

HOT NOTES • VOLUME 22, ISSUE 1 • JANUARY 2022

### **TABLE OF CONTENTS**

New COVID Vaccine	2
Outtakes	2
Credit Data in a Predictive Model:	
Interview with Mike Hoyer FSA	6
Antiselection & Genetic Testing	10
High Deductible Health Plans	10
Eating Disorder Mortality	11
Melanoma Mortality	11
Thiamine Supplementation	13
Chronic Stress & MI	14
Cancer Survivor Comorbidity	14
Fibrosis & NAFLD Outcomes	15
COVID-19 Update	17
NAFLD Insights	24
Absence Epilepsy	27
STUFF	27
DMT & Entities: A Hot Notes	
Special Report	31
Essential Quotes	32
Movies	33

# THANK YOU 2022 SURVEY COSPONSORS!

Without their gracious support the 2022 New Business Critical Issues Survey would not be possible.





























**PartnerRe** 







### **NEW COVID VACCINE**

A less expensive COVID-19 vaccine developed by Novavax (Maryland) has earned emergency authorization by the World Health Organization. Unlike mRNA-based Pfizer and Moderna vaccines this jab is protein-based. Just like shots used for decades.

Will the FDA approve it or at least grant "emergency use" status?

If it does, will the CDC and NIH support this vaccine?

Carlie Porterfield. Forbes. 12/17/21

### **OUTTAKES**

### **Accelerated Underwriting**

Taylor Pickett and 4 RGA Re colleagues wrote an excellent article about monitoring accelerated business. It was published by the Society of Actuaries in November and also shared directly by RGA:

https://www.rgare.com/knowledge-center/media/ articles/accelerated-alternatives-and-the-need-formonitoring-in-the-wake-of-covid-19

Just a couple of thoughts:

They ask whether control in a diabetic can be settled with labs alone or requires "a more holistic view" from the insured's physician.

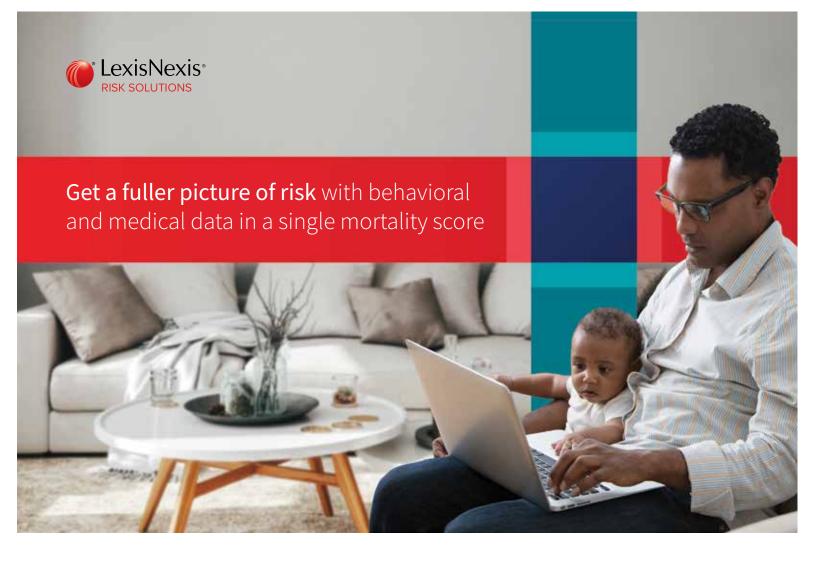
### InsureIntell

Top 10 most read articles from Insureintell.com ending December 31, 2021:

- 1. Frailty: Implications and Risk Assessment for Underwriting
- 2. Wearables, New Data Metrics and Life Insurance Underwriting
- 3. <u>Low-Severity Prescription Medication</u>
  Histories: Good for Risks?
- 4. Applying Artificial Intelligence to Underwriting
- One Underwriter's Story, One
   Breakthrough COVID-19 Infection, and an Ongoing Conversation
- 6. LexisNexis Risk Classifier with Medical Data
- 7. Continuous Glucose Monitoring: Insurance Implications
- 8. Genomic Sequencing of Tumors –
  Driving all New Developments in Cancer
  Medicine
- Cardiovascular Aging: Causes and Intervention
- Individual Life Accelerated Underwriting Summary Results of 2021 U.S. Survey

I'll take a current A1-c, which is the clinical maker of choice, unless the face amount justifies the extra expense of an APS, or there are extenuating circumstances. And I'd check Rx compliance on pharmacy records, which the underwriter will have on an accelerated case.

The authors mischaracterize lab tests as "invasive", using a clinical term with no relevance in our context,



# Combine the power of behavioral and medical data — and experience the next-generation life mortality model.

Streamline your life insurance process with LexisNexis® Risk Classifier with Medical Data

— an underwriting solution that helps to improve the customer experience by minimizing laboratory requirements and delivers results in minutes vs. weeks.

Make more precise underwriting decisions through stronger holistic mortality scores

Expand accelerated underwriting to broader ages and policy values

Identify applicants who require more extensive medical and behavioral analysis — and fast-track ones that don't

See how we combine behavioral data with prescription history, laboratory work and medical diagnoses so you can offer a touchless, more streamlined underwriting process: risk.lexisnexis.com/products/risk-classifier-with-medical-data



Public Records



Credit Attributes



Driving Behavior



Prescription History



Clinical Lab Data



Medical Diagnoses

LexisNexis® Risk Classifier with Medical Data is a consumer reporting agency product provided by LexisNexis Risk Solutions and may only be accessed in compliance with the Fair Credit Reporting Act, 15 U.S.C. 1681, et seq. LexID® is not provided by "consumer reporting agencies," as that term is defined in the Fair Credit Reporting Act (15 U.S.C. § 1681, et seq.) ("FCRA") and do not constitute "consumer reports," as that term is defined in the FCRA. LexisNexis, the Knowledge Burst logo, are registered trademarks of RELX Inc., used under license. Copyright © 2021 LexisNexis. All rights reserved.



to disparage their use in underwriting.

In risk appraisal "invasive" should be used for that which incurs the ire of applicants.

We know lab tests don't do that because we've deployed them widely for 40+ years with precious little pushback.

In our setting "invasive" equates to unfairly discriminating by using social media content, selfies, residence geography, GPS tracking, etc.

Lastly, does monitoring new "assets" facilitate regulatory approval where there is concern for being denied a state's "imprimatur?"

No.

Documenting the efficacy of a novel requirement has nothing to do with whether it is approved or rejected. The regulators concern must be the best interests of protected classes and state residents overall.

### **COVID-19 Underwriting**

Insurancenewsnet.com had a November 17 piece focused on several questions.

With regard to underwriting vaccination status, we are told that "right now" insurers won't decline unvaccinated applicants.

I hope so...because I see no reason for any kind of adverse action on that basis.

However, this is not the same as saying vaccination status will never be relevant.

Let alone what its relevance might be.

### **Omicron COVID-19 variant**

As we watch all the hype neck deep in dire predictions and threats of deadly lockdowns (the real #1 killer in this pandemic) I'm morally obliged to share what the chair of the South African Medical Association had to say about Omicron.

Doctor Angelica Coetzee, a practicing GP, wrote about SA's experience for Daily Mail.com. I saw it December 19. It first appeared 4 days earlier.

Her comments are especially relevant because Omicron got started down there (Botswana) and she was actually the first person to call wider attention to it.

Dr. Coetzee offered these revelations based on the SA experience.

- Only 26% of South Africans were fully vaccinated as of 12/14
- Nevertheless, Omicron was almost always mild (5 days and done)
- Nearly all are treated at home with ibuprofen, low doses of cortisone, etc.
- "There haven't been many patients admitted to hospital"

Coetzee said that given what's become apparent in her country, she was astonished at knee-jerk overreactions in the UK, US and elsewhere.

She said they are scaring people needlessly and "could end up doing more harm than good."

How does this match up with what you've hearing?

Sigh...



### **ALUCA** and the ALU

Did you know that the Australasian Life Underwriting and Claims Association uses ALU exams 101, 201 and 301 in their continuing ed program for our peers Down Under?

This testifies to the high caliber of these courses and their potential for use in other English-speaking insurance markets.

Bravo!

### **December OTR**

### Hats' off to John Jacovino MD...

...for another excellent article, this time on NAFLD (which we hope every underwriter recognizes as the acronym for nonalcoholic fatty liver disease).

I knew John for years when he was New York Life's Chief Medical Director. He was always been a role model for scholarly inquiry into new, rare and complex medical conditions.

If John said it, you could take it to the bank!

I also noticed that OTR was quite fortunate to have RGA as a contributor to this issue, considering the St. Louis-based reinsurer accounted for roughly the same number of pages of technical content as all other authors combined!

### Sock it to'em Bernie!

No, not Sanders.

Bernie Raimann.

He's a star offensive tackle on Central Michigan University's football team One savvy scout sees him as a first round 2022 NFL draft choice.

Raimann is 6' 7" and 304 pounds. He can bench press 450 pounds.

What caught my eye is his 3.8 GPA (grade point average) with a double major in actuarial science and statistics!

Imagine pushy sales/marketing execs butting heads with *this* Bernie when he's had his fill of football and becomes your chief actuary!

### 35 Underwriters Cut

I heard from a credible source that a US carrier recently had so much success with automated approvals that they "cut" - "laid off" but in truth "sacked" - 35 of our peers.

This depressing nugget tracks back to an "analyst" from one of those nonspecific consultancies. I tried to contact that person and failed.

Anybody know the details here?



# CREDIT DATA IN A PREDICTIVE MODEL: AN INTERVIEW WITH MIKE HOYER, FSA, MAAA (INTELLISCRIPT)

After I spoke briefly with IntelliScript's outstanding Marketing Director Susanna Gomon about the use of credit attributes in a multifaceted underwriting model, she told me Mike is the architect of this resource.

So I asked Susanna if she would ask him...and so on...all of which culminated in a "yes" and this interview!

I think you'll find what Mike says illuminating.

# When did Milliman IntelliScript add Credit Data to its suite of underwriting products?

There's an intriguing correlation between consumer financial data and mortality—many people in this industry have known that for a long time—but we wanted to deliver a consumer credit data product that was meaningful for carriers.

IntelliScript already had a well-established prescription-based predictive model for relative mortality, called Irix® – Risk Score, that was shown to be very accurate and very durable. It was imperative that we had a foundational understanding of the impact of both Prescription Data and Credit Data on mortality. We knew credit would bring additional mortality insights for our customers, so we set to work to be the first to

combine the two datasets into a single score.

That's how the new product, Irix – Risk Score with

Credit Data, was born. We launched it in 2019.

In the intervening two years we've proven its heightened risk stratification power and seen significant carrier adoption. The life industry has embraced predictive models and appears to appreciate the value of risk scoring for mortality, especially when consumer credit data is included.

# What are the components of IntelliScript's Risk Score with Credit Data product?

Many people assume that credit scores, like a FICO or Vantage score, are an input to our models, but that's a misconception; credit scores don't factor into the product. Neither do medical collections, civil judgments, or tax liens. So, we don't rely on simple credit scores, which were developed for lenders, not insurers.

Risk Score with Credit Data draws from the underlying attributes found on a credit report—inquiries, types of accounts, account balances, payment history, bankruptcies, that sort of thing. The beauty of this data is that it's widely available and turns up on most any applicant. Of course, all the data is compliant with the Fair Credit Reporting Act, so consumers can verify and correct it, if they need to.

The model's real value is that it *combines*Prescription Data and Credit Data and issues
a single mortality risk score through our Irix
interpretation engine. It's a much more predictive
score than either dataset alone could produce.

We're transparent with our clients about the components of our models. Each score is returned with a set of reason codes which help explain how the score was derived.



The reality is, these models are very complex, even for trained data scientists. But as the models and algorithms have evolved, much effort has gone into understanding and explaining how they arrive at the output. We've deployed these tools to deliver meaningful and relevant reason codes, giving our clients state-of-the-art transparency and accountability with every score they order.

# Does IntelliScript's Risk Score with Credit Data significantly impact a carrier's mortality experience?

Yes, although the extent of that impact depends on where a carrier is starting from. How sophisticated is their current interpretation of prescription information? Do they already use Risk Score? Generally, our Credit Data can further segment mortality risk above and beyond the most sophisticated interpretation of Prescription Data. This is why bringing both datasets into a single model and producing a single risk assessment is so powerful.

Most carriers we've seen set thresholds that allow them to issue additional policies without taking on additional mortality risk. We have performed several retrospective studies using data from our carrier customers, and all suggest that Risk Score with Credit Data is best-in-class for risk stratification. When we incorporate our Medical Data product into our Risk Score suite (something we're working on) and coax out various additional combinations of data, it will be an even more versatile tool.

It has been opined by some - including me - that using credit data in underwriting could lead to unintentional bias. What is your perspective on this issue?

It may run counter to conventional wisdom, but our work suggests that Credit Data can reduce



Mike Hoyer FSA, MAAA Principal and Director Milliman IntelliScript

potential disparities in underwriting. I say this because we collaborated with a major carrier, using its data to proactively look for evidence of disparate impact. We applied Bayesian Improved Surname Geocoding – a statistical technique developed for the Consumer Finance Protection Bureau to investigate

discrimination in commercial lending—to infer how our predictive model with our Credit Data product would impact underwriting for people of different races.

That analysis showed that all race groups can benefit from the use of Credit Data in underwriting. Compared to Risk Score, introducing Credit Data increased the likelihood of obtaining a policy in simplified-issue products or being accelerated in fully underwritten products. The increase was seen for all races.

This is just one example of a method used to answer some of the difficult questions facing our industry. More work is needed, however, because some of the questions and targets remain ill-defined.

Our ideas and products will continue to evolve as our carrier clients work through these challenges and as further guidance is made available from regulators. But it's our view that any regulatory concerns can be resolved, and we'll do whatever we can to help.

- - - -



Thank you, Mike, for this outstanding contribution to Hot Notes!

Mike Hoyer, FSA, MAAA, is Principal and Director of Product Development and Analytics at Milliman IntelliScript. He built Milliman's first predictive model using prescription histories to quantify mortality risk and later led the development and go-to-market strategy of an enhanced mortality risk score that uses both prescription and credit data. Mike is currently responsible for the development and management of many of IntelliScript's risk assessment tools and oversees a business intelligence team that provides reports and analyses to internal and external constituents. Prior to joining Milliman, Mike worked in a variety of actuarial roles in both consulting and insurance. His experience includes modeling and valuation of long-term care insurance, fixed deferred annuities, and life insurance.



# IFYOUR POST-IT HABIT IS MORE THAN A PACK A DAY

# YOU MAY HAVE FOMA.

We know what it's like to feel FOMA, or Fear Of Missing Anything.

That's why we've created insurance risk assessment tools that provide the most comprehensive picture of your applicants, making it easier than ever to identify risks and opportunities.

Milliman IntelliScript® See more. Fear less.





# ANTISELECTION AND GENETIC TESTING

Golinghurst and 6 prominent coauthors from the University of Iowa and 4 other academic institutions did a comprehensive paper on "Anti-Selection& Genetic Testing in Insurance: An Interdisciplinary Perspective."

One of the authors is Anya Prince, JD, from the University of Iowa's College of Law. She previously did an interview for Hot Notes.

This paper hones in on "how regulation regarding insurer use of predictive genetic test results" might impact antiselection during life insurance acquisition.

By their reckoning this impact "turns on whether individuals alter their purchasing behavior" in the wake of having these tests. They do a superb job of challenging prevalent "worst case" presumptions with the tempering effects of real-world considerations.

They conclude that "...actuarial and economic models generally do not suggest wide-spread and severe anti-selection effects related to genetic testing."

The importance of this cannot be overstated because the argument for using genetic test results is anchored in the most unfavorable presumptions of applicant behavior.

Until we have credible evidence to contrary I agree with them.

Journal of Law, Medicine and Ethics. Iowa Legal Studies Research Paper No. 2021-14. Last revised 9/22/21

# HIGH DEDUCTIBLE HEALTH PLANS (HDHP) & LIFE UNDERWRITING

It is my firm belief that we have no business including medical debt if we use credit attributes in life underwriting.

Here's why:

Fu (Stanford) and 5 coworkers compared HDHPs and traditional health insurance based on out-of-pocket costs and other factors.

Their retrospective study was based on claims involving 134,836 patients aged 18 to 63 (mean 53) with a cancer diagnosis in one national insurance database.

"Patient self-reported outcomes suggest that nonelderly patients with cancer pay up to nearly \$9000 in excess of usual medical expenses compared to patients without cancer."

Recent data have shown that 61% of US households would not be able to cover a \$1000 unexpected expense with savings. How many can handle 9 times that much in a single year?

Patients with cancer face higher rates of bankruptcy after their treatment. In fact, catastrophic medical expenses are the leading cause of both bankruptcy and home loss.

Breast cancer patients with HDHPs experience clinically significant delays in diagnostic imaging (mean 1 month), early diagnosis (6 months) and chemotherapy initiation (7 months), compared to those with traditional health insurance plans.

Take-home message: It is manifestly unfair discrimination to include medical debt in determining credit attributes for use in underwriting algorithms. This should be banned by regulators even if they condone underwriting



### with credit factors on some basis.

Furthermore, high deductible health plans are a trap that consumers are forced into because of the outrageous, ever-escalating premiums for traditional coverage.

If the Congress and Executive branches of our federal government were not compromised by accepting campaign funds from health insurers, we would already have what 75% of Americans demand and all other major Western countries have\* - a single payer ("Medicare-for-all") health plan managed by government, not profit mongers.

\* Some UK politicians - best known as Tories - are selling out their citizenry by handing over their national plan to corporations! Anyone who either approves of or ignores this should ask Americans what will happen.

Fu. JAMA Network Open. 4(2021):e2134282

### EATING DISORDER MORTALITY

Van Eden and her 2 Dutch associates reviewed the best studies on anorexia nervosa (AN) and bulimia nervosa (BN) mortality.

In a 2011 meta-analysis of worldwide mortality studies, the standardized mortality ratio (SMR) for AN was 5.9, which is almost 6 times greater than expected. In BN the SMR was 1.9, virtually twice expected.

A 2020 inpatient assessment yielded over 5-fold higher AN mortality and quite unexpectedly 4.7 times greater mortality in hospitalized BN cases.

Moreover the data are shaping up to show

higher mortality in men with eating disorders (in part because mild cases are unlikely to be diagnosed).

One would expect far better mortality from insured AN and BN cases, though experience suggests we sometimes take BN cases too hastily.

Asch and his 6 University of Pennsylvania coworkers used data from the largest commercial insured American cohort to ascertain eating disorder trends before and during the COVID-19 pandemic.

The rate of new diagnoses doubled in 2020 compared to 2019, with 15% being males.

They sorted relative income levels based on ZIP codes, a method notorious for disparate discrimination! For what it's worth, eating disorders are most prevalent in the \$60,000+ income range.

The portion of patients managed as inpatients more than doubled in May 2020 compared to the same month in 2019. And median hospital stay jumped from 8 days in 2019 to 12 in the first year of the pandemic.

## Looks like eating disorder mortality is destined to increase!

Van Eeden. Current Opinion in Psychiatry. 34(2021):515 Asch. JAM Network Open. 4(2021):e2134913

# MELANOMA MORTALITY IN SPECIFIC CONTEXTS

Watts and her 17 Aussie coworkers investigated mortality in melanomas discovered during routine M.D. skin checks, found incidentally by doctors or detected by the patient.

# MISSING APPLICANT DATA?

CRL PLUS  $Rx^{m}$  can help.



### PHARMACEUTICAL DATA FOR LIFE INSURANCE CARRIERS

An expanded source of prescription histories that integrates with your current system to score, assess risk, and provide results.

### PLUS RX™ FEATURES

Access More Data

Locate hard-to-find data including physicians, address & recent Rx. Great for new business, rechecks & claims.

Leverage Higher Hit Rates

Get more recent and hard-to-find data, especially on Eligibles and No Hits.

Seamlessly Integrate

Our vendor neutral system is modifiable for carrier rules and products; also available as secondary source.

**Ask About Pilot** Options for Rechecks & Claims



Median age at diagnosis is 65.

These New South Wales patients were followed for an average of 11.9 years.

There were some notable differences associated with how they were found:

Patients with incidentally detected tumors were significantly less likely to have a history of prior melanoma or a positive family history.

70% discovered by patients had a change in size, color or shape. 74% bled or looked ulcerated.

Melanomas detected by patients also dominated in terms of 3 major pathology report mortality risk factors, They accounted for:

- 71% of cases 4+ mm thick
- 70% having high mitotic rates
- 70% that were nodular

Given these adverse findings one would expect patient detected melanomas would have substantially higher mortality.

And one would be right!

Both incidental and routinely detected melanomas had at least 50% lower melanoma specific mortality than those found by patients. And the best cases were those in asymptomatic patients during routine skin checks.

Bottom line: it is a **YELLOW FLAG** when the applicant says he found the melanoma and a **RED FLAG** if it was symptomatic.

Watts. JAMA Dermatology. E-published 11/3/21

# WHO CARES ABOUT THIAMINE SUPPLEMENTATION?

We do!

Because it's a **RED FLAG** when underwriting life insurance (plus all morbidity risk products).

Thiamine is vitamin B1 and adequate daily dietary intake is needed to maintain normal blood levels. Fortunately, it's in a wide range of foods so a thiamine deficiency usually means poor nutrition due to poverty, fasting, "braindead" food choices or persistent vomiting.

That said the leading cause in insurance applicants is alcoholism. In this context, thiamine deficiency onset is often initially asymptomatic.

In 56 French cases 80% were attributable to alcohol abuse and anorexia nervosa was the leading cause in adolescent/young adult females.

A study of almost 15,000 alcohol use disorder patients reported 51% were receiving thiamine, most frequently if they were undergoing withdrawal.

Treatment is supplementation, taken orally or by injection.

All applicants taking thiamine (vitamin B1) are uninsurable until we know the reason.

Pawar. Annals of Internal Medicine. E-published 1°2/7/21 Mifsud. Clinical Nutrition. 41(2021):33 Marftel. StatPearls Publishing: January 2021



# CHRONIC STRESS AND MYOCARDIAL INFARCTION

Chronic stress incited by social, behavioral and psychological phenomena plays an underappreciated role in cardiovascular disease.

Recent studies reveal that 50% of American adults have at least 2 chronic stressors; 25% acknowledge 3 or more.

Dupre and his 6 Duke University Medical School coworkers dissected the cumulative effects of chronic stress on the risk of MI in a cohort of 15,109 subjects aged 45 and older.

84% reported at least 1 longstanding stressor and over 50% had 2 or more.

557 (3.7%) would experience a heart attack during the course of the study.

After full adjustment, each chronic stressor increased the MI risk by 10%.

And financial stressors were every bit as potent as medical problems in predicting for a heart attack.

Just as I was ready to send this issue to Rachel to be laid out, I got a new study that complements the one by Dupre. Here are the details:

23 investigators from 10 countries assessed the association between degrees of stress and both all-cause mortality and CAD.

They used data from the Prospective Rural Epidemiology study. It consists of data on individuals aged 35 to 70 from 21 countries.

Stress was reported at 3 levels: low, moderate

and high.

Subjects with high stress levels were more likely to have these characteristics when compared to peers with no, low or moderate stress:

- Higher prevalence of family CV disease history
- Greater % using or formerly using tobacco
- Abdominal obesity
- Alcohol use
- Diabetes

These are the fully-adjusted hazard ratios for All-cause Mortality and CAD:

Stress Level	Mortality	Coronary Disease	
None	1.00	1.00	
Low	1.09	1.09	
Moderate	1.19	1.15	
High	1.17	1.24	

There is a clear distinction between no/ low stress vs., moderate/high stress, further underscoring the adversity of too much stress we have been reporting on for 20+ years!

Remember: toxic stress levels have been linked to pandemic-driven lockdowns and the driver in this context is financial stress!

Dupre. Psychosomatic Medicine. 83(2021):987

# COMORBIDITIES IN CANCER SUVIVORS

There's been a lot of banter about COVID-19 energizing renewed interest among Americans in owning life insurance.

While this may well be true I can think of no



group more likely to covet our products than America's 633,000 survivors of adolescent/ young adult cancer. Their ranks continue to grow because of disproportionate success in managing and ultimately curing these younger patients.

Chao (Kaiser Permanente) and 15 US coworkers evaluated 6778 survivors of cancers diagnosed between age 15 and age 39. Mean age at cancer discovery was 31. Each case was matched to 13 control subjects.

The authors identified 26 comorbidities and the cancer survivors had higher risks of every one of them!

These are the adjusted incidence rate ratios (IRRs) for the most significant comorbidities:

	Incidence Rate Ratio
Cardiovascular Disease	2.54
Cardiomyopathy/Heart Failure	2.64
Coronary Disease	1.63
Stroke	3.19
Diabetes	1.50
COPD	2.30
Severe Depression/ Anxiety	1.39
Chronic Liver Disease	2.35
Kidney Failure	2.29
Osteoporosis	5.75

All are statistically significant

Some of the treatment-comorbidity correlations are interesting:

- Alkylating agent chemotherapy double the cardiomyopathy/heart failure risk
- Methotrexate doubled the likelihood of kidney failure and tripled the incidence of

- lung fibrosis
- Widely-used anthracyclines like doxorubicin triple the chances of cardiomyopathy/heart failure
- The newer breast cancer drug trastuzumab almost quintupled that risk
- Radiation therapy leads to a 2.8 times higher stroke risk and 1.8 times greater chance of developing diabetes.
- Chest area radiation heightens cardiomyopathy/heart failure odds almost 3-fold.

This excellent study makes it abundantly clear that we must routinely get medical records on nearly all applicants that survived invasive adolescent/young adult cancers.

Chao. Journal of Clinical Oncology. 38(2021):3161

### FIBROSIS & NAFLD OUTCOMES

Sanyal (Virginia Commonwealth University) and 17 esteemed colleagues in the NASH Clinical Research Network followed 1773 adults collectively encompassing the histologic spectrum of NAFLD.

Mean age was 52 and the median follow-up interval was 4 years. All subjects had liver biopsies to distinguish the degree of fibrosis severity.

3 outcomes are of interest to us: hepatic decompensation, hepatocellular carcinoma (HCC) and all-cause mortality.

- 55% had definite NASH (steatohepatitis)
- 20% borderline steatohepatitis
- 25% fatty liver without NASH
- 30% either stage 3 fibrosis or stage 4 fibrosis (= cirrhosis).



# Your solutions partner.

As you navigate today's changing market, you'll need a partner who you can count on for innovative solutions – a partner who listens to your challenges in order to uncover new opportunities that foster your ongoing success – because strong partnerships bring success both today and for years to come.

### **PartnerRe**

Your reinsurance partner.



67% with either no fibrosis or mild/moderate fibrosis nevertheless had definite/borderline NASH.

Remember that fibrosis is not synonymous with NASH, which is based on the extent of liver necroinflammatory disease.

AST and ALT did not distinguish between stages of fibrosis. The only two lab tests that reliably pinpointed stages 3/4 fibrosis were serum albumin and platelet count. Both were lowest in stage 4 (cirrhosis).

They reported the following all-cause mortality and HCC hazard ratios

Hazard Ratio (HR) Versus No, Mild or Moderate Fibrosis			
	Stage 3 Fibrosis	Cirrhosis	
All-Cause Mortality	2.8	5.6	
НСС	9.1	4.2	

In other words, a patient with stage 3 fibrosis is 2.8 times more likely to die than a patient with either no fibrosis or just mild/moderate fibrosis.

The finding that liver cancer (HCC) risk is twice as high in stage 3 fibrosis compared to stage 4 (cirrhosis) is counterintuitive. However, we know 15% of HCC cases in NAFLD arise in the absence of cirrhosis.

The authors calculated expected annual deaths from higher stage fibrosis:

Fibrosis Stage	Projected Annual US Deaths
3 (bridging fibrosis)	17,800
4 (cirrhosis)	22,880

They pointed out that their subjects had very

little/no alcohol use based on study recruitment criteria. In the "real world", however, a sizeable share of patients said to have NAFLD do drink alcohol and occasionally to a robust extent.

Take-home message: always check the GGT, MCV and AST-to-ALT ratio and look for other alcohol-related clues when underwriting alleged nonalcoholic liver disease!

Sanyal. New England Journal of Medicine. 385(2021):1559

### **COVID-19 UPDATE**

We have a lot to report this month and therefore this update will be a bit longer than those we've done previously.

COVID-19 will once against be abbreviated C-19 to save space and lessen the trauma to my 2 arthritic typing fingers!

"...fully vaccinated individuals with breakthrough infections have peak viral load similar to unvaccinated cases and can efficiently transmit infection in household setting, including to fully-vaccinated contacts."

Anika Singanayagam, PhD et al Imperial College, London Lancet Infectious Disease E-pub 10/29/21

Aaron Siri, an attorney with the law firm suing Pfizer over refusing to release information about approval of Pfizer's Comirnaty C-19 vaccine, made the following observation:

"It took the FDA precisely 108 days from when Pfizer started producing the records for licensure to when the FDA licensed the Pfizer vaccine...it now asks for over 20,000 days to make these documents



available to the public."

In the celebrated words of late underwriting guru Charlie Will:

Does it make sense?

The Vaccine Reaction. 11/21/21

### **Decreased Immunity After Vaccine**

An Israeli study found that "immunity against the delta variant of SARS-CoV2 waned in all age groups a few months after receipt of the second dose of vaccine."

Two thirds of severe C-19 cases during the study period occurred in persons who had received 2 doses of the BNT 162b2 vaccine.

This finding, along with other similar reports, argues against underwriting fully vaccinated applicants any differently than those who are unvaccinated.

Goldberg. New England Journal of Medicine. 385(10/27/21):e85

### Long COVID

Groff (Penn State University) and a team of 10 Aussie investigators reviewed 57 studies with 250,351 C-19 survivors.

They found that mental health due to "posttraumatic stress, social isolation and economic factors such as loss of employment" played a huge role in long COVID complaints.

Groff. JAMA Network Open. 4(2021):62128568

# Late Symptoms Confirmed As Due To C-19 Infection

Matta (University of Versailles) and her 14 French associates examined the relationship between the belief one had C-19 infection and persistent physical symptoms in 62,827 subjects, mean age 49.

Symptoms were reported on a subject questionnaire.

The prevalence of persistent symptoms ranged from 0.5% with anosmia to 10.2% for sleep problems.

Prior to adjustment, believing they'd had C-19 infection was associated with 15 of 18 categories of symptoms whereas confirmation of infection with a positive serology test was linked to 10 symptom categories.

After full multivariate adjustment, however, a positive C-19 test correlated with just one symptom: anosmia. This was also true if the infection was confirmed by a physician.

The authors concluded that almost all symptoms persisting 10+ months are associated with believing one had C-19 rather than actually being infected and that "...patients in this situation should be offered a medical evaluation to prevent their symptoms being erroneously attributed to COVID-19 infection."

If additional studies confirm these findings, there are obvious implications for how we underwrite "long COVID."

Matta. JAMA Internal Medicine. E-published 11/8/21



RGA's ASAP tool has long been the life underwriter's go-to solution for submitting minimal information to get immediate decisions on cases with one or two impairments. ASAP is known for yielding competitive offers, even preferred status, for dozens of individual impairments and numerous dual impairments.

**RGA** is proud to introduce **ASAP Infinity**, a new pathway for cases with any impairment that don't qualify for the traditional ASAP automated decisioning tool.

### **How ASAP Infinity Works**

- Simply submit the case details via RGA's user-friendly web interface
- RGA underwriter provides ASAP offer typically within an hour

### **Benefits of ASAP Infinity**

Using ASAP Infinity for impaired-risk cases can benefit direct underwriters in a number of ways.

- Early data supports an improved RGA offer in more than 90% of cases
- Maximum flexibility without rules engines
- No limit to the number of impairments considered
- Any ratings can be considered
- No need to send a complete file
- · Quick turnaround

ASAP Infinity can be a time-saving alternative to the traditional fac-shopping methods by reducing typical turnaround times from days to minutes.



For more information about how ASAP Infinity can benefit your organization, contact your RGA underwriter or Scott Sibley at ssibley@rgare.com.



# Post-COVID Neurocognitive Function

3 new studies looked at aspects of this formidable consequence.

Becker (Mt Sinai Medical School) and 6 New York City coworkers analyzed data on 740 patients mean age 49 after an average of 7.6 months following C-19 infection.

Impediments in memory, processing, executive function and other cognitive domains were present in 15% to 24%.

The risks of category fluency and 3 distinct aspects of memory function were significantly more common in patients that were first seen in the emergency department or managed as inpatients.

Wei and anesthesiology associates in China reported an increased risk in perioperative neurocognitive disorders C-19 cases, which persisted postoperatively as chronic cognitive dysfunction.

After reviewing the literature, they concluded that C-19 may lead to accelerated cognitive decline incited by stress from surgery and anesthesia.

Asadi-Pooya and his 15 Iranian and American colleagues investigated the frequency of brain fog in C-19 survivors. Brain fog is "mentally slow, fuzzy or spaced out" to an extent that substantially impairs thinking and concentration.

They followed consecutive adult C-19 patients diagnosed in 545 health care centers with phone interviews and questionnaires. 7.2% experienced longstanding brain fog.

They found 3 multivariate risk factors:

	Odds Ratio
Respiratory problems at C-19 onset	1.95
ICU Admission	1.79
Female gender	1.42

Becker. JAMA Network Open. 4(2021):e2130645 Wei. British Journal of Anesthesia. 127(2021):e113 Asadi-Pooya. Journal of Medical Virology. E-pub 10/21/21

### **C-19 Vaccines And The Heart**

Dr. Steven Gundry, a pioneer in heart transplant surgery, did a presentation at the American Heart Association annual meeting that garnered a great deal of unexpected attention.

Gundry's team had been using a test called PULS every 3 to 6 months for 8 years to monitor their patients. This test measures the most clinically important protein biomarkers that leak from lesions in blood vessel walls.

They encountered dramatic changes in most patients' PULS scores after C-19 vaccination. They said that this more than doubled (11% to 25%) the 5-year risk of acute coronary syndrome.

### In their words:

"We conclude that the mRNA vacs dramatically increase inflammation of the endothelium and T-cell infiltration of cardiac muscle and may account for the observations of increased thrombosis, cardiomyopathy and other vascular events following vaccination."

A short report by Murphy and Longo in the New England Journal of Medicine looked at how downstream effects of the antibodies



produced against the coronavirus spike protein correlate with bodily damage after the C-19 infection has resolved.

Lastly Avolio (University of Bristol, UK) and her 17 coworkers showed that:

"...fragments of the S [spike] protein may elicit vascular cell dysfunction...independent of the infection. This mechanism has the potential to spread cellular and organ injury."

These findings are particularly worrisome given the rising incidence of cardiac deaths in highly-trained healthy athletes, worldwide.

Gundry. Circulation. 144(2021):abstract A10712 Murphy. New England Journal of Medicine. E-published 11/24/21

Avolio. Clinical Science (London). 135(2021):2667

# Cigarette Smoking In US During C-19

Asare and Majmundar (American Cancer Society) reported data comparing recent cigarette sales volumes to pre-pandemic levels.

Actual sales exceeded expectations every month after onset of the pandemic. Overall cigarette sales were up 14.1% compared to what was anticipated.

Will these rates fall after the pandemic or stabilize at this higher level?

Either way, the net impact has to be an increase in smoking-related deaths...

...at a time when our surveillance largely consists of asking the applicant!

Asare. Annals of Internal Medicine. E-published 10/10/21

### Delayed Melanoma Diagnoses And Care

One of the most disconcerting life underwriting aspects of the pandemic is the potential for formidable excess mortality due to delayed screening, diagnosis and treatment of medical conditions.

"Given the strain on healthcare resources secondary to COVID-19, many melanoma surgeries were... delayed 3-6 months following diagnoses."

Catherine H. Davis MD, MPH Rutgers Cancer Institute Annals of Surgical Oncology E-published 11/19/21

Davis and her 6 coworkers contrasted 375 melanoma patients treated before the lockdown and 313 managed thereafter. In the latter subset:

- In situ cases declined from 15.2% to 9.8%
- 27.5% had stage III/IV disease compared to 7.1% before the lockdown

Similar results were found by comparing May/June 2019 cases to those over the same 2 months in 2020. In the first group there were 72 melanomas whereas in May/June 2020 only 20 cases were seen at this major patient referral center.

The authors predicted "significant downstream effects on prognosis."

Gualdi and his 27 Italian associates estimated the impact on melanoma disease progression due to the reduction in access to dermatology care during the pandemic.

Cutaneous melanomas diagnosed at 12 dermatology centers from May 1 to July 31 2020 were compared to a control group consisting of

# HOW CAN YOU TEST FOR ALCOHOL CONSUMPTION

and still follow social distancing guidelines?

# Accurately measure alcohol consumption levels with Alcohol Signature™

Our simple process leads to precise consumption results while keeping everyone safe.

- Our easy-to-use kit is sent to the applicant so they can collect a saliva specimen at home
- The applicant uses our secure, prepaid mailer to send the specimen to our lowa-based lab
- Within three business days, you receive easy-to-read, confidential results that analyze alcohol consumption across 60 days or longer



### **LEARN MORE**

www.bdmethylation.com info@bdmethylation.com 319-621-5899



patients diagnosed over the same interval in 2017, 2018 and 2019. There were 237 cases in subjects (2020 subset) vs. 887 controls (3 previous years combined.

Subjects had 0.5 mm greater median thickness and higher %'s of ulceration and tumors with > 4 m mitoses per mm2. In addition, a larger subset of 2020 melanomas were in the vertical growth phase.

Bottom line: melanoma cases we see going forward are certain to contain fewer in situ tumors and more uninsurable applicants.

- 1. Adequate path report mandatory or aloha
- 2. Exceptions = Russian roulette with a halfloaded gun!

Davis, Annals of Surgical Oncology. E-published 11/19/21 Gualdi. Clinics in Dermatology. 39(2021):911

### Molnupiravir

This the new COVID-19 drug. The brand name is Lagevrio and it is taken orally as an 800 mg pill very 12 hours for 5 days.

The Merck drug got FDA approval for "emergency use" in C-19 patients "at high risk for becoming severely ill."

"Molnupiravir clearly induces intense mutagenesis...in mammalian cells. The drug may damage DNA."

Johan M, van Schalkwyck MD Auckland District Health Board British Medical Journal 375(2021):n2663

One FDA board member voting against approving the drug was concerned that it could cause cancer, genetic diseases or birth defects. Opponents of approval reported on data demonstrating that viral samples after treatment treated with the drug showed "worrisome mutations."

Washington Post 11/31/20

The New York Times reported that the federal government ordered 1.7 million courses of treatment costing \$700 per patient.

Newsweek October 11 2021

### Mortality

"230 (97%) individuals had at least one cause of death listed in addition to COVID-19. A mean of 2.9 causes of death (excluding COVID-19) were listed on death certificates (range from one to eight other causes of death)."

Zoe Grange and 11 coworkers Public Health Scotland The Lancet 398(2021):1799[letter]

Jessica Rose PhD is a Canadian computational/molecular biologist, immunologist and an expert in pharmacovigilance.

In the wake of a major pathologists meeting in Reutlingen Germany Dr. Rose undertook an investigation of deaths attributable to C-19 vaccines, She and her colleagues wanted further insight regarding thousands of Europeans who were dying after getting jabbed with one of the vaccines.

Her paper "Critical Appraisal of VAERS Pharmacovigilance: Is the U.S. Vaccine Adverse Evets Reporting System (VAERS) a functioning pharmacovigilance System?" was published in a major journal in October.



I first learned about it during a chat with a California professor of immunology.

Rose used data from VAERS and Mass General Hospital to try to ascertain if C-19 vaccine-induced deaths were underreported.

The report is lengthy and complex, so I'll just cut to the chase:

Rose calculated at 31-to-1 actual-to-reported deaths ratio and stated that "...it is satisfactory to assume that 31 is a humble estimate."

Rose said that VAERS "could be used as a functioning pharmacovigilance system" but "is not being used as such."

She also noted that an early Harvard study reported that just 1% of acute adverse events get reported to VAERS.

Her paper had 3 peer reviewers. This is the ink to it:

https://cf5e727d-d02d-4d71-89ff-9fe2d3ad957f.filesusr. com/ugd/adf864\_0490c898f7514df4b6fbc5935da07322. pdf

Rose. Science, Public Health Policy and the Law. 3(2021):100

# IQ Of Kids Born During The Pandemic

A short report in the British Medical Journal looked at a study in Rhode Island were the average IQ score of children born since COVID-19 exploded onto the scene was 22 points lower (78) compared to those born in 2019.

Only higher maternal education significantly reduced the risk.

Massive TV exposure, decline in meaningful

conversation and lack of social intercourse were suspected as contributors to this disturbing phenomenon.

Dyer. British Medical Journal. 374(2021):n2031

"This is a new America. An America where if you disagree with mainstream beliefs, your ability to communicate with others will be terminated and you will have no recourse even if everything you said is absolutely true.

Truthful speech is not protected in America."

Steve Kirsch
Executive Director
Vaccine Safety research Foundation
12/23 personal communication

This concludes our COVID-19 update.

### NAFLD INSIGHTS

This is a potpourri of new developments in nonalcoholic fatty liver disease.

Because of its prevalence and insurable implications, underwriters - and especially those who set risk assessment guidelines or make presentations on this subject - need to be aware of what's going down.

There is a powerful association between NAFLD and the 5 criteria for the metabolic syndrome. This has led to the use of a new acronym for NAFLD accompanied by metabolic dysfunction:

MAFLD (for metabolic dysfunction-associated fatty liver disease).

In August we reported on BAFLD - an acronym for both alcoholic and fatty liver disease. This would



apply when individuals said to have NAFLD were found to consume at least 14 drinks per week or have other evidence of more than minimal ETOH use.

Things have gotten pretty complicated now!

Does the applicant have:

- NAFLD Simple fatty liver disease with very little or, ideally, no alcohol use
- MAFLD NAFLD with 3+ metabolic syndrome criteria present
- BAFLD NAFLD criteria present in a regular (daily/robust) drinker
- Steatohepatitis which may be present in any of these "FLDs" and also accounts for nearly all of the mortality risk in them as well

Bottom line: you can't underwrite an applicant said to have fatty liver or NAFLD without, ideally:

- 1. Adequate access to medical history
- 2. Current or very recent labs (LabPiQture, etc.)
- 3. Motor vehicle record
- 4. Prescription Rx history

Flisiak-Jackiewicz. Journal of Clinical Medicine. 10(2021):924 Younossi. Hepatology. 73(2021):1194 Mendez-Sanchez. Medical Science Monitor. 27(2021):e933860

### Noninvasive Fibrosis Markers

Over the last several decades, at least a dozen of these makers were introduced. They consisted of 2 or more components, the most abundant being blood tests such as platelet count, liver enzymes, serum albumin, etc., and elastography

A multidisciplinary team of 12 Italian researchers did a meta-analysis comparing 2 of the more widely used fibrosis markers: fibrosis-4 index (FIB- 4) and NAFLD fibrosis scores (NFS).

The main takeaway is their mediocre performance, leading the authors to recommend searching for better tools.

In my view, the best way to sort this risk is with findings on lab tests we know are associated with cirrhosis, liver cancer and mortality, most notably:

- GGT
- AST/ALT ratio
- Platelet count
- Serum proteins (low albumin, high globulin)
- Elevated MCV
- Elevated RDW

Plus any scans (such as some type of elastography, abdominal CT) and the medical history (symptoms, signs of liver disease, etc.).

If these are essentially negative, significant fibrosis is not present.

Castellana. American Journal of Gastroenterology. 116(2021):1833

### Miscellaneous

- NAFLD cirrhosis can undergo regression, either following weight loss (especially bariatric surgery), improved diabetes control, other management steps and even spontaneously. This greatly reduces the risks of decompensation and death.
- NAFLD does not increase the risk of dementia; in fact, it decreases the odds of serious cognitive dysfunction.
- The longstanding use of protein pump inhibitors (PPIs) for GI reflux increases the risk of fatty liver disease by at least 50% after adjustment for other risk factors.
- Vitamin E supplementation reduces the risk



SEE how LabPiQture<sup>™</sup> delivers a 7-year longitudinal health history of an applicant through a database of clinical laboratory testing results. This exclusive data set includes laboratory test results for millions of unique patients.

CREATE an even more complete picture by adding ScriptCheck®, our prescription history database that includes more than 24 billion prescriptions from the country's largest pharmacy benefit managers and retail pharmacy chains. Cash prescriptions and uninsured prescription refills are also discovered through our ScriptCheck database.

EXPAND YOUR VIEW of your applicants. Whether using these data sources as part of an accelerated underwriting program, or as a supplement to the traditional, full underwriting requirements, our data solutions create in-depth insights to help you make quick and confident decisions.

ADD SPEED, EASE, AND CLARITY TO YOUR WORKFLOW WITH REAL-TIME, HEALTH-BASED DATA SOLUTIONS

Empowering your decisions | Find out more at ExamOne.com



of NAFDL/NASH and also improves hepatic histopathology as demonstrated on biopsy.

Sanyal. Hepatology. E-published 10/18/21 La Benz. Digestive Diseases & Sciences. 66(2021):3179 Pyo. Journal of Gastroenterology and Pathology. 36(2021):1235 Vadarlis. Journal of Gastroenterology and Pathology. 36(2021):311

### ABSENCE EPILEPSY (AE)

I haven't seen this subject covered in an article, webinar or underwriting meeting presentation in many years, so we will cover the essentials here.

AE is defined as brief (momentary, actually) seizures characterized by sudden pause in activity and blank stare, with a specific EEG (electroencephalographic) abnormality.

It used to be called "petit mal;" this term is obsolete and its use is strongly discouraged...but GPs use it anyway, likely to irritate neurologists!

There are multiple forms including childhood (CAE), juvenile (JAE), and juvenile myoclonic (JME).

Peak ages are 5-7 years old and AE accounts for 15% of juvenile epilepsy cases. Onset > 20 is dubious = almost always misdiagnosis.

Episodes seldom exceed 30 seconds; there is no aura or postictal state.

Firstline Rx is officially ethosuximide [Zarotin]; other antiseizure drugs may also be prescribed.

60% attain freedom from attacks by adulthood.

5-fold increased risk of lifetime major depression

The leading causes of excess mortality are accidents and misdiagnosis. There is little or

no added mortality risk except perhaps from comorbid depression.

### **RED FLAGS:**

- Symptoms and other findings inconsistent with the foregoing
- Onset < age 3 or > age 20
- Still present > age 20
- Other abnormal neurological findings
- Treatment with carbamazepine, gabapentin, antipsychotics
- Referral by (not to) pediatric neurologist
- Significant psychiatric comorbidity (depression, psychosis)
- Applicant in lower school grade level than expected based on age
- Risky avocational indulgences

Albuja. StatPearls: January 2021 Gruenbaum. Epilepsia. 62(2021):1041

### **STUFF**

### Stage I Testicular Cancer Management

In addition to radical orchiectomy stage I testicular carcinomas and seminomas almost always got adjuvant therapy: chemo for carcinoma and radiation for seminoma.

Now, after surgery most are followed with active surveillance and additional intervention is only done as indicated by interim developments.

In this way, treatment toxicity is avoided with little if any added mortality risk. Surveillance should not change how we underwrite.

Padayachee. Current Opinion in Urology. E-published 10/11/21



### Alopecia Areata (AA) Comorbidities

Alopecia Areata is a common (6.8 million in US) autoimmune disorder presenting with incurable patchy hair loss with onset typically < age 30.

Our concern is comorbidities and they are numerous both prior to and following the AA diagnosis.

Danish dermatologists used their national register to identify all cases (1843) diagnosed nationally between 2007 and 2016, matching them with controls free of AA.

Hyperlipidemia and diabetes are more common in AA and often precede its onset.

These comorbidities mainly arise after AA diagnosis:

	Incidence Rate Ratio (IRR)
Atopic dermatitis	9.41
Crohn disease	3.04
Thyroid disorder	2.38
Asthma	2.17
Antidepressant Rx	1.26

Egeberg. Clinical & Experimental Dermatology. 46(2021):651

### Treated vs. Untreated Hepatitis C

Butt (egad!) and coworkers from the Pittsburgh Veterans healthcare system compared treated vs. untreated hep C patients, with HCV-free controls.

Treatment was with DAA (direct-acting antivirals), the drugs that have resulted in > 90% "cures" (defined as clearing the virus).

Liver disease mortality was much improved in complete (SVR) responders...

	Mortality rate/100 Person years
No HCV	0.06
Treated HCV	0.28
Untreated HCV	1.44

...but still significantly higher than in HCV-free controls.

### 2 other interesting findings:

	No HCV	HCV+Rx	HCV-no Rx
Alcohol Use Disorder	17.0%	26.0%	32.0%
Hepatocellular carcinoma	0.2%	5.5%	6.3%

There is still excess long-term mortality risk after complete viral eradication.

Butt. Journal of Hepatology. 73(2020):277

### **Gestational Diabetes (GDM)**

In life underwriting we regard a history of GDM as insignificant if there were no significant complications and the applicant has been normoglycemic.

Experts from 3 countries used registry data on over 10 million parous Danish women to find out if there was any long-term CV risk.

They found 40% more than in controls free of GDM history and only 23% of that risk could be attributed to progression to type 2 diabetes.

Odds of both MI and CHF more than doubled.



Pre-pregnancy obesity and a maternal history of CVD are key risk factors.

Are women with GDM history legit preferred risks?

Yu. Diabetes Care. E-published 11/11/21

### **CPAP** and Hypertension

Continuous positive airway pressure (CPAP) is the treatment of choice for obstructive sleep apnea (OSA).

Lui and her 5 Hong Kong coworkers analyzed the associations between CPAP, ambulatory BP and myocardial damage in 92 subjects taking BP Rx.

Man age was 52, 75% were men and their average apnea/hypopnea index was 40 (severe OSA). Subjects took an average of 3.4 BP drugs, consistent with difficult-to-control blood pressure.

Compared to controls, those on CPAP had significant improvements in various BP parameters, as well as reduced troponin and NT-proBNP.

If the patient is CPAP-compliant.

Which is the matter to be investigated to justify crediting for CPAP use.

Lui. European Respiratory Journal. 58(2021):2003687

### **Thyroid Cancer Ablation**

10 international coworkers found that thermal ablation is adequate to treat papillary thyroid microcarcinomas and recurrent metastatic lymph node disease.

There is a variety of methods including ultrasound,

laser, radiofrequency and microwave ablation.

The authors maintain thermal ablation should replace surgical resection.

Kuo. Surgery. E-published 11/11/21

### 17-Year Eating Disorder Outcomes

Eielsen and her colleagues looked at longterm outcomes in 62 adults with longstanding eating disorder. All were previously managed as inpatients.

Mean age at the end of 17-year follow-up was 46. The Eating Disorder Examination (EDM) was used to confirm recovery.

29% made a full recovery, 21% recovered partially and 50% still had full-blown ED.

70% had at least one comorbid psychiatric disorder.

Bottom line: underwrite ED cases thoroughly. Inpatient care is a #1 RED FLAG.

Eielsen. International Journal of Eating Disorders. 54(2021):841

### AP & CAC

Ren and 8 Chinese coworkers analyzed the relationship between alkaline phosphatase (AP) and arterial calcification based on intravascular ultrasound (IUVS) in acute coronary syndrome patients.

234 participants were divided into tertiles of AP: <68, 68-80 and > 80.

After multivariate adjustment those with AP in



the top 1/3rd (> 80) had 2.9 times greater risk of significant calcification.

This isn't the first study we've seen that links AP to CAD. Borderline/ elevated AP is a **YELLOW FLAG** for occult atherosclerotic disease.

Trouble is, there more important considerations associated with elevated AP, largely driven by whether or not GGT is also raised...which we won't know very often without a current insurance blood profile.

Ren. Catheter-Based Cardiovascular Interventions. 97, supplement 2(2021):1055

### **RLS & CLD**

Restless leg syndrome (RLS) is a sleep disorder. Patients with chronic liver disease (CLD) are at increased risk for sleep difficulties. A multidisciplinary team of Indian, Swedish and American investigators did a literature review and meta-analysis on RLS in CLD.

Based on 9 studies meeting their quality criteria, the pooled odds ratio of RLS among patients with various chronic liver disorders was 8.6.

That's an imposing number by any criteria!

There was no correlation between RLS and any specific liver pathology or its severity.

Bottom line: if the applicant has chronic RLS, be sure to have a close look at all liver-related test and MCV readings in the medical history. The enzymes may fluctuate and still be due to liver disease.

Pan. Angiology. E-published 11/24/21

### ALS in the NFL

We have seen studies linking football to dementia. Amyotrophic lateral sclerosis (ALS) is another consequence of that violent sport.

Daneshvar et al looked into this using records on 19,423 former and current National Football League players.

There were 38 ALS cases, which was 3.6 times the number expected based on age and gender.

Players succumbing to this disease had significantly longer careers (mean 7 vs. 4.5 years). This as the only significant discriminator.

You would think the risk was highest in offensive and defensive linemen, linebackers and safeties.

It wasn't.

Daneshvar. JAMA Network Open. 4(2021):e2138801.

This concludes our January batch of STUFF.



# DMT & ENTITIES A HOT NOTES SPECIAL REPORT

This is absolutely nothing to do with underwriting.

Davis (Johns Hopkins Psychiatry Department) and his 5 associates reported findings from an anonymous Internet-based survey of individuals that reported having "an encounter with a seemingly autonomous being or entity" after taking dimethyltryptamine (DMT).

2531 completed surveys were deemed eligible. Mean age was 32. Mean age at first entity experience was 27.

37% had college degrees and an equal share made over \$50,000 US.

Here are some details about their encounters:

- 69% of contacts were initiated by the entity
- 92% were visual and 54% audible
- 49% went from entity to human subject only;
   40% constituted a dialogue
- The most common terms used for the entity in to the encounter were "being", "guide", "spirit" and "alien"
- 99% said the encounter was emotional; 65% named joy as the strongest emotion, followed by trust (63%)
- 58% said the being was also emotional; the top 2 were love and kindness. Only 2% reported fear or anger
- 75% said the entity lived in another dimension
- 81% regarded the experience as "more real than everyday consciousness"
- 80% underwent a changed perception of reality
- 25% were atheists before the experience but just 10% afterwards
- 36% came away convinced of a "higher power"
- 69% sensed a mission on the part of the entity
- The most common was sharing idiosyncratic

### information

One woman said the entity told her "you've finally found me."

There you have it...as reported in this riveting paper.

Would you decline a case with this revelation for illicit drug abuse or perhaps for implicit psychosis?

I'd trade my left whatever for one of these experiences before I die.

But thanks to repressive laws made by smallminded fools, I have zero chance without committing a "crime."

I know I'm not the only underwriter who finds this fascinating and because the odds of you seeing this study are poor to nil, I decided to share it here.

Davis. Journal of Psychopharmacology. 34(2020):1008



### **ESSENTIAL QUOTES**

Those who make peaceful revolution impossible will make violent revolution inevitable.

John F. Kennedy

The deepest sin against the human mind is to believe things without evidence.

Aldous Huxley

It may be beyond the imagination of Americans to accept that their system is in jeopardy... What happened on January 6 has so far gone unpunished, which means it is likely to be tried again.

Edward Luce Financial Times December 16 2021

COP26 is a failure. It should be obvious that we cannot solve a crisis with the same methods that got us into it in the first place

Greta Thunberg on the Glasgow climate conference

George Kennan once compared US foreign policy to a brontosaurus, a large prehistoric beast that wreaked havoc with its powerful tail, which went unrestrained by its very small brain. The image has never been more appropriate than today.

Walter L. Hixson, PhD
Distinguished Professor Emeritus of US History
Counter Punch
12/23/21



### **MOVIES**

After watching more films and bingeable series than in any previous month of my life, I must say that December was riddled with disappointments plus a couple of unexpected gems.

I'll focus on those apt to be more accessible (Netflix, Amazon) to sensible folk ill-disposed to spend as much on streaming channels as a housebound old git living alone!

- - - - -

For over a month I visited Amazon Prime every afternoon patiently (at first) waiting for the "still in theaters" (as if 2 in LA mattered) \$20 rental tariff on

**LAMB** 

•

to drop to the usual \$5.99.

Then I did the dumbest thing imaginable (even for me!).

I paid \$20 for what was billed - with flagrant deception - as a horror movie but best summed up as a molasses-slow, super-scenic atypical lamb fantasy showcasing Naomi Rapace (in my top 5) raising the partially-cloven beastie like a child.

What I envisioned was a variation on the theme of **ISOLATION** the Irish horror masterpiece about an "odd" (and then some) calf. If you haven't seen it, do so!

What I got was a 106-minute go-no-where-athon which Letras Libres called "a super cute and intimate family drama".

In a word: disgusting!

\_ \_ \_ \_ \_

The first home invasion flick way back when was, if nothing else, fresh.

The next 200?

Zombie dull and distinguishable solely by intensity and duration of gore.

Enter

### **MOTHERLY**

Yes, the critics loved it even more than the audiences (80%).

Daddy got "life" because mommy Kate said it was him who slaughtered a wee neighbor lass. With the locals a tad riled up and all, cops witness-relocated Kate and her mega-brat daughter Beth.

This masterpiece of misdirection takes an ultimately blood-drenched detour incited by novel home invasion, anesthesia-free fingernail "surgery", a body count crescendo; then, an epic twist.

Hats off to the cast and screen play writer.

This one you won't watch twice.

- - - - - -

Back to Scandinavia for another NETFLIX bust.

The

### **ELVES**

### 00

trailer conjured creepy pipe dreams only to nosedive as 6-segments detailing of ineducable preteen Josefina Savane's misadventures on the family's doomed holiday getaway to a remote Danish island peopled by a religious sect sworn to contain a nightmarish Nisser infestation.



Irrepressible Josefina brings home a tiny creature she found just outside a fearsome paddock topped with razor wire.

Bad call considering the assertive disposition of the nippy toddler's aggrieved parents.

Think about it.

How often do you like films utterly devoid of likeable non-stupid characters?

That's when you start cheering for the monsters!

Tanya French is a prolific writer of Irish crime novels. The first 2 in the Dublin series were adapted as an 8-segment near-masterpiece dubbed

## DUBLIN MURDERS

available on Netflix.

Garda detectives Rob (Killian Scott) and Cassie (Sarah Greene) investigate the murder a 13-year-old lass, daughter of a rigid patriarch with interests in certain local Punta\*-ridden projects.

Bravura performances! Tempered only by smoking like starved carnivores in virtually every scene. Must have been a hearty bribe by the cancer stick makers.

Existential dalliances abound, woven with scads of red herrings and twists.

Main criticism = too long.

I did slog through the first of the 2 novels adapted here.

Analysis = gifted wordsmith encumbered by Stephen King's Disease, an incurable neurotic

fixation with number of pages as the cardinal measure of excellence.

\* Irish version of the Pound, now gone in favor of the generic Euro

----

### 

is the breathless saga of a, yes, girl from Oslo, (Pia) with the smarts to go holidaying in a remote region of Egypt with two Jewish friends.

Netflix binger in English, Arabic, Hebrew and Norwegian, evangelized as "a beautiful and disturbing political thriller that keeps you asking for more" when in fact it is gutwrenchingly tedious with transparent Arab-demeaning and Gaza whitewashing.

Pia's mother Alex (brilliantly rendered by Anneke von der Lippe) flies to Israel to get the facts from former flame Arik, him being well-positioned to intervene until matters get - what else? - complicated enough to justify stringing out a less-than-original 90-minute-worthy experience into a hemorrhoidogenic grinder.

Alas. the climax is Americanized, accommodating a potential season II harrowing tale of Pia doing something even dumber in Myanmar (a/k/a Burma).

- - - - -

## AND TOMORROW THE ENTIRE WORLD

is a part-romance/part-thriller German flick that local Antifa having their way with neo-Nazi goons.



Politically primordial Americans gave it a middling Tomatometer Score (54%), a far cry from that of appreciative critics (82%).

Law student Luisa from an affluent family joins an Antifa co-op in Mannheim whereupon she is wooed by dashing Che-wannabe Alfa to ally with their de facto Weathermen faction that fearlessly used Louisville Sluggers on the windshields of cars parked behind a fascist pep rally.

**SPOILER ALERT** for our Resilient Righty Readers: the Proud-Boy-ish lot are portrayed herein as thicker than igneous rock.

Julia von Heinz directed this Venice Film Festival entrant, making the most of her beer and schnapps budget.

Needless to say, I savored it!



Thank you for being with us again.
We hope you like the scope of content kicking off our 22nd year.

Please, tell us what you think and what you'd like to see in future issues.

Hank and the Hot Notes Team

Author/Editor-in-Chief
Hank George, FALU, CLU, FLMI
hank@hankgeorge.com

Managing Editor
Rachel Taylor, MBA
rachel@hankgeorge.com

Advertising **Esther Ledesma** 

esther@hankgeorge.com

IT Manager

Rick Taylor rick@hankgeorge.com

Insureintell.com Manager

Matt George

matt@hankgeorge.com

Hank's HOT NOTES is an independent publication designed to provide business information and opinion to life and health insurance underwriters. It is intended to encourage discussion and further research.

Hank's HOT NOTES does not recommend any specific action or risk appraisal in any individual life or health insurance application. All information and opinion published should undergo formal scrutiny by underwriting officers, medical directors, actuaries, legal counsel and other insurance professionals as appropriate.