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# Life Underwriting In 2017 and Beyond

The pace of change has continued to accelerate since “Life Underwriting: 2015 and Beyond” appeared in the October 2015 issue of *Resource*.

Insurers’ goals are cost containment, faster turnaround and “customer friendliness” with a mandate for continued robust mortality gains.

This article looks at impactful interim developments and critical questions yet to be resolved. It includes data from a 2017 survey of 110 life insurers regarding tobacco, alcohol and drug use underwriting.

### Accelerated Underwriting

The success of the super-simplified underwriting model has emboldened insurers to embrace a novel concept called accelerated underwriting (AU).

AU combines rapid-access screening resources with comprehensive risk histories to approve some portion of applications that would otherwise require paramedicals and laboratory tests. The histories are elicited with teleinterviews or their online equivalent.

In addition to the risk history, baseline requirements are typically pharmaceutical records, motor vehicle reports, medical information bureau (MIB) and an e-inspection package consisting of identity verification, court records, financially related data and other components.

There is considerable diversity in how insurers approach accelerated underwriting and eligibility criteria differ dramatically between insurers. Most require the applicant to qualify for preferred risk status based on the initial screening process. Some limit coverage at age 50 and/or \$250,000; others go through age 65 and upwards of \$2 million.

The prevalence of chronic disease increases with age. Therefore, the percentage of applications that can be approved on an accelerated basis decreases at older ages. Whereas 60 percent or more of applicants may qualify for accelerated underwriting through age 50, this trails off steeply thereafter.

### Tobacco Use

The premium rates for coverage approved on an accelerated basis are the same as those used on fully underwritten business. This creates a shortfall because those rates reflect the protective value of paramedicals and laboratory tests, neither of which is required in accelerated underwriting.

The Achilles heel here is the absence of cotinine screening. Cotinine, a byproduct of nicotine, is used to demarcate tobacco consumption. Without cotinine screening, insurers cannot detect nondisclosure of tobacco use.

In the aforementioned 2017 survey, respondents estimated that roughly seven percent of fully underwritten applicants fail to acknowledge tobacco indulgence and the consensus is that the incidence is greater on accelerated cases.



**The pace of change in life underwriting has continued to accelerate. Insurers’ goals are cost containment, faster turnaround and customer-friendliness.**

More importantly, 94 percent of survey takers believe that this nondisclosure rate will exert a significant adverse mortality impact.

Several options are emerging to potentially limit this outcome.

The MIB has developed a predictive model that can identify applicants with a high probability of being smokers. Other providers are said to be working on similar constructs. These are screening tools and it is expected that insurers will selectively do cotinine tests on individuals flagged on this basis.

Meanwhile, Orasure Technologies has participated in the development of a home oral fluid test incorporating video confirmation of specimen collection and applicant ID.

Another development related to tobacco underwriting affords us the opportunity to improve how we assess risk related to cigarette smoking.

The vast majority of cigarette-related mortality is based on cumulative exposure. This is ascertained by asking the applicant how long he has smoked and how many cigarettes, on average, he smokes per day. These two variables are then used to calculate “pack years” (PYs) of smoking exposure.

Those who smoke a pack a day, accumulate one pack year in a calendar year, whereas consuming two packs daily equates to two PY in 12 months.

It is encouraging that 13 percent of insurers now use pack-years in their guidelines and additional eight percent are considering doing so. Hopefully this will become universal in the near future.

### QuestCheck Database

Quest Diagnostics, the parent company of ExamOne, is the leading provider of clinical laboratory testing.

Using this vast database, ExamOne has created a rapid-access underwriting resource dubbed QuestCheck. It enables insurers, with applicant authorization, to access these clinical test results. According to Executive Vice President Betsy Sears, test records going back up to five years can be obtained at this time on nearly 40 percent of applicants queried at the QuestCheck database.

The author has reviewed enough QuestCheck reports to confirm that they provide substantial independent protective value when used in tandem with the applicant’s admitted medical history.

### Customer-Friendly Changes

A nuisance from a bygone era in underwriting, electrocardiograms (ECGs) are neither appropriate nor necessary. Fortunately, they are being replaced by screening with the NT-proBNP blood test.

Screening elderly applicants with cognitive and physical frailty tests is another customer-unfriendly practice that needs to be reckoned with. When they are done, as nearly all are, during mobile paramedicals, their consistency and credibility are at best highly questionable.

The weight of evidence justifying their replacement with a blood marker called cystatin C should encourage carriers to stop using the Clock Drawing, Delayed Recall and Timed Get-Up-and-Go tests.

This test was recently also shown to be an “early and sensitive” marker for impaired cognitive function. And it also rises above the normal limit in the presence of sarcopenia, the pathological process underlying physical frailty.

A new German study reveals that even minimally elevated NT-proBNP is a significant predictor of mild cognitive impairment. This insidious condition is a precursor to Alzheimer’s disease and other forms of dementia.

With cystatin C and NT-proBNP insurers can maximize screening for cognitive dysfunction and incipient frailty while making the customer journey to life insurance acquisition far less burdensome.

### E-Health Records

The attending physician statement (APS) is the consensus “gold standard” as a medical underwriting resource. Unfortunately, it is also the slowest to acquire, most costly and requires the greatest relative amount of time to properly review.

Given these limitations, it is easy to understand the palpable excitement among chief underwriters at the looming prospect of unfettered access to electronic health records (EHRs)!

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Adequately dissecting APS content to extract the key content is the most challenging aspect of medical underwriting. The difficulty factor has been ratcheted up in recent years by analytics-driven constraints imposed on this process.

There is reason to be concerned that this problem will be magnified by the sheer degree of redundancy found in EHRs.

Redundancy occurs because physicians are disposed to “cutting and pasting” previously cited content. The net effect is to hugely increase the amount of text underwriters must wade through in EHRs.

The fly in the ointment here is that physicians often make edits to the content they cut and paste. Thus, underwriters can ill afford to skim over any part of an EHR lest they miss crucial information. The net effect could, paradoxically, result in longer APS review time with the advent of electronic records.

Laboratory testing is commonplace in clinical medicine and EHRs are typically awash in test results. Will instantaneous access to electronic records encourage insurers to cut back on routine screening with blood and urine tests?

Our three most prized screening tests in terms of their impact on mortality are cotinine, the liver-related enzyme GGT and, at older ages, NT-proBNP.

Cotinine is never measured in a clinical setting. The other two tests are seldom cited in medical records because physicians limit their use to a handful of relatively uncommon scenarios.

Insurers would sacrifice an enormous quantity of protective information if they decreased or discontinued screening for these three tests. Therefore, they must exercise caution before electing to forego their present volume of laboratory screening on fully underwritten business.

## Marijuana Use

Cannabis is the second most widely consumed recreational drug after alcohol. Marijuana is also being recognized as a potential remedy in over 40 medical conditions.

There is no significant evidence linking pot consumption per se to increased risks of heart disease, lung disease or cancer.

Epidemiologists investigated the comparative impact of a wide range of drugs, ranking them in terms of their relative health adversities. The benzodiazepine drugs, widely prescribed for insomnia and anxiety, had a far greater negative effect than marijuana! So did every other drug they evaluated.

In a 2017 joint (no pun!) study by researchers at Emory University School of Public Health and the Center for Disease Control (CDC), no excess mortality risk was attributable to marijuana. This is consistent with two previous investigations that also found no link between pot use and premature demise.



Overwhelming evidence confirms that we are now in the throes of an **“opioid epidemic.”** This epidemic has catalyzed a rise in mortality among middle-aged adults.

Until recently, nearly all insurers compelled applicants admitting to any marijuana use to pay the same premium rates as cigarette smokers. Given the evidence cited above, this practice is now medically indefensible.

In the 2017 underwriting survey, 53 percent of respondents reported they are amenable to issuing coverage to some portion of marijuana users at non-tobacco rates, contingent primarily on volume of consumption. The majority of the other 47 percent of surveyed companies have yet to consider this matter.

At least no one can accuse this industry of acting with reckless abandon!

In terms of level consumption, 29 percent mandate that the applicant use cannabis less than once a month, 24 percent impose no limitation on frequency of use and others were amenable to between one and three or more times per month.

With regard to preferred risk eligibility, 48 percent of carriers are willing to offer at least their lowest non-tobacco preferred class to eligible recreational pot users.

The bottom line here is that we are making progress in redressing our obsolete marijuana underwriting practices.

## Given all of the DTC testing options currently available, we now face the greatest risk of antiselection (intentional nondisclosure) in our history.

### Opioid Epidemic

Opioids are synthetic analgesic drugs similar in structure and function to morphine, which is derived from the opium poppy and thus properly referred to as an opiate.

Overwhelming evidence confirms that we are now in the throes of an “opioid epidemic.” Nearly 2.5 million Americans are said to satisfy the American Psychiatric Association’s latest diagnostic criteria for severe opioid use disorder.

This epidemic has catalyzed a rise in mortality among middle-aged adults, accounted for by opioid overdose deaths. The result is that they have now surpassed fatalities from motor vehicle accidents to become America’s leading cause of preventable death.

Identifying insurance applicants at high risk for these consequences has emerged as a major underwriting priority.

Until recently, opioid drugs were widely prescribed for everything from terminal cancer to transient pain following dental procedures. Most individuals who become addicted to opioids are first exposed to these drugs in some therapeutic context. The dose taken and the duration of use are key considerations in terms of the risk of progression to abuse and addiction.

We are fortunate to have access to pharmaceutical records on over 80 percent of life insurance applicants. These records tell us if the proposed has recently and/or extensively filled prescriptions medicinal opioids, along with which drug was given and in what dosage.

Insurance laboratories now offer broader screening options encompassing heroin as well as most widely used opioids, such as hydrocodone and oxycodone. Unfortunately, an additional test must be performed to detect fentanyl use, an important issue because fentanyl is the opioid with the greatest impact on overdose deaths.

It may not be financially feasible to screen all applicants on an age/amount basis. If so, we will need to craft an algorithm similar to those, as noted above, on the cusp of being deployed to identify likely tobacco users.

This algorithm will be based on a combination of pharmacy record components, demographic variables, risk-taking proclivities and medical history. An in-depth review of medical studies of opioid users will be required to pinpoint and determine the relative magnitude of most potential algorithmic variables.

### DTC Testing

The incidence of direct-to-consumer (DTC) medical and genetic testing increased dramatically in the last few years. Coronary artery calcium scoring and screening for aortic aneurysms, as well as multicomponent laboratory profiles and many other DTC tests, are widely accessible at low cost, without physician involvement in the process.

For example, a leading dietary supplement firm offers a laboratory test package so comprehensive that it includes every screening blood test insurers routinely use except NT-proBNP and cystatin C.

Access to these and other DTC tests enables prospective insurer buyers to identify potential obstacles to qualifying for preferred risk coverage and use this information to selectively shop for coverage based on insurers’ screening practices.

The FDA has approved the ten-component genetic test package 23andMe for use on a DTC basis. This has the effect of opening the floodgates for widespread approval of countless other gene-based tests intended for sale directly to consumers.

BRCA 1 and 2 are among the best-known hereditary gene mutations associated with a heightened risk of cancer.





## Data Ethics

Life insurers have widely embraced an array of predictive analytics models in many contexts including underwriting.

Fortunately, most of the components of these big data constructs satisfy the critical criterion of being sanctioned under the Fair Credit Reporting Act (FCRA). Those that do not meet this critical benchmark should raise insurers' eyebrows.

A recent issue of Big Data magazine focused in part on ethical considerations related to the design and deployment of predictive analytics. Their concern was that the data scientists building these paradigms are "...often in the dark, and may be unintentionally creating an unfair model."

It is imperative that we reflect on fairness in big data as it pertains to risk assessment. The last thing we want to do is make inappropriate choices that come back to haunt us with a vengeance!

In underwriting, due diligence translates to judiciously avoiding big data elements reflective of race, ethnicity, religion, sexual orientation and so on.

Screening with personal purchase records is one example of an ominous predictive analytic. Are other big data offerings also stigmatized by these shortfalls?

The New York Department of Financial Services recently announced their intent inquire regarding the nature of "external data and information sources" using in life underwriting. Several examples mentioned were credit scores, purchasing habits, affiliations and educational attainment.

On balance, many big data applications have potential to work synergistically with conventional underwriting strategies to enhance our capacity to appropriately assess insurability on a cost-effective, customer-friendly basis.

As we go forward, it is our solemn obligation to make sure that we do not undermine our high standards, lest we alienate present and future customers. ❖

The risk of breast cancer in BRCA gene mutation carriers is so great that many affected women opt for preemptive bilateral mastectomies.

In a recent review article for primary care physicians, the authors urged that counseling prior to BRCA mutation testing include encouraging patients to "consider whether they wish to purchase life or disability insurance" before having these tests done.

Did you know that several saliva-based BRCA mutation test kits are presently available for purchase online?

Given all of the DTC testing options currently available, we now face the greatest risk of antiselection (intentional nondisclosure) in our history.

Furthermore, based on the Interstate Compact now in effect in the majority of states, we cannot ask applicants if they have had any medical tests other than those done under the auspices of a healthcare provider.

RGA Reinsurance deserves recognition for proactively hosting annual no-fee fraud conferences. These superb events bring together experts from various fields, empowering attendees to track a wide range of issues bearing upon the potential for antiselection.



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