



ReFocus2009
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...March 1-4, 2009, Four Seasons, Las Vegas, NV

A Global Gathering for Senior Life Insurance and Reinsurance Executives

ReFocus 2009

March 1-4, 2009

Las Vegas, NV

**A 5 - Perspectives in Medical Underwriting:
Mortality, Morbidity, and Longevity**

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A Global Gathering of Senior Life Insurance and Reinsurance Executives

Perspectives in Medical Underwriting:

Mortality, Morbidity and Longevity



Mortality



An Epidemic of Obesity and Diabetes

- 55 year-old man with diabetes for 5 years
 - Overweight
 - Hypertensive
 - Elevated cholesterol levels
- Episode of chest pain 2 years ago
 - Hospital testing
 - No heart attack
 - No ECG changes on exercise testing
 - Only fair exercise duration on the treadmill

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Life Insurance Medical Underwriting

- Information gathering
- Assessment of severity/mortality risk
- “Rating”



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Information Gathering

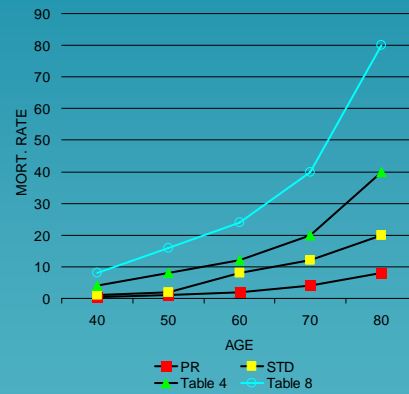
- Gold standards
 - Requirements for age and amount
 - Blood, urine, ECG, Treadmill
 - Newer tests – HgbA1c (diabetes), NT-proBNP (cardiac)
 - Attending physician statement (APS)
 - Routine or “for cause”
- Surrogates
 - For historic requirements
 - Saliva testing
 - For APS
 - Tele-underwriting
 - Prescription profiles

Severity Assessment

- Gold standards
 - “Preferred” guidelines
 - Underwriting manual
 - Reinsurance underwriting guides
 - Direct company customization
- Surrogates
 - Internal Preferred guidelines
 - Impairment-based research

Mortality Rating

- Preferred
 - Survival advantage compared with general insurance population
- Standard
 - “100%”
- Substandard
 - Tables: Multiples of Standard mortality



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Diabetes: Challenges for Mortality Assessment

- The obesity epidemic
 - Huge increase in diabetic population, particularly in the older age market
- Mortality considerations
 - Mortality improvements seen in men but not women
 - Cardiac tests are less accurate in diabetics
 - Cardiac procedures such as bypass surgery or stenting are less effective
- Mortality expectation in our case
 - Diabetes with possible heart disease – expect mortality 2 – 3 times that of the standard population!

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Morbidity



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Living Benefits Anyone?

- 55yr old man with diabetes for 5 years
 - Overweight
 - Hypertensive
 - Elevated cholesterol levels
 - Episode of chest pain 2 years ago
- Living Benefits
 - Critical Illness
 - Long Term Care

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Morbidity

- Definition
- Medical Trends and Disease Trajectories
 - Pre-disease risk factors, incidence and progression of illness
- Living Benefit Triggers
 - Being diagnosed with and surviving a defined disease
 - Inability to perform defined activities of independent living or the occurrence of Alzheimer's Disease.
- Environment /Demographic Issues

Analyzing morbidity

- Information Gathering
- Assessment of Severity/Morbidity/Function
- “Rating”

Information Gathering

- Historic information
 - Personal and Family
 - Exclusions
 - Demographic
- Age and Amount Requirements
 - Medical
 - Functional

Assessment of Severity / Rate

- Gold standard
 - Underwriting manual
- Surrogate
 - Evidence-based research
 - Historic information – other product or geographic
- Few rate classes
 - Accept/Reject
 - Preferred/Standard/Decline
 - A few substandard classes

Challenges for Morbidity Assessment

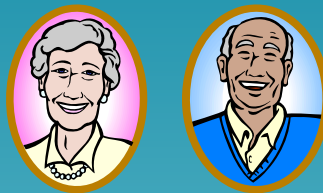
- Our Client's Trajectory

Disease

- Obesity to Diabetes
- Diabetes to ?
 - MI, Stroke, Peripheral Vascular Disease or Renal Disease
 - Effectiveness of risk modification currently and in the future

Information Gaps

- Information imbalance
- Paucity of predictive functional information
- Unknown future motivational / demographic issues



Longevity

Historical Life Expectancy Underwriting:

- Financial planning
- Nursing home admissions (esp. the pre-paid plans)
- Payment for nursing home care
- Pre-payment of funeral expenses
- Structured settlements
- Viaticals

Now 75 yrs. Old – Wants Life Settlement

- Who is actually the client in this scenario—insured, broker, investor?
- Why sell the policy?
- Issue for the investor—that of living too long instead of dying too soon (as in life underwriting)
- What things are of most significance to the LE* underwriters vs. the life or health underwriters?
- *LE = Life Expectancy

LE vs. Life and Health Underwriting Considerations

- Client wants to look very healthy for life or health insurance policy
- Client wants the insured to look unhealthy for life settlement
- Agent/broker often wants “exceptions” for life
- Broker/investor for LE’s wants no medical stone left unturned

Life and Health, LTC vs. LE Underwriting

- Life and health underwriting—requirements may be ordered
- LE underwriting—an LE must be generated using only the medical records at hand. NO requirements may be ordered. Incomplete medical records have to be underwritten as if complete.

Variations in LE Underwriting

- Some LE providers use an individual look (subjective + objective) at each case
- Some LE providers treat each case individually, but have an automated debit/credit underwriting tool that leaves no chance for underwriter subjectivity with the idea of creating more reproducible results.

This insured from an LE focus:

- Lifestyle (vigorous vs. sedentary)
- Great emphasis on family history of longevity
- Great emphasis on co-morbidity
- Emphasis on caregiver status, family structure

The Life-Cycle of Medical Underwriting



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