Commercial Member Perception of a Pharmacogenomic Testing Program Led by a Pharmacy Benefits Manager

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Background

- Studies show that medications are only able to produce the desired effect in 50% to 75% of patients.[1]
- According to the FDA, the 4th leading cause of death is due to adverse drug reactions.[2]
- Pharmacogenomic (PGx) testing is a tool used to predict a member's response to a medication. PGx testing uses a member's DNA to improve their health care provider's understanding of the potential efficacy of a selected drug and if the selected drug may result in adverse reactions. PGx test results can also be used throughout the member's lifetime to proactively determine an individualized, efficacious medication and dose that minimizes adverse events.[3]
- The FDA recognizes over 280 drugs with pharmacogenomic guidance in their labeling.[4]
- Pharmacy benefit managers (PBMs) have recently begun to offer PGx testing as a benefit to their members. At this time, the experience of members invited to participate in a PGx testing program is unknown.

Objective

Using a mailed member survey, determine the perceptions of two commercial client populations invited to participate in a PGx testing program led by a PBM. Include members who participated as well as members who declined testing.

Methods

- Sent members an anonymous survey if they completed PGx testing prior to September 4, 2020 (n=122) or randomly chosen using block randomization if they have been invited to complete PGx testing, but have not as of September 4, 2020 (n=300).
- Mailed survey to all 422 participants three times to increase the response rate. The survey instructed the member to complete it once and disregard if they completed it previously.
  - 2020 Mailing dates: A – October 28, B – November 6, C – November 17
- Measured responses using a five-point Likert response scale.
  - strongly agree = 5, agree = 4, neutral = 3, disagree = 2, strongly disagree = 1, N/A = 0
- Designed question 1 to determine if the member completed PGx testing.
- Remaining survey questions were designed to measure the member's opinion of:
  - Test ease of use (question 2)
  - Understanding of pharmacogenomics (question 3)
  - Plans to share the results with health care providers (question 4)
  - Usefulness of the results (question 5)
  - Recommendation of testing to others (question 6)
  - Reason for declining the test (question 7)

Survey

1. Did you complete genetic testing using the RightMed® test?
2. The directions for obtaining a cheek swab were easy to follow.
3. I understand how my genes impact the way my body responds to medications after talking to a genetic counselor.
4. I have discussed, or plan to discuss, my results with my healthcare provider(s).
5. I believe that the RightMed® test can help my doctor choose the best medication for me.
6. I would recommend the RightMed® test to others.
7. If you DID NOT PARTICIPATE in the RightMed® test, please indicate your reason(s) why by selecting all that apply:
   - I don't understand the benefits of being tested.
   - I have concerns about my personal health information being used.
   - The test is too expensive.
   - I have concerns about what my insurance company will do with the results.
   - The testing process seems too complicated.
   - My medications are already well-managed.
   - My doctor did not recommend that I complete genetic testing.
   - I forgot or didn't have time to get tested.
   - I was already tested or plan to be tested using a different genetic test.
   - Other

If you have completed this survey previously, please disregard this mailing.

Navitus Health Solutions Member Survey on Pharmacogenomic Testing

		Yes, go to #2	No, go to #7				
1)	Did you complete genetic testing using the RightMed® test?	O	O				
		strongly agree	agree	neutral	disagree	strongly disagree	N/A
2)	The directions for obtaining a cheek swab were easy to follow.	O	O	O	O	O	
3)	I understand how my genes impact the way my body responds to medications after talking to a genetic counselor.	O	O	O	O	O	O
4)	I have discussed, or plan to discuss, my results with my healthcare provider(s).	O	O	O	O	O	
5)	I believe that the RightMed® test can help my doctor choose the best medication for me.	O	O	O	O	O	
6)	I would recommend the RightMed® test to others.	O	O	O	O	O	

Thank you for completing this survey.

7)	If you DID NOT PARTICIPATE in the RightMed® test, please indicate your reason(s) why by selecting all that apply:	☐ I don't understand the benefits of being tested. ☐ I have concerns about my personal health information being used. ☐ The test is too expensive. ☐ I have concerns about what my insurance company will do with the results. ☐ The testing process seems too complicated. ☐ My medications are already well-managed. ☐ My doctor did not recommend that I complete genetic testing. ☐ I forgot or didn't have time to get tested. ☐ I was already tested or plan to be tested using a different genetic test. ☐ Other

Thank you for completing this survey.

Results

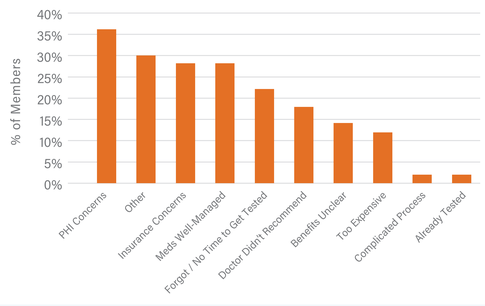
- Received anonymous responses from 59 (48%) out of 122 members who completed PGx testing (Figure 1), and 50 (17%) out of 300 members who declined (Figure 2).
- Responses Yielded:
  - Mailing A: 61 responses
  - Mailing B: 35 responses
  - Mailing C: 13 responses
- For members who *completed* the PGx test, the most common responses were:
  - 74.6% strongly agreed that the test directions were easy to follow
  - 29.3% strongly agreed that they understand PGx after meeting with a genetic counselor
  - 49.1% agreed that they plan to discuss the results with their doctor
  - 39.7% agreed that the test can help doctors choose medications
  - 39.7% strongly agreed that they recommend the test to others
- For members who *declined* to participate in PGx testing, common reasons were concerns about personal health information being used (36%) and other unlisted reasons (30%).

Figure 1. Survey Responses from Members Who Completed PGx Testing

Mean	4.71	3.81	4.05	3.97	4.03
Standard Deviation	0.527	1.131	0.953	0.898	0.936

strongly agree = 5, agree = 4, neutral = 3, disagree = 2, strongly disagree = 1, N/A = 0

Figure 2. Reason for Declining PGx Testing



Limitations

Survey was anonymous, therefore, it is unknown if any member completed the survey more than once.

Conclusions

- Survey findings indicate that most members who completed PGx testing find it easy to follow directions to complete the test and are able to identify the intended benefits of PGx results.
- For members who declined to be tested, the survey demonstrated that the test invitation does not adequately address concerns such as use of personal health information and does not emphasize the potential use of results for future medication prescribing.
- Results to be utilized to improve member education and experience. Specifically, improvements to the member invitation include additional information to address member concerns as indicated per the survey.
  - Who will be notified of the results
  - Results will not be used to adjust insurance coverage or copays
  - Results can be used to guide future medication prescribing
  - Benefits of completing the test
- Further research is needed to determine the provider's perception of a PGx testing program led by a PBM and how it may impact a member's perception.

Disclosures

This research was conducted by Navitus Health Solutions based in Madison, WI without external funding.

References

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