

Background

How quickly do oncologists adopt new treatment guidelines?

- Following randomized clinical trial publications
- Following standard treatment guidelines (e.g. National Comprehensive Cancer Network)

Aromatase inhibitors (AI):

- Block synthesis of estrogens from androgens
- Increased disease-free survival and reduced contralateral breast cancer rates compared to tamoxifen
- First randomized trial (Arimidex, Tamoxifen, Alone, or in Combination) published in 2002

Current guidelines for adjuvant hormone therapy:

- Postmenopausal women with invasive, estrogen receptor + (ER+) breast cancer:
 - Anastrozole for 5 years OR
 - Tamoxifen for 2-3 years, then Anastrozole or Exemestane to complete 5 years OR
 - Tamoxifen for 4.5-6 years, then Letrozole for 5 years OR
 - Tamoxifen for 5 years if contra-indication to AIs

Objectives

To examine AI diffusion in health care systems in the Cancer Research Network by evaluating:

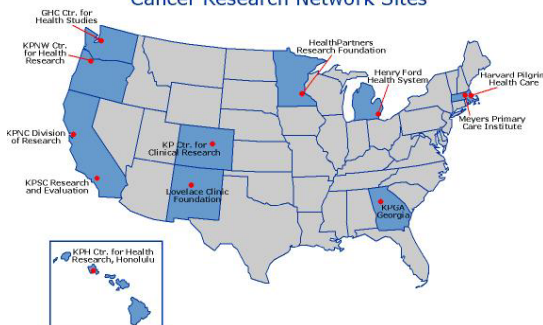
- Oncology policies & practices
- Actual AI dispensing patterns
- Appropriate AI dispensing patterns
 - postmenopausal women with ER+ invasive breast cancer

Methods: Site Locations

The Cancer Research Network (CRN)

- Consortium of 12 US integrated health care systems
- Dedicated to increasing effectiveness of preventive, curative, & supportive interventions for major cancers

Cancer Research Network Sites



Methods: Data Collection

Surveyed chief oncologists to evaluate adoption of cancer treatment guidelines

- Received email responses from 13/24 (54%) from 10 sites

Automated data from Virtual Data Warehouse

- Used only aggregate, deidentified data
- 10,413 breast cancer patients from 6 sites with tumor registries
- Diagnosed 1996-2002
- Aged >55 years with ER+, invasive breast cancer
- Included demographics, tumor characteristics, cancer treatment, & use and timing of hormone therapy (from automated pharmacy data)
 - Adjuvant hormone therapy use collected through 2003

Statistical Analysis

Oncologist survey:

- Tabulated responses stratified by sites
 - With formal treatment guidelines
 - With no treatment guidelines

Automated data:

- Calculated frequencies of patient characteristics
 - Stratified by sites with/without formal guidelines
- Evaluated proportion of AI and Tamoxifen dispensings over time
 - Stratified by year of diagnosis
 - Only postmenopausal women with ER+, invasive breast cancer
- Evaluated time between first Tamoxifen and AI dispensings

Results: Oncologist Survey

Table 1. Chief Oncologist Survey Responses

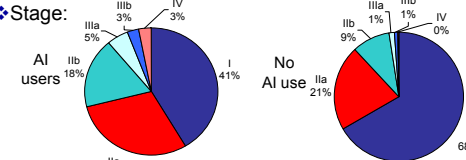
	Formal guidelines (n=8 oncologists from 7 sites)	No formal guidelines (n=5 oncologists from 3 sites)
How do you develop common protocols for cancer treatment?		
Approach varies by tumor type	88%	
Cooperative clinical research groups	88%	
Tumor board or tumor conference	88%	N/A
Routine discussions in oncology group	75%	
NCI, ASCO, other recommendations	25%	
NCCN guidelines	38%	
HMO develops formal guidelines	13%	
I adhere to standard treatment guidelines for ER+ invasive breast cancer.	63%	N/A
Have you prescribed AIs:		
For metastatic breast cancer?	100%	100%
After completion of Tamoxifen?	100%	100%
In lieu of Tamoxifen?	88%	100%
Prophylactically?	25%	20%

Results: Automated Data

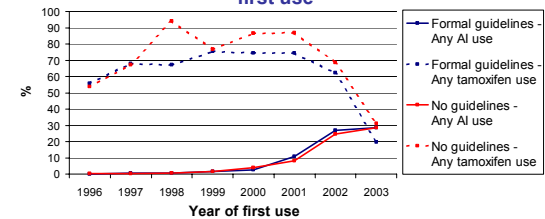
Sample size = 10,413 women aged >55 years with ER+ invasive breast cancer

- Mean age = 68.2 (AI users), 67.1 (no AI use)

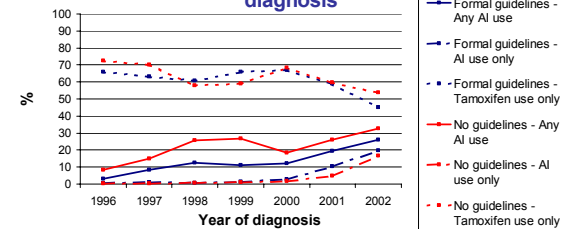
Stage:



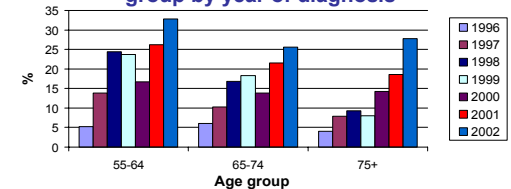
Adjuvant hormone therapy use by year of first use



Adjuvant hormone therapy use by year of diagnosis



Proportion of AI use among each age group by year of diagnosis



Summary

- 7/10 participating CRN sites have formal treatment guidelines
- AI dispensings at participating CRN sites increased prior to first major randomized trial publication in 2002
 - Regardless of whether sites had formal treatment guidelines
- Tamoxifen use decreased with increase in AI use
- Women aged 55-64 had the greatest initial increases in AI use