DRUG OVERDOSE DEATHS AMONG PERSONS WITH HIV IN NEW YORK CITY, 2007-2015

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Background

Preventable deaths, including those due to drug overdose (OD), are a significant public health concern in New York City (NYC). The rate of unintentional drug OD death in NYC increased 143% between 2010 and 2016. Drug OD deaths among persons with HIV (PWH) in NYC have not been described. Care-seeking by PWH presents an opportunity to avert preventable deaths, including OD deaths.

Methods

- Data source: NYC HIV Surveillance Registry, with data reported as of 3/31/17
- Eligibility criteria: PWH who died during 2007-2015 due to an accidental drug OD (AOD) or an intentional OD (IOD)
- OD deaths were classified as AOD if the underlying cause of death was coded as ICID0 code X40-X44, or as IOD if coded as ICID0 code X60-X64
- We measured the trend over time in the age-adjusted rate of OD deaths among NYC PWH; compared the demographics of PWH who died of AOD versus IOD, and constructed an HIV Mortality Reduction Continuum of Care (HM RCC) using CD4 counts and HIV viral load (VL) tests from surveillance to evaluate HIV outcomes in the 12 months prior to death as markers of care-seeking

Results

- Outcomes in the HM RCC included the proportion of patients who were:
  - presumed aware of HIV infection (HIV diagnosis ≥ 31 days before death)
  - ever linked to care (CD4/VL tests reported ≥ 90 days apart)
  - ever prescribed antiretroviral therapy (ART) (95% of retained in care, based on 2013 NYC Medical Monitoring Project)
  - virally suppressed (last VL<200 c/mL)

- Decedents during 2007-2015 were predominantly male (70.6%), black (37.3%), and 40-59 years (71.4%), and persons with a history of injecting drugs (60.4%) and resided in NYC at death. Decedents were nearly all male (90.9%), mostly white (39.0%) and 20-29 years (22.7%) and men who have sex with men (MSM).

- The majority of drug OD deaths among PWH were classified as accidental; however, we found important demographic differences between persons with AOD death vs. IOD.

- Misclassification of COD on death certificates is possible. However, the NYC Office of the Medical Examiner conducts autopsy and toxicology on all OD deaths to confirm cause, and so misclassification should be limited.

- From 2007-2015, 670 PWH died of either AOD or IOD in NYC. While the rate of OD deaths in PWH declined during the full period, from 64.3 per 100,000 in 2007 to 53.8 per 100,000 in 2016, it increased from 2013 (35.5 per 100,000) to 2016 (63.8 per 100,000) (Figure 1).

- The most common type of drug overdose was drug OD (AOD) with IOD at death. The majority of drug OD deaths among PWH were classified as accidental (Table 1).

- More than three-quarters of both AOD (78%) and IOD (77%) decedents were retained in HIV care in the 12 months prior to death, but more IOD decedents were virally suppressed (72% vs. 50% of AOD decedents) (Figure 4).

Conclusions

- Analysis used population-level data on deaths and cause of death among NYC PWH.
- Use of laboratory tests from surveillance to measure retention in care could under- or over-estimate actual HIV care.
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