Utilization Management and Beyond:
The Many Roles of Genetic Counselors in the Lab

Sara Brown, MS, LCGC
Licensed and Certified Genetic Counselor

August 2016
Overview

What is a genetic counselor?

Laboratory genetic counselors and utilization management

Other ways laboratory genetic counselors contribute toward optimizing patient care
What is a genetic counselor (GC)?

- Healthcare professional with specialized training both in genetics and psychosocial counseling
- 33 master’s degree programs accredited by ACGC in the U.S.
- Board certification by ABGC
- Licensure laws in 19+ states
- GC skillset:
  - Explaining complex genetic concepts in understandable terms
  - Providing psychosocial support related to genetic diagnoses
  - Assessing genetic risk based on family history and/or test results

www.nsgc.org
www.abgc.net
www.gceducation.org
GSs
Employment
Settings

NSGC 2016 Professional Status Survey
Analysis of survey data from genetic counselors, which identifies new and emerging trends in the genetic counseling profession.

WORK ENVIRONMENT
The largest specialty area for genetic counselors is cancer genetics, but genetic counselors work in a variety of areas.

SPECIALTY AREAS
- Prenatal
- Pediatric
- Cardiology
- Neurogenetics
- Metabolic
- General
- Adult
- Testing

EXPANSION IN SPECIALTIES BETWEEN 2014 AND 2016
- 48%
- 43%
- 25%
- 29%
- 35%
- 12%
- Cancer
- Men's health
- Pediatrics

GENETIC COUNSELORS WORK IN A VARIETY OF SETTINGS
- Universities
- Hospitals
- Laboratories
- Non-Profits & Government

Source: www.nsgc.org
Laboratory Genetic Counselors

GC skills can be applied to laboratory roles related to genetic testing.
Comprehensive Utilization Management

Analytics
- sendout
- in-patient
- out-patient
- benchmarking

Monitoring
- duplicate genetics test checking
- outcome measurement
- dashboards

Consulting
- formulary development
- governance
- implementation
- UM+ Roadmap™

Collaboration
- peer-to-peer communication
- PLUGS

Decision Support
- ARUP Consult®
- test interval guide
- ARUP Gateway™
- genetic counseling

www.aruplab.com/um
Molecular testing: improving patient care through partnering with laboratory genetic counselors
Cheryl Scacheri, MS¹, Joy B. Redman, MS², Lisa Pike-Buchanan, ScM³, and Kelle Steenblock, MS⁴

Genetic Counselor Review of Genetic Test Orders in a Reference Laboratory Reduces Unnecessary Testing
Christine E. Miller,* Patti Krautscheid, Erin E. Baldwin, Tatiana Tvrdek, Amanda S. Openshaw, Kim Hart and Danielle LaGrave
Genetics Division, ARUP Laboratories, Salt Lake City, Utah
Manuscript Received: 1 May 2013, Manuscript Accepted: 3 January 2014

Improve the Value of Costly Genetic Reference Laboratory Testing With Active Utilization Management
Jane A. Dickerson, PhD; Bonnie Cole, MD; Jessie H. Conta, MS; Monica Wellner, BS; Stephanie E. Wallace, MD; Rhona M. Jack, PhD; Joe Rutledge, MD; Michael L. Ashlan, MD, PhD

SPECIAL ARTICLE
Improving Molecular Genetic Test Utilization through Order Restriction, Test Review, and Guidance
Jacquelyn D. Riley,* Gary W. Procop,* Kandice Kottke-Marchant,* Robert Wyllie,¹ and Felicitas L. Labawan*¹
Beyond UM

Defining the Role of Laboratory Genetic Counselor

Susan Christian • Margaret Lilley • Stacey Hume • Patrick Scott • Marin Somerville

Table 1 Roles of laboratory genetic counselors (N=43)

<table>
<thead>
<tr>
<th>Task</th>
<th>% of GC that perform task</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer liaison</td>
<td>95% (41/43)</td>
</tr>
<tr>
<td>Calling out results</td>
<td>88.4% (38/43)</td>
</tr>
<tr>
<td>Administrative duties</td>
<td>72.1% (31/43)</td>
</tr>
<tr>
<td>Teaching/Supervising students</td>
<td>67.4% (29/43)</td>
</tr>
<tr>
<td>Coordinating and reviewing requests for send-outs</td>
<td>65.1% (28/43)</td>
</tr>
<tr>
<td>Laboratory support</td>
<td>62.8% (27/43)</td>
</tr>
<tr>
<td>Writing policies and procedures</td>
<td>62.8% (27/43)</td>
</tr>
<tr>
<td>Signing laboratory reports</td>
<td>44.2% (19/43)</td>
</tr>
<tr>
<td>Research/Study coordination</td>
<td>41.9% (18/43)</td>
</tr>
<tr>
<td>Genetic counseling of clinical patients</td>
<td>41.9% (18/43)</td>
</tr>
<tr>
<td>Sales and marketing</td>
<td>39.5% (17/43)</td>
</tr>
<tr>
<td>Project management</td>
<td>37.2% (16/43)</td>
</tr>
<tr>
<td>Management</td>
<td>25.6% (11/43)</td>
</tr>
</tbody>
</table>

Further Defining the Role of the Laboratory Genetic Counselor

Lindsey Waltman • Cassandra Runke • Jessica Balcom • Jacquelyn D. Riley • Margaret Lilley • Susan Christian • Lindsay Zetsche • McKinsey L. Goodenberger

Table 4 Frequently (very often/often) performed tasks by type of laboratory

<table>
<thead>
<tr>
<th>Task</th>
<th>Molecular</th>
<th>Cytogenetics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer liaison/case coordination tasks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resolve specimen handling issues</td>
<td>34.3 %</td>
<td>50.0 %</td>
</tr>
<tr>
<td>Answer questions directly from patients</td>
<td>22.2 %</td>
<td>13.0 %</td>
</tr>
<tr>
<td>Facilitate send-outs</td>
<td>18.2 %</td>
<td>28.3 %</td>
</tr>
<tr>
<td>Interpretation/reporting tasks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investigate variants</td>
<td>45.5 %</td>
<td>56.5 %</td>
</tr>
<tr>
<td>Review result data</td>
<td>44.4 %</td>
<td>45.7 %</td>
</tr>
<tr>
<td>Sign reports</td>
<td>26.3 %</td>
<td>26.1 %</td>
</tr>
<tr>
<td>Sales/marketing tasks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meet with client</td>
<td>30.3 %</td>
<td>10.9 %</td>
</tr>
<tr>
<td>Call/email client</td>
<td>19.2 %</td>
<td>13.0 %</td>
</tr>
<tr>
<td>Staff/booths</td>
<td>25.5 %</td>
<td>10.9 %</td>
</tr>
<tr>
<td>Test development/test performance tasks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assist with validation</td>
<td>13.4 %</td>
<td>6.8 %</td>
</tr>
<tr>
<td>Involvement in test performance</td>
<td>19.2 %</td>
<td>17.4 %</td>
</tr>
<tr>
<td>Test development decisions</td>
<td>40.4 %</td>
<td>34.8 %</td>
</tr>
<tr>
<td>Develop protocols</td>
<td>36.4 %</td>
<td>31.1 %</td>
</tr>
<tr>
<td>Education/Supervision tasks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Genetic counseling students</td>
<td>22.2 %</td>
<td>15.2 %</td>
</tr>
<tr>
<td>Other students</td>
<td>38.4 %</td>
<td>28.3 %</td>
</tr>
<tr>
<td>Laboratory staff</td>
<td>28.3 %</td>
<td>26.1 %</td>
</tr>
</tbody>
</table>
Beyond UM Examples

Customer support

Customized reports

New test development
In Summary

- Genetic counselors possess clinical skills that can be applied in a laboratory setting to improve patient care.

- Many laboratory genetic counselors are involved in test utilization management with demonstrated cost savings and other benefits.

- Genetic counselor skills can be utilized in other areas beyond UM that improve patient care.