



SOCIETY OF ACTUARIES

**Individual and Small Group Health
Insurance Underwriting Seminar
September 18- 19, 2008**

Session # 1: Cancer Morbidity

Hank George

**ISSUES IN
CANCER MORBIDITY
(and some candid observations)**

**SOA ANNUAL
HEALTH UNDERWRITING SEMINAR
September 18-19, 2008 - Chicago**

Hank George, FALU, CLU, FLMI

**2009
LOMA
Health Underwriting Study Group
Annual Conference**

**April 29-May 1
Rosen Plaza Hotel
Orlando**

www.loma.org

**WHAT REALLY COSTS THE MOST?
Comparative Costs – 2000 A.D.**

	Treated prevalence (per 100,000)	Spending (Billions \$)	<u>Ratio</u>
• CANCER	3,348	\$39	12
• HEART	6,336	\$57	9
• MENTAL	8,575	\$33	4
• TRAUMA	12,338	\$41	3
• HBP	11,382	\$23	2

Thorpe. Emory University. *Health Affairs*. August 25, 2004

**COMPARATIVE INITIAL
CANCER CARE COSTS (2002)**

- **Colorectal** \$41,134 **Rising**
- **Lung** 39,891 **Rising**
- **Breast** 20,929 **Rising**
- **Prostate** 18,261 **Falling**

Warren. *JNCI*. 100,12 (6/18/08):888-897

U-SHAPED CANCER COST 3 PHASES (2004)

	Initial Care (12 months)	Annual (Continuing)	Last Year of Life
• BRAIN	\$65,400	\$6,400	\$80,600
• LYMPHOMA	28,900	4,500	51,800
• HEAD/NECK	21,800	2,100	32,400
• BLADDER	13,100	2,800	31,700
• BREAST	11,700	1,201	29,200

Yabroff. *JNCI*. 100(2008):630-41

Why is cancer care cost continuing to go up?

"The most common factor cited in driving rising health costs has been the explosion of new medical technologies which can improve care but tend to cost more than old modalities"

Kenneth E. Thorpe, et al
Rollins School of Public Health
Emory University
Health Affairs – June 25, 2004

Chemotherapy #1 Cost Driver

- Carboplatin + paclitaxel = \$12,000 more than cisplatin + vinorelbine
- 1995 8-wks with 5-FU = \$500. 2008 8 wks with oxiplatin, bevacizumab or cetuximab = \$12,000 to \$31,000
- Cetuximab + bevacizumab for metastatic colorectal carcinoma costs \$161,000 for one year!

Warren. *JNCI*. 100,12(June 18, 2008):888-897
Yabroff. *Nature Clin. Prac. Oncology*. 4(2007):642

HORROR STORY

"True life adventure"
about 2 breast cancer Rx options

**What is really going down
among some
FOR-PROFITS?**

PROVIDER PROFITEERING?

- Male evaluated for possible diabetes and ED has serum testosterone assay
- Provider charge \$275
- Insurance industry lab order-out prices range from \$33 - \$55
- Can ANYONE explain the difference?

...and why isn't erectile dysfunction a covered impairment by a BLUE?

Know Which are Prone to Spread

	Local	Regional	Distant
Breast	\$9,758	\$18,449	\$28,493
Head/Neck	\$11,098	\$39,189	\$54,148
Uterus	\$13,649	\$25,351	\$42,499

Yabroff. *JNCI*. 100(2008):630-41

Know EXACT Tumor = Know Risk

- 😊 **Papillary, Mixed papillary/follicular**
- 😊 **Low Grade follicular**
- 😞 **High Grade Follicular**
- 😞 **Hürthle cell adenoma or carcinoma**
- 😞 **Medullary carcinoma**
- 😞 **Anaplastic carcinoma**
- 😞 **ANY undifferentiated foci in papillary**

BEST CASE CANCER = IN SITU

- **Non-radical surgery**
- **Usually “one and done”**
- **Rare adjuvant chemotherapy**
- **Rare adjuvant radiotherapy**
- **Follow-up consists of surveillance only**
- **Risk focuses on possible second tumor**

BREAST CANCER IN SITU

- 35% new carcinomas now in situ
- Marker = discovery by mammogram, not lump self-detected or MD-detected
- Prophylactic mastectomy? BRCA 1-2
- Coronary disease mortality reduced 30% versus general population

Why?

HEALTH ADHERER EFFECT!

Hampton. *JAMA*. 300,4 (2008):381
Ernster. *Archives of IM*. 160(2000):955

Why is the Cost of Prostate Carcinoma Going DOWN?

- Down 14% 1991 to 2002
- Early detection with PSA
- Radiation increasing; radical prostatectomy decreasing
- More post-treatment cost with surgery
- "Watchful Waiting"

Warren. *JNCI*. 100,12(June 18, 2008)"888-897

PSA and REALITY

- New threshold ≥ 2.5 nanograms
- 2.5 – 3.9 = 15% have cancer
- 4.0 – 9.9 = 35% have cancer
- ≥ 10 = 60% have cancer
- Is PSA rising, stable or declining?
- PSA = 0 = prostatectomy
- What is Gleason score?
- How old is the proposed insured?
- What is family history

MELANOMA IS “CHEAP!”

- \$3,211 year one localized – all costs surgery (1 or 2) + surveillance
- “Regional” is 35% of median all for regionally-spread carcinomas
- There are DEFINITELY “Best Case” melanomas...which, once excised and deemed localized...present no further cost except enhanced surveillance

BEST CASE
Localized Melanoma

- In situ or Clark II/III
- < 1 mm measured thickness
- Superficial spreading; radial growth
- NOT scalp, soles or under fingernails
- ABSENT extensive regression, ulceration, aneuploidy, lymphovascular invasion, high mitotic index
- Was there a SECOND surgery or an EXPERT 2nd OPINION pursued?

**Discovery of
INCIDENTALOMAS on CT, MRI,
PET is increasing rapidly**

Invasive carcinoma is quite rare

Your biggest issue?

Noncalcified Pulmonary Nodule

INCIDENTAL NONCALCIFIED PULMONARY NODULE

- **< 1 cm – Depends on lung cancer risk; usually one repeat CT in 12 months**
- **1-3 cm – CT and PET**
- **> 3 cm – Cancer risk is greater; biopsy likely**

Barrett Esophagus When Does Cost Soar?

- **Need for ablation or resection**
- **Driver? Severe dysplasia or early adenocarcinoma**
- **No dysplasia = next endoscopy 5+ years**
- **Mild dysplasia = repeat 2-3 years**
- **Severe Dysplasia = repeat in 90 days**
- **Overall cancer risk around 1%**

CANCER MORBIDITY RED FLAG

ANY

**Squamous Cell carcinoma,
in situ or invasive, involving the
UPPER AERODIGESTIVE TRACT
is the major marker for
later new cancers in the region**

Long-Term Morbidity Off Your Radar Screen?

- **10,000,000 Americans have HAD cancer**
- **25% more health problems**
- **25% less self-reported “excellent health”**
- **Worst CNS, bone, cranial radiation in childhood leukemia**
- **PTSD and adjustment disorders common**
- **Second tumors with certain chemotherapy agents and/or extensive radiation**
- **Long-delayed heart and artery problems with radiation, anthracyclines, etc.**

**What is the
#1 strategy
to substantially reduce
future
cancer care costs?**

SCREENING!

	HEALTH INSURANCE?	
	YES	NO
• FOBT or endoscopy	57%	29%
• Mammography	63%	35%
• Pap smear	89%	71%
• PSA	51%	27%

Smith CA: *A Cancer Jour for Clinicians*. 58(2008):161-179

CLOSING THOUGHTS ABOUT THE INDUSTRY

“One of the most visible and troubling manifestations of continuing unequal treatment can be found in the structure of health insurance contracts.

For a mental illness, most insurers imposed special limits on the amount of treatment they will pay for”

**Sherry Glied Ph.D & Richard G. Frank PhD
The New England Journal of Medicine
259,2(July 10, 2008):113-5[editorial]**

REALITY CHECK

- **Costs of psychiatric care have gone down significantly: fewer inpatients, less psychotherapy, greater pharmacotherapy**
- **Arguing that virtually all DSM-IVTR psychiatric impairments are NOT physical diseases is nonsense**

**Two
BRAND NEW
editorials
from one of our
leading medical journals...**

“The combination of the excess administrative costs, excess profits, and excess cost of prescription drugs...greatly exceeds what it would cost to provide healthcare to all uninsured Americans.

We can decrease health care costs and provide healthcare for all Americans by adopting mandatory national, non-profit health insurance.”

James E. Dalen, MD, MPH
Professor Emeritus of Medicine
University of Arizona
American Journal of Medicine
121, 7(July,2008):553-4[editorial]

**Post-Claim Underwriting
is a
CANCER**

**UNDERWRITING
ADEQUATELY
at the
appropriate time
will remove the #1 negative
perception about underwriting**