Characterization of Primary Care Clinicians’ Use of Genomic and Pharmacogenomic Testing

Brian Stello MD
Lehigh Valley Health Network, Brian.Stello@lvhn.org

Heather Bittner-Fagan MD, MPH

Christopher V. Chambers MD

Melanie B. Johnson MPA
Lehigh Valley Health Network, Melanie_B.Johnson@lvhn.org

Geoffrey Mills MD, PhD

See next page for additional authors

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Authors
Brian Stello MD; Heather Bittner-Fagan MD, MPH; Christopher V. Chambers MD; Melanie B. Johnson MPA; Geoffrey Mills MD, PhD; Michael P. Rosenthal MD; and Kyle Shaak BS

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Characterization of Primary Care Clinicians’ Use of Genomic and Pharmacogenomic Testing

1Brian Stello MD, 2Heather Bittner Fagan MD, MPH, 3Christopher V. Chambers MD, 4Melanie B. Johnson MPA, 5Geoffrey Mills MD, PhD, 6Michael P. Rosenthal MD, 7Kyle Shaak BS
8Lehigh Valley Health Network, Allentown, PA, 9Thomas Jefferson University, Philadelphia, PA, 10Christiana Care Health System, Newark, DE

Background

- “Personalized Medicine” is the phrase adopted by the National Institutes of Health to describe the use of genomic medicine to guide individualized care.
- Primary Care Providers frequently serve to navigate patients through care decisions.
- Little is known about primary care clinician use of genomics and attitudes toward genomic medicine.

Methods

- 834 adult primary care providers in three large health systems (Lehigh Valley Health Network, Thomas Jefferson University, Christiana Care Health System) were surveyed regarding use and attitudes toward genomics, including:
  - Ordering genomic tests
  - Referring patients for genetic counseling
  - Confidence in discussing genomic tests
  - Importance of genetic advances to primary care
  - Confidence in local resources
  - Handling of case studies

Results

- 316 responses were received (response rate 37.89%).
- For this presentation, multivariate analysis was performed to assess the following:
  - Percent of clinicians ordering genomic testing or genetic counseling
  - Belief of the importance of genetic advances in primary care practices
  - Confidence in counseling patients if the clinician ordered genomic testing or referred to genetic counseling

Clinicians Ordering Genomic or Pharmacogenomic Testing

<table>
<thead>
<tr>
<th>If You Ordered Genomic Testing</th>
<th>If You Didn’t Order Genomic Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Confidence</td>
<td>Low Confidence</td>
</tr>
<tr>
<td>High Importance</td>
<td>Low Importance</td>
</tr>
<tr>
<td>High Ability</td>
<td>Low Ability</td>
</tr>
</tbody>
</table>

Clinicians Referring Patients for Genetic Counseling

<table>
<thead>
<tr>
<th>If You Referred for Genetic Counseling</th>
<th>If You Didn’t Refer for Genetic Counseling</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Low Confidence</td>
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New Advances in Genetics Are Important To My Practice

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<td>Low Ability</td>
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</tbody>
</table>

Confidence in Ability to Counsel Patients

<table>
<thead>
<tr>
<th>If You Ordered Testing in Last 6 Months</th>
<th>If You Didn’t Order Testing in Last 6 Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Confidence</td>
<td>Low Confidence</td>
</tr>
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Conclusions

- At the time of this survey …
  - Ordering genomic testing or genetic counseling was not uncommon among primary care clinicians in Family Medicine and General Internal Medicine in the health systems surveyed.
  - Those ordering genomic testing or genetic counseling believed learning about genetic advances is important to their practice of primary care.
  - Those ordering genomic testing or genetic counseling reported more confidence in discussing this information with their patients.
  - However, the plurality of clinicians who ordered genomic testing or genetic counseling were still only somewhat confident in their ability to discuss this information. This suggests the need for further education in genetics, and improved decision support mechanisms for clinicians.

Acknowledgements

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