Hank George, INC.

www.HankGeorgeInc.com

Report of an NT-proBNP Survey of Reinsurers

Hank George, FALU, CLU, FLMI

NT-proBNP is a cardiac marker.

Since it was introduced just a few years ago, over 60% of U.S. life insurers now use this test on some basis. This represents the fastest embrace of any underwriting requirement since HIV-1 screening began over 25 years ago.

Several months ago, we undertook a survey of reinsurers doing business in the United States, asking them 10 questions about various matters related to NT-proBNP. The survey was directed at chief underwriting officers and 8 of the 10 invited participants completed the survey.

We intentionally blinded ourselves to the names of the respondents. Our only interest was reviewing and analyzing the aggregate results, along with any anonymous comments they chose to make.

This report details the results of this unique and timely survey.

Quantitative Survey Results

1. How do you rate NT-proBNP as a screening test at older ages?

Great value	12.5%
Significant value	**62.5%**
Modest value	25.0%
Other	0%

2. How do you rate NT-proBNP as a reflexive test for applicants with significant or potentially significant cardiac history?

Great value	12.5%
Significant value	37.5%
Modest value	**50.0%**
Other	0%

3. How do you rate NT-proBNP as a reflexive test for applicants with a strongly unfavorable CV risk profile?

Great value	**37.5%**
Significant value	25.0%
Modest value	25.0%
Other	12.5%

4. Does your manual have underwriting criteria for NT-proBNP?

Yes		**75.0%**
No		25.0%

5. Does your company extend any type of favorable pricing consideration when an automatic client screens older age applicants with NT-proBNP?

Yes – routinely		25.0%
Yes – sometimes		**50.0%**
No		25.0%

6. How would you rate the relative protective value of a resting ECG as compared to that of NT-proBNP at older ages?

NT-proBNP is superior		25.0%
Their value is roughly equal		**75.0%**
Resting ECG is superior		0%

7. If an automatic client has favorable mortality and satisfactory audits, would you agree to that client substituting NT-proBNP for a resting ECG in screening applicants?

Yes – all of these clients		37.5%
Yes – some of these clients		**50.0%**
No		12.5%

8. How would you rate the relative protective value of an exercise ECG compared to that of NT-proBNP at older ages?

NT-proBNP is superior		12.5%
Their value is roughly equal		25.0%
Exercise ECG is superior		**62.5%**

9. If an automatic client has favorable mortality and satisfactory audits, would you agree to that client substituting NT-proBNP for exercise ECGs in screening applicants?

Yes – all of these clients		12.5%
Yes – some of these clients		**50.0%**
No		37.5%

10. If you were chief underwriter in a direct company, would you use NT-proBNP as a screening test for older age applicants?”

Definitely		**62.5%**
Probably		25.0%
Possibly		12.5%
No		0%

Survey Takers' Comments

We invited survey takers to append comments on each question.

We will share several of these comments and add a few of our own.

One respondent opined that NT-proBNP is *"…not as impairment specific as other tests…"*

Elevated NT-proBNP means that there is increased pressure in the left ventricle. That pressure may be due to virtually any heart impairment or it could be caused by an underlying non-cardiac disorder exerting a secondary adverse impact on the heart. Either way, it is heart-specific and no less so than an ECG.

Remember, our job is not diagnosis! If we have an applicant with substantially elevated NT-proBNP or a grossly abnormal ECG, we take the identical approach:

Decline'em all and let their doctors sort'em out!

Another respondent commented:

"If we already have a history such as CAD in an APS, not sure you get full value of the test compared to someone who has no documented history."

Actually, this is a prevalent scenario where NT-proBNP is even more valuable than as a general screening test.

Why?

Chronic stable angina exerts a very minimal effect on NT-proBNP, which is good because many companies now take far more favorable action in this context than they did a decade ago. We do this because the mortality in chronic stable angina, on appropriate treatment, has improved considerably.

The same is true for many CAD cases where the disease is effectively managed (palliated, actually) with a bypass or angioplasty procedure. And here too, if myocardial function is largely or wholly normal, NT-proBNP will usually be normal or at most minimally elevated.

On the other hand, when NT-proBNP is significantly raised in CAD cases, we know the applicant has a high probability of insidious, subclinical cardiac pathology that will almost certainly exert an adverse impact on mortality.

If you review study after study as I have, you will find that NT-proBNP is a remarkable marker for adverse outcomes in ostensibly "best case" CAD. Therefore, dollar-for-dollar, I can think of no test I

would value more in ostensibly stable coronary disease than NT-proBNP.

Sure, you would get plenty of pay-off from a treadmill stress ECG in this setting. But, for one TST you can do 30-40 NT-proBNPs.

Do you really think you will get better aggregate CAD mortality by spending between $500 and $1000 to assess 1 applicant as opposed to 30 or more for the same outlay with NT-proBNP?

And no one ever suddenly dropped dead having NT-proBNP done!

One of the reasons we blinded ourselves to the identity of respondents is that we wanted them to feel free to be candid, to make comments that could get them in "hot water" if the comment was attributed to them personally later on.

We mention this as a prelude to sharing a revealing response to question 3 about having NT-proBNP guidelines in manuals.

One respondent said they did not have such guidelines, adding: *"but not for lack of asking our Medical Dept to add it!"*

When we asked about the protective value of NT-proBNP compared to a resting ECG, a survey completer acknowledged that NT-proBNP could be "slightly" better and the added this interesting comment:

"But at older ages one rarely is in a pure screening scenario because of the availability of other records."

We agree…and we disagree.

Yes, we (usually) have medical records to peruse.

But, we also obviously recognize the enormous value of SCREENING elders or we would not do blood profiles, pharmacy records, MVRs, ECGs, Get-Up and Go tests, 10-Word Delayed Recall tests, etc. et al.

Findings on all of these – as well as a screening NT-proBNP test – are often more easily correlated with clinical history at older ages because of the relative abundance of records, but they also exert a profound benefit by pinpointing applicants at clear risk for impairments that have either not been diagnosed

…or not disclosed.

Because it is so effective in benchmarking cardiac dysfunction, NT-proBNP has to have as much ROI as any test we could use to sift and winnow elderly insurance seekers.

And if they have a condition like aortic sclerosis or bicuspid aortic valve, NT-proBNP is the #1 affordable method of identifying the subset at high risk for significant cardiac compromise.

To the question about substituting NT-proBNP for resting ECGs, a chief reinsurance underwriter commented:

"Per various medical directors…all agree that the experience is essentially similar."

We have to challenge this statement.

It is well known that only 50% of persons with angiographically confirmed CAD have abnormal resting ECGs. And many times the "abnormals" disclose such helpful tidbits as nonspecific ST-T wave changes.

When a large direct company did a pilot project with screening NT-proBNP tests, we were told at a study group meeting that it showed an unprecedented ROI… unlike anything ever reported for resting ECGs.

Why?

Because NT-proBNP does not elevate significantly for trivial reasons!

There are no "innocent" mechanisms to account for more than very minimal elevations.

Before countenancing the notion that the protective value of resting ECGs and NT-proBNP tests are even close to "essentially similar," we would insist upon reviewing the hard data for ourselves.

And hopefully any such study would be appropriately adjusted for fact (confirmed at our study groups by many members) that a growing portion of screening resting ECGs are being done so shoddily that they are useless.

There were many comments regarding NT-proBNP vs. exercise ECGs.

Some respondents observed that the latter have huge value because there are so many ways in which they can show evidence of impairment.

We agree.

However, when contrasting the relative merits of NT-proBNP and stress testing, protective value is not – as some would insist - what matters to us.

In an alternative universe where budget restraints, turnaround time and customer convenience are not issues of enormous concern to insurers, we would be the first to trumpet the protective value of

exercise ECGs. But these are huge issues in our world of life insurance and, taken together, they render screening exercise ECGs untenable.

We support elective use of exercise ECGs in scenarios where the amount at risk plus significant unresolved medical history or current findings makes it cost-justified option.

However, continued deployment of exercise ECGs for screening purposes is no longer defensible. Doubly so at ages 70 and over, where the potential for a catastrophic outcome is well documented in the clinical literature.

On the matter of giving pricing credits for NT-proBNP, we see no basis on which any reinsurer could logically refuse.

Anyone who has read our two white papers on this test plus what we have documented (and continue sharing) in issue after issue of **Hot Notes** knows that NT-proBNP is the finest cardiac screening and reflexive asset in the history of underwriting.

You can access these papers at the following links:

> White paper 1: **insureintell.com/content/underwriting-perspective-nt-probnp-novel-marker-cardiovascular-disease**
>
> White paper 2: **insureintell.com/content/nt-probnp-4**

How can a reinsurer give credits for doing teleinterviews, using pharmacy records and other high value innovations while in the same breath deny extending this practice to include NT-proBNP?

It is inevitable that reinsurers' positions on this issue will change for the better.

We know this because it took years for reinsurers to acquire a sufficient comfort zone with teleinterviews and Rx profiles…and NT-proBNP has only been in the spotlight for a couple of years.

We will continue to scour the emerging literature and report all the relevant studies on NT-proBNP.

If you want to stay current on this subject, you need to sign up for your free subscription to Hot Notes and check the index of each month's issue for more on NT-proBNP.

To get **Hot Notes**, please visit: **www.hankgeorgeinc.com/hotnotesorder**.

Thank you for taking time to read this report.

Your feedback is solicited.

My e-mail address is **hank@hankgeorgeinc.com**.