Genomics: To PCP, or Not to PCP?

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-I receive no financial support from companies.
-There are no relationships that may lead to bias in my presentation.
Is Genomics Exceptional?

• Patient Perspective
  – It’s predictive
  – Has meaning for family members
  – Can stigmatize

• Clinician Perspective
  – Ethical/consent/uncertainty challenges
  – Too much info for non-GM’s to digest/keep up with
  – Too hard for non-GM’ers to understand/explain
  – Potential for missteps

• Yes, because GM providers think it is

Gen Med 2008
Is [fill in the blank] Exceptional?
Is *HIV* Exceptional?

- **Patient Perspective**
  - It’s predictive
  - Has meaning for family members
  - Can stigmatize

- **Clinician Perspective**
  - Ethical/consent/uncertainty challenges
  - Too much info for non-HIV docs to digest/keep up with
  - Too hard for non-HIV docs to understand/explain
  - Potential for missteps

- Yes, because HIV providers think it is
For PCP’s, everything is/isn’t exceptional

- **1980’s HIV exceptionalism**
  - PCP’s not even allowed to do ROR’s
  - Needed whole workforce of HIV testers/ROR’ers
    - Sound familiar?

- **2010’s part of PCP arsenal**
  - No informed consent, 1st line managed by PCPs
  - PCPs refer
    - Prevention, ROR, rx reinforcement → lay health workers (better!)
    - Complex, or MD, or Pt preference → HIV providers
Is Primary Care Exceptional?

- PCPs- trained, skilled in 1st contact & continuing care for pts w/any sign, symptom, health concern.
- Explain complex things to & partner w/diverse pts
- Uncertainty common (like many GM results)
- Many new challenges →
- Partner with specialists while steering the ship

AAFP 2017, JABF 2014
Staying Current in Medicine: Advice for New Doctors

By Elisabeth Poorman, MD

In 1950, doctors in practice could expect the total amount of medical knowledge to double every 50 years. By 2020, it will take just 73 days. How's a young doctor supposed to keep up while managing the hectic pace of practice?
My Yesterday Morning (6/12 patients)

- Refractory depression
- Metastatic lung cancer, pain
- Pancytopenia
- Hepatitis C
- DVT/PE
- Hypertension, microalbuminuria

Genomics in play? Sure!
As one piece of BIG puzzle for PCP and patient

- **Refractory depression**, CAD, DM, CHF, blind*
- **Metastatic cancer**, hospice?*
- **Pancytopenia**, Jehovah’s Witness**
- **Hepatitis C**, alcoholism, abused by husband, needs emergency shelter*
- **DVT/PE**, found out her grandfather is her father**
- **Hypertension**, **APOL1+**, Crohn’s, scrotal abscess**

* Spanish- only speaking
**Black

NY Times 2017
PCPs Share and Handle Your Challenges

- **TMI**
  - 75,000 genetic tests on the market, 10 new daily.
  - Solution = culling + informatics

- **Ethical**
  - A PCP’s wheelhouse

- **Some, not all of GM is too “hard”**
  - We do easy stuff (PGx ~ renal function testing).
  - Time? Extenders (lay health workers,…)
  - Harder stuff- we refer: GM docs/GCs= our gurus.
  - Mistakes? Not unique to GM or primary care
Are PCP’s Prepared? (n=488; rate 89%)

<table>
<thead>
<tr>
<th>Survey Item</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Had formal genetics course/training</td>
<td>79</td>
</tr>
<tr>
<td>Experience: Ordered gen test in last y*</td>
<td>36</td>
</tr>
<tr>
<td>Prepared:</td>
<td></td>
</tr>
<tr>
<td>- For pts who had gen test for chronic dz.</td>
<td>25</td>
</tr>
<tr>
<td>- Confident interpreting test results</td>
<td>14</td>
</tr>
<tr>
<td>Concerned: Re insurance discrimination</td>
<td>53</td>
</tr>
<tr>
<td>Don’t trust gen testing co’s</td>
<td>76</td>
</tr>
<tr>
<td>Pt Response: Motivate behavior change</td>
<td></td>
</tr>
<tr>
<td>Will try harder to control BP</td>
<td>34%</td>
</tr>
<tr>
<td>Will help prevent CKD</td>
<td>69%</td>
</tr>
<tr>
<td>* Experience not associated with preparedness</td>
<td></td>
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</tbody>
</table>

>> than their patients

* Experience not associated with preparedness

Health Affairs 2018
How do PCPs do with some help?  
ROR by GC-trained lay persons & PCPs.

Demographics  

<table>
<thead>
<tr>
<th>Demographics</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (mean years)</td>
<td>53</td>
</tr>
<tr>
<td>Low Health Literacy %</td>
<td>20</td>
</tr>
<tr>
<td>Education: ≤ HS %</td>
<td>44</td>
</tr>
<tr>
<td>Income &lt;$30,000 %</td>
<td>53</td>
</tr>
</tbody>
</table>

- 100% offered free in-person or telephone meeting with GC
- 0% took us up on it

Got enough info to decide on test | 95%
Got enough info to decide on test | 95%
Amount of info received just right | 95%
Info easy to understand | 95%
Satisfied w/MD discussion | 96%
Regret getting test | 1%
Would get tested again | 96%

JGIM, 2017
Conclusions

- PCP’s *are* central
  - No choice- patients come to us 1st, may bring tests to us
  - We can help patients, refer when we can’t
    - help us do it right
  - We can help you w/patient care given our experience
    - >3500 lab tests; we order in 40% of encounters. AAFP 2014
      - We know how to simplify things
- Grow your workforce wisely
  - GC’s where needed, help others do the rest
- Teamwork- we need each other to implement GM
Thank to partners, participants, funders

NHGRI  IGNITE  cser  Conduits

and my friend
Gail

and thank you...
...from our team