

# Deaths due to viral hepatitis and other causes of liver disease among a large national HIV cohort, England & Wales (1997-2012)

# INTRODUCTION

Death rates among people living with HIV (PLHIV) in England & Wales (E&W) continue to decline but exceed those of the general population (1)

- All-cause mortality among PLHIV was 4.5 per 1000 in 2012 – compared to 1.5 per 1000 in the general population
- People diagnosed with HIV who inject drugs (PWID) have the highest death rate (18.4 per 1000 in 2012)– compared to 2 per 1000 among PWID without HIV (2008 data).

Cause of death is important to guide clinical guidelines and prioritise public health interventions.

The proportion of non-AIDS deaths is increasing. However determining the cause of death is challenging when HIV is complicated by viral coinfection and/or other co-morbidities. Studies suggest HIV-HBV and HIV-HCV co-infection increase the risk of mortality in the ART era (2, 3).

We investigate trends in deaths attributable to non-AIDS liver disease in a large national cohort of persons accessing HIV care, with high rates of hepatitis B virus (HBV)/hepatitis C virus (HCV) co-infection.

# METHODS

National cohort of all adults (aged 15yrs and older) diagnosed between 1997-2012 and accessing HIV care in England & Wales linked to death records from the Office of National Statistics for the same period.



Underlying causes of death were categorised using an adapted Coding Causes of Death in HIV (CoDe) protocol (4), with deaths attributed to liver disease further sub-categorised.

Aileen Kitching, Sara Croxford, Michael Edelstein, Meaghan Kall, Valerie Delpech

# Centre for Infectious Disease Surveillance and Control, Public Health England, London, United Kingdom





- Most liver disease deaths among HIV-diagnosed male IDUs were from complications of viral hepatitis (68%, 25) +/- alcohol problems.

Liver disease-related deaths among PLHIV account for one in ten non-AIDS deaths, and almost two-thirds of these (~63%) are attributed to preventable viral infections and/or alcoholic liver disease. A significant number were among persons diagnosed late.

Data from across the UK (5) suggests HIV & HCV infections continue to occur among PWID, whereas transmission of HBV seems to have declined; however, many – particularly younger -PWID report injecting practices that put them at risk of acquiring HCV and other infections emerging patterns of increased injection of amphetamines & amphetamine-type drugs, including among sub-groups of MSM • injection of image and performance-enhancing drugs (IPED) e.g. anabolic steroids.

These findings highlight missed opportunities for HIV testing/diagnosis in patients with viral hepatitis, and regular HIV testing for persons who inject drugs (including emerging subgroups), to ensure best clinical and public health outcome.

The continuing collaboration of those who contribute to HIV surveillance in the UK is gratefully acknowledged. Without their generosity, time and effort, the current level of understanding of the epidemic could not have been obtained.

1.	Aghaizu
	United K
	London
2.	Nikolopo
	et al. Imp
	HIV-infe
	2009;48(1
3.	Chen TY,
	with hepa
	Infect Dis
4.	Kowalska
	Causes of
	Epidemic
5.	Public He
	Health A

### DISCUSSION

# CONCLUSIONS

# ACKNOWLEDGEMENTS

# REFERENCES

A, Brown AE, Nardone A, Gill ON, Delpech VC & contributors. HIV in the Kingdom 2013 Report: data to end 2012. November 2013. Public Health England,

oulos GK, Paraskevis D, Hatzitheodorou E, Moschidis Z, Sypsa V, Zavitsanos X, pact of hepatitis B virus infection on the progression of AIDS and mortality in ected individuals: a cohort study and meta-analysis. Clin Infect Dis. 12):1763-71

, Ding EL, Seage Iii GR, Kim AY. Meta-analysis: increased mortality associated patitis C in HIV-infected persons is unrelated to HIV disease progression. Clin s. 2009;49(10):1605-15

a JD, Friis-Moller N, Kirk O, Bannister W, Mocroft A, Sabin C, et al. The Coding f Death in HIV (CoDe) Project: initial results and evaluation of methodology. ology. 2011;22(4):516-23

lealth England, Health Protection Scotland, Public Health Wales, and Public Agency Northern Ireland. Shooting Up: Infections among people who inject drugs in the United Kingdom 2012. London: Public Health England, November 2013.

HSC Public Health Agency Ging Body/Orwath NHSS Addressed