Supplementary Material

“Undetectable, Now What?” HIV Provider Opinions on Barriers to Healthy Aging for Older People Living with HIV in North America

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ABSTRACT

Background: People living with HIV (PLWH) experience age-associated health conditions earlier than their HIV-uninfected peers and have higher rates of co-occurring conditions that impact aging. Thus, HIV providers frequently confront issues related to HIV and aging.

Objective: The objective of this project was to better understand provider opinions about the care of older PLWH.

Design: This was accomplished using a quantitative survey.

Participants: This study involved 681 physicians treating PLWH in North America.

MAIN MEASURES: We collaborated with the Emerging Infections Network (EIN) to administer a nine-question survey covering practice characteristics, attitudes, and perceived barriers in caring for older PLWH.

Key Results: Two hundred and ninety-four (43.2%) responses were collected. Providers estimate that 35% (IQR: 25-50) of their HIV-infected patients were >50 years. The majority (72%) agreed it is difficult to care for older PLWH but had confidence in their ability to do so (85%). Most list a lack of time (55.4%) and insufficient multidisciplinary support (58.5%) as limitations to the effective management of older PLWH. Multi-morbidity was overwhelmingly perceived as the most important barrier to healthy aging (62.2%) followed by tobacco/alcohol use (10%), low income/savings (8.2%), polypharmacy (4.8%) and mental illness (4.4%). Loneliness, frailty, and cognitive difficulties were judged to be less important. In conclusion, HIV providers recognized the complexity of caring for older PLWH yet were confident they could care for this population.

Conclusion: Multi-morbidity was identified as a major barrier to healthy aging while syndromes such as frailty and cognitive difficulties were deemed less important despite a growing body of evidence that these geriatric syndromes are common in older PLWH.

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### Appendix 1: Exact Reproduction of Provider Comments.

#### Open Text Response to Barriers to Care of OALWH

<table>
<thead>
<tr>
<th>Barriers</th>
<th>Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most of my patients are MSM with college degrees, employed and with no other comorbidities</td>
<td>Hard to rank these. Most apply, but vary between individuals.</td>
</tr>
<tr>
<td>Note: I am working in African setting, so expect cultural differences</td>
<td>Obesiy</td>
</tr>
<tr>
<td>Financial and having to move to areas with lower cost of living</td>
<td>Lack of screening test availability. No one does colonoscopies on Medicaid pts.</td>
</tr>
<tr>
<td>Chronic pain on longterm opioids</td>
<td>We started a support group for our over 55's -- successful!</td>
</tr>
<tr>
<td>Isolation from and loss of family support systems</td>
<td>We don't have the resources to take care of HIV patients with social or compliance issues. Referred to the HIV Federal Program in town.</td>
</tr>
</tbody>
</table>

#### Open Text Response to Useful Resources in the Care of OALWH

<table>
<thead>
<tr>
<th>Resources</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Better insurance!!</td>
<td>Better access to medications for pt w financial difficult</td>
</tr>
<tr>
<td>Medicaid that pays enough so pts can get screening tests</td>
<td>Medicaid that pays enough so pts can get screening tests</td>
</tr>
<tr>
<td>we have psychiatrists but need much better access to regular counselors</td>
<td>Insurance for those under 65, if that age counts</td>
</tr>
<tr>
<td>other physicians</td>
<td>Support for HIV meds in Medicare pts</td>
</tr>
<tr>
<td>Better data, more treatment trials</td>
<td>The final option 'existance and access to a specialty multidiciplinary HIV geriatric consultation clinic‘ would be great but is very unrealistic for providers like myself who don't even have a Ryan White clinic in our area, although HIV Alliance with Ryan</td>
</tr>
</tbody>
</table>

#### Open Text Responses to Study

<table>
<thead>
<tr>
<th>Limitation</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major limitation is pre-AIDS co-morbidity, unhealthy lifestyle, limited insight, poor social support structures</td>
<td>medical care of elderly with HIV isn't affected much by their HIV</td>
</tr>
<tr>
<td>I have some patients who are aging gracefully, others not so much, as with non-positive populations.</td>
<td>Concerns are valid for my population hiv negative too</td>
</tr>
<tr>
<td>More frequent visits indicated</td>
<td>The issues of caring for an aging HIV-infected person are similar to those in caring for a non-HIV-infected aging person. I serve as a consultant for the HIV infection and leave the general medical care to the PCPs, who are generally quite experienced in</td>
</tr>
<tr>
<td>This is really just primary care in a population with accelerated aging and multiple social issues</td>
<td>Most of us who provide HIV care are/were internists first; we can manage most of the basics (eg metabolic syndrome) associated with aging. It's hard to answer some of these questions because our population of patients is so heterogeneous. Those with good</td>
</tr>
<tr>
<td>The issues facing people with HIV and aging are the same as many others aging in this society but for most significantly exaggerated.</td>
<td>I am not sure a geriatrician will add more over a good ID who is a good internist. Time and resources are needed. SW, access to skilled nursing, funds for meals/transportation/etc would make a difference.</td>
</tr>
<tr>
<td>My experiences relate to a population that is Medicare or self-pay (sliding scale)</td>
<td>The real problem is with those who need screening tests and only have Medicaid and don't yet have Medicare. NJ Medicaid doesn't pay enough.</td>
</tr>
<tr>
<td>Ryan white funding</td>
<td>Major issues revolve around cost of meds and lack of coverage with most Medicare plans</td>
</tr>
<tr>
<td>inadequate coverage for clinical psychologists or formal cognitive assessment programs</td>
<td>need to maintain Ryan White/HDAP program funds</td>
</tr>
</tbody>
</table>
Current insurance plans I see (Medicaid & Adap) not equipped to deal with highly specialized referrals needed for their care - such as dementia/movement disorders/sleep medicine specialists etc.

Involvement of the family is very important

Aging and elderly patients w HIV face many of same challenges that other patients in the same age group face; except that our HIV patients appear to be especially impacted by the loss of family and extended family connections and support. They end up alone

Support groups

Support group helps in social isolation - older age group still reluctant to "share" unless peers!

Better housing. Ideal are the retirement complexes with graduated levels of care, from total independence to ALF to nursing care to hospice - the Army Residence community in San Antonio is such a place.

Transportation is always an issue

Expand specialized home health services

Need COMMUNITY-based case management (patient advocate) that is knowledgeable about elderly care issues, resources that are available for this population, and has successfully navigating the systems (overcoming barriers)

Having a dedicated Pharmacist to help with polypharmacy

Better CM/PCP

I prefer for all my patients with HIV infection to have a primary care provider. However, I see many of them in clinic every 6 months so they tend to bring primary care concerns to me. And they may be more comfortable with me than with their primary care

I do very little hiv. I have kept a small number of patients who were going to die and have lived. I don't do Primary care. I got out of hiv more because I don't feel comfortable with Primary Care.

Since geriatricians are scarce, Primary care physicians or Internists should work with ID specialists in order to provide the best care in this aging population.

Partnerships with geriatrics programs (eg, PACE or others) to help HIV primary care providers learn about geriatrics (fall prevention, polypharmacy, etc). Eg, maybe an annual HIV geriatrics visit that then provides report back to the PCP.

Since HIV has been managed so frequently by ID clinicians it is difficult to find endocrinologists and geriatricians who are comfortable in medical management of HIV infected patients. I think focusing on these other specialists with seminars at their NA

Primary care doctors won't give up control of patient but don't manage all comorbidities. Not enough time/resources to deal with all issues in uninsured/Medicaid population.

Enabling Tele-geriatrics (like WARM line). Would be great.

Lack of other Specialties that are out there helping this group of elderly pts.

I am lucky to work in an environment with case managers, pharmacists, and mental health providers. We provide a multidisciplinary approach to all of our HIV positive patients regardless of age.

I tell all my HIV patients to get a PCP.

Specific guidelines to standardize care

There are several specific needs: cardiovascular risk models that include HIV, osteoporosis screening guidelines, depression and aging (particularly as many patients have had years of friends with HIV dying), dementia screening

More studies around "undetectable, now what".

Better understanding of value of screening frequency for malignancy. E.g. Colonoscopy

I am at a VA Medical Center. We have been able to garner most of the resources listed above, although more would be better!

VA HIV clinics are particularly well-positioned to do any studies from this project since our average age is higher than most non-VA clinics.

To preserve authenticity, all provider comments are represented as they were given and may include abbreviations, sentence cut-offs, as well as spelling and grammar errors.