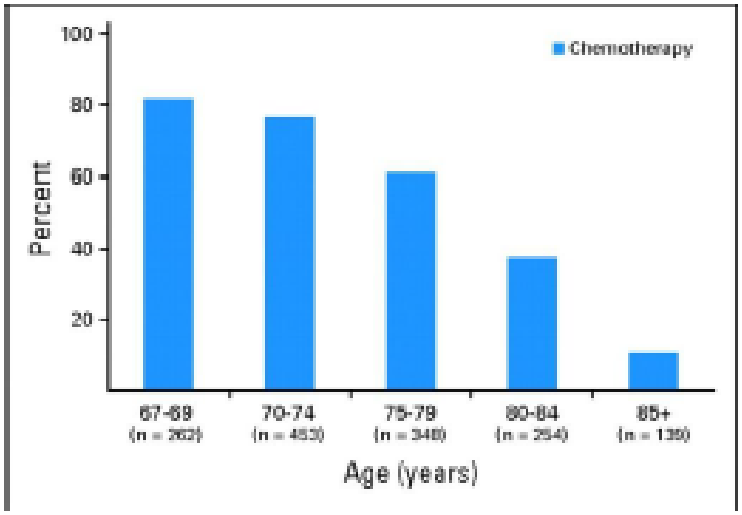
Undertreatment

SEER database ; 49616 women with stage I/II breast cancer ≥67y

Initial treatment for stage II breast cancer by age



Treated with chemotherapy if ER+ N+ stage I/II breast cancer



BCS = breast conserving surgery ; XRT = radiotherapy

Schonberg JCO 2010

Undertreatment

Characteristic	HR of Death Due to Breast Cancer	Range	HR of Death Due to Other Causes	Range
Age group, years				
67-69	Reference		Reference	
70-74	1.0	0.9-1.2	1.3	1.2-1.4
75-79	1.1	0.99-1.3	1.9	1.8-2.2
80-84	1.2	1.1-1.4	3.0	2.7-3.3
85-89	1.5	1.3-1.7	4.1	3.7-4.6
≥ 90	1.8	1.5-2.2	5.9	5.2-6.7

Substudy from TEAM trial (adjuvant exemestane)

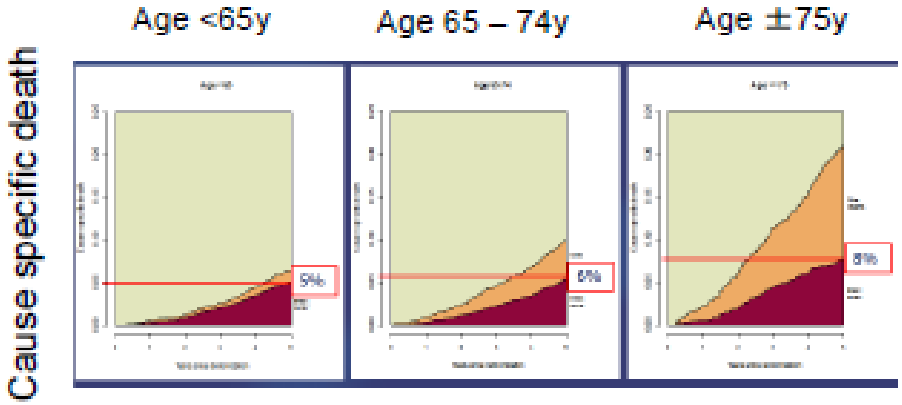
Breast cancer mortality

Other cause mortality

- Univariate HR 1.66

  (95% CI 1.34-2.06), p<0.001
- Multivariable HR 1.63

  (95% CI 1.23-2.16), p<0.001



Schonberg JCO 2010, Van de Water JAMA 2012

Overtreatment

- A sizeable proportion of elderly with operable breast cancer **die of NON-CANCER-related causes**

N = 14048 new early breast cancer, ≥50y, FUP 4,7y

	Total deaths	Deaths from breast cancer	%
50–69	1334	933	70
70–74	514	293	57
75–79	696	329	47
⩾80	1681	663	39
Total	4225	2218	53

53% of elderly BC patients aged 75-79 and 61% elderly patients aged >= 80 died of other non-BC causes

- Absolute benefit of treatments is lower

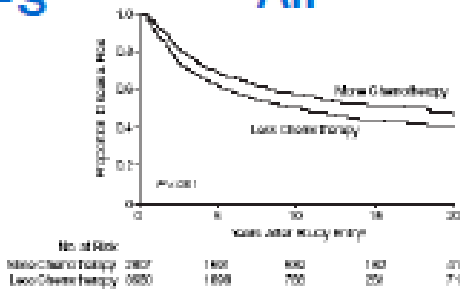
Ali Br J Cancer 2011

Adjuvant chemo

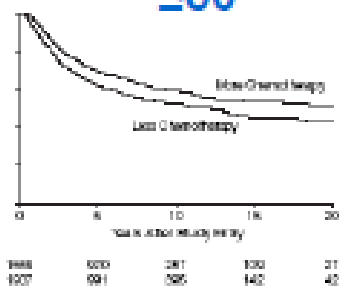
- CALGB (1975-1999)
- 4 randomized trials
- 6487 pts
  - > 65 yo 542 (8%)
  - > 70 yo 159 (2%)

DFS

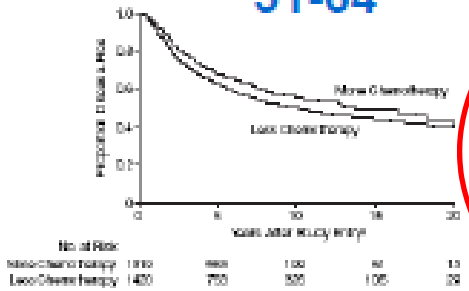
All



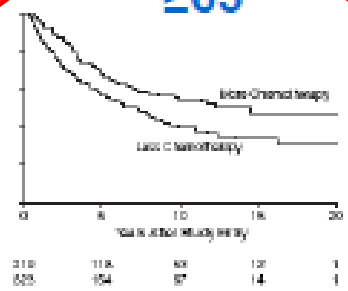
≤50



51-64



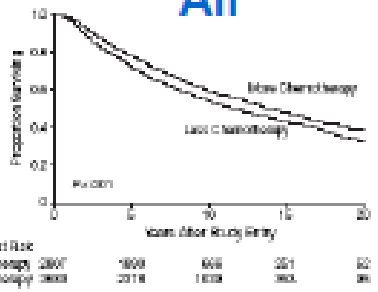
≥65



- Results
  - Benefit **identical**
  - Toxicity **careful!!**
    - Toxic deaths 1.5%

OS

All



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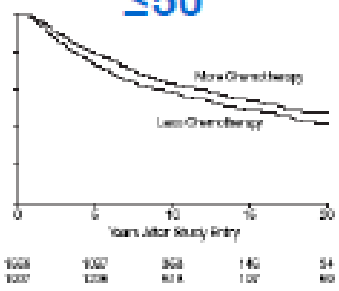

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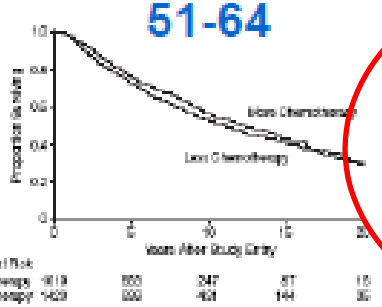
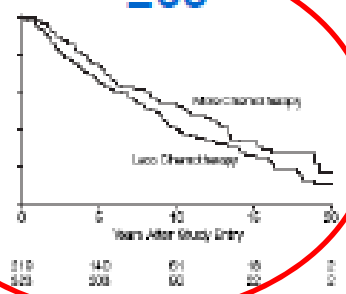


≥65



Muss JAMA 2005

Adjuvant chemotherapy and mortality

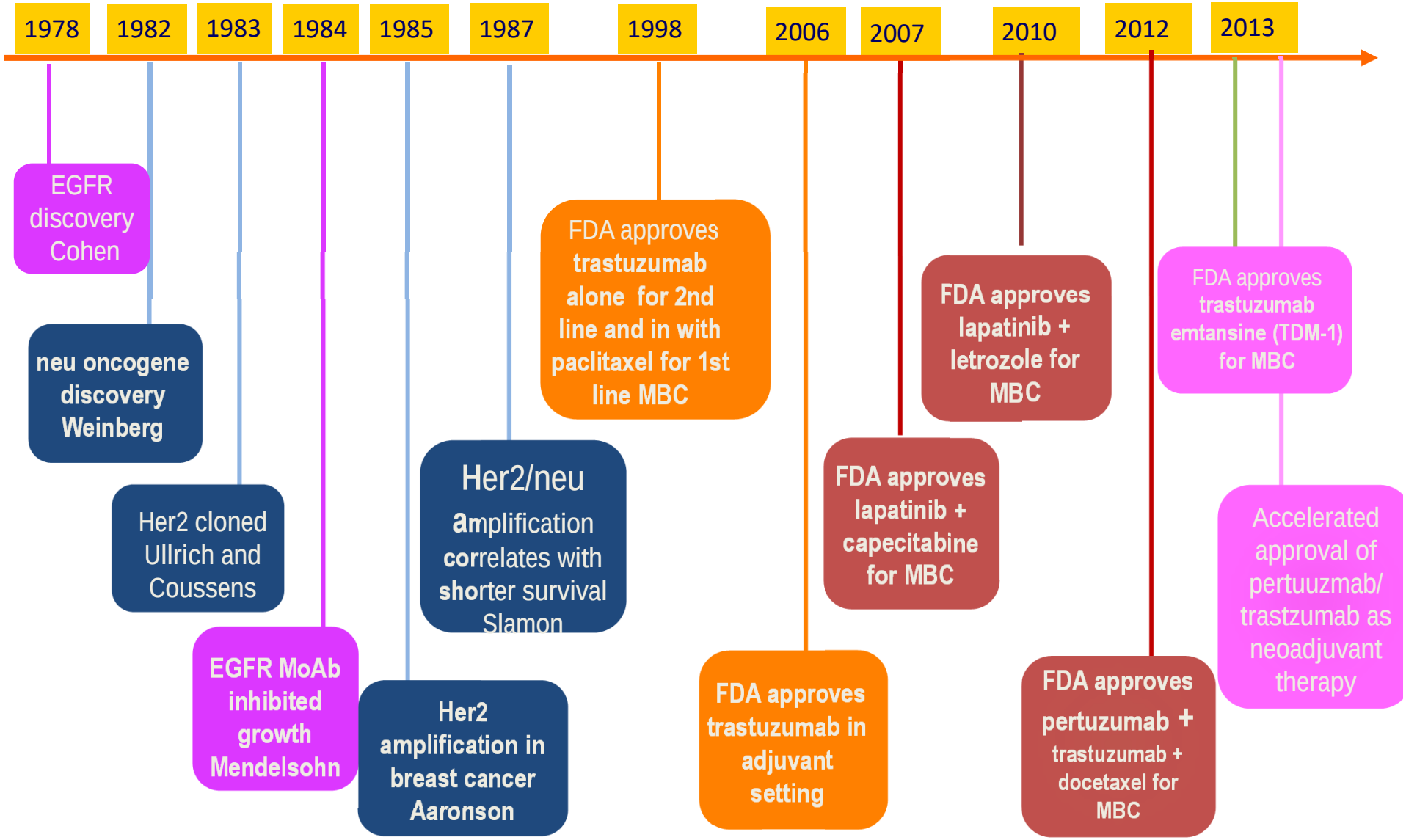
		Giordano*	Elkin
		I-III, ∀ ER , 65+	I-III, ER-, 66+
	No. total No. w/CT	41,390 4,500	5,081 1,711
pN	ER	HR (95% IC)	HR (95% IC)
pN0	∀	1.05 (0.85-1.31)	NA
pN+	+	1.05 (0.85-1.31)	NA
both	-	NA	0.85 (0.77-0.95)
pN+	-	0.72 (0.54-0.96)	0.76 (0.65-0.88)
pN+ > 70 yo	-	0.74 (0.56-0.97)	

*: BC specific mortality

Adjuvant chemo is useful FIRST in ER-, pN0 or pN+, even > 70 yo

Giordano & Elkin J Clin Oncol 2006

Milestones of HER2/anti-HER2 therapies in BC



MBC : metastatic breast cancer; MoAb : monoclonal antibody

DFS & OS w/ trastuzumab 1 year

			DFS		OS	
Study	**Follow-up (years)**	**N**	**HR**	**p value**	**HR**	**p value**
HERA[1–4] CT+/–RT→H vs. CT+/–RT	1	3387	0.54	< 0.0001	0.76	0.26
	2	3401	0.64	< 0.0001	0.66	0.0115
	4	3401	0.76	< 0.0001	0.85	0.1087
	8	3401	0.76	< 0.0001	0.76	0.0005
NCCTG N9831/ NSABP B-31[5–7] AC→TH→H vs. AC→T	2	3351	0.48	< 0.0001	–	–
	4	4045	0.52	< 0.001	0.61	< 0.001
	8.4	4046	0.60	< 0.0001	0.63	< 0.0001
BCIRG 006[8]						
AC→TH→H vs. AC→T	5.5	3222	0.64	< 0.001	0.63	< 0.001
TCH vs. AC→T			0.75	0.04	0.77	0.04

AMM FDA/EMA 2006

CT, chemotherapy; DFS, disease-free survival; H, trastuzumab; HR, hazard ratio; OS, overall survival; RT, radiotherapy; T, taxane.

1. Piccart-Gebhart MJ, *et al*; *N Engl J Med* 2005; **353:**1659-1672;
2. Smith I, *et al*. *Lancet* 2007; **369:**29-36;
3. Gianni L, *et al*; *Lancet Oncol* 2011; **12:**236-244;
4. Goldhirsch A, *et al*. *Lancet* 2013 [Epub ahead of print];
5. Romond EH, *et al*. *N Engl J Med* 2005; **353:**1673-1684;
6. Perez EA, *et al*. *J Clin Oncol* 2011; **29:**3366-3373;
7. Romond EH, *et al*. SABCS 2012 (abstract S5-5; oral presentation);
8. Slamon D, *et al*. *N Engl J Med* 2011; **365:**1273-1283.

Trastuzumab adjuvant & DFS

	HR all	(95%CI)	HR 60+	(95%CI)
HERA	0.64	0.54-0.76	0.91	0.59-1.41
NSABP-B31/N9831	0.48	0.39-0.59	0.41	0.24-0.68
BCIRG 006	0.61	0.37-0.65	NR	NR
FinHER	0.42	0.21-0.83	NR	NR
PACS-04	0.86	0.61-1.22	NR	NR

> 60 yo ≤ 16% in HERA for ex!

香港乳癌基金會
HK Breast Cancer Foundation

香港乳癌資料庫
Hong Kong Breast Cancer Registry
香港乳癌基金會策動
A Hong Kong Breast Cancer Foundation Initiative

Elders with Breast Cancer Tend to Delay Seeking Medical Care and Present with a Later Cancer Stage

Janice Tsang, Polly Cheung, Hang-mei Lee, Gary Tse,
Sam Choy, Lorna Wong, Maria Shiu, Thomas Yau, Chun-Chung Yau

Steering Committee
Hong Kong Breast Cancer Registry
Hong Kong Breast Cancer Foundation

3rd March, 2017

Symposium on Elderly Primary Breast Cancer Women
East Midlands Conference Centre, Nottingham

Subjects and Methodology

- 13,265 female patients with breast cancer, diagnosed between 2006 and 2015, from the Hong Kong Breast Cancer Registry were studied. Among them, 861 patients were aged 70 years or above.
- Chi square test was used to test for any significant differences between the elderly patients and patients of all ages in the following areas:
  - How the breast cancer was first detected
  - Tumour characteristics
  - Types of treatment
- Comorbidity of elderly patients were also assessed by using the Charlson Comorbidity Index (CCI)

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HK Breast Cancer Foundation

Elderly patients received more mastectomies & less chemotherapy and radiotherapy

	≧70 yo patients N (%)	Patients of all ages N (%)	P value
Surgery			
No	40 (5)	186 (2)	
Breast-conserving surgery (BCS)	91 (12)	3,785 (33)	<0.001*
Mastectomy (MTX)	608 (82)	6,562 (57)	
Chemotherapy			
I	8 (3)	1,544 (39)	<0.001*
II	30 (10)	4,035 (84)	<0.001*
III	32 (33)	1,574 (94)	<0.001*
IV	11 (42)	259 (87)	<0.001*
Targeted therapy	15 (14)	1,146 (55)	<0.001*
Endocrine therapy	576 (79)	8,605 (76)	0.098
Radiotherapy			
Among patients with BCS	80 (91)	3,591 (97)	0.010*
Among patients with MTX	198 (33)	3,654 (50)	<0.001*

*p<0.05 indicates significant difference

Elderly patients with higher CCI received more conservative treatment

	CCI =0 N (%)	CCI =1-2 N (%)	CCI ≧3 N (%)	P Value
Surgery				
No	48 (8)	8 (5)	11 (30)	<0.001*
Chemotherapy				
I	6 (4)	1 (2)	1 (25)	N/A
II	25 (10)	4 (7)	0 (0)	N/A
III	25 (34)	8 (38)	0 (0)	N/A
IV	--	--	10 (40)	N/A
Targeted therapy	12 (16)	3 (13)	0 (0)	N/A
Endocrine therapy	464 (75)	120 (77)	27 (77)	0.740
Radiotherapy				
Among patients with BCS	81 (88)	15 (88)	3 (60)	N/A
Among patients with MTX	146 (31)	42 (33)	9 (45)	N/A

*p<0.05 indicates significant difference

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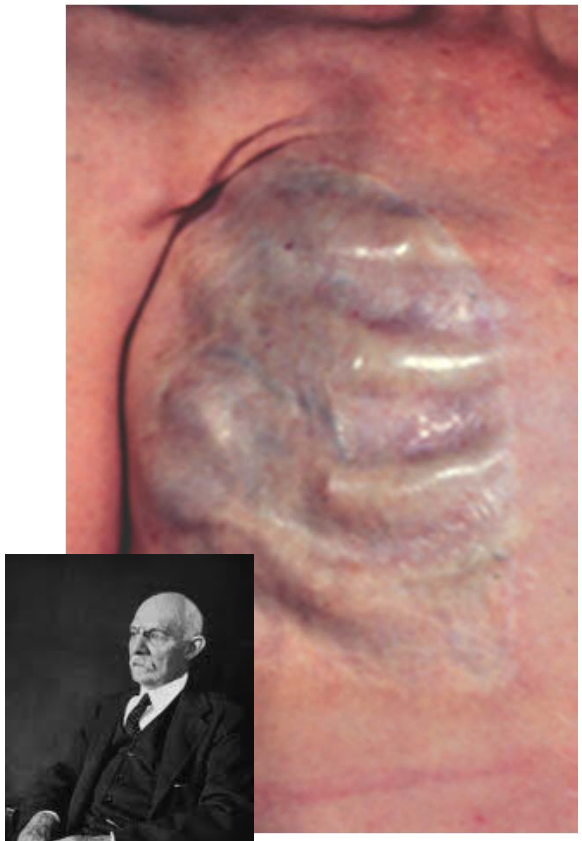
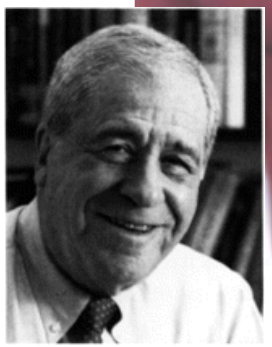
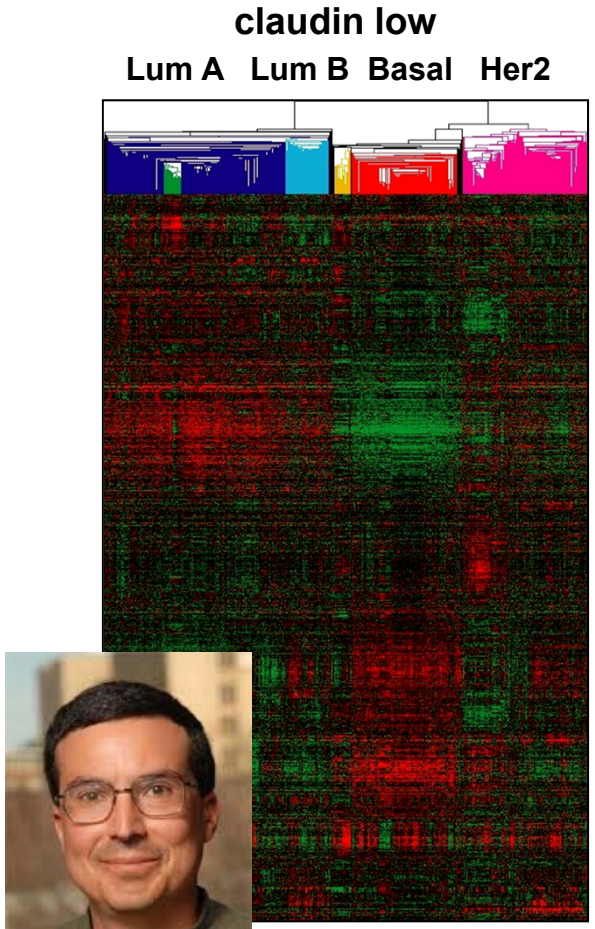
Changing Portraits of Breast Cancer over the past decades…

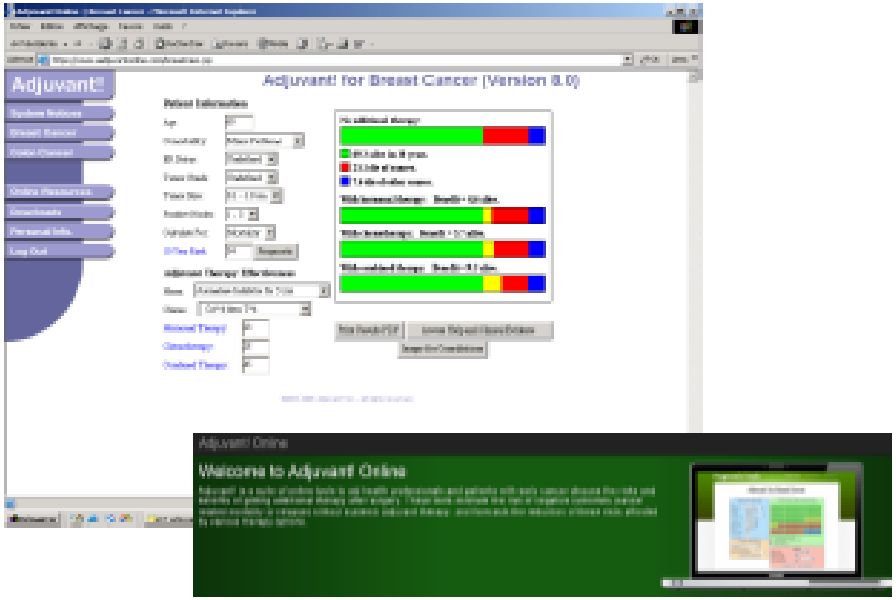






The top research priority found was "the identification of molecular signatures to select patients who could be spared from chemotherapy. The second most pressing issue also involved chemotherapy, namely the identification of features to help clinicians choose the most optimal chemotherapy regimen for individual patients"

Standard decision tools



Tumor extent:
T (tumor size)
N (nodal status)

Tumor biology
Luminal A
Luminal B HER2 neg
Triple negative
Her2+

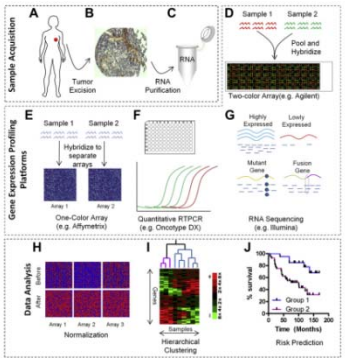
Tumor
Host

Therapy choice depends on …

Patient preference

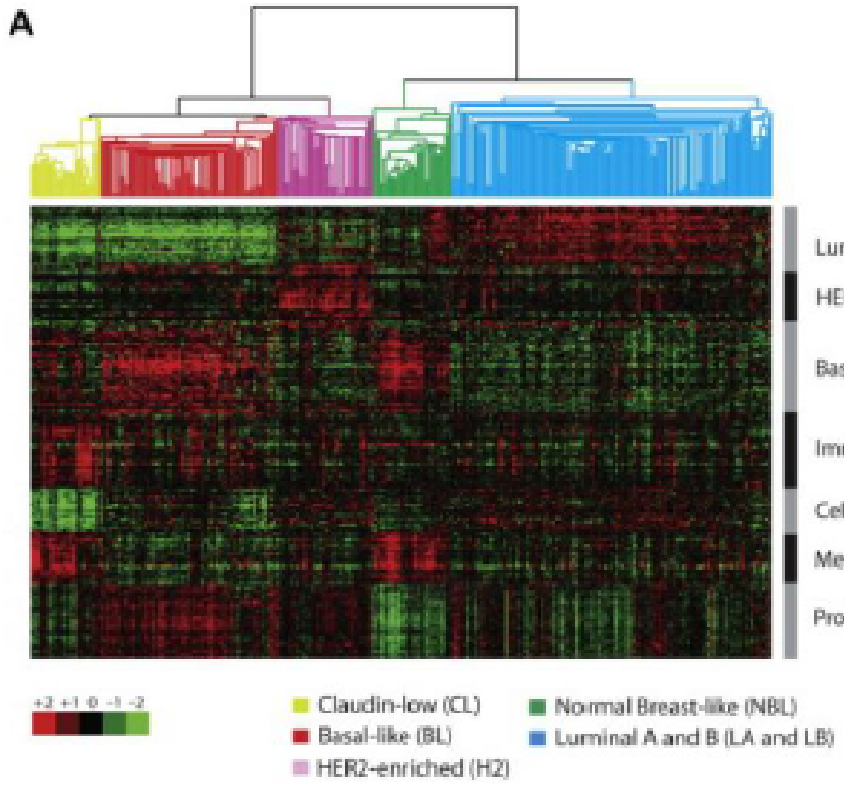
General health status:
Geriatric assessment
- Estimate life-expectancy
- Predict treatment toxicity

- **Adjuvant! Online** not accurate in older patients
- **Predict** quite accurate for OS prediction



De Glas Lancet Oncol 2014 & Br J Cancer 2016

Early 2000s: 1st GEP (intrinsic classification)



- Quantification of mRNA or cDNA of genes involved in tumour proliferation
- To identify patients requiring chemo despite good standard prognostic factors
- To avoid chemo in others
- Better individual risk stratification

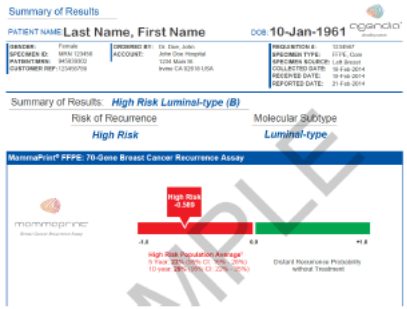
Prat Mol Oncol 2011

Various options of molecular genomic profiling tools…

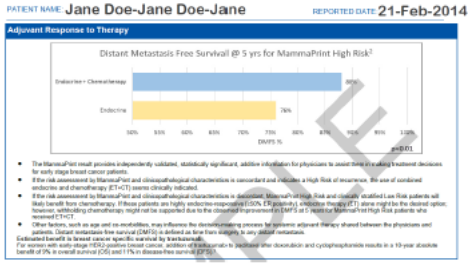
	MammaPrint	Oncotype DX	Breast Cancer Index	Mapquant DX	PAM 50 ROR	EndoPredict
Provider	Agendia	Genomic Health	Biotheranostics	Ipsogen	NanoString	Sividon
Type of Assay	70-gene assay	21-gene recurrence score	2-gene ratio (H/I) and molecular grade index	Genomic grade	50-gene assay	12-gene assay
Type of Sample	Fresh or frozen or FFPE	FFPE	FFPE	Fresh or frozen or FFPE	FFPE	FFPE
Technique	DNA microarray or qRT-PCR	qRT-PCR	qRT-PCR	DNA microarray or qRT-PCR	qRT-PCR	qRT-PCR
Clinical Application	Prognosis of N0, < 5 cm, stage I/II, age < 61	Prediction of recurrence risk in ER+ and N0 treated with TAM	Prognostic in ER+, prediction of response to TAM	Molecular grading for ER+, histologic grade II disease	Originally for intrinsic subtyping, recurrence prediction	Recurrence prediction for ER+ HER2–
Results Presentation	Dichotomous, good or poor prognosis	Continuous variable	Continuous variable	Dichotomous, GGI I or GGI III	Continuous variable	Dichotomous, low or high risk
Level of Evidence	I	I	III	III	I	I
FDA Approval	YES	NO	NO	NO	YES	NO

Abbreviations: ER+, estrogen receptor–positive; FDA, U.S. Food and Drug Administration; FFPE, formalin-fixed, paraffin-embedded; GGI, Genomic Grade Index; qRT-PCR, quantitative reverse transcription polymerase chain reaction; TAM, tamoxifen.

MammaPrint



Risk of distant recurrence risk
@ 5 years
w/ no treatment



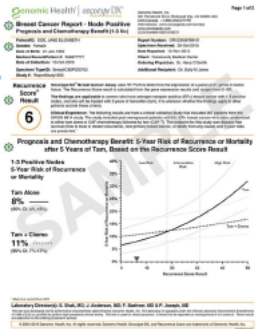
General results

OncotypeDX

pN0

Personal results

pN+



Risk of distant recurrence
@ 10 years
w/ TAM 5 years

Risk of distant recurrence
@ 5 years
w/ TAM 5 years

MINDACT
Microarray In Node-negative and 1 to 3 positive lymph node Disease may Avoid ChemoTherapy
EORTC 10041 / BIG 3-04

TRANSBIG

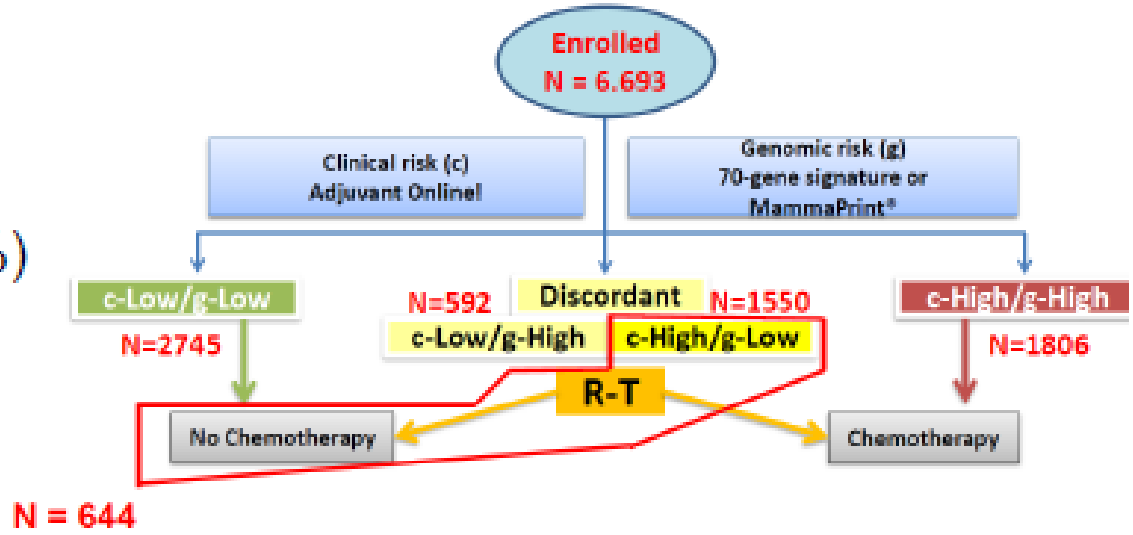

The NEW ENGLAND JOURNAL of MEDICINE

ESTABLISHED IN 1812 AUGUST 25, 2016 VOL. 375 NO. 8

70-Gene Signature as an Aid to Treatment Decisions in Early-Stage Breast Cancer

F. Cardoso, L.J. van't Veer, J. Bogaerts, L. Slaets, G. Viale, S. Delaloge, J.-Y. Pierga, E. Brain, S. Causeret, M. DeLorenzi, A.M. Glas, V. Golfinopoulos, T. Goulioti, S. Knox, E. Matos, B. Meulemans, P.A. Neijenhuis, U. Nitz, R. Passalacqua, P. Ravdin, I.T. Rubio, M. Saghatchian, T.J. Smilde, C. Sotiriou, L. Stork, C. Straehle, G. Thomas, A.M. Thompson, J.M. van der Hoeven, P. Vuylsteke, R. Bernards, K. Tryfonidis, E. Rutgers, and M. Piccart, for the MINDACT Investigators*

- 6,600 pts **< 70**
  - FEB 2007-AUG 2011
  - 11,291 registered pts
  - 6,673 enrolled (59.1%)



People in their eighties…

COPENHAGEN 2016 ESMO congress

OUTCOME DISPARITIES BY AGE AND 21-GENE RECURRENCE SCORE RESULT IN HORMONE RECEPTOR-POSITIVE (HR+) BREAST CANCER

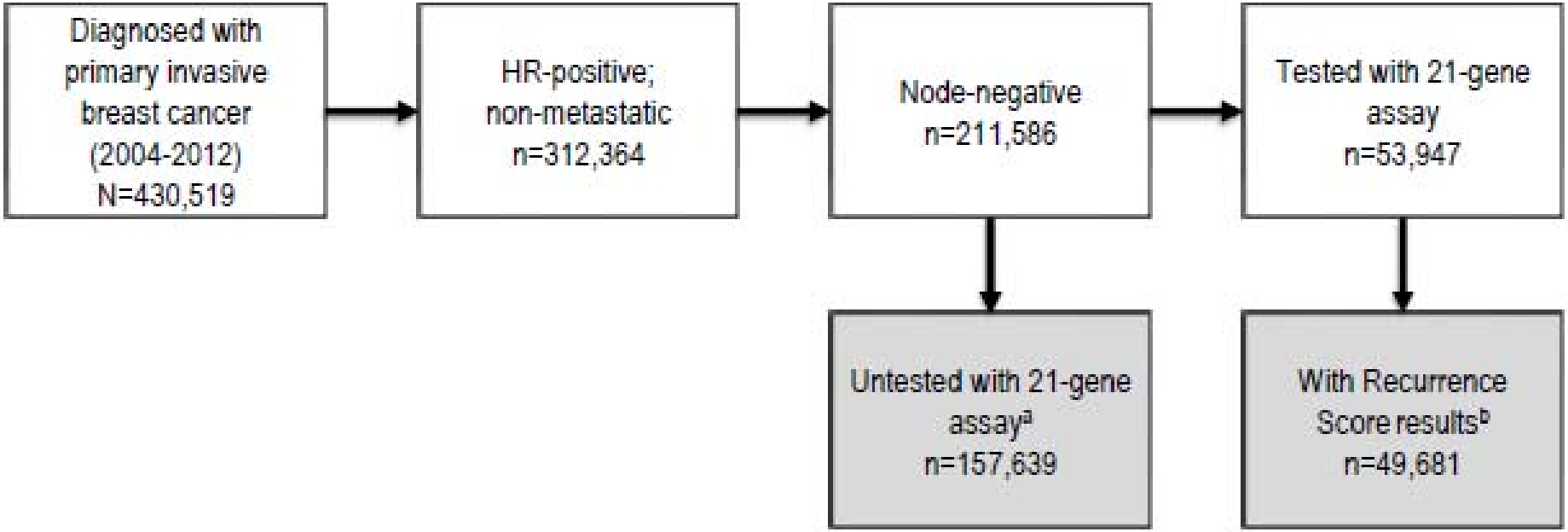
Shak S,[1] Miller DP,[1] Howlader N,[2] Gliner N,[1] Howe W,[3] Schussler N,[3] Cronin K,[2] Baehner FL,[1,4] Penberthy L,[2] Petkov VI[2]

1. Genomic Health, Inc., Redwood City, CA, USA
2. National Cancer Institute, Rockville, MD, USA
3. IMS, Inc., Calverton, MD, USA
4. University of California, San Francisco, San Francisco, CA, USA

Methods

- SEER demographics, tumor characteristics, reported CT use, and BCSM available through 2013
- Genomic Health provided RS electronically to SEER, per registry operations
- Analysis population: N0, HR+ (by SEER and RT-PCR), HER2-negative (by RT-PCR), diagnosed between January 2004 and December 2012
  - Excluded: N+, prior invasive tumors, or concurrent multiple tumors
- RS groups standard cutpoints (18, 31)
- Actuarial estimates of survival (cause-specific and overall) and BCSM computed through 5 years with 95% CI
- The log-rank test was used to compare the three RS groups

SEER Population - STROBE Diagram



a. Untested cohort without RS results includes patients with HER2+ breast cancer because HER2 status was not reported to SEER before 2010.
b. Tested cohort with RS results excludes patients with HER2+ breast cancer, based on 21-gene assay quantitative single-gene HER2 result. Median follow-up for younger (<70 years) and older (≥70 years) patients were 45 and 40 months, respectively.

Patient Testing and Demographics

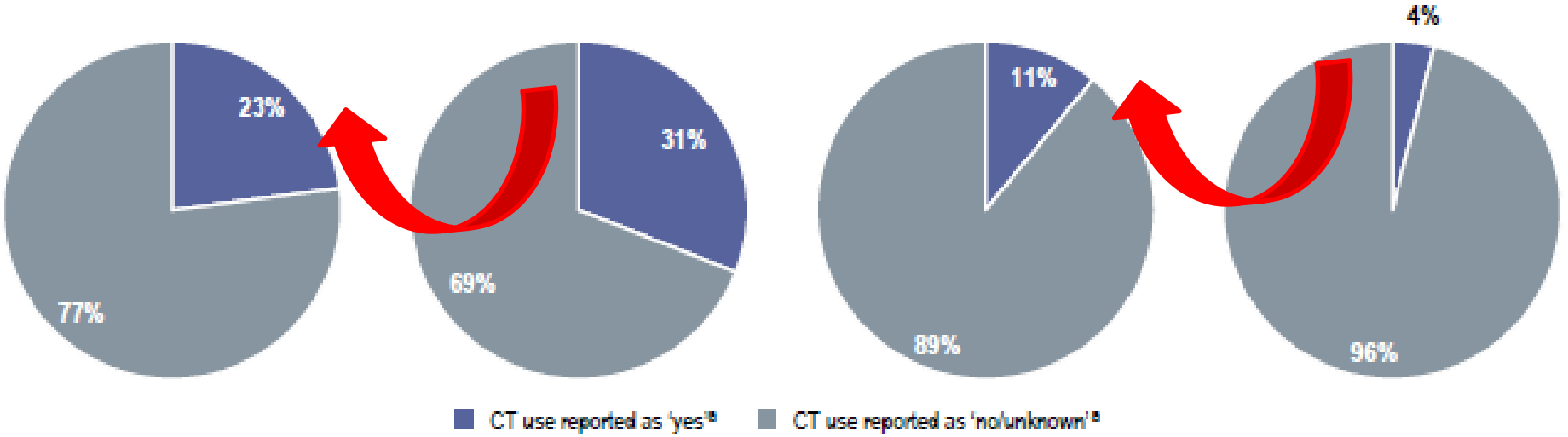
		Age <70 years		Age ≥70 years	
		Tested (N=43,693)	Not Tested (N=100,519)	Tested (N=5,988)	Not Tested (N=57,120)
		%	%	%	%
Sex[a]	Female	99	99	99	99
Race	White	84	81	87	87
	Black	8	9	7	7
	Asian or Pacific Islander	8	10	5	6
	Am. Indian/Alaska Native	<1	<1	<1	<1
Socioeconomic status, quintile	Lowest SES	11	13	15	14
	Second lowest SES	15	17	17	18
	Middle SES	19	20	21	21
	Second highest SES	23	23	23	22
	Highest SES	32	28	25	25

- Almost 6,000 patients ≥70 years with RS results
- Testing occurred 3.2 times less frequently in patients ≥70 years compared to <70 years
- Testing rates were similar by race and socioeconomic status

a. About 0.7% were male.

Reported Chemotherapy (CT) Use

Age <70 years		Age ≥70 years	
Tested (N=43,693)	Not Tested (N=100,519)	Tested (N=5,988)	Not Tested (N=57,120)



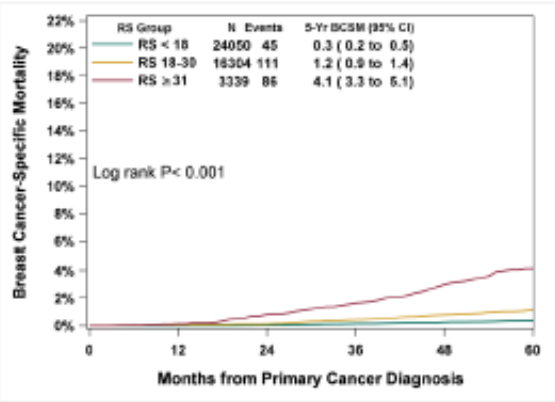
- CT use was lower in patients ≥70 years, in both RS-tested and untested cohorts

COPENHAGEN 2016 ESMO congress

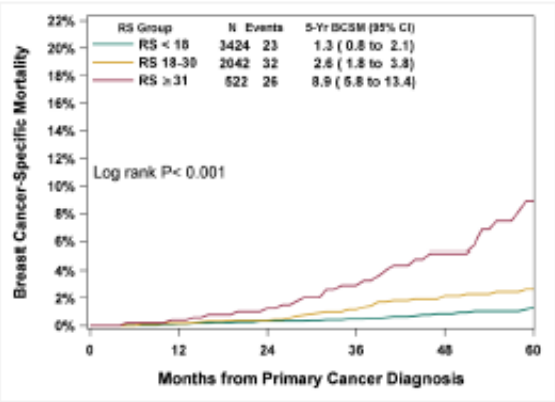
a. Chemotherapy use is known to be under-reported to SEER

5-year BCSM by Age and RS Group

Age <70 y



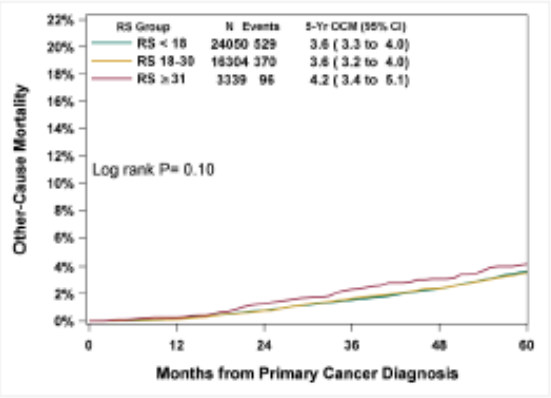
Age ≥70 y



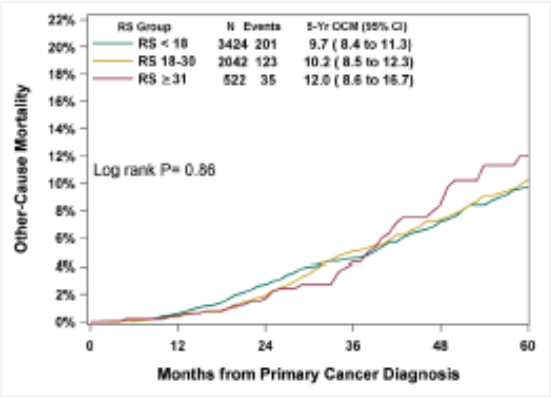
- RS predicts BCSM in both age groups (p<0.001)
- Low 5-y BCSM was observed with RS <18 in both age groups
- Higher 5-y BCSM was observed with RS 18-30 and RS ≥31 in older patients

5-year Other-Cause Mortality by Age and RS Group

Age <70 y



Age ≥70 y



- As expected, RS group does not predict other-cause mortality (p=NS)
- As expected, higher other-cause mortality was observed in older patients

5-year BCSM (95% CI) by Age in Tested and Untested Patients

	RS < 18			RS 18-30			RS ≥31			Untested		
	N	CT Use[a] (% of N)	5-y BCSM (95% CI)	N	CT Use[a] (% of N)	5-y BCSM (95% CI)	N	CT Use[a] (% of N)	5-y BCSM (95% CI)	N	CT Use[a] (% of N)	5-y BCSM (95% CI)
<70 y	24050	7%	0.3% (0.2%, 0.5%)	16304	37%	1.2% (0.9%, 1.4%)	3339	73%	4.1% (3.3%, 5.1%)	100519	31%	2.3% (2.2%, 2.4%)
≥70 y	3424	2%	1.3% (0.8%, 2.1%)	2042	14%	2.6% (1.8%, 3.8%)	522	52%	8.9% (5.8%, 13.4%)	57120	4%	5.5% (5.2%, 5.7%)
70-74 y	2116	2%	1.1% (0.6%, 2.0%)	1245	17%	2.4% (1.4%, 3.9%)	320	61%	6.2% (3.2%, 11.9%)	17647	8%	2.8% (2.6%, 3.2%)
75-79 y	968	2%	1.9% (0.9%, 4.0%)	590	11%	2.4% (1.1%, 5.2%)	142	43%	11.6% (5.5%, 23.8%)	16445	4%	4.3% (4.0%, 4.7%)
≥80 y	340	1%	1.0% (0.2%, 4.5%)	207	6%	4.8% (2.3%, 9.9%)	60	32%	20.5% (9.6%, 40.6%)	23028	2%	8.6% (8.2%, 9.1%)

- Notably, 5-y BCSM is relatively high in untested patients at all ages; this deserves further study

a. Chemotherapy use reported as 'yes' (vs. 'no/unknown').

St. Gallen Breast Cancer Conference
21st March, 2015, Vienna.

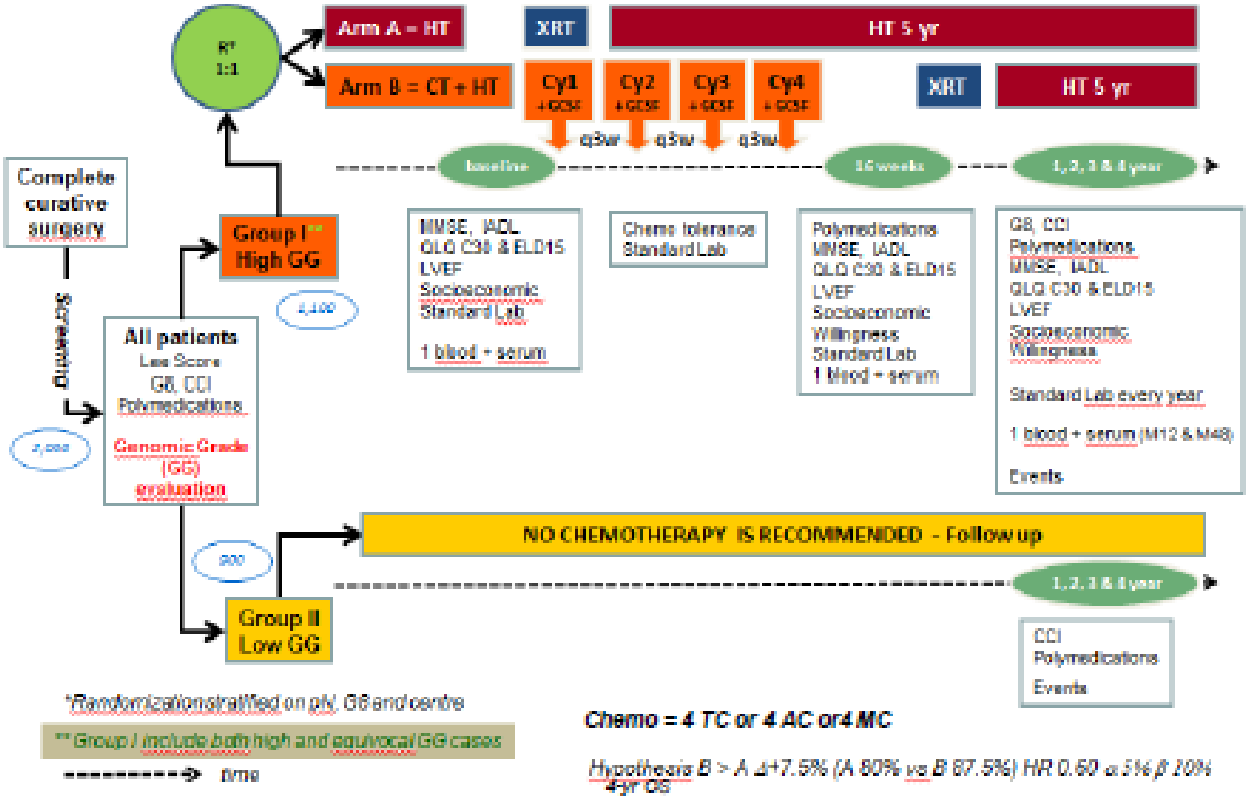
In the absence of significant co-morbidity the MAXIMUM age at which a standard chemotherapy regimen should be advised is…

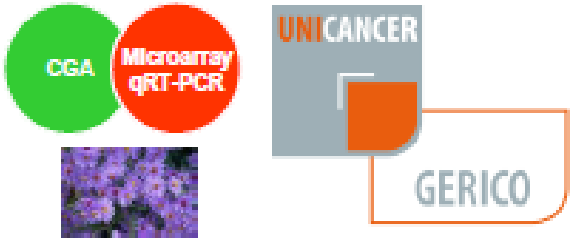
There is NO absolute age limit. Rather, it depends on the:
1)disease
2)presence of comorbidities
3)life expectancy
4)patient's preference … 87.2%

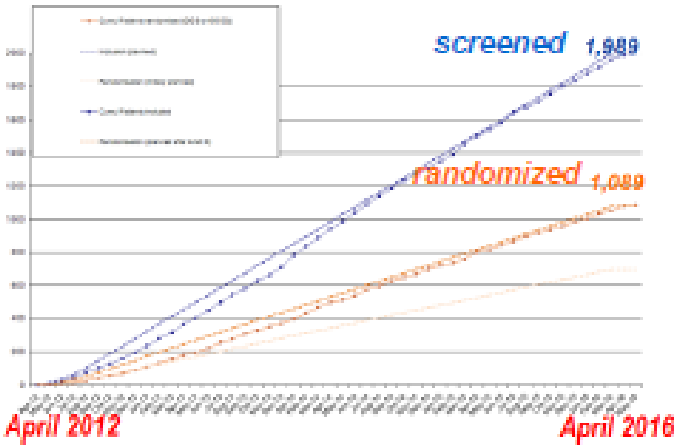
Adjuvant chemotherapy

ER+ (ongoing study)

ASTER 70s (EUDRACT N° 2011-004744-22, PHRC national 2011, NCT01564056)







Courtesy of Professor Etienne Brain, Immediate Past President of SIOG

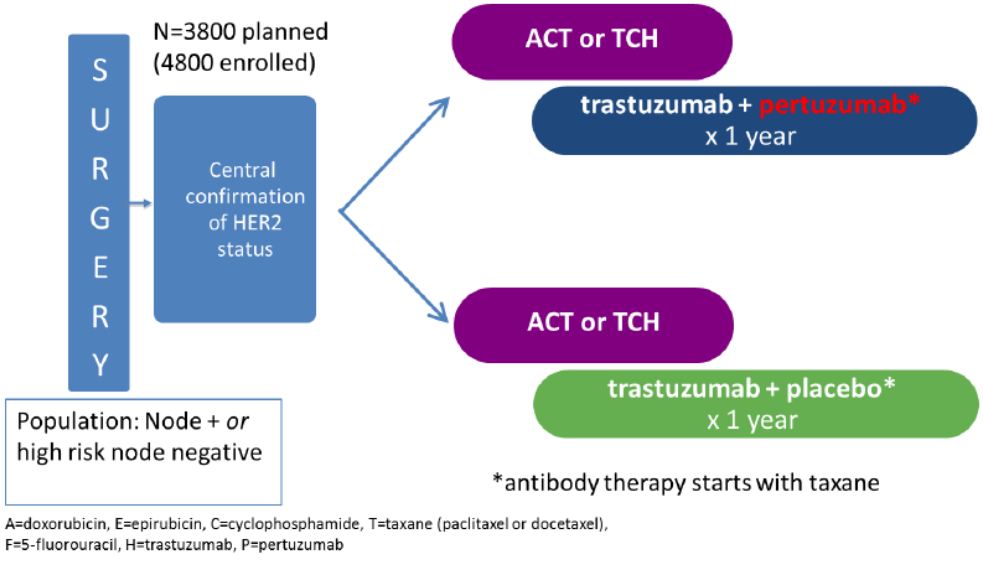
THE ASCO POST

NEWS ▾ MEETINGS ▾ TOPICS

Phase III APHINITY Study: Adjuvant Pertuzumab/Trastuzumab/Chemotherapy Increased Invasive Disease–Free Survival in HER2-Positive Breast Cancer

By The ASCO Post
Posted: 3/2/2017 10:55:14 AM
Last Updated: 3/2/2017 10:55:14 AM

APHINITY



A=doxorubicin, E=epirubicin, C=cyclophosphamide, T=taxane (paclitaxel or docetaxel), F=5-fluorouracil, H=trastuzumab, P=pertuzumab

SIOG
INTERNATIONAL SOCIETY
OF GERIATRIC ONCOLOGY
To improve the care of older patients with cancer around the world

Outline

.

- The undeniable emerging needs
- Current Dilemmas for Elderly BC patients
- Opportunities & Challenges
- **Conclusion**

Our Future Directions…

Young Patients

"Quantity of life" – to strive to live longer

Family and social obligations

Oncologist's perspective

Investigations and Treatment

Response and Toxicities

- RECIST

-NCI CTC V 4.0

- Survival (DFS, PFS, OS)

-"Fast-Moving" world

"Molecular Portrait"

GEP

- Identifying individual patient who can be spared or benefitted from chemo (systemic therapy)

Elderly Patients

Quality of life +++

Independent, and staying at home

Geriatrician's perspective

Symptoms and Diagnosis

Quality of Survival

- Amount of life with good QoL

-cognition

-functional status

-QoL

-nutrition

"Global Portrait" – aging population

CGA

- Identifying individual elderly patient who will benefit from systemic therapy

Our Future Directions…

Young Patients

"Quantity of life" – to strive to live l

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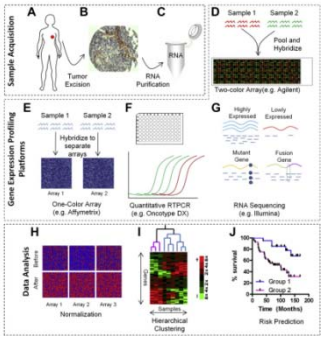

vs. or +/- or ?

CGA

Genomic Defect Targeted Therapy

CGA Defect Targeted Geriatric Internvetion

dividual elderly patient

fit from systemic therapy

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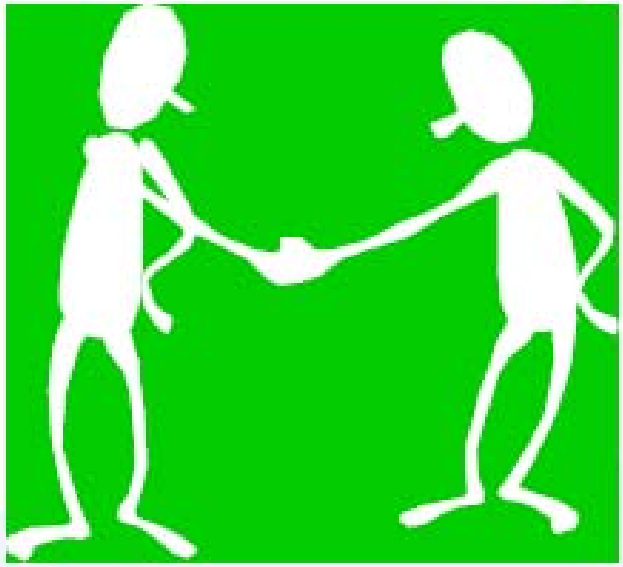

FEC, FAC, SoFOG, ADL, IADL, CMF, SABCS, DXR, PK/PD, CEX, G8, EORTC, 5FU CDDP, MCI, Calvert and Chatelut AUC, CARG, GDS, population PK, AD, FOLFIRI, MMS, FOLFOX, CPA, CRASH, SWOG, DFS, OS, TTP, NCI, GERICO, TILs, CARG, anti-PDL1, anti-PD1, EORTC TFE, JCO, JNCI, Charlson, JGO, CIRSG, PD-1, PDL-1, ctDNA, EGS, EGA, MNA, GFI, Unicancer, Lee's score, JAGS, etc.

To be practice changing,
let us be practice sharing!

Geriatric Oncology Collaboration

From Professor Etienne Brain, Immediate Past President of the SIOG

Acknowledgements

The GBCC 2017 OC members

The University of Hong Kong

The Hong Kong Breast Oncology Group (HKBOG)

The Hong Kong Breast Cancer Foundation

The International Society of Geriatric Oncology (SIOG)

All the breast and non-breast elderly patients and collaborators

香港乳癌資料庫
Hong Kong Breast Cancer Registry

香港乳癌基金會策動
A Hong Kong Breast Cancer Foundation Initiative

SIOG 2017

INTERNATIONAL SOCIETY
OF GERIATRIC ONCOLOGY

WARSAW
POLAND
9-11 NOV.

17th SIOG Annual Conference, Warsaw - Poland

SAVE THE DATE - November 9-11, 2017

www.siog.org

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To improve the care of older patients with cancer around the world

"With you, the World Leading GBCC"
10th ANNIVERSARY
Global Breast Cancer Conference
GBCC 2017
April 20 (Thu) - 22 (Sat), 2017
The Shilla Jeju Hotel, Jeju Island, Korea

Elderly Breast Cancer – Systemic Therapy

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Specialist in Medical Oncology
Hon. Clinical Assistant Professor
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Founding Convenor
Hong Kong Breast Oncology Group

Scientific Committee Meeting
International Society of Geriatric Oncology (SIOG 2017)

20th April, 2017

HKBOG
Hong Kong
Breast
Oncology Group

格物 明德
SAPIENTIA·ET·VIRTUS