Optimizing Communication & Decision Making: The Oncologist’s Perspective

Arti Hurria, MD
Director, Cancer and Aging Research Program
City of Hope National Medical Center
Duarte, California, USA
Key Aspects of Communication

Making cancer treatment decisions in the context of the patient’s goals, values, and preferences

Does the patient have:

1. Capacity for Decision Making
2. Understand the Treatment Benefits
3. Understand the Treatment Risks
Does the patient have capacity for decision-making?
Does the Patient Have Decision Making Capacity?

Four Components to Assessing Capacity

1. Understands the relevant information
2. Appreciate their situation
3. Uses reason to make a decision
4. Communicates their choice

Sessums et al. JAMA 2011
Does the patient understand the benefits of treatment?
Benefits of Treatment

Adjuvant! Online

- Age: 61
- ER: 95%
- PR: 95%
- Tumor Type: IDC
- Tumor Size: 0.6 cm*
- Tumor Grade: 2
- HER-2 neu Neg (FISH)

## Prognostic Index for Mortality

<table>
<thead>
<tr>
<th>Mortality →</th>
<th>1-yr (Walter)</th>
<th>4-yr (Lee)</th>
<th>90 day &amp; 2-yr (Inouye)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Function</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Comorbidity</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Cognition</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Depression</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Labs (Cr, Alb)</td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

Walter, JAMA 2001; Lee, JAMA 2006; Inouye, JAMA 1998
Each bubble represents a prognosis calculator. Click on a bubble to view the calculator.
Geriatric Assessment & Survival

- Retrospective study (Singapore)
- 249 patients with cancer, age 70+
- Comprehensive geriatric assessment (CGA)
  - Evaluate association between CGA domains and overall survival
  - Develop a prognostic scoring system for older patients with cancer

Kanesvaran et al, J Clin Oncol, 2011
Multivariate analysis on significant univariate factors:

- Significantly associated with ↓ overall survival:
  - ↑ Age
  - Late-Stage Cancer
  - Depressed status on Geriatric Depression Scale
  - Poor ECOG Performance Status
  - Abnormal Albumin
  - Moderate or High Malnutrition Risk
Does the patient understand the risks of treatment?
Geriatric Assessment Can Predict Chemo Tox
N = 750

Eligibility criteria
- Age 65 or older
- Diagnosis of cancer
- To start a new chemotherapy regimen

Timepoint 1:
Pre-chemo Geriatric Assessment

Timepoint 2:
Post-chemo Geriatric Assessment

Chemotherapy: toxicity grading at each visit

- 10 participating institutions (Cancer and Aging Research Group)

Hurria et al, JCO 2011
Integrating Geriatrics into Oncology

Factors other than chronological age that predict morbidity & mortality in older adults

- Functional status
- Comorbid medical conditions
- Nutritional status
- Cognition
- Psychological state
- Social support
- Medications (polypharmacy)
Major Research Findings

- Patients age 65+ are at significant risk of chemo toxicity
  - ~50% grade 3-5
  - 2% grade 5 (death)

- Geriatric assessment identifies those at risk
  - Functional age calculator
  - Predict risk of chemotherapy toxicity

- A geriatric assessment is feasible in oncology practice
  - Primarily self administered
  - Technology can be utilized to acquire & summarize data

*Hurria et al, JCO 2011*
MD-Rated KPS Does Not Predict Risk

Chi-square test $p=0.19$

Chi-square test $p<0.0001$

*Hurria et al, JCO 2011*
Chemotherapy Risk Assessment Scale for High-Age Patients (CRASH) Score

- Prospective multicentric study
- 518 patients age ≥ 70 yrs

<table>
<thead>
<tr>
<th>Predictors of Toxicity</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
</tr>
<tr>
<td><strong>Heme</strong></td>
<td></td>
</tr>
<tr>
<td>Diastolic Blood Pressure</td>
<td>≤72</td>
</tr>
<tr>
<td>IADL</td>
<td>26-29</td>
</tr>
<tr>
<td>Lactate Dehydrogenase</td>
<td>0-459</td>
</tr>
<tr>
<td>Chemotherapy Toxicity</td>
<td>0-0.44</td>
</tr>
<tr>
<td><strong>Non-Heme</strong></td>
<td></td>
</tr>
<tr>
<td>ECOG PS</td>
<td>0</td>
</tr>
<tr>
<td>Mini Mental Health Status</td>
<td>30</td>
</tr>
<tr>
<td>Mini Nutritional Assessment</td>
<td>28-30</td>
</tr>
<tr>
<td>Chemotherapy Toxicity</td>
<td>0-0.44</td>
</tr>
</tbody>
</table>

Extermann et al, Cancer 2012
CRASH Model

Extermann et al, Cancer 2012
CRASH Score Calculator

This score stratifies patients in 4 risk categories of severe toxicity. Reference for derivation and validation results: Extermann et al. Cancer, Epub Nov 9, 2011

* Please click on each link to view/close help on assigning scores

Chemotherapy risk
- Chemotherapy risk

Hematologic Risk Factors
- Diastolic blood pressure
- IADL
- LDH

Non-Hematologic Risk Factors
- ECOG PS
- MMS
- MNA

Results

<table>
<thead>
<tr>
<th>Description</th>
<th>Score</th>
<th>Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heme Score</td>
<td>4</td>
<td>Med High</td>
</tr>
<tr>
<td>Non Heme Score</td>
<td>3</td>
<td>Med Low</td>
</tr>
<tr>
<td>Combined Score</td>
<td>6</td>
<td>Med Low</td>
</tr>
</tbody>
</table>

Extermann et al. Cancer, Epub Nov 9, 2011
Facilitating Quality Cancer Care

Everyone Completes a Geriatric Assessment

Approximately 20 min. later
Facilitating Quality Cancer Care

Information Provided to the Healthcare Team

- Geriatric Assessment Results
- List of Potential Interventions
- Chemotherapy Toxicity Risk Score is Generated

**GA Results**

<table>
<thead>
<tr>
<th>Potential Interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unintentional Weight Loss</td>
</tr>
<tr>
<td>Fall Risk</td>
</tr>
<tr>
<td>Polypharmacy</td>
</tr>
<tr>
<td>Limited Social Support</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
PREDICTION TOOL

Gender:
Select

Patient's Age:

Patient's Weight:
Select the Unit of Measure:
Select

Patient's Height
Select the Unit of Measure:
Select

Submit

Creatinine Clearance:
44 **

Toxicity Score:
10

Risk of Chemotherapy Toxicity:
72%

What does this mean?

* Dose delivered with first dose for chemotherapy
** Jeliffe formula

http://www.mycarg.org/mctc
Facilitating Quality Cancer Care

Facilitates Communication and Decision-Making Between the Oncologist and Patient
Where to get a CGA?

Cancer and Aging Research Group
www.MyCARG.org

Geriatric Assessment Tools

• Geriatric Assessment (Patient)
• Geriatric Assessment (Healthcare Team)

Now Available on the iTunes App Store: Search “City of Hope Geriatric Assessment”
Placing decision in the context of the patient’s goals, values, and preferences
Key Factors Contributing to Decision Making

- Cancer Stage
- Comorbidities
- Functional Status
- Cognition
- Social Support
- Culture
- Spirituality
- Age
- Cancer Therapeutics
- Organ Function
- Psychological Status
- Polypharmacy
- Finances
- Literacy
Conclusions

- Assessing an older adult for cancer therapy
  - Assessing capacity to make a decision
  - Understanding the benefits
  - Quantifying the risks

- Geriatric assessments help obtain key information

- Incorporating patients’ goals, values, & preferences in the decision-making process
  - Supporting the patient through the decision process
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