

UNC LINEBERGER COMPREHENSIVE CANCER CENTER

UNC

The Aging Cancer Patient Population in North Carolina

UNC Cancer Network, November 11, 2020

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1

Learning Objectives

- Describe the demographics of aging and cancer.
- Describe critical elements of performing a geriatric assessment.
- Formulate a specific treatment plan for older oncology patients.

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2

For today....

- Demographics and some facts
- Geriatric Assessment
- Age and Life-Expectancy
- Goals of Therapy
- Calculating Benefits of Treatment
- Calculating Chemotherapy Toxicity

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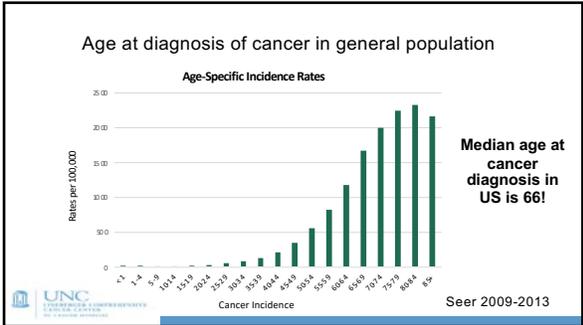
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Some facts...

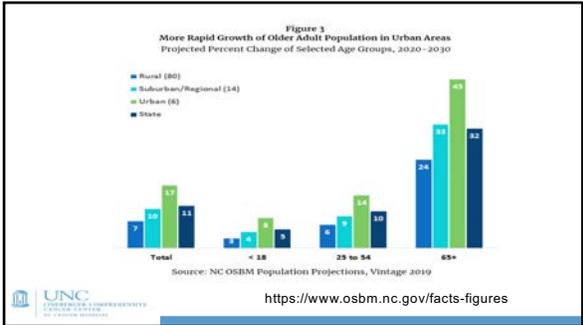
- The US is aging and becoming more diverse
 - North Carolina is no different
- Cancer is a disease of aging
- In older patients cancer be an annoyance or devastating
- Older patients are underrepresented in clinical trial
- We have a national shortage of geriatricians
- Like most medicine now caring for older cancer patients is a team game



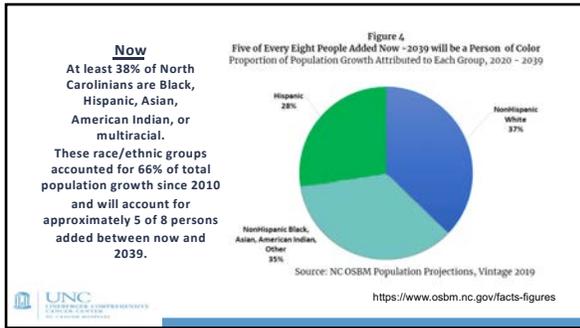
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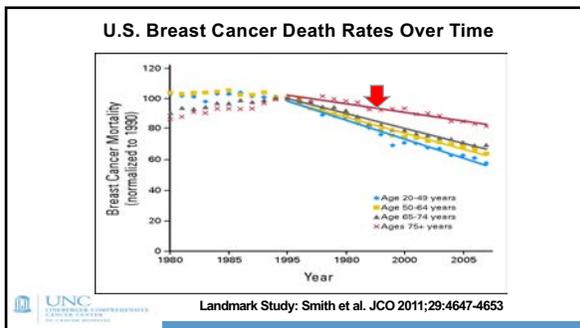
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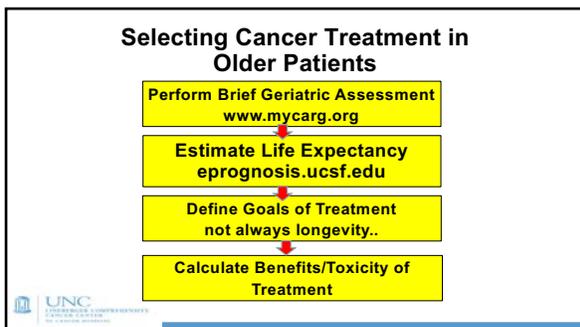
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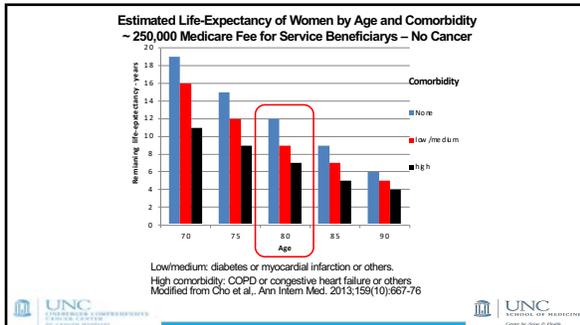
Both 75, do you think about them the same way?



**It's not age,
it's life expectancy**



10



11

**“Sarah Jones” as an example of caring
for an older patient with cancer..**




12

Sarah Jones Age 77 Years

- > States she is in very good health, BMI 29
- > Hypertension, hyperlipidemia, hypothyroidism
- > Drives, No functional deficits (Full ADL and IADL)
- > No falls, prior smoker, no prior cancer
- > Cares for 82 y/o husband with mild dementia
- > Now: Felt a left breast lump
 - Mammogram 1.8 cm left breast lesion
 - Physical examination 2 cm breast mass and palpable LN
 - Bx mass, LN; IDC, grade 2, ER+, PR+, HER-2 Neg. LN positive



13

Is cancer her major illness?

What is her **life-expectancy** without cancer?




14

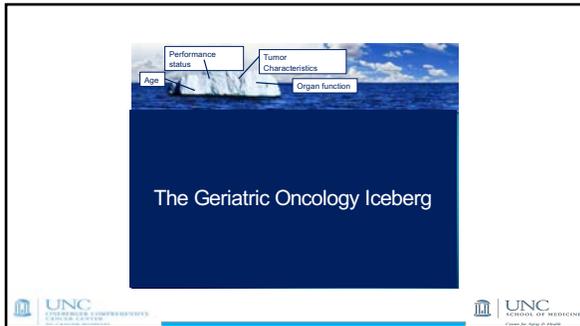
10-year All Cause Mortality: Lee-Schonberg
Community living adults, 15 items, takes a few minutes

Variable	Sarah Jones
Age	77
10-year Mortality Risk = 15-21%	
BMI	29
COPD, CHF, DM, prior cancer	No
Hospitalizations past year	None
Self rated health	Very good
Dependent Activity of Daily Living or IADL	none
Difficulty walking 1/4 mile, pushing, pulling objects	No

<http://eprognosis.ucsf.edu/>



15



16

CARG Brief Geriatric Assessment											
DOMAIN	ASSESSMENT MEASURE										
	<table border="1"> <tr> <th>Health Professional</th> <th>Self Reported</th> </tr> <tr> <td> Functional Status Timed Up and Go KPS- Physician Rated </td> <td> Activities of Daily Living (ADL) Instrumental Activities of Daily Living Karnofsky Self Reported No. of Falls in last 6 months </td> </tr> <tr> <td> Co-morbidity 5-10 minutes </td> <td> Nutrition 10-30 minutes </td> </tr> <tr> <td> Cognition Blessed Orientation Memory- Concentration </td> <td> Psychologic Mental Health Index-17 </td> </tr> <tr> <td> Social Nutrition BMI </td> <td> Social Activity Limitation Measure (MOS) Social Support Survey (MOS) Unintentional Weight Loss 6 mths </td> </tr> </table>	Health Professional	Self Reported	Functional Status Timed Up and Go KPS- Physician Rated	Activities of Daily Living (ADL) Instrumental Activities of Daily Living Karnofsky Self Reported No. of Falls in last 6 months	Co-morbidity 5-10 minutes	Nutrition 10-30 minutes	Cognition Blessed Orientation Memory- Concentration	Psychologic Mental Health Index-17	Social Nutrition BMI	Social Activity Limitation Measure (MOS) Social Support Survey (MOS) Unintentional Weight Loss 6 mths
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17

- Geriatric Assessment: Issues**
- > Takes time
 - > Different Instruments
 - > Uncovers problems not found routinely
 - > Many problems have beneficial interventions
 - Improve function, QOL, Survival
 - > Allows for accurate life-expectancy estimate
 - Is cancer the major illness
 - > Can predict cancer related toxicity

18

The G8 Screening Questionnaire

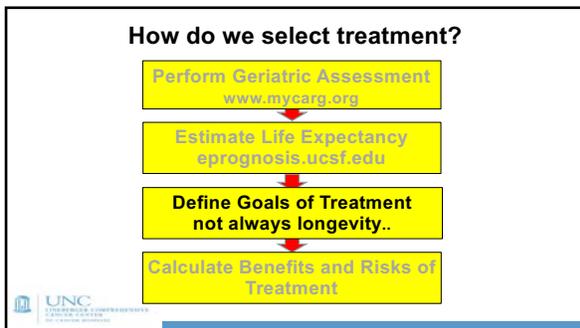
- 8 questions
- Nurse administered
- Takes 5-10 min to perform
 - Appetite, weight loss, BMI
 - Mobility
 - Mood and cognition
 - Number of medications
 - Patient related health
 - Age categories
- Abnormal if score ≤ 14
 - Preliminary analysis
 - Sensitivity: 89.6%
 - Specificity: 60.4%

**Sarah Jones
Score 15**

Items	Possible answers (score)
A Has food intake declined over the past 3 months due to loss of appetite, digestive problems, chewing or swallowing difficulties?	0 = severe decrease in food intake 1 = moderate decrease in food intake 2 = no decrease in food intake
B Weight loss during the last 3 months	0 = weight loss > 3 kg 1 = does not know 2 = weight lost between 1 and 3 kg
C Mobility	0 = no weight loss 1 = bed or chair bound 2 = able to get out of bed/chair but does not go out 3 = goes out
E Neuropsychological problems	0 = severe dementia or depression 1 = mild dementia or depression 2 = no psychological problems
F Body Mass Index (BMI) (weight in kg) / (height in m ²)	0 = BMI < 19 1 = BMI = 19 to BMI = 21 2 = BMI = 21 to BMI = 23 3 = BMI ≥ 23 and > 25
H Takes more than 3 medications per day	0 = no 1 = yes
P In comparison with other people of the same age, how does the patient consider his/her health status?	0 = not as good 1 = does not know 2 = as good 3 = better
Age	0 = > 85 1 = 80-84 2 = 60-79
TOTAL SCORE	0 - 37

Fig. 1: The G8 Screening Questionnaire. BMI = body mass index. Courtesy of Marie E. Wood, MEd. Adapted from Scahillan P et al.

19



20



21

Goals...

- > You need to be aligned with the patient
- > Patient Goals
 - Maintain function and independence
 - "I don't want to be a burden to my family"
 - Minimize cancer related symptoms
 - Focus on Quality of Life
- > Physician Goals
 - Adjuvant therapy to increase cure
 - Metastases: maintain QOL, control cancer



22

Sarah Jones

- > She elects lumpectomy and axillary dissection:
 - 2.3 cm Grade 2 IDC. No LVI.
 - 5 positive nodes of 13 removed
 - ER+, PR+ HER2 neg
 - Staging negative
 - T2 N2 M0 = Anatomic IIIA



23

How do we select treatment?



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graph TD; A[Perform Geriatric Assessment  
www.mycarg.org] --> B[Estimate Life Expectancy  
eprognosis.ucsf.edu]; B --> C[Define Goals of Treatment  
not always longevity]; C --> D[Calculate Benefits and Risks of Treatment];
```



24

Predict Plus 2.1

- Reasonably good estimates of value of adjuvant therapy
 - Endocrine, chemotherapy or both. Also bisphosphonates
- Calculates Overall Survival (OS) at 5,10,15 years
- Some validation in 80-year-olds
- Data on OS if no cancer from UK estimates average health
- Can add bisphosphonates
- Can print out for patients



25

Sarah Jones Predict Plus 2.1: 10-yr OS

- So at 10-years 37% die of NON-BC causes (100-63)
- and 24% of breast cancer (63-39).
- So 61% have died by 10 years
- Endocrine therapy saves 7 lives
- Adding chemo saves 3-5 more lives



26

Selecting Adjuvant Chemotherapy

- Use the Predict model
 - <http://www.predict.nhs.uk/technical.html>
 - Includes HER-2 positive estimates
 - Uses average life-expectancy for UK
- Estimate treatment value (Oxford Criteria)
 - If 10-year Overall Survival is:
 - < 3% **NONE**
 - 3-5% **DISCUSS**
 - >5% **RECOMMEND**



27



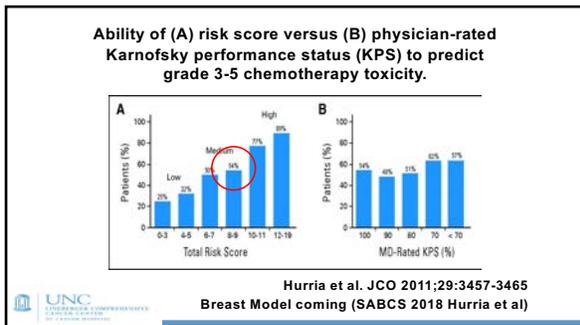
28

Sarah Jones Risk grade 3-5 chemotherapy toxicity

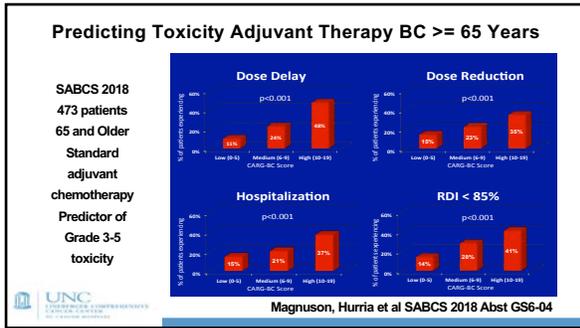
Risk factors for Grade 3-5 Toxicity	OR (95% CI)	Score	Pt
Age ≥73 yrs	1.8 (1.2-2.7)	2	2
GI/GU cancer vs. other cancer	2.2 (1.4-3.3)	3	0
Standard dose vs. reduced	2.1 (1.3-3.5)	3	3
Sarah Jones = 9 Points	1.8 (1.1-2.7)	2	3
Hemoglobin (male: <11, female: <10)	2.2 (1.4-3.3)	3	0
Creatinine Clearance (Jelliffe -ideal wt) <34	2.5 (1.2-5.6)	3	0
1 or more falls in last 6 months	2.3 (1.3-3.9)	3	0
Hearing impairment (fair or worse)	1.6 (1.0-2.6)	2	0
Limited in walking 1 block (MOS)	1.8 (1.1-3.1)	2	0
Assistance required in medication intake	1.4 (0.6-3.1)	1	0
Decreased social activity (MOS)	1.3 (0.9-2.0)	1	1

Possible score range: 0-25; ROC 0.72
Hurria JCO 29:3457, 2011

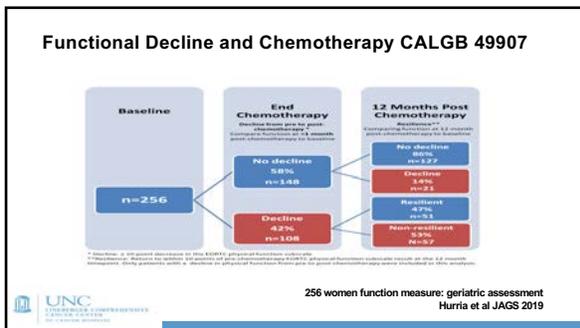
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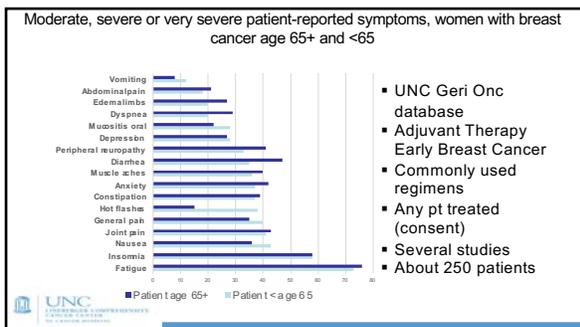
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31



32



33

How to get reimbursed for doing a Geriatric Assessment

- > Consider Screening test first like G8 or VES13
- > Worked with UNC Financial Experts, Check with your own financial team

CPT	CPT description	wRVU in 2020
99201	Office/outpatient visit new	0.48
99202	Office/outpatient visit new	0.93
99203	Office/outpatient visit new	1.42
99204	Office/outpatient visit new	2.43
99205	Office/outpatient visit new	3.17
99354	Add on code, for prolonged eval & management beyond the typical services time of the primary office service, requiring direct patient contact. List separately in addition to code for office exam.	2.33 Document more than 30 minutes



34

Key Websites

Google or other	Purpose
Eprognosis	Life expectancy calculators for community-dwelling, hospitalized, nursing home and hospice pts.
Mycarg	CARG, The Cancer and Aging Research Group. A variety of Geriatric Assessment and Toxicity tools in different languages. Can do online and print results
CRASH score	Moffit Cancer Center, Senior Adult Oncology Program Tools. Online tools for estimating toxicity and performing Geriatric Assessment
Predict UK	Online calculator for estimating the effects of different adjuvant therapies for breast cancer on overall survival
SIOG	The International Society of Geriatric Oncology educational materials and guidelines for managing older patients with cancers.
Cancer.net	American Society of Clinical Oncology (ASCO) for patients with specific information for older adults.
ASCO.org	ASCO website provides excellent educational materials and guidelines for treating older adults.
Pogoe	The Portal of Geriatrics Online Education For those who want to learn more

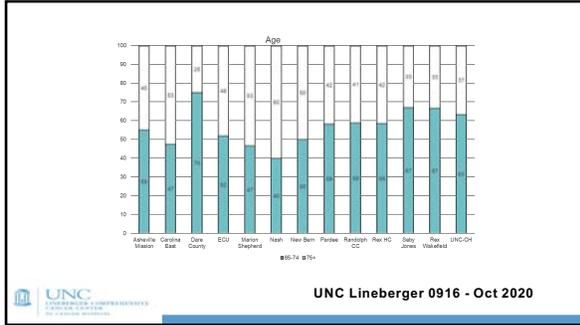


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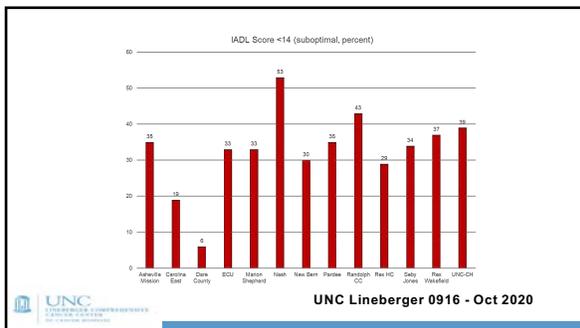
Cancer clinic sites, LCCC0916



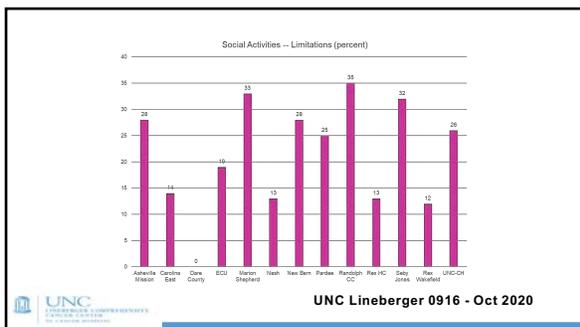
36



37



38



39

Summary: Older Patients and Cancer

- Clinical decisions should be based on
 - Life expectancy
 - Age is not a good surrogate for life expectancy
- Use screen or geriatric assessment
- Establish the patients goals for treatment
 - Function and Quality of life key
- Calculate benefits and toxicity of treatment
- “If you have cared for one older pt with BC you have cared for one older pt with BC”



40



**Thank
You**

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41